

# WEEKLY WEATHER AND CROP BULLETIN

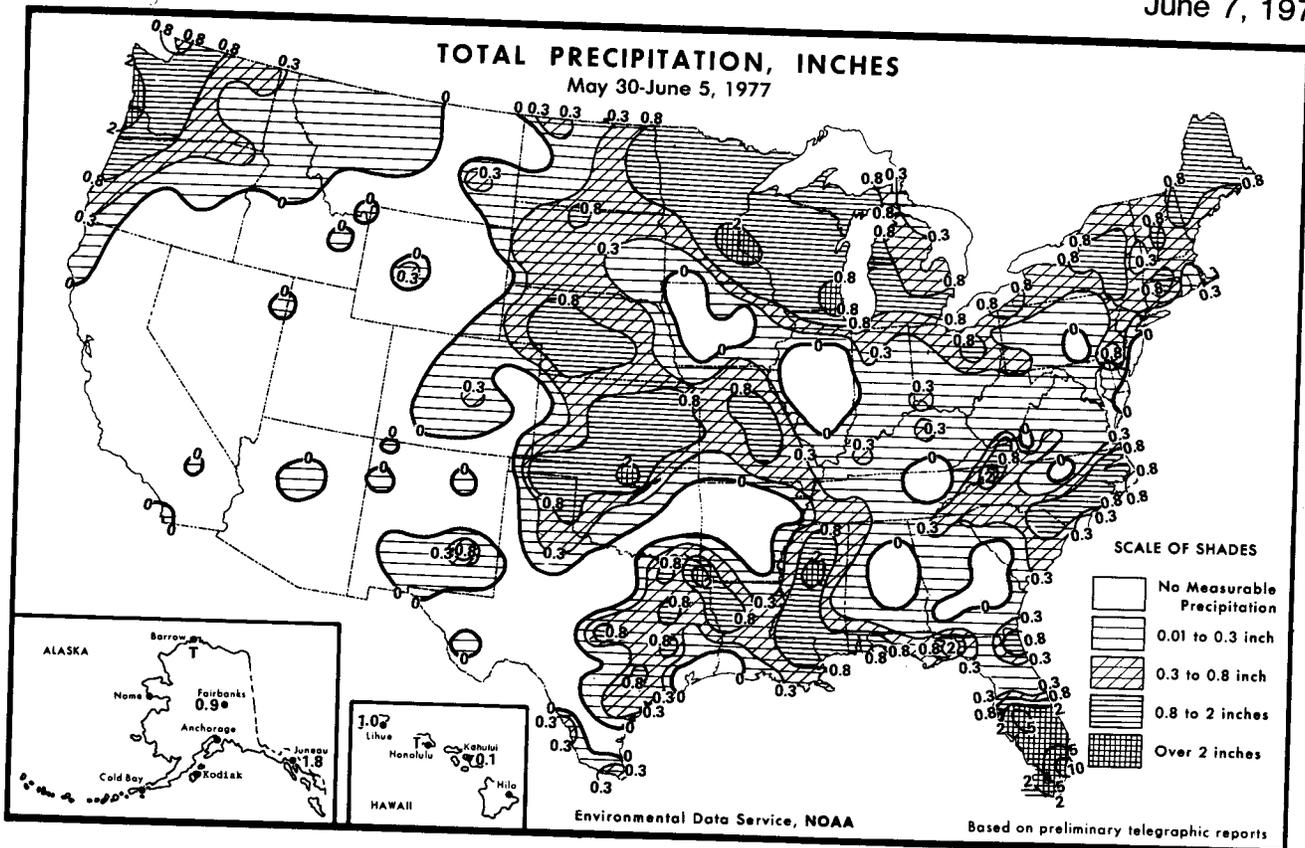
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## National Weather Summary

May 30 - June 5

**HIGHLIGHTS:** Much needed moisture fell in New England, Minnesota and Wisconsin, southern Florida and the Pacific Northwest. Abundant moisture continued in the Great Plains. The West and much of the Corn Belt received nothing.

Temperatures were above normal in almost every sector of the Nation. Only the extreme Pacific Northwest, parts of Florida, the eastern Great Lakes, portions of the mid-Atlantic Coast areas, central New England, and western Texas were below expected temperatures.

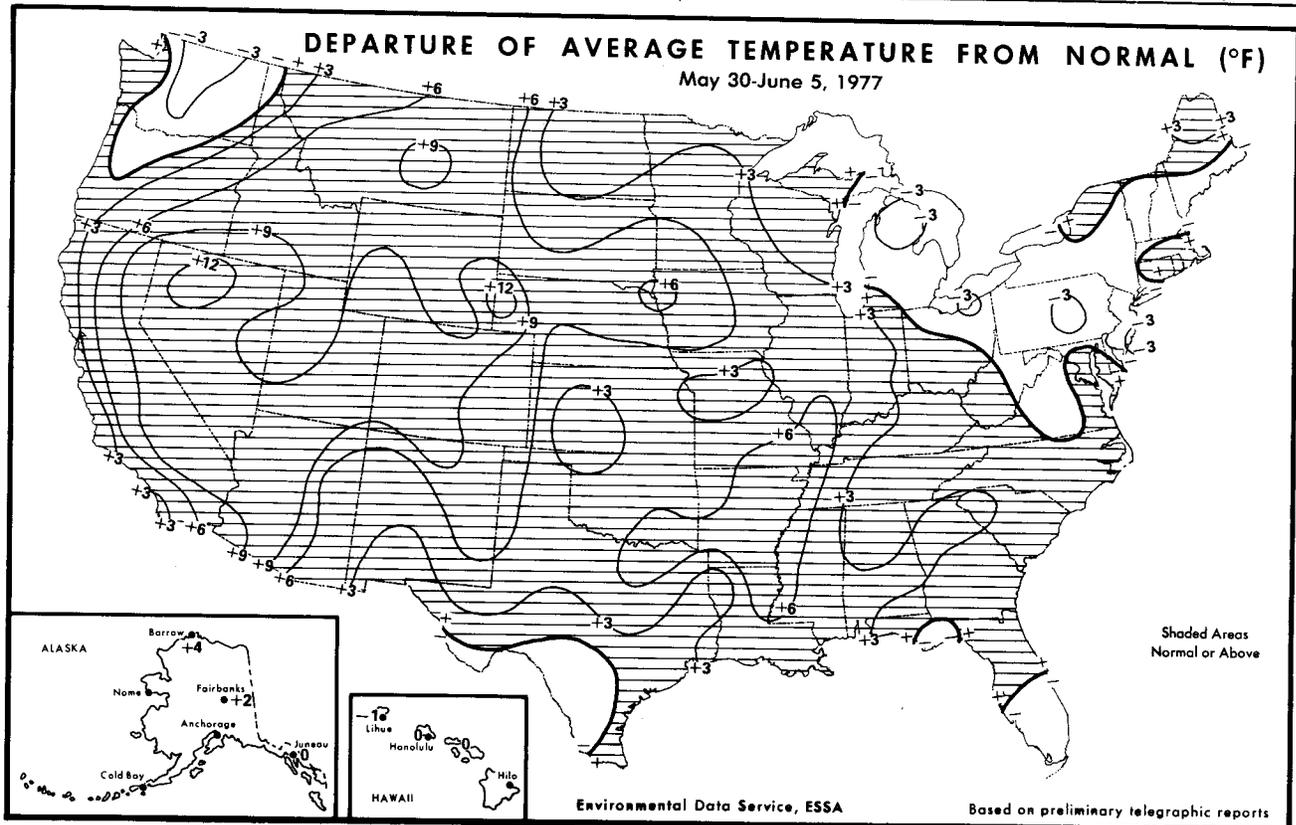
Monday morning thunderstorms became intense later in the day over the upper two-thirds of the Great Plains. Flash flooding raged through eastern Kansas and southern Nebraska; large hail pummeled parts of Colorado and Nebraska while three tornadoes touched down in Missouri and one each in South Dakota, Minnesota, Arkansas, and Florida. Showers dampened Memorial Day in portions of the

lower Missouri Valley northward to Minnesota and southeastward to the Atlantic Coast. By late evening, rain fell over most of the Mississippi Valley, areas in the Rocky Mountains, and upper West Coast.

Much of Montana shivered through a holiday morning in the 20's; Memphis notched a 99°, its highest May temperature on record.

Thunderstorms brought a wet Tuesday from the eastern Dakotas through Minnesota and Wisconsin to southwestern Michigan. As the afternoon progressed, a complex system of severe thunderstorms moved through the Ohio Valley and Gulf States eastward to the Appalachians. Tornadoes were reported in several southern states, Wisconsin, Michigan, and Ohio. Storms also extended from southern Kansas to northern Texas. Showers fell over the western portions of Washington and Oregon.

Thunderstorms were slow to develop on Wednesday, but finally made their mark in Kansas and Missouri where high winds, heavy rain, tornadoes, and hail



clipped many locales. Tornadoes also were spotted in New Mexico and Colorado; showers and thunderstorms hit areas along the Atlantic Coast, lower western Plains, middle Mississippi Valley, and the upper half of the Rockies. More than five inches of rain drenched Miami.

A June 1 record high of 110° baked Phoenix. May of 1977 proved to be the warmest on the books for Chicago and Moline, Ill., South Bend, Ind., and Duluth, Minn. It was the driest ever for Lansing, Mich.

A calm Thursday prevailed over most of the Nation. Some thundershowers dotted southeastern New England, the west central Ohio Valley, northwestern Arkansas, and the northern Texas Panhandle. The severest weather occurred later in the day; tornadoes blitzed Colorado and New Mexico while South Carolina, South Dakota, and New Hampshire weathered hail. More showers soaked southern Florida where Miami set a 24-hour June rainfall mark of nearly eight inches; this followed close on the heels of Miami's all-time May single day precipitation record of 11.59 inches this year.

Noontime temperatures rocketed to the century mark in the southwestern deserts and reached the 90's in the southern Plains.

Friday dawned cold in the Great Lakes region and across the Ohio Valley. Temperatures in the 30's were common.

Precipitation was light throughout most of the country as a large high pressure system centered over lower Michigan kept clear skies above much of the East. Central and southern Florida received more than one inch of rain. Later, light showers and isolated thunderstorms clouded the Pacific

Northwest eastward to western Montana; the northern and central Plains across the southern half of the Rockies; and parts of Arizona and Maine. Toward evening, thundershowers dampened northern Missouri and southern Kansas where some hail also fell.

Except for spotty showers and thunderstorms, Saturday meant sunshine and warm temperatures across vast sections of the Nation. Rain continued in Florida; locally heavy thunderstorms developed by afternoon in the Dakotas and from southeastern Iowa into central Missouri; occasional showers moistened the Pacific Northwest southward to northwestern California. Toward evening, heavy Missouri rains, Minnesota hail, and tornadoes in Georgia and Wisconsin had residents scurrying for cover.

Record high temperatures were set at more than 20 reporting points in the Gulf Coast States and through the Great Plains to the eastern slope of the Rockies.

A few thunderstorms awoke the northern portions of Iowa, Illinois, and Ohio on Sunday, but precipitation was generally scarce. Some rain over Florida and the southern regions of Louisiana, Texas, and California gave way to news of more intense activity later in the day. Five tornadoes in Wisconsin and two in Indiana disturbed the calm evening hours. Occasional rain was scattered from the Ohio Valley to the mid-Atlantic Coast States and in the southern halves of the Rockies and Plateau region.

Once again, heat broke temperature records in the same locales as the previous day. Scottsbluff, Nebr., counted the fourth consecutive day of equaling or breaking record high readings.

## National Agricultural Summary

May 30-June 5

**HIGHLIGHTS:** More rain fell in parts of the wheat production areas and Corn Belt. Rain helped the maturing winter wheat crop and germination of some late-sown soybeans and corn. Corn planting was complete except for a few northern areas and some replanting of poor stands. Cotton planting was complete for the 11 major southern States except Oklahoma and Texas. Soybean planting advanced to 84% complete by June 5 exceeding the 80% last year and the 61% average. Most of the planting remains to be done in the south central States. Sorghum planting reached 72% complete edging ahead of 1976's 71% and the 68% average. Winter wheat combining advanced into Oklahoma as fields dried. Harvesting was far along in the southern States. Soil moisture was short throughout much of the Nation; however, most of the Plains States, parts of Virginia, and the Carolinas reported adequate moisture. Alfalfa hay baling was far ahead of recent years in most States. Many areas needed moisture for good second growth.

**SMALL GRAINS:** The Nation's winter wheat crop was almost headed with exception of the northern States. Combining was widespread throughout the southern part of the U. S. In the major producing States, harvest was 13% complete in Texas and 2% in Oklahoma, lagging behind the average in both States.

The Kansas winter wheat crop rated good with 35% of the crop turning color; very little wheat was ripe. Hail downed some wheat in local areas. In Oklahoma, fields dried enough to allow combining; harvesting spread throughout the southwest part of the State. Only 2% of the acreage was harvested, equalling 1976 but behind the 9% average. The Texas wheat harvest accelerated; fields matured rapidly and combining advanced into the southern Low Plains. Nebraska winter wheat rated good with 95% of the crop headed.

Oats rated good, heading on short straw in Wisconsin. The Iowa oats crop was 75% headed, compared to 34% in 1976. Small grains were two weeks earlier than normal in South Dakota.

**CORN:** Most of the U. S. corn crop was planted except a few northern fields; some poor stands needed replanting. Corn development was far ahead of recent years. Early stands tasseled in Oklahoma, and 32% of the Louisiana crop silked. In the Corn Belt, the average plant height ranged from 8 to 16 inches. Most of the early corn was too tall to cultivate. Kentucky's early corn grew shoulder high, and, in Wisconsin, reached knee high. Most of the crop germinated and emerged to good stands; rains helped late plantings germinate in some localities. Normally the average corn plant growth has reached only 5 or 6 inches by this date.

In the south Atlantic States, dry soils damaged some stands. Rains improved the crop, but most areas needed more moisture.

**SOYBEANS:** Soybean farmers planted 84% of the intended acreage by June 5, ahead of the 80% last year and the 61% average. Stands were variable, but most of the crop emerged; early plantings grew to 6 inches. Dry soils delayed planting in southern areas, and slowed growth of some plantings.

In the eastern north central States, plantings advanced to 94% complete, 2 points ahead of 1976 and 27 points above the average. Plants grew to 4 to 6 inches tall.

Western north central States planting reached 93% compared with 87% in 1976 and the 58% average. Planting was well advanced in all States except Kansas where it stood at 40%, the same as last year and the average.

South central States farmers planted 70% of the soybean crop by June 5, only 6 points more than 1976 and 13 points above the average. Dry soils delayed planting in Kentucky and slowed growth in Arkansas.

**COTTON:** Growers in the 11 southern States virtually finished planting the 1977 crop in all States except Oklahoma and Texas. Squaring ranged from 17% in Mississippi to 23% in Georgia; the Arkansas crop needed moisture.

Oklahoma cotton growers planted 40% of the crop lagging behind 1976's 60% and the 58% average. Texas planting advanced to 89%, nearly equal the 88% last year and the 89% average. Plants squared from the Blacklands southward; growers applied insecticides.

**OTHER CROPS:** Sorghum planting advanced to 72% complete in the 7 major producing States, slightly surpassing 1976's 71% and the 68% average. Progress ranged from a low of 45% complete in Kansas to 88% in Texas and Missouri. Texas sorghum developed well and headed out from the Blacklands southward. Heads turned color in early-planted lower Rio Grande Valley fields.

Rice stands were good and growing well. Arkansas growers flooded fields, as evaporation rates were high. Some early Texas rice fields headed.

Almost all the Maine potato crop was planted by June 5. The Idaho potato crop was 90% planted and half the crop emerged. Washington potatoes rated excellent.

**FRUITS AND NUTS:** The peach harvest advanced across the South. Georgia growers picked 22% of the crop--equal to last year, but far ahead of the average. North Carolina peach growers picked only 3% lagging 1976's 18%. Growers in northern areas thinned peaches and reported good size. Fruit growers harvested Bing cherries in the Pacific Coast States. Citrus growers had some valencias and grapefruit to harvest. In Florida, rains improved citrus groves, however, growers irrigated anyway.

**VEGETABLES:** Growers throughout the Nation's major production areas harvested a wide variety of vegetable crops. Michigan asparagus growers picked 90% of the 1977 crop, far ahead of the 35% average. Florida's vegetable season nearly ended for many vegetables. Shipments declined 8%. Supplies of carrots, eggplants, and watermelon increased; others held steady or declined. Texas vegetable growers harvested a wide variety of crops. California producers shipped broccoli, cauliflower, lettuce, celery, carrots, onions, and strawberries in good to heavy volumes.

**PASTURES AND LIVESTOCK:** Grasslands provided sub-normal amounts of forage in most of the U. S. except in the Great Plains from Nebraska southward and parts of the north central States. Rains improved some western ranges, however, results were still poor. California producers moved some herds to abandoned small grain fields. Alfalfa hay harvest moved very rapidly and reached twice the usual progress in many areas.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., June 5, 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	+ 1	T	-.8	LA. Baton Rouge . . .	83	+ 5	.6	-.2	Youngstown . . .	82	- 1	.1	-.7
Mobile . . .	82	+ 4	1.4	+.3	Lake Charles . . .	82	+ 3	0	-1.1	OKLA. Okla. City . . .	77	+ 4	.2	-1.0
Montgomery . . .	81	+ 4	---	-.8	New Orleans . . .	82	+ 3	.7	-.3	Tulsa . . .	79	+ 5	2.9	-1.1
ALASKA. Anchorage . . .	---	---	---	---	Shreveport . . .	80	+ 2	.9	0	OREG. Astoria . . .	55	+ 0	.1	+2.3
Barrow . . .	32	+ 4	T	-.1	MAINE. Caribou . . .	61	+ 5	1.8	+1.1	Burns . . .	63	+ 8	T	-.3
Fairbanks . . .	57	+ 2	---	+.6	Portland . . .	56	+ 2	.7	-.1	Medford . . .	64	+ 3	T	-.3
Juneau . . .	51	0	1.8	+1.1	MD. Baltimore . . .	70	+ 1	.2	-.6	Pendleton . . .	62	+ 0	1.7	+1.1
Kodiak . . .	---	---	---	---	MASS. Boston . . .	65	+ 1	.2	-.6	Portland . . .	58	- 1	.4	+1.3
Nome . . .	---	---	---	---	Chatham . . .	57	- 1	.7	---	Salem . . .	57	- 2	1.2	+1.3
ARIZ. Flagstaff . . .	65	+11	.2	+ .1	MICH. Alpena . . .	54	- 3	.3	-.3	PA. Allentown . . .	66	- 1	.3	+ .8
Phoenix . . .	92	+11	T	0	Detroit . . .	62	- 2	1.3	+ .5	Erie . . .	60	- 1	1.0	+ .5
Tucson . . .	84	+ 5	T	0	Flint . . .	62	0	.4	-.4	Harrisburg . . .	66	- 1	T	+ .8
Winslow . . .	72	+ 4	0	0	Grand Rapids . . .	63	0	1.7	+ .9	Philadelphia . . .	67	- 1	1.0	+ .2
Yuma . . .	89	+ 7	0	0	Houghton Lake . . .	56	- 3	.5	-.2	Pittsburgh . . .	64	- 1	.3	-.5
ARK. Fort Smith . . .	79	+ 4	0	-1.1	Lansing . . .	62	- 1	.8	0	Scranton . . .	62	- 2	.2	-.6
Little Rock . . .	82	+ 7	0	-1.0	Marquette . . .	58	+ 2	1.6	+ .8	R.I. Providence . . .	63	+ 1	.1	-.6
CALIF. Bakersfield . . .	82	+ 9	0	0	Muskegon . . .	61	- 1	1.7	+1.1	S.C. Charleston . . .	78	+ 2	.5	-.7
Eureka . . .	56	+ 2	T	-.3	S. St. Marie . . .	53	- 2	.3	-.5	Columbia . . .	76	+ 0	.1	-.7
Fresno . . .	78	+ 7	0	-1.1	MINN. Duluth . . .	58	+ 3	1.9	+ .9	Greenville . . .	76	+ 3	.7	-.1
Los Angeles . . .	70	+ 4	0	0	Internatl Falls . . .	58	+ 2	1.6	+ .8	S.D. Aberdeen . . .	66	+ 5	.4	-.4
Red Bluff . . .	78	+ 6	0	-1.1	Intneapolis . . .	68	+ 5	2.2	+1.3	Huron . . .	69	+ 6	T	-.8
San Diego . . .	65	+ 1	T	0	Rochester . . .	67	+ 5	1.7	+ .7	Rapid City . . .	66	+ 6	.4	-.4
San Francisco . . .	61	0	T	0	St. Cloud . . .	65	+ 4	1.6	+ .5	Sioux Falls . . .	71	+ 7	T	-1.0
Stockton . . .	77	+ 8	0	-1.1	MISS. Jackson . . .	82	+ 5	1.5	+ .7	TENN. Chattanooga . . .	75	+ 2	.2	-.5
COLO. Denver . . .	72	+10	.2	-.3	Meridian . . .	80	+ 3	.2	-.6	Knoxville . . .	74	+ 1	T	-.8
Grand Junction . . .	78	+11	T	-.1	MO. Columbia . . .	72	+ 2	1.3	+ .2	Memphis . . .	83	+ 7	0	-.8
Pueblo . . .	74	+ 7	T	-.4	Kansas City . . .	72	+ 2	.6	-.6	Nashville . . .	75	+ 2	.3	-.5
CONN. Bridgeport . . .	63	- 1	.3	-.4	St. Louis . . .	75	+ 4	.2	-.8	TEX. Abilene . . .	80	+ 3	0	-.8
Hartford . . .	66	+ 2	1.0	+ .2	Springfield . . .	75	+ 5	.2	-.9	Amarillo . . .	76	+ 5	.1	-.7
D.C. Washington . . .	73	+ 2	T	-.8	MONT. Billings . . .	68	+ 9	0	-.6	Austin . . .	81	+ 2	T	-.8
FLA. Apalachicola . . .	77	- 1	.4	-.5	Glasgow . . .	65	+ 7	0	-.6	Beaumont . . .	83	+ 4	T	-1.1
Daytona Beach . . .	78	0	1.1	-1.1	Great Falls . . .	64	+ 7	T	-.7	Brownsville . . .	82	+ 1	.4	-.3
Ft. Myers . . .	78	- 2	3.1	+1.4	Havre . . .	84	+ 5	.2	-.3	Corpus Christi . . .	81	0	T	-.7
Jacksonville . . .	77	0	.9	-.2	Helena . . .	83	+ 7	.1	-.5	Dallas . . .	---	---	---	---
Key West . . .	82	- 1	1.8	+ .9	Kalispell . . .	87	+ 3	.1	-.5	Del Rio . . .	80	- 2	0	-.6
Lakeland . . .	80	- 1	6.1	+4.9	Miles City . . .	69	+ 8	.3	-.4	El Paso . . .	78	+ 1	T	-.1
Miami . . .	78	- 2	10.1	+8.2	Missoula . . .	61	+ 5	T	-.5	Fort Worth . . .	83	+ 6	T	-.9
Orlando . . .	79	0	.3	-.9	NEBR. Grand Island . . .	73	+ 6	1.0	0	Galveston . . .	81	+ 2	0	-.9
Tallahassee . . .	78	0	2.6	+1.4	Lincoln . . .	73	+ 5	.3	-.8	Houston . . .	80	+ 1	T	-1.1
Tampa . . .	81	+ 1	.5	-.6	Norfolk . . .	73	+ 7	.4	-.7	Lubbock . . .	79	+ 5	0	-.8
W. Palm Beach . . .	78	- 1	2.3	+ .6	N. Platte . . .	69	+ 5	1.9	+1.0	Midland . . .	81	+ 4	T	-.4
GA. Atlanta . . .	76	+ 3	T	-.8	Omaha . . .	73	+ 7	T	-1.1	San Angelo . . .	80	+ 1	T	-.6
Augusta . . .	78	+ 2	T	-.8	Valentine . . .	70	+ 7	.8	0	San Antonio . . .	77	- 3	.2	-.5
Macon . . .	80	+ 3	.7	-.1	NEV. Ely . . .	62	+ 8	0	-.2	Victoria . . .	81	+ 1	.4	-.5
Savannah . . .	79	+ 2	.1	-1.1	Las Vegas . . .	67	+ 9	0	0	Waco . . .	83	+ 4	.8	-.1
HAWAII. Hilo . . .	---	---	---	---	Reno . . .	89	+11	T	-.1	Wichita Falls . . .	81	+ 3	0	-1.0
Honolulu . . .	78	0	T	-.1	Winnemucca . . .	72	+14	0	-.3	UTAH. Blanding . . .	71	+ 9	0	-.1
Kahului . . .	76	0	.1	0	N.H. Concord . . .	59	- 2	.6	-.2	Salt Lake City . . .	70	+ 8	T	-.3
Lihue . . .	76	- 1	1.0	+ .6	N.J. Atlantic City . . .	64	- 3	0	-.8	VT. Burlington . . .	61	0	.4	-.4
IDAHO. Boise . . .	69	+ 8	T	-.3	Trenton . . .	67	- 1	0	-.7	VA. Lynchburg . . .	69	- 1	.3	-.5
Lewiston . . .	66	+ 4	.1	-.3	N.MEX. Albuquerque . . .	75	+ 4	0	-.1	Norfolk . . .	72	+ 1	.2	-.6
Pocatello . . .	66	+ 8	0	-.4	Roswell . . .	80	+ 6	1.5	+1.2	Richmond . . .	70	- 1	.1	-.7
ILL. Cairo . . .	80	+ 6	.1	-1.0	N.Y. Albany . . .	62	- 2	.1	-.6	Roanoke . . .	70	+ 1	T	-.8
Chicago . . .	69	+ 3	.7	-.1	Binghamton . . .	60	- 1	.3	-.5	WASH. Colville . . .	56	- 2	.5	+1.1
Moline . . .	71	+ 4	.1	-.9	Buffalo . . .	61	- 1	.6	0	Omak . . .	57	- 4	.5	+ .2
Peoria . . .	71	+ 4	T	-.9	New York . . .	67	- 1	.2	-.5	Quillayute . . .	53	0	1.8	+ .9
Rockford . . .	69	+ 4	2.0	+1.0	Rochester . . .	62	- 1	.3	-.3	Seattle-Tacoma . . .	59	+ 1	1.7	+1.3
Springfield . . .	74	+ 5	T	-.9	Syracuse . . .	63	0	1.2	+ .5	Spokane . . .	57	- 1	.3	-.1
IND. Evansville . . .	76	+ 5	.1	-.8	N.C. Asheville . . .	68	0	.7	-.1	Walla Walla . . .	64	0	.4	0
Ft. Wayne . . .	68	+ 2	.2	-.7	Charlotte . . .	73	0	.5	-.2	Yakima . . .	59	- 3	.5	+ .3
Indianapolis . . .	72	+ 4	.1	-.9	Greensboro . . .	72	0	.1	-.7	W. Va. Beckley . . .	65	+ 1	.1	-.8
South Bend . . .	68	+ 3	.7	-.1	Hatteras . . .	75	+ 4	.5	-.5	Charleston . . .	70	+ 1	T	-.7
IOWA. Burlington . . .	71	+ 3	T	-1.0	Raleigh . . .	72	0	T	-.8	Huntington . . .	69	0	.1	-.7
Des Moines . . .	74	+ 7	0	-1.2	Wilmington . . .	76	+ 1	.2	-.9	Parkersburg . . .	70	+ 1	.2	-.7
Dubuque . . .	67	+ 3	.6	-.6	N.DAK. Bismarck . . .	62	+ 2	.1	-.7	WIS. Green Bay . . .	61	+ 1	1.2	+ .4
Sioux City . . .	72	+ 5	T	-1.0	Fargo . . .	64	+ 3	1.4	+ .7	La Crosse . . .	68	+ 3	1.7	+ .7
KANS. Concordia . . .	73	+ 4	.7	-.5	Williston . . .	65	+ 6	0	-.6	Madison . . .	65	+ 3	.9	0
Dodge City . . .	70	0	T	-.8	OHIO. Akron-Canton . . .	65	0	1.0	+ .2	Milwaukee . . .	60	0	2.3	+1.5
Goodland . . .	71	+ 6	0	-.6	Cincinnati . . .	70	+ 1	.4	-.5	WYO. Casper . . .	66	+ 8	T	-.4
Topeka . . .	73	+ 3	1.3	+ .1	Cleveland . . .	60	- 4	.4	-.4	Cheyenne . . .	65	+ 8	.1	-.5
Wichita . . .	75	+ 3	1.3	+ .3	Columbus . . .	67	0	.2	-.7	Lander . . .	67	+10	.4	-.2
KY. Lexington . . .	72	+ 2	.3	-.7	Dayton . . .	69	+ 1	.1	-.8	Sheridan . . .	63	+ 6	T	-.7
Louisville . . .	74	+ 4	.1	-.9	Toledo . . .	63	- 2	.7	-.1	P.R. San Juan . . .	81	+ 1	.4	-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:** Hot with scattered showers. Temperatures averaged 3° above normal. Light rainfall some areas.

Soil moisture very short to short. Fieldwork: 6 days suitable; limited by dry conditions. Soybeans 64% planted, 58% 1976, 70% average. Few peanut fields to be planted. Wheat harvest 48% complete, 24% 1976, 28% average. Corn, cotton fair to good condition.

**ALASKA:** Tanana Valley temperatures and precipitation above normal. Matanuska Valley precipitation near to above normal; temperatures well above normal. Kenai Peninsula precipitation below normal; temperatures above normal. Kodiak Island unusually fair, warm, and dry.

Small grain seeding and potato planting rapidly nearing completion. Moderate to rapid crop growth. Top and subsoil moisture mostly adequate. Hay and pasture rated good. Livestock continues to improve; most now on pasture.

**ARIZONA:** Thundershowers and record high temperatures. Temperatures 2 to 3° above normal southeast, 7 to 10° above west, north central.

Cotton good growth, squaring well underway. Small grain harvest gaining momentum. Sorghum planting well advanced, good emergence. Safflower peak bloom, seedhead development. Third cutting alfalfa underway. Sugarbeet harvest nearing completion Yuma, full swing Salt River Valley. Lettuce harvest continued southeast. Cantaloups, watermelons excellent growth, limited harvest cantaloups. Valencia, grapefruit harvest active. Grapes good progress, harvest early varieties underway. Range conditions relatively poor. Spotty, light rain too little, too light. Cattle, calves fair to good condition lower ranges. Cattle higher summer ranges good condition.

**ARKANSAS:** Temperatures 4 to 7° above normal. Extremes: 101 and 50°.

Very low soil moisture. Fieldwork: 6 days suitable. Soybeans 71% planted, 67% last year. Planting stopped due to lack of rain. Young beans not growing most areas. Cotton almost all planted. Rain needed most growing areas. Thrips some areas. Rice seeding completed. Flooding underway with evaporation high. Milo crop mostly fair to good condition. Corn fair to good. Wheat 36% harvested, 17% last year. Oat harvesting 53% complete, 24% 1976. Tomato harvest underway. Apples and grapes excellent condition. Peach harvest picking up. Pastures short. Some livestock sold due to lack of grass.

**CALIFORNIA:** Temperatures slightly above normal except for few coastal areas and northeast interior. Colder temperatures followed weak cold front that produced spotty very light rain north coast; elsewhere dry.

Small grain harvest underway. Dryland oats cut for hay. Hot weather assisting cotton and rice growth. Sugarbeets developing well. Cherry harvest continues. Grape conditions look good. Some nectarines, plums and peaches being harvested. Pears sizing well. Walnuts look good. Broccoli, cauliflower, lettuce, and celery moving in heavy volume. Carrots, onions, and strawberries in good volume. Cantaloup and watermelon harvest beginning desert areas. Asparagus nearing end. Rangeland extremely dry, water supplies below normal. Pas-

ture under irrigation near normal. Small grain stubble will be available to cattle moved into grain fields that did not make crop.

**COLORADO:** Hot, dry. Widely scattered thunderstorms, primarily eastern plains. Severe thunderstorms produced large hail, Denver areas.

Winter wheat good condition except poor southwest. 96% jointed 1977. 89% 1976, 93% average; 86% headed 1977, 81% 1976, 64% average. Soil moisture short. Spring seedings: Sorghum 61% 1977, 80% 1976, 58% average. Dry beans, 46% 1977, 46% 1976, 35% average. Spring oats good condition. Barley and corn very good. Alfalfa in fair condition. Livestock in good condition.

**FLORIDA:** Seasonable temperatures, heaviest rains over extreme south on 1st and 2d. Dry and hot over Panhandle. Showers most numerous over interior and south portions. Soil moisture short. Irrigated crops good condition. Some early corn lost due to drought. Late corn needs rain. Planting soybeans, peanuts progressing, some delayed by dry soils. Irrigating tobacco. Harvest wheat, oats active. Sugarcane growth good, improving. Some pastures recovering with scattered showers. All areas need more rainfall. Cattle condition poor eastern Panhandle, central Peninsula, good elsewhere. Supplemental feeding continues. Scattered rains improved citrus grove conditions, some irrigation continues. New crop fruit progressing well. Valencia harvest slowing due to rain. Moderate to heavy showers every day some vegetable areas, delayed harvest temporarily. Crop conditions fair to good most areas. Season ended for many vegetables. Overall shipments decreased 8%. Supplies carrots, eggplant, watermelons increased; snap beans, cabbage, celery, cucumbers, escarole, potatoes, radishes, squash, tomatoes decreased; okra, sweet corn, peppers held steady. Irrigated watermelon crop condition mostly good; nonirrigated crop mostly fair. Harvest very active north, north central. More rain needed for proper development.

**GEORGIA:** Temperatures 1° above normal north, 1 to 3° below normal south. Widely scattered thundershowers, mostly less than 0.25 in. with local amounts in excess of 0.50 in.

Soil moisture very short to short. Fieldwork: 6 days suitable. Corn condition unchanged; fair to good. Tobacco condition fair to good, irrigation very active. Cotton condition mostly fair to good, 23% squaring. Peanut condition fair to good; 32% blooming, 18% last year. Soybeans mostly fair to good, 58% planted, last year 57%, average 58%. Sorghum 40% planted, last year 49%, average 43%. Wheat harvest 48% complete, last year 43%, average 32%. Oat harvest 54% complete, last year 52%, average 34%. Hay condition poor to fair. Peaches fair to good condition; 22% harvested, 21% last year, 9% average. Apple condition fair to mostly good. Watermelons mostly fair to good. Pastures poor to fair. Cattle fair to good and hogs fair to mostly good.

**HAWAII:** Weather favorable. Showers light, mainly higher elevation.

Crop progress fair to good. Melon production Oahu active. Spraying frequent to control insect infestation. Vegetable supplies short to adequate. Banana supplies light. Papaya supplies increasing.

**IDAHO:** Weather started cool showery, ended hot, dry. Temperatures above normal. Extremes: 98 and 21°. Precipitation below normal.

Crop conditions good. Slow growth from cool weather. Percent crops in boot, heading, 1976, 1977: Winter wheat 65%, 50%; 15%, 15%. Spring wheat boot 10%, 20%; none heading. Barley 5%, 20%; 14%, 5%. Sugarbeets thinned 70%, 40%.

**ILLINOIS:** Temperatures 3 to 6° above normal. Precipitation 1.00 to 2.00 in. some northern areas, less than 0.10 in. south.

Corn good; average height 16 in., 7 in. 1976, 6 in. average. Soybeans 96% planted, 94% 1976, 68% average; good to fair. Grain sorghum 90% planted. Winter wheat 80% turning yellow, 50% 1976, 33% average; 15% ripe, 4% 1976, 2% average; mostly fair to good. Oats 65% headed, 50% 1976, 45% average; mostly fair to good. First crop alfalfa hay 89% cut, red clover hay 80% cut, both ahead 1976 and average; alfalfa and red clover mostly good. Pastures mostly fair to good. Soil moisture short. Fieldwork: 6.8 days suitable.

**INDIANA:** Hot and dry until weekend showers brought some relief. Rainfall about 0.50 in.; heavier in local thunderstorms. Temperatures ranged from 36 to 99°. Some light frost on muck lands in north.

Fieldwork: 7 days suitable. Topsoil moisture short; subsoil moisture mostly short to adequate. Pastures mostly fair. Soybeans 90% planted, 1976 90%, average 60%. Soybeans 80% emerged. Stands mostly fair. Soybeans 4 in. high, 1976 and average 4 in. Corn 95% emerged. Stands fair to good. Corn 12 in. high, 1976 7 in., average 6 in. Oats 40% headed, 1976 45%, average 20%. Oats 15 in. high. Wheat 25% turning color. Tobacco 75% set, 1976 50%, average 30%.

**IOWA:** Temperatures exceeded 100° in the southwest and central the 5th. Hot, dry.

Topsoil and subsoil moisture short. Fieldwork: 6.5 days suitable. Corn, good condition, 94% full stand. Soybeans, 95% emerged, 90% of full stand, mostly good to fair condition. 1st cutting alfalfa 80% complete, last year 39%, average 16%. Alfalfa mostly good to excellent. Oats 75% headed, last year 34%. Oats condition mostly good to fair. Pastures, wheat and clover mostly good to fair.

**KANSAS:** Temperatures 4 to 6° above normal central and east, 7 to 9° above normal west. Precipitation 0.33 in. southwest, 2.50 in. central. Elsewhere precipitation averaged 0.50 to 2.00 in.

Wheat condition unchanged, still good. Approximately 95% headed, same as last year and average; 35% turning, 20% last year, 30% average. Very little wheat ripe. Some hail damage, some wheat down. Farmers spraying diseases and insects in wheat where necessary. Corn planting 95%, same as last year, average 90%. Sorghum 45%, 40% last year, 45% average. Soybeans 40%, identical last year and average. First cutting alfalfa hay 85%, well ahead 60% last year, average 70%. Second cutting alfalfa started some areas. Cattle on pastures good to excellent condition. Farm chores planting row crops, seedbed preparation, tuning-up combines.

**KENTUCKY:** Mostly sunny with widely scattered showers and thundershowers. Temperatures 2 to 4° above normal with precipitation light in all areas.

Conditions good for outside activities. Fieldwork: 5.8 days favorable. Activities: Haying, cultivating row crops, setting tobacco and seeding operations where moisture sufficient. Soil moisture short. Soybean seeding and tobacco setting delayed. Early corn making rapid growth, averages

14 in., most advanced fields average 26 in., earliest shoulder high. All planted except lowest bottomland. Soybean planting now 68% complete, 39% last year and 47% average; stands not as good as corn. Tobacco setting continues, also slowed by dry topsoil, some fields being reset due poor stands. About 80% of burley acreage set compared to 60% last year and 55% average. Dark types 77% in ground. Barley harvest started; 16% complete. Wheat ripening fast but no combining yet. First cutting hay excellent volume and quality. Dry weather causing deterioration hay and pasture crop.

**LOUISIANA:** Temperatures 3 to 5° above normal. Extremes: 59 and 102°. Scattered showers.

Soil moisture short. Fieldwork: 5.8 days suitable. Main activities: Haying, weed control, and small grain harvest. Rice condition good. Corn 32% silked; condition fair to good. Sorghum 78% planted, 81% last year; 68% up to stand. Soybeans 74% planted, 75% last year, 61% average; 62% up to stand; condition fair to good. Sweetpotato transplanting 73%, 65% last year. Oat and wheat harvest 87% complete, 66% last year. Peach harvest progressing; yields good. Pastures fair, cattle fair to good.

**MARYLAND AND DELAWARE:** Temperatures 2° above normal. Highs, upper 70's to 80°; lows mid-50's. Precipitation varied; less than 1.00 in. Thunderstorms over north produced 2.00 to 4.00 in.

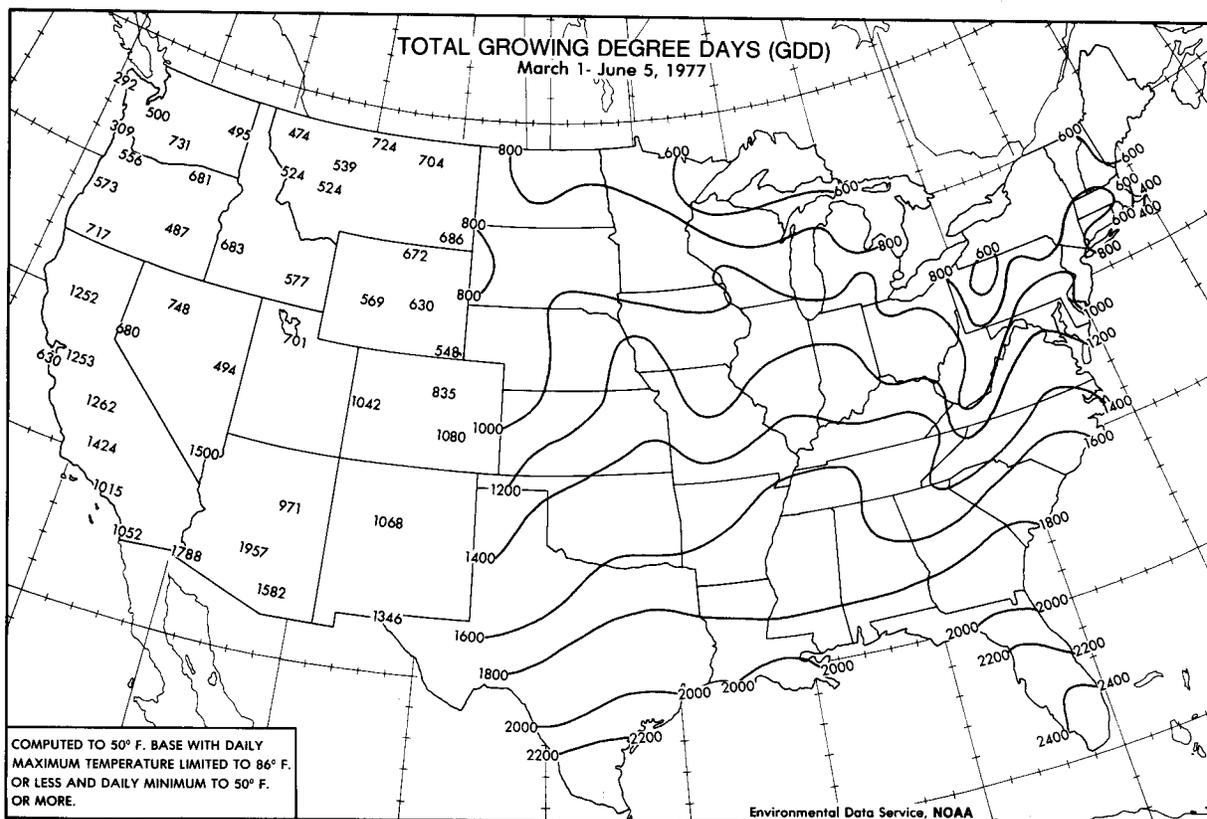
Soil moisture short. Pastures supplying below average amounts of feed. Corn planting 97%, slightly ahead of average. Stands in good condition, need rain to activate herbicides. Farmers applying additional sprays and cultivating. Soybean planting 55%, 1976 55%, average 40%. Planting delayed due to dryness. First cutting alfalfa 90%, clover and clover mixtures 60%. Tobacco transplanting continues, few problems. Fruit crop in good condition.

**MICHIGAN:** Temperatures normal to 4° above normal. Lower southwest half and western Upper, normal to 3° below normal Lower northeast and east Upper. Scattered light frost 3d. Precipitation ranged 0.20 to 3.00 in.

Fieldwork: 5 days suitable. Pasture feed supplies and soil moisture short. Corn planting virtually complete, 90% last year, 85% normal. Winter wheat 85% headed, 40% last year, 15% normal. Wheat heading on short straw. Oats 3% headed, 1% last year, 0% normally. Potato planting complete, 80% 1976, 85% normal. Dry beans 15% planted, 10% last year and normal. Soybeans 90% planted, 60% last year, 50% normal. Hay 30% first cut, production below average. Fruit set light to average. Vegetable development average. Strawberry harvest 10% picked, 0% last year, 2% normal. Asparagus harvested 90%, 35% last year and normal.

**MINNESOTA:** Temperatures near normal east to 8° above normal west. Extremes: 95 and 38°. Precipitation less than 1.00 in. southwest and extreme northwest and northeast and 1.00 to 2.00 in. elsewhere with patchy areas of over 3.00 in. west central through southeast.

Crops continue exceptional growth. Most more than 2 weeks ahead normal. Widespread rains improving moisture supplies. Some corn too tall to cultivate. Small grains rapidly heading in south, beginning in north. Cutworms causing some sunflowers, corn, soybean replanting. Early flax fields budding. Haying active. Second alfalfa crop prospects enhanced by rains. Corn height 13 in., 1976 5 in. Percent emerged: Soybeans 94%, 1976 76%, normal 63%; flax 91%, 1976 85%, normal 70%. Percent heading: Rye 89%, 1976 69%, normal



46%; winter wheat 80%, 1976 56%, normal 24%; spring wheat 16%, 1976 5%, normal 1%; oats 26%, 1976 5%, normal 1%; barley 17%, 1976 4%, normal 1%. First crop alfalfa hay 37% cut, 1976 20%, normal 12%.

**MISSISSIPPI:** Temperatures 2 to 4° above normal. Highest temperature 100°.

Soil moisture very short to short except short to adequate northeast and southeast. Fieldwork: 5.9 days suitable. Soybeans 66% planted, 69% 1976, 52% average; 49% up to stand, 51% 1976. Cotton 97% up to stand, 90% 1976; 17% squaring, 5% average. Rice 98% up to stand, 93% 1976. Corn 98% up to stand, 91% 1976. Sorghums 71% planted, 66% 1976, 58% average. Winter wheat 98% ripe, 88% 1976; 52% harvested, 11% 1976, 25% average. Oats 98% ripe, 87% 1976; 47% harvested, 17% 1976, 32% average. Sweetpotatoes 85% planted, 59% 1976, 60% average. Peanuts 98% planted, 93% 1976. Hay crops 34% harvested, 24% 1976, 25% average. Irish potatoes 33% harvested, 23% 1976. Crops in fair to good condition. Pastures in fair condition.

**MISSOURI:** Temperatures cooled slightly but remained about 1° above normal. Relatively warmer than north; west Ozarks averaged 3° and Bootheel 5° above normal. Precipitation generally light averaging 0.50 to 1.00 in. West Central Plains averaged 1.50 in.

Fieldwork: 4.5 days suitable. Soybeans 88% planted, 75% 1976, 57% normal. Grain sorghum 88% planted, 72% 1976, 60% normal. 1st cutting alfalfa hay 86% harvested, 61% 1976, 62% normal. Wheat 85% turning color, 64% 1976, 47% normal. Wheat mostly fair to good. Pasture and corn also mostly fair to good. Soil moisture supply short.

**MONTANA:** Cool but ended hot and dry with precipitation much below normal. Most moisture received

west but violent weather with tornadoes midweek central and north central divisions. Temperatures 6 to 11° above normal except near normal northwest. Moisture about 0.50 in. below normal with most areas receiving no rain east of Divide.

Topsoil moisture adequate. Condition and growth winter wheat, spring planted crops fair to good. Winter wheat 55% boot, 20% headed; last year 50% boot, 10% headed; average 20% boot, 5% headed. About 20% sugarbeets thinned. Hay harvest barely getting started, ahead of normal. Range feed supply short except southwest and parts south central. Nearly 80% cattle and sheep moved to summer ranges, last year 90%, average 80%.

**NEBRASKA:** Temperatures 5 to 13° above normal. Rainfall trace to 2.00 in. early week.

Topsoil and subsoil moisture adequate. Winter wheat mostly good condition; 95% headed compared to 85% year ago. Corn planting nearly 100% completed, same as 1976 and average. Grain sorghum planting 85% complete compared to 90% 1976 and 80% normal. Soybeans 85% planted, compared to 90% 1976 and 75% normal. Pasture and range feed supplies mostly adequate.

**NEVADA:** Dry, unseasonably warm weather. Temperatures ranged from 7 to 12° above normal. Extremes: 107 to 27°. No measurable precipitation.

Crop growth improved, however, season 2 weeks behind normal. Range and pasture condition mostly fair to poor. Considerable winterkill of winter wheat. Livestock holding their own on below average grazing conditions. Top and subsoil moisture supplies short to very short.

**NEW ENGLAND:** Temperatures 18° above normal to 18° below normal. Rain 4th and 5th ranged from

about 0.25 to 1.00 in. Light rain persisted over much of Maine and New Hampshire through weekend.

Fieldwork advanced rapidly. Aroostook, Maine potato crop nearly all planted. Haying underway with short crop. Fruit set appears good. Strawberry and early vegetable harvest underway. Corn more than 80% planted.

**NEW JERSEY:** Temperatures 1 to 3° below normal. Extremes: 38 and 89°. Rainfall 0.56 in. north, 0.17 in. central and 0.30 in. south. Soil moisture in percent of field capacity averaged 60% north, 34% central and 28% south. Soil temperature averaged 68°.

Irrigating vegetables in most areas. Harvests of asparagus, strawberries, cabbage, squash, lettuce, spinach, escarole and endive active. Early planted potatoes blooming and growing well. Apples and peaches sizing well. Barley maturing rapidly. Most wheat fields headed. Field corn and soybean planting well advanced. Hay making active.

**NEW MEXICO:** Rains very light and very widely scattered. Minor temperature changes but quite warm overall.

Soil moisture mostly short to adequate. Weather favorable for all activities. Spring planting near completion except northern late areas and dryland sorghum where additional moisture needed. Condition crops fair to good. Combining winter wheat expected start this week. Ranges fair, moisture dwindling, livestock continue fair to good.

**NEW YORK:** Temperatures near normal; upper 50's to low 60's. Extremes: 85 and 22°. Precipitation midweek up to 1.50 in.

Corn planting nearing completion. Dry bean planting well underway. Wheat heading out. First cutting hay gearing up. Hay, pastures need rain. Tomato planting nearing completion. Lettuce, snap bean, sweet corn planting 80% complete. Cabbage seeding progressing. Grapes showing early bloom near Lake Erie.

**NORTH CAROLINA:** Warm weather, temperatures near normal. Scattered showers 30th and 1st.

Fieldwork: 3.9 days suitable. Soil moisture adequate. Farm activities: Planting soybeans, cultivating, haying and harvesting small grains. Crop conditions: Flue-cured tobacco fair to good; cotton, pasture, soybeans, hay crops, sweetpotatoes, and apples fair to mostly good; corn, peaches, and peanuts mostly good. Planting: Soybeans 78% completed, 1976 64%; sorghum 73%, 1976 70%. Burley tobacco transplanting 79% complete, 1976 90%. Sweetpotato transplanting 72% complete, 1976 65%. Harvesting: Wheat 8% complete, 1976 7%; oats 11%, 1976 16%; barley 8%, 1976 18%; rye 8%, 1976 10%; peaches 3%, 1976 10%; hay 42%, 1976 33%; Irish potatoes 3%, 1976 0%.

**NORTH DAKOTA:** Temperatures near normal. Extremes: 91 and 40°. Precipitation moderate to heavy Red River Valley and south central, below normal northwest and north central and normal elsewhere.

Seeding small grains complete, row crops nearing completion. Small grains in fair to good condition, but dependent on timely rains. Pastures and hay growth poor to fair with emergency feed crops seeded on intended summerfallow acres.

**OHIO:** Temperatures near normal. Extremes: 91 and 35°. Precipitation spotty.

Soil moisture short. Soybeans 95% planted, same as last year, 75% normal. Tobacco 40% set,

25% 1976 and 30% normal. Hay cut: Alfalfa 70%, 40% 1976, 25% average; clover-timothy 45%, 20% 1976, 15% normal. Wheat about all headed same as last year, 85% normal. Oats 25% headed, 20% 1976, 15% normal. Corn average height 8 in., same as 1976, 5 in. normal. Corn and soybean stands variable. Sugarbeet stands good. Pasture condition declined; range poor to good, mostly fair.

**OKLAHOMA:** Temperatures 3 to 4° above normal except south central and southeast about 2° above normal. Precipitation ranged from 0.85 in. to 0.04 in.

Fields dried; combines returned to wheat fields on 3d. Harvest activity spread through southwest; 2% acres combined, same as year earlier but behind 9% average. Nearly 95% wheat reached soft dough stage or past. Oats and barley nearing maturity with under 5% acreage cut for grain. Yield prospects good both crops. Early corn fields east starting to tassel, with 75% acreage up to stand average for date. Sorghum planting average with 55% seeded, but behind year ago 63%; condition good to fair. Cotton planting at 40% behind average 58%, year ago at 60%. Peanut conditioning ranges from poor to good, with planting 45% complete behind average 50% and 56% year ago. Soybeans in good to excellent condition but late, 35% planted compared 63% year ago, 52% average. 1st cutting alfalfa 88% baled, equal year ago, but later than 94% average. Early peaches ripe. Pecan set looks good; range in good to excellent condition. Moisture supplies adequate. Subsoil moisture needed some Panhandle, east, and scattered areas.

**OREGON:** Wet. Rainfall ranged from 0.33 to 1.50 in. north. Dry in south. Temperatures below normal. Extremes: High 60's, mid-30's west; high 80's, mid-20's east.

Soil moisture adequate west, short south and east. Grain, hay, seed crops fair to good west, need sunshine. Dryland east, crops poor. First cutting alfalfa continuing, many areas beginning cutting wild hay. Fruit crops look good, need sunshine in west. Field activity slowed west, north half of east by rain. Livestock continue fair to good. Feed supplies being located for eastern ranchers from west forages and seed aftermath.

**PENNSYLVANIA:** Temperatures 3° below normal. Extremes: 88 and 29°. Frequent weather systems produced numerous showers and thunderstorms. Amounts from 0.10 in. central to 1.50 in. extreme southeast and northwest with 0.20 to 0.50 in. elsewhere.

Fieldwork: 6 days suitable. Moisture very short. Activities: Spraying, mowing, cultivating, peach thinning, making hay and filling silos, picking strawberries, planting corn, soybeans, transplanting tobacco and tomatoes. Corn all planted, same as last year. Soybeans 75%, last year 77%. Tobacco 48% transplanted, 40% last year. Barley 73% headed, 15% turning--last year 12% turning. Wheat 77% headed, last year 78%; few fields turning. Few fields oats headed. Corn 4 in., last year 3 in. Alfalfa first cut 50%, week ahead of last year. Feed from pastures mostly below average.

**PUERTO RICO:** Island average rainfall 0.66 in. or 1.11 in. below normal. Temperatures about 80° on coasts and 75° interior. Extremes: 98 and 59°.

Light showers relieved somewhat crop stress in south and improved conditions for soil preparation, planting, fertilizing and cultivating. More rains needed all areas for complete recuperation of all crops and termination of water rationing.

**SOUTH CAROLINA:** Temperatures near normal except northeast, west central, central which were 3 to 4° below normal. Rainfall varied from 0.05 to 2.00 in.

Cotton condition fair. Corn condition fair to good, still suffering from insufficient moisture some areas. Tobacco generally good condition. Peach production gaining momentum. Recent rains replenished soil moisture most areas, more needed soon. Other activities: Harvesting cabbage, picking snap beans, cucumbers, tomatoes. Recent rains improved quality of all crops. Watermelon growth helped greatly by rains. Soybeans planted 62% 1977, 58% 1976, 62% average.

**SOUTH DAKOTA:** Thunderstorms, scattered areas, leaving precipitation up to 1.00 in. north central. Temperatures hot with high winds. Extremes: 38 and 100°.

Winds reduced topsoil moisture supplies; short to adequate. Field crops making rapid growth following rains of preceding week. Small grains 2 weeks ahead of normal development. Small grains heading: Rye 92%, 1976 87%, normal 76%; winter wheat 87%, 1976 81%, normal 39%; oats 36%, 1976 16%, normal 1%; barley 50%, 1976 19%, normal 4%; spring wheat 47%, 1976 23%, normal 2%. Weeds still problem in small grain, spraying hindered by wind. Row crops planted: Corn 99%, 1976 98%, normal 96%; soybeans 98%, 1976 97%, normal 80%; sorghum 77%, 1976 65%, normal 59%. Cutworms causing some corn to be replanted. Average height of corn 7 in., 1976 4 in., normal 4 in. Corn cultivated first time 36%, 1976 11%, normal 5%. Alfalfa harvest rapid. 36% complete, 1976 11%, normal 5%.

**TENNESSEE:** Temperatures 2 to 5° below normal. Precipitation less than 0.50 in.

Soil moisture short. Fieldwork: 5.5 days suitable. Pastures and cattle fair. Some supplemental livestock feeding. Small grain harvest underway. Corn planted 97% this year, 93% last year, 90% normal. Soybeans planted, 75% this year, 60% last year, 57% normal. Wheat ripe: 45% this year, 45% last year, 30% normal. Oats ripe: 30% this year, 20% last year, 18% normal. Barley ripe: 30% this year, 33% last year, 40% normal. 1st cutting alfalfa 93% done, 88% last year, 88% normal. Tobacco transplanted: 88% this year, 88% last year, 83% normal.

**TEXAS:** Thunderstorms prevalent west early; fair weather later. Temperatures 2 to 4° above normal High Plains, southern Low Plains, Cross-Timbers, Blacklands, East Texas; near normal elsewhere. Rainfall below normal.

Planting field crops good progress as weather, field conditions generally favorable. Cotton, sorghum planting active on Plains, while soybean, peanut planting continued all growing areas. Wheat harvest in full swing central, southern areas; just beginning northern Low Plains. Precipitation light most areas; moisture remains short east Texas. Cotton fields from Blacklands southward squaring, making good growth. Sorghum developing well, heading out Blacklands southward. Heads beginning to turn color in early planted fields, lower valley. Wheat harvest accelerating; fields maturing rapidly and some harvested as far north as northern Low Plains. Rice fields developing well, heads showing some early planted fields. Some areas along upper coast need rain. Cotton planted: 89% 1977, 88% 1976, 89% average. Corn planted: 100% 1977, 100% 1976, 100% average. Sorghum planted: 88% 1977, 87% 1976, 86% average. Peanuts planted: 48% 1977, 39% 1976, 52% average. Soybeans planted: 61% 1977, 58% 1976, 64% average. Wheat harvested:

13% 1977, 14% 1976, 21% average. Barley harvested: 8% 1977, 7% 1976, 25% average. Oats harvested: 37% 1977, 20% 1976, 45% average. Flax harvested: 87% 1977, 31% 1976, 77% average.

Harvesting squash, tomatoes, bell peppers, watermelons, cucumbers, cantaloups, honeydews, okra, onions, cabbage. Citrus groves in good condition; harvest winds down, majority remaining grapefruit into processing. Peach harvest continued. Pastures, ranges furnishing adequate to excellent grazing. Livestock remain generally good condition.

**UTAH:** Few isolated showers and thunderstorms principally south. Moisture generally very light. Temperatures extremely variable ranging from 3° below normal to 7° above. Warm temperatures, windy conditions caused rapid evaporation of moisture from recent storms.

Warm weather pushing growth of crops and feed where moisture adequate. Soil moisture on non-irrigated lands short with few north central areas adequate. Range and pasture feed supplies improved but still mostly dry. Sugarbeet thinning started and about 20% done. Winter wheat about 20% headed and 40% in boot; stands spotted. Spring grains about 50% jointing. Fruit prospects mostly good except cherries only fair to good.

**VIRGINIA:** Temperatures above normal. Extremes: 92 and 42°. Rainfall averaged 1.00 in. but the dry northwest area received little or none.

Topsoil moisture short to adequate. Fieldwork: 5.2 days suitable. Hay harvest, planting of soybeans and tobacco, chief activities. Corn planting almost complete, cultivation and sidedressing active. Pasture fair condition. Livestock, corn, peanuts, good condition. Soybeans 51% planted, 43% 1976, 43% average. Flue-cured tobacco 91% transplanted, 91% 1976. Fire-cured tobacco 80% set, 79% 1976. Burley tobacco 71% transplanted, 85% 1976. Sun-cured tobacco 79% set, 77% 1976. Barley 4% combined, 8% 1976, 3% average. Vegetables, potatoes irrigated. Hay cuttings short.

**WASHINGTON:** West: Temperatures 3 to 6° subnormal. Precipitation 0.10 to 1.30 in. above normal.

Heavy rains reduced activity. Farming 3 to 4 weeks behind. Grain crops heading and some lodging. Pastures, hay growing rapidly.

East: Temperatures 4 to 7° subnormal. Precipitation near normal to 0.20 in. above normal.

Fruit crops growing well. Harvesting Bing cherries. Cherries early due to early bloom. Grapes in full bloom. Asparagus harvest winding down. First cutting alfalfa nearly complete. Potatoes look excellent. Thinning, weeding sugarbeets. High ranges improved with rains. Early pea harvest began. Wheat, barley on recrop benefited from rains. Fields showing serious stress plowed up. Fertilizing, spraying weeds, tilling active. Cattle in good shape.

**WEST VIRGINIA:** Temperatures above normal except north central. Extremes: 91 and 24°. Precipitation below normal. Fieldwork: 5.8 days suitable. Farm activities: Hay harvesting and fencing. Soil moisture short. Planting progress: Spring oats and potatoes complete, corn 95%. Emerged: spring oats 95%, potatoes 95%, and corn 87%. 1st cutting hay 36%, ahead last year and average. Barley 78% heading. Wheat 67% heading. Condition of growing crops mostly fair. Pasture short and critically dry. Livestock in fair condition.

**WISCONSIN:** Temperatures slightly above normal. Much-needed rainfall averaged about 1.30 to 2.30 in. Severe storms with wind damage few areas.

Crops improved with rains. Early corn over knee high; late corn germination helped by moisture. Oats looks good most areas, heading out on short straw. Winter wheat and barley headed. Soybeans 97% planted, 1976 85%, normal 65%. Early beans up 6 in. First crop hay 30% harvest, 1976 7%, normal 3%. Rains helped start second crop growth where first crop removed. New seedings in oats very good. Pasture condition below normal but comparable to year ago. Tobacco being transplanted, moisture good for early start. Potatoes growing well. Pea crop varies. Strawberries

ripening earlier than usual. Cutworms and alfalfa weevils active in corn and hay. Soil moisture short to adequate.

WYOMING: Temperatures above normal. Precipitation below normal.

Soil moisture short. Sugarbeets 50% thinned. Winter wheat 32% headed. Corn 96% planted, 86% emerged. Potatoes 83% planted, 63% emerged. Dry beans 72% planted, 9% emerged. Small grain, corn and sugarbeet prospects good. Range ewes lambing 90% completed. Livestock condition good.

## World Weather and Crop Update

USSR. Spring sowing was virtually completed; 145 million hectares or 96 percent of the sowing plan was seeded by May 30. Sowing of grain crops continued in the spring wheat regions of western Siberia and Kazakhstan. Winter grain prospects were favorable. Estimated subsoil moisture reserves were adequate in most of the principal producing areas in European USSR; light to moderate rains were widespread. Major deficit areas, however, included the upper and middle Volga Valley and the southern Urals. Rainfall was generally light over western Siberia and Kazakhstan. Surface moisture was needed in some areas to get the newly-planted spring wheat off to a good start.

ASIA. The drought was alleviated by moderate to locally heavy rains in the People's Republic of China's northeastern region. But rainfall was spotty--light to moderate--over the principal winter wheat belt in the north China Plain where the crop neared maturity. Moderate to heavy rains fell over the rice-growing areas south of the Yangtze River; extremely heavy rainfall--excessive in places with localized flooding--was reported in the extreme south. In India, showers associated with premonsoonal development occurred over the southern half of the peninsula. Heavy rains fell in the northeast and caused some flooding. Temperatures of well over 100° F were common over most of the country. The principal winter grain areas in Australia generally lacked rain. Additional surface moisture was needed for the newly planted winter wheat.

EUROPE. Warm, dry weather prevailed over western Europe where crops made rapid progress. However, light to moderate showers were recorded on June 5. Moderate to locally heavy showers covered Mediterranean France; the dry spell in southern Spain was interrupted when Seville received 57 mm of moisture. Moderate to heavy rains also fell in southern Italy where irrigated crops and pastures were thirsty. Crop prospects, in general, continued to be favor-

able in eastern Europe. East Germany enjoyed welcome dry weather for most of the week while showers fell in Poland and Czechoslovakia. Precipitation was much heavier in the southern part of this region; moderate to heavy rains dampened Romania and Bulgaria. Greece received light showers, and crop prospects continued favorable in Turkey as light showers moistened the central wheat region.

AFRICA. Wheat-growing areas in Algeria and Tunisia received light to moderate rainfall, but only scattered light showers touched Morocco which has been suffering from drought. South Africa, according to limited data, did not receive any precipitation in the main agricultural region, but agricultural activity is limited at this time of year.

SOUTH AMERICA. Rainfall was light and scattered while normal temperatures prevailed over the principle agricultural states in the south and southeast of Brazil. Temperatures also were normal in Argentina, but the newly planted wheat crop in Argentina received no moisture.

NORTH AMERICA. Recent rains broke the drought over much of the Southeast, but pockets of droughty areas continue in some States, especially in the interior of Alabama and Georgia. Heavy rains drenched Wisconsin, Minnesota, and Michigan, but rain was needed in the Corn Belt States of Iowa and Illinois. Precipitation was light and scattered in the spring wheat States of the northern Great Plains and in the adjacent Prairie Provinces of Canada. Estimated soil moisture reserves continued below normal over much of the Canadian spring wheat belt, especially in southwestern Alberta, despite some improvement from above-normal rainfall since mid-May. Light to moderate showers dotted the wheat areas in the Pacific Northwest, but it was advantageously dry in the hard winter wheat States where the crop neared maturity.

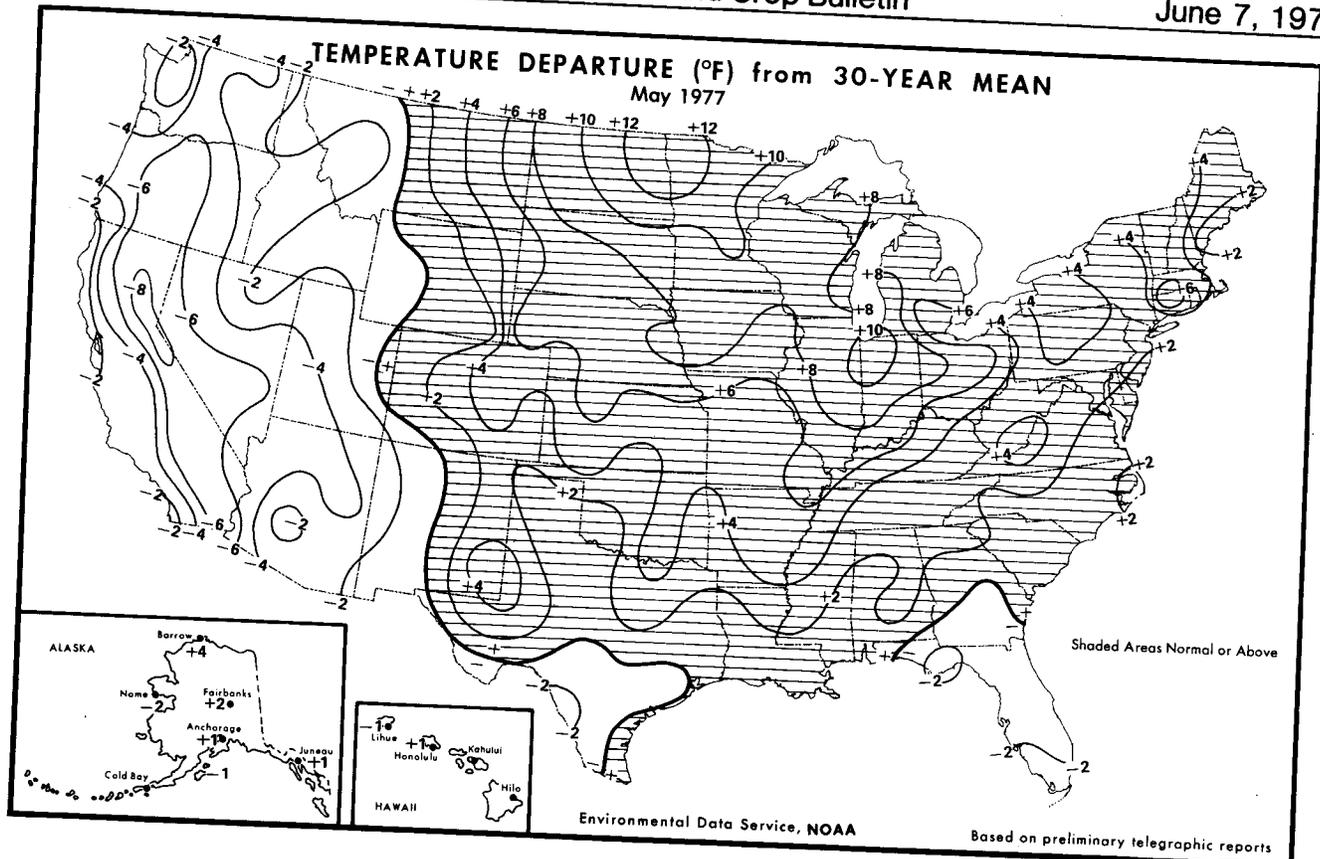
## Heating Degree Days (Base 65° F.)

May 1977

ALA. Birmingham . . . . .	5	MAINE, Caribou . . . . .	407	OKLA. Okla. City . . . . .	7
Mobile . . . . .	0	Portland . . . . .	354	Tulsa . . . . .	1
Montgomery . . . . .	0	MD. Baltimore . . . . .	62	OREG. Astoria . . . . .	453
ALASKA, Anchorage . . . . .	554	MASS. Boston . . . . .	158	Burns U. . . . .	551
Barrow . . . . .	419	Chatham . . . . .	313	Medford . . . . .	359
Fairbanks . . . . .	500	MICH. Alpena . . . . .	294	Pendleton . . . . .	301
Juneau . . . . .	531	Detroit . . . . .	122	Portland . . . . .	340
Nome . . . . .	988	Flint . . . . .	152	Salem . . . . .	400
ARIZ. Flagstaff . . . . .	540	Grand Rapids . . . . .	139	PA. Allentown . . . . .	127
Phoenix . . . . .	0	Houghton Lake . . . . .	199	Erie . . . . .	249
Tucson . . . . .	9	Lansing . . . . .	137	Harrisburg . . . . .	106
Winslow . . . . .	189	Marquette U . . . . .	239	Philadelphia . . . . .	104
Yuma . . . . .	0	S. Ste. Marie . . . . .	318	Pittsburgh . . . . .	138
ARK. Fort Smith . . . . .	9	MINN. Duluth . . . . .	242	Scranton . . . . .	206
Little Rock . . . . .	12	Internatl Falls . . . . .	183	R. I. Providence . . . . .	176
CALIF. Bakersfield . . . . .	113	Minneapolis . . . . .	75	S. C. Charleston . . . . .	17
Eureka U. . . . .	415	Rochester . . . . .	90	Columbia . . . . .	20
Fresno . . . . .	98	St. Cloud . . . . .	112	Greenville . . . . .	19
Los Angeles U . . . . .	108	MISS. Jackson . . . . .	1	S. DAK. Aberdeen . . . . .	83
Red Bluff . . . . .	126	Meridian . . . . .	4	Huron . . . . .	61
Stockton . . . . .	100	Vicksburg U . . . . .	---	Rapid City . . . . .	165
San Diego . . . . .	88	MO. Columbia . . . . .	40	Sioux Falls . . . . .	38
San Francisco . . . . .	278	Kansas City . . . . .	22	TENN. Chattanooga . . . . .	17
COLO. Denver . . . . .	137	St. Louis . . . . .	36	Knoxville . . . . .	33
Grand Junction . . . . .	94	Springfield . . . . .	27	Memphis . . . . .	4
Pueblo . . . . .	44	MONT. Billings . . . . .	258	Nashville . . . . .	28
CONN. Bridgeport . . . . .	160	Glasgow . . . . .	233	TEX. Abilene . . . . .	0
Hartford . . . . .	130	Great Falls . . . . .	419	Amarillo . . . . .	22
D. C. Washington . . . . .	32	Havre . . . . .	262	Austin . . . . .	0
FLA. Apalachicola . . . . .	0	Helena . . . . .	443	Beaumont . . . . .	0
Ft. Myers . . . . .	0	Kalispell . . . . .	444	Brownsville . . . . .	0
Jacksonville . . . . .	0	Miles City . . . . .	171	Corpus Christi . . . . .	0
Key West . . . . .	0	Missoula . . . . .	450	Dallas . . . . .	---
Lakeland U. . . . .	0	NEBR. Grand Island . . . . .	15	Del Rio . . . . .	0
Miami . . . . .	0	Lincoln . . . . .	11	El Paso . . . . .	3
Orlando . . . . .	0	Norfolk . . . . .	6	Fort Worth . . . . .	0
Daytona Beach . . . . .	0	North Platte . . . . .	81	Galveston U. . . . .	0
Tallahassee . . . . .	0	Omaha . . . . .	10	Houston . . . . .	0
Tampa . . . . .	0	Valentine . . . . .	212	Lubbock . . . . .	1
GA. Atlanta . . . . .	11	NEV. Ely . . . . .	616	Midland . . . . .	0
Augusta . . . . .	13	Las Vegas . . . . .	56	San Angelo . . . . .	0
Macon . . . . .	0	Reno . . . . .	509	San Antonio . . . . .	0
Savannah . . . . .	2	Winnemucca . . . . .	450	Victoria . . . . .	0
IDAHO, Boise . . . . .	358	N. H. Concord . . . . .	259	Waco . . . . .	2
Lewiston . . . . .	266	N. J. Atlantic City . . . . .	145	Wichita Falls . . . . .	1
Pocatello . . . . .	406	Trenton U . . . . .	103	UTAH, Milford . . . . .	391
ILL. Cairo U. . . . .	13	N. MEX. Albuquerque . . . . .	61	Salt Lake City . . . . .	304
Chicago . . . . .	107	Roswell . . . . .	0	VT. Burlington . . . . .	228
Moline . . . . .	54	N. Y. Albany . . . . .	205	VA. Lynchburg . . . . .	58
Peoria . . . . .	60	Binghamton . . . . .	237	Norfolk . . . . .	40
Rockford . . . . .	73	Buffalo . . . . .	207	Richmond . . . . .	42
Springfield . . . . .	40	New York . . . . .	115	Roanoke . . . . .	56
IND. Evansville . . . . .	32	Rochester . . . . .	204	WASH. Colville . . . . .	429
Fort Wayne . . . . .	80	Syracuse . . . . .	209	Omak . . . . .	---
Indianapolis . . . . .	45	N. C. Asheville . . . . .	66	Quillayute . . . . .	499
South Bend . . . . .	85	Charlotte . . . . .	36	Seattle-Tacoma . . . . .	320
IOWA, Burlington . . . . .	52	Greensboro . . . . .	42	Spokane . . . . .	409
Des Moines . . . . .	25	Hatteras R. . . . .	27	Walla Walla U. . . . .	261
Dubuque . . . . .	93	Raleigh . . . . .	49	Yakima . . . . .	371
Sioux City . . . . .	24	Wilmington . . . . .	27	W. VA. Beckley . . . . .	113
KANS. Concordia . . . . .	15	N. DAK. Bismarck . . . . .	164	Charleston . . . . .	81
Dodge City . . . . .	8	Fargo . . . . .	74	Huntington . . . . .	67
Goodland . . . . .	101	Williston U . . . . .	149	Parkersburg U. . . . .	82
Topeka . . . . .	11	OHIO. Akron-Canton . . . . .	105	WIS. Green Bay . . . . .	131
Wichita . . . . .	12	Cincinnati U. . . . .	67	Madison . . . . .	110
KY. Lexington . . . . .	52	Cleveland . . . . .	166	Milwaukee . . . . .	173
Louisville . . . . .	36	Columbus . . . . .	91	WYO. Casper . . . . .	298
LA. Baton Rouge . . . . .	0	Dayton . . . . .	63	Cheyenne . . . . .	352
Lake Charles . . . . .	0	Toledo . . . . .	135	Lander . . . . .	361
New Orleans . . . . .	0	Youngstown . . . . .	148	Sheridan . . . . .	307
Shreveport . . . . .	0				

Preliminary reports from airport locations, except those marked U for urban and R for rural.

\*Estimated.



### May Weather Summary

**HIGHLIGHTS:** Heavier-than-expected rains drenched the central Great Plains and the West Coast last month. Above-normal precipitation was recorded from the Pacific to the Rocky Mountains. Many portions of Nebraska southward to Oklahoma saw rain levels between five and nine inches. East of the Mississippi River, drier than normal conditions prevailed except along the southern Atlantic Coast, isolated areas of New England, and the extreme southern locales of Florida and Alabama. May weather footnotes included rain, rain---a 12-hour record rainfall of 11.59 inches in Miami; memories of winter---a 10-inch snowfall in parts of the Northeast on May 10; and twisters---30 tornadoes tore through the lower half of the Plains on a day in late May.

Temperatures averaged lower than normal west of the Rockies, in southern and western Texas, and throughout most of Florida. The remainder of the Nation called May a warm month as the mercury climbed higher than expected. The western Great Lakes, Minnesota, and eastern North Dakota hit 10 to 12° departures above normal May temperatures. Record high readings baked Vermont, New York, Michigan, Indiana, and Illinois last month. It was the warmest May ever for Chicago, and Memphis sweltered through a new fifth-month record of 99° on May 30.

Early May precipitation provided a rare two inches of rain to southern California. Rain slowed some fieldwork in the central States, but the first week tally sheet showed farmers equal to or ahead

of last year's planting. Southern Florida was extremely hard hit by heavy rain, while the Panhandle and north central areas lacked moisture. Temperatures were 3 to 9° above normal east of the Rockies.

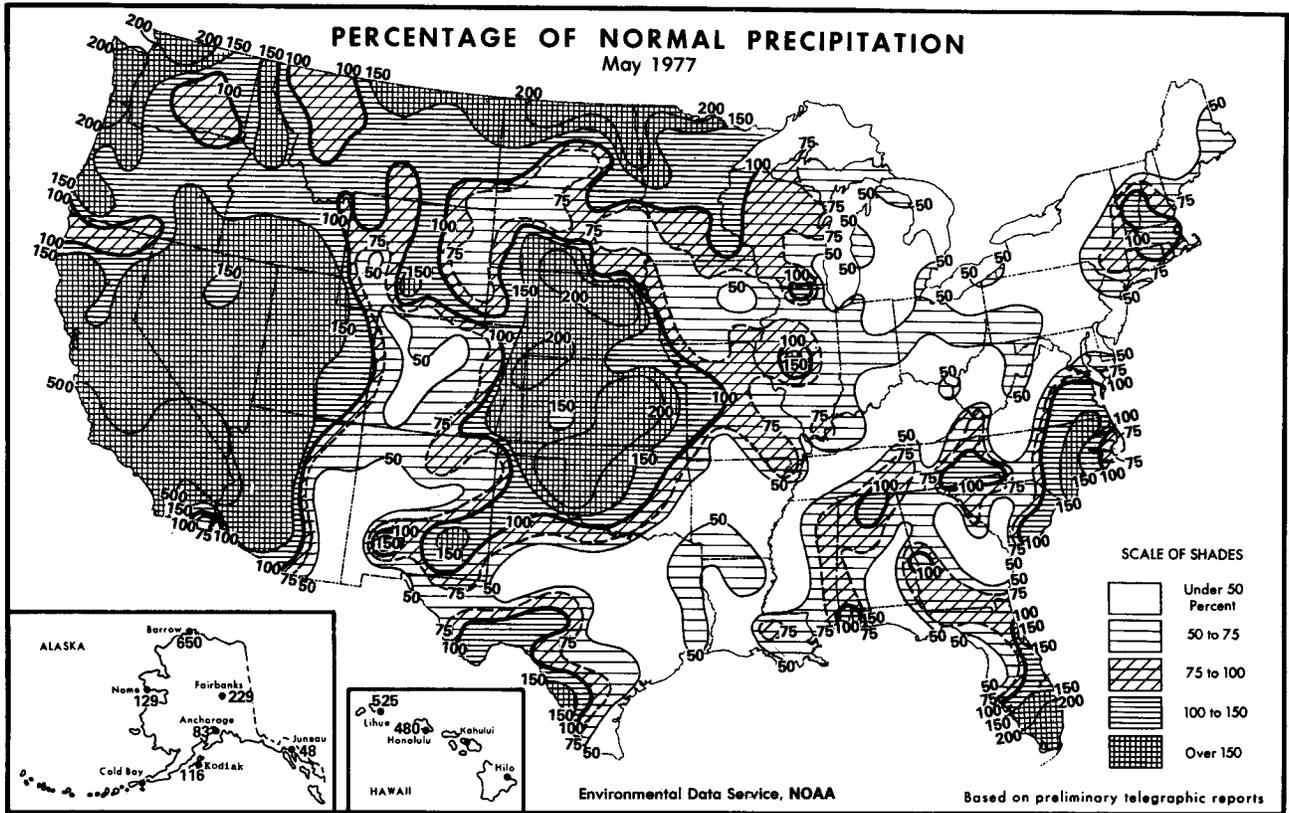
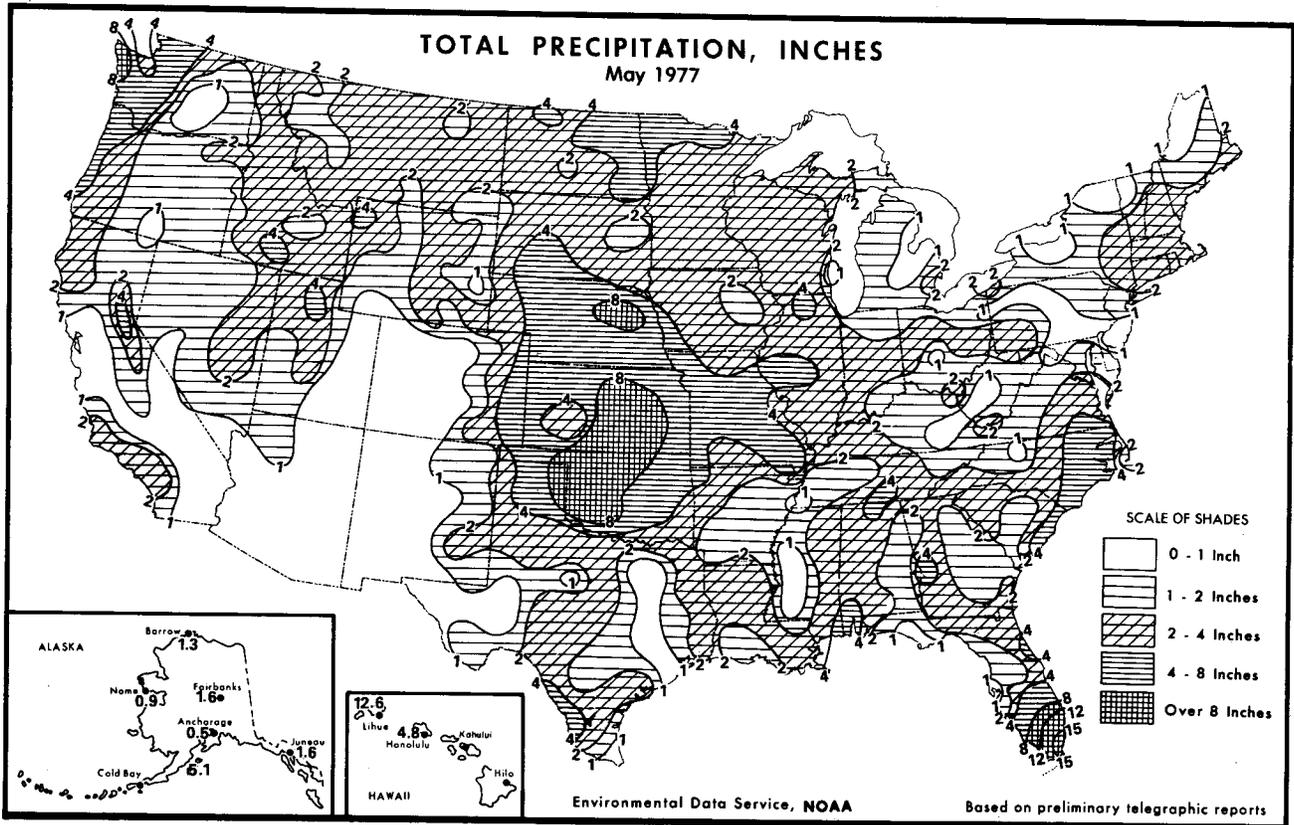
The second full week in May showed little or no precipitation from Missouri eastward to the Atlantic Coast and southward to the Gulf. Once again, the western U.S. received some rain, giving slight relief to the dryness. A spring snow dumped a blanket over parts of the Northeast while Corn Belt farmers enjoyed clear weather and planted with no interruptions.

Mid-May rains boosted winter wheat condition and growth in the Great Plains. A semi-stationary front in the Southeast held back storms which moved from the Rockies. Soil moisture was adequate only in the Plains. The Great Lakes boiled over as temperatures shot up 21° above the norm.

More rain in the Plains States hampered some winter wheat harvest and row crop planting during the last week of May. Temperatures followed a familiar pattern as most of the U.S. east of the Rocky Mountains soared above expected readings.

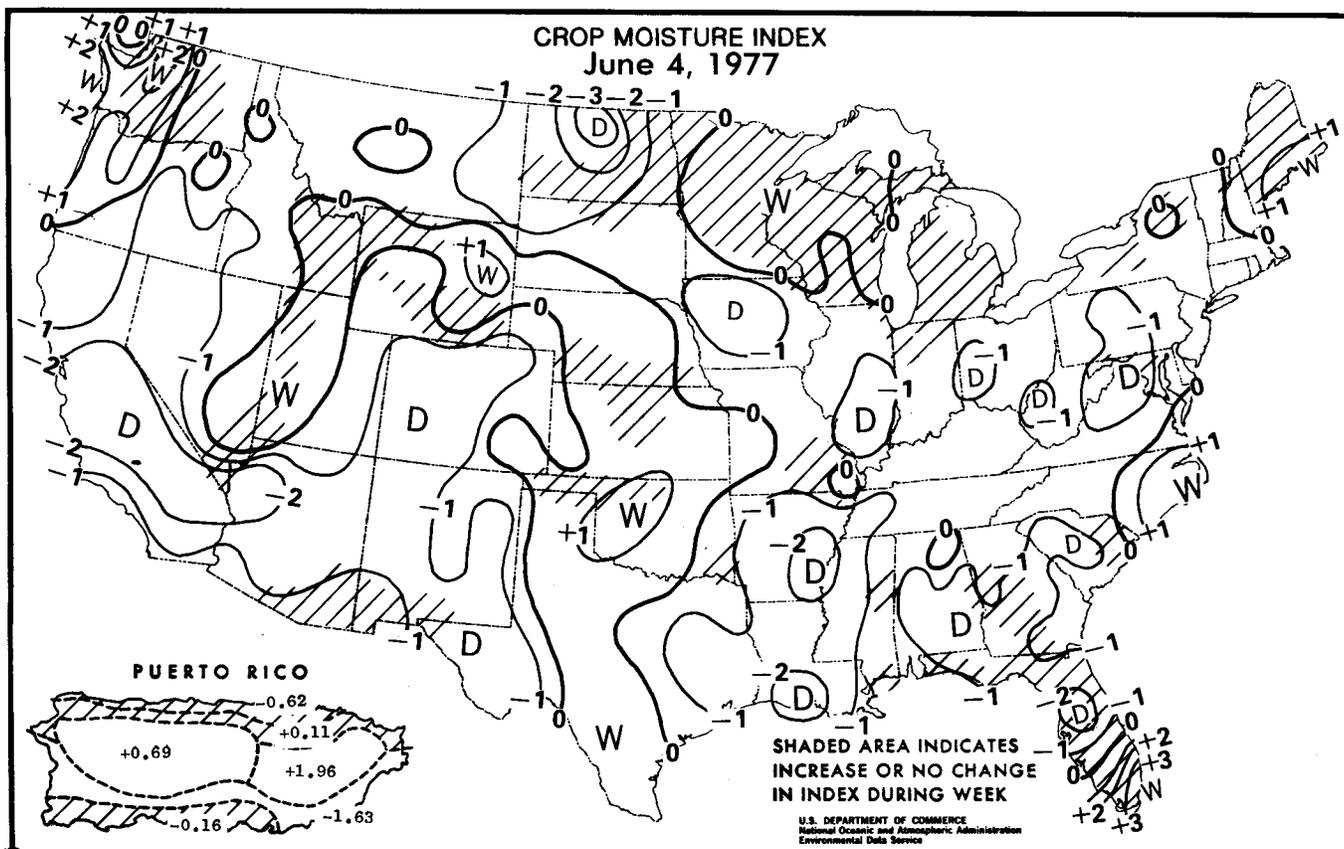
May was a month of unstable weather for the major crop-producing areas of the Nation's mid-section. Thunderstorms, hail, and tornadoes left their mark, but planting continued at a healthy pace. California's drought condition improved a bit as rangelands and crops received some moisture. Winter struck a belated blow in the Northeast.

Dry days during mid-month plagued the Southeast, but some locally heavy precipitation fell late in May.



Temperature and Precipitation Data for May 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 . . .	72	+ 1	3.5	- .1	La. Baton Rouge . . .	76	+ 1	4.0	- .4	Youngstown . . .	63	+ 5	.8	-3.1
Mobile . . .	76	+ 1	5.3	+ .8	Lake Charles . . .	76	+ 1	1.5	-3.6	OKLA. Okla. City . . .	70	+ 2	8.0	+2.8
Montgomery . . .	75	+ 3	1.6	-1.9	New Orleans . . .	76	+ 1	2.6	-1.6	Tulsa . . .	73	+ 4	5.7	+ .6
ALASKA Anchorage . . .	47	+ 1	.5	- .1	Shreveport . . .	74	+ 1	2.4	-2.6	OREG. Astoria . . .	50	+ 2	6.0	+3.3
Barrow . . .	23	+ 4	1.3	+1.1	MAINE. Caribou . . .	53	+ 3	.7	-2.3	Burns . . .	47	+ 5	1.7	+ .7
Fairbanks . . .	49	+ 2	1.6	+ .9	Portland . . .	54	+ 1	2.0	-1.3	Medford . . .	53	+ 4	2.4	+1.0
Juneau . . .	48	+ 1	1.6	-1.7	MD. Baltimore . . .	67	+ 3	1.5	-2.1	Pendleton . . .	55	+ 4	1.9	+ .7
Kodiak . . .	42	- 1	5.1	+ .7	MASS. Boston . . .	63	+ 4	3.5	- .0	Portland . . .	54	+ 3	4.3	+2.2
Nome . . .	33	- 2	.9	+ .2	Chatham . . .	55	+ 2	2.4	- .8	Salem . . .	52	+ 4	3.8	+1.7
ARIZ. Flagstaff . . .	47	- 3	1.0	+ .4	MICH. Alpena . . .	57	+ 6	1.9	- .8	PA. Allentown . . .	64	+ 4	1.8	-2.0
Phoenix . . .	76	- 0	.2	+ .1	Detroit . . .	64	+ 6	2.4	- .9	Erie . . .	58	+ 3	2.5	-1.1
Tucson . . .	71	- 3	.1	+ .1	Flint . . .	63	+ 7	1.0	-2.1	Harrisburg . . .	65	+ 2	1.0	-2.8
Winslow . . .	59	- 4	T	- .3	Grand Rapids . . .	66	+ 9	1.3	-1.9	Philadelphia . . .	66	+ 3	.8	-2.6
Yuma . . .	73	- 6	T	0	Houghton Lake . . .	60	+ 7	1.3	-1.5	Pittsburgh . . .	63	+ 3	2.6	-1.0
ARK. Fort Smith . . .	73	+ 3	2.2	-3.3	Lansing . . .	62	+ 5	.6	-2.7	Scranton . . .	60	+ 1	1.7	-2.1
Little Rock . . .	74	+ 4	1.7	-3.6	Marquette . . .	58	+ 8	2.0	- .9	R.I. Providence . . .	61	+ 4	3.4	+ .1
CALIF. Bakersfield . . .	67	- 3	.6	+ .4	Muskegon . . .	63	+ 8	1.5	-1.2	S.C. Charleston . . .	73	+ 1	4.7	+ .9
Eureka . . .	52	- 1	2.1	0	S. Ste. Marie . . .	55	+ 6	1.8	-1.2	Columbia . . .	73	+ 1	.9	-2.5
Fresno . . .	64	- 3	1.2	+ .9	MINN. Duluth . . .	57	+ 8	3.5	+ .1	Greenville . . .	72	+ 3	2.7	- .3
Los Angeles . . .	62	- 3	3.0	+2.9	Internatl Falls . . .	61	+11	5.8	+3.0	S.D. Aberdeen . . .	65	+ 9	2.8	+ .2
Red Bluff . . .	62	- 5	3.3	+2.3	Minneapolis . . .	67	+10	2.9	- .5	Huron . . .	65	+ 8	1.8	-1.0
San Diego . . .	62	- 1	1.8	+1.6	Rochester . . .	65	+ 9	3.7	+ .2	Rapid City . . .	60	+ 5	2.5	-1.3
San Francisco . . .	56	- 2	.4	0	St. Cloud . . .	64	+ 9	3.6	0	Sioux Falls . . .	67	+ 9	3.2	- .2
Stockton . . .	63	- 2	.8	+ .4	MISS. Jackson . . .	76	+ 3	.7	-3.7	TENN. Chattanooga . . .	71	+ 2	2.6	- .8
COLO. Denver . . .	61	+ 4	.3	-2.3	Meridian . . .	73	+ 1	3.4	- .4	Knoxville . . .	70	+ 2	1.2	-2.1
Grand Junction . . .	64	+ 2	.6	0	MO. Columbia . . .	68	+ 4	4.3	- .4	Memphis . . .	76	+ 5	.8	-3.6
Pueblo . . .	65	+ 4	.6	-1.1	Kansas City . . .	69	+ 4	5.4	+1.1	Nashville . . .	72	+ 3	1.7	-2.4
CONN. Bridgeport . . .	60	+ 2	2.1	-1.5	St. Louis . . .	71	+ 5	2.1	-1.8	TEX. Abilene . . .	73	+ 1	.4	-3.5
Hartford . . .	64	+ 6	3.7	+ .2	Springfield . . .	69	+ 4	2.3	-2.6	Amarillo . . .	67	+ 1	4.0	+1.2
D.C. Washington . . .	69	+ 3	1.7	-2.0	MONT. Billings . . .	57	+ 2	1.4	- .7	Austin . . .	75	0	1.2	-2.8
FLA. Apalachicola . . .	73	- 2	.7	-2.1	Glasgow . . .	58	+ 4	1.8	+ .5	Beaumont . . .	77	+ 2	3.4	-1.5
Daytona Beach . . .	75	0	4.6	+1.9	Great Falls . . .	51	- 2	2.1	- .3	Brownsville . . .	80	+ 1	.8	-1.7
Ft. Myers . . .	76	- 2	6.5	+2.5	Havre . . .	57	+ 2	3.3	+1.8	Corpus Christi . . .	79	+ 1	1.3	-1.9
Jacksonville . . .	73	- 1	3.1	- .1	Helena . . .	50	- 1	1.4	0	Dallas . . .	---	---	---	---
Key West . . .	79	- 2	10.1	+7.6	Kalispell . . .	50	- 1	1.4	- .4	Del Rio . . .	76	- 2	2.3	- .1
Lakeland . . .	77	0	2.7	- .7	Miles City . . .	61	+ 5	2.5	+ .4	El Paso . . .	71	- 1	1.1	- .2
Miami . . .	75	- 3	15.8	+9.7	Missoula . . .	50	- 2	2.1	+ .4	Fort Worth . . .	77	+ 4	1.0	-3.5
Orlando . . .	75	- 1	1.5	-1.4	NEBR. Grand Island . . .	67	+ 6	6.9	+3.1	Galveston . . .	76	0	.7	-2.5
Tallahassee . . .	73	- 2	3.4	- .6	Lincoln . . .	68	+ 6	5.2	+1.7	Houston . . .	75	- 1	.8	-4.3
Tampa . . .	77	0	.7	-1.7	Norfolk . . .	68	+ 8	8.6	+4.9	Lubbock . . .	72	+ 3	2.5	- .7
W. Palm Beach . . .	77	- 1	14.8	+9.6	N. Platte . . .	63	+ 5	5.9	+2.6	Midland . . .	76	+ 4	.6	-1.6
GA. Atlanta . . .	70	+ 1	2.0	-1.7	Omaha . . .	70	+ 9	6.1	+2.1	San Angelo . . .	76	+ 1	2.1	- .6
Augusta . . .	72	0	2.5	- .9	Valentine . . .	---	---	---	---	San Antonio . . .	75	- 1	1.6	-1.5
Macon . . .	74	0	1.6	-2.0	NEV. Ely . . .	45	- 5	3.3	+2.4	Victoria . . .	77	0	2.3	-1.7
Savannah . . .	74	+ 1	1.0	-3.2	Las Vegas . . .	68	- 5	.7	+ .6	Waco . . .	77	+ 2	1.7	-2.9
HAWAII. Hilo . . .	75	+ 1	10.9	+ .8	Reno . . .	49	- 6	1.2	+ .5	Wichita Falls . . .	73	+ 1	3.8	- .8
Honolulu . . .	78	+ 1	4.8	+3.8	Winnemucca . . .	50	- 4	1.6	+ .7	UTAH. Blanding . . .	55	- 2	.7	+ .1
Kahului . . .	---	---	---	---	N.H. Concord . . .	58	+ 3	2.4	- .6	Salt Lake City . . .	55	- 3	4.8	+3.3
Lihue . . .	75	- 1	12.6	+10.2	N.J. Atlantic City . . .	62	0	.6	-2.9	VT. Burlington . . .	60	+ 5	.3	-2.7
IDAHO. Boise . . .	54	- 3	1.8	+ .5	Trenton . . .	65	+ 3	1.1	-1.3	VA. Lynchburg . . .	67	+ 2	1.5	-1.7
Lewiston . . .	57	- 1	1.6	0	N.MEX. Albuquerque . . .	64	- 1	.1	- .4	Norfolk . . .	68	+ 1	3.9	+ .6
Pocatello . . .	52	- 2	2.1	+ .8	Roswell . . .	73	+ 4	2.4	+1.4	Richmond . . .	68	+ 1	4.0	+ .6
ILL. Cairo . . .	75	+ 6	2.4	-2.8	N.Y. Albany . . .	60	+ 2	2.3	-1.0	Roanoke . . .	68	+ 4	1.5	-2.0
Chicago . . .	69	+ 9	1.4	-2.0	Binghamton . . .	59	+ 4	1.7	-2.1	WASH. Colville . . .	51	- 4	1.7	+ .1
Moline . . .	69	+ 8	2.7	-1.2	Buffalo . . .	60	+ 5	1.4	-1.6	Omak . . .	54	- 3	2.8	+1.7
Peoria . . .	69	+ 7	3.5	- .4	New York . . .	64	+ 2	1.8	-1.6	Quillayute . . .	49	- 2	8.9	+4.2
Rockford . . .	68	+ 9	5.5	+1.6	Rochester . . .	61	+ 4	.4	-2.4	Seattle-Tacoma . . .	55	0	3.7	+2.0
Springfield . . .	71	+ 8	5.8	+2.3	Syracuse . . .	60	+ 3	.8	-2.2	Spokane . . .	52	- 3	1.7	+ .2
IND. Evansville . . .	72	+ 6	2.7	-1.7	N.C. Asheville . . .	65	+ 1	4.0	+ .7	Walla Walla . . .	57	- 3	1.3	- .3
Ft. Wayne . . .	68	+ 8	1.0	-2.9	Charlotte . . .	70	+ 1	3.2	+ .3	Yakima . . .	53	- 5	.7	+ .1
Indianapolis . . .	71	+ 9	2.8	-1.3	Greensboro . . .	69	+ 2	.7	-2.3	W. Va. Beckley . . .	63	+ 4	1.0	-2.8
South Bend . . .	69	+11	1.9	-1.3	Hatteras . . .	70	+ 3	1.8	-1.5	Charleston . . .	67	+ 2	.8	-2.7
IOWA. Burlington . . .	68	+ 6	2.9	- .7	Raleigh . . .	68	+ 1	3.9	+ .6	Huntington . . .	68	+ 3	2.3	-1.5
Des Moines . . .	69	+ 8	2.3	-1.8	Wilmington . . .	71	0	6.8	+2.8	Parkersburg . . .	68	+ 4	1.4	-2.2
Dubuque . . .	65	+ 7	3.3	-1.4	N.DAK. Bismarck . . .	62	+ 8	1.1	-1.1	WIS. Green Bay . . .	63	+ 8	2.5	- .6
Sioux City . . .	67	+ 6	3.1	- .4	Fargo . . .	67	+12	7.3	+5.0	La Crosse . . .	67	+ 8	3.0	- .7
KANS. Concordia . . .	68	+ 5	6.0	+1.8	Williston . . .	62	+ 8	2.9	+1.3	Madison . . .	65	+ 9	2.5	- .9
Dodge City . . .	69	+ 5	3.6	+ .5	OHIO. Akron-Canton . . .	66	+ 7	1.1	-2.8	Milwaukee . . .	61	+ 7	.9	-2.0
Goodland . . .	62	+ 3	6.1	+3.6	Cincinnati . . .	68	+ 5	1.5	-2.2	WYO. Casper . . .	55	+ 2	1.9	0
Topeka . . .	70	+ 5	7.8	+3.8	Cleveland . . .	62	+ 4	1.0	-2.5	Cheyenne . . .	53	+ 1	2.5	0
Wichita . . .	69	+ 3	8.9	+5.3	Columbus . . .	67	+ 6	1.0	-3.1	Lander . . .	53	0	1.1	-1.5
KY. Lexington . . .	70	+ 5	1.5	-2.7	Dayton . . .	69	+ 7	2.0	-1.8	Sheridan . . .	55	+ 2	3.0	+ .5
Louisville . . .	72	+ 7	1.4	-2.8	Toledo . . .	64	+ 5	1.5	-1.8	P.R. San Juan . . .	81	+ 2	4.1	-2.4



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



**Planting Progress**

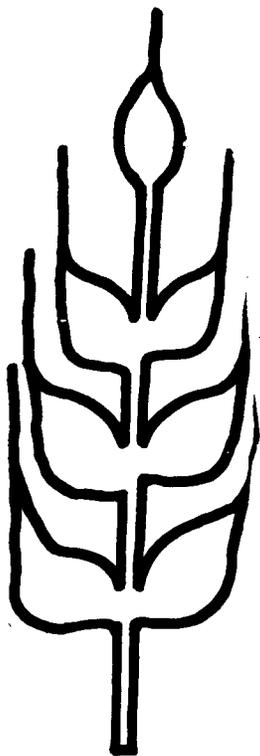
Percent of acreage planted as of June 5

**SOYBEANS**

	1977	1976	Avg.
Ala.	64	58	70
Ark.	71	67	NA
Ga.	58	57	58
Ill.	96	94	68
Ind.	90	90	60
Iowa	100	95	NA
Kans.	40	40	40
Ky.	68	39	47
La.	74	75	61
Mich.	90	60	50
Minn.	100	100	NA
Miss.	66	69	52
Mo.	88	75	57
Nebr.	85	90	75
N. C.	78	64	NA
Ohio	95	95	75
S. C.	62	58	62
Tenn.	75	60	57
U. S.	84	80	61

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

NA--Not Available



**SORGHUM**

	1977	1976	Avg.
Colo.	61	80	58
Kans.	45	40	45
Mo.	88	72	60
Nebr.	85	90	80
Okla.	55	63	55
S. D.	77	65	59
Tex.	88	87	86
7-States	72	71	68

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