

# WEEKLY WEATHER AND CROP BULLETIN

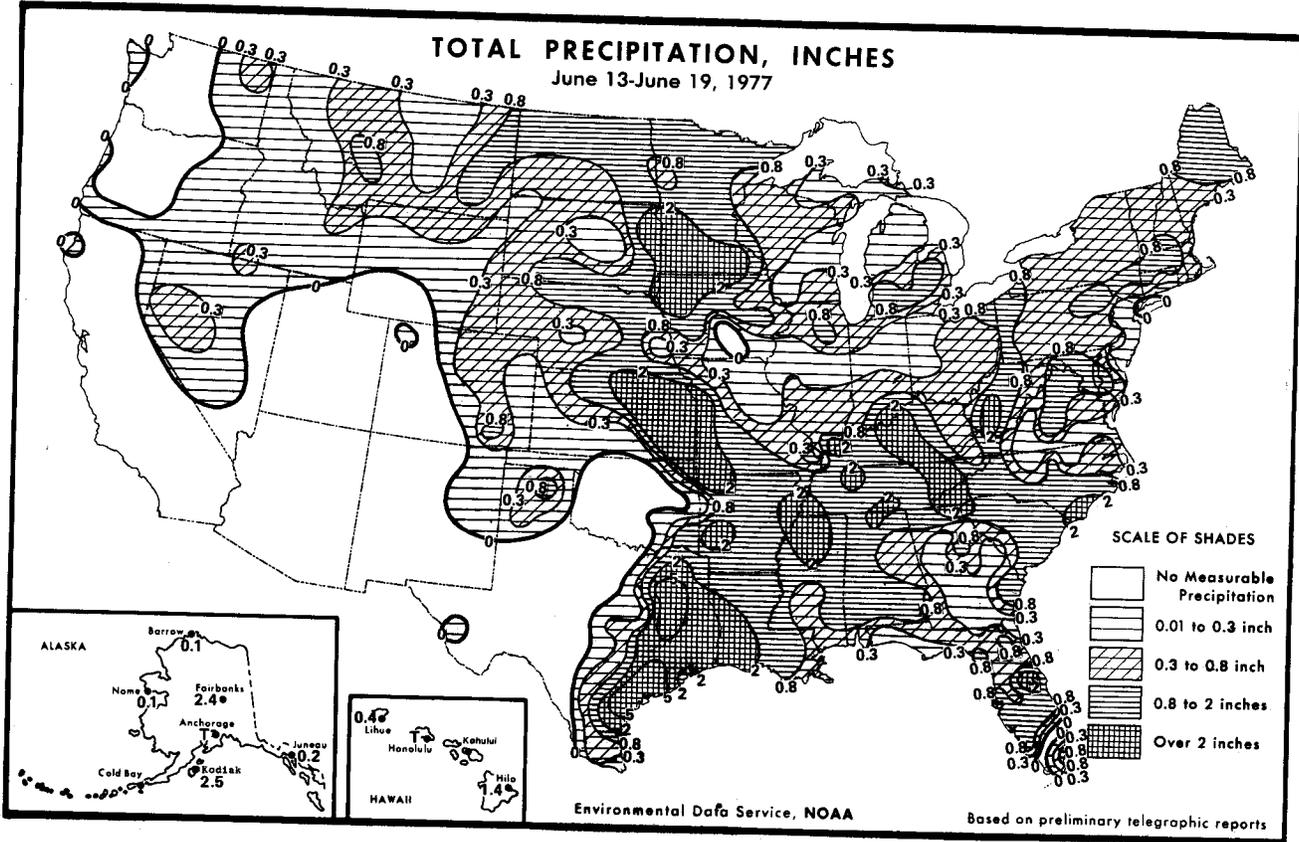
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## National Weather Summary

June 13-19

**HIGHLIGHTS:** There was little or no precipitation from the Rockies westward and as far south as southern Texas. Rain was light to locally heavy from the Great Plains eastward to the Atlantic Coast. Portions of eastern Texas and eastern Kansas received more than five inches.

Temperatures were average or above in much of the Nation except most of Arkansas, eastern Texas, Louisiana, the extreme northern Plains and upper New England.

Thunderstorms developed before Monday's sunrise dumping heavy rain and hail from northeastern Colorado to western Iowa; storms also rumbled over northern North Dakota and from eastern Texas through portions of the lower and middle Mississippi Valley.

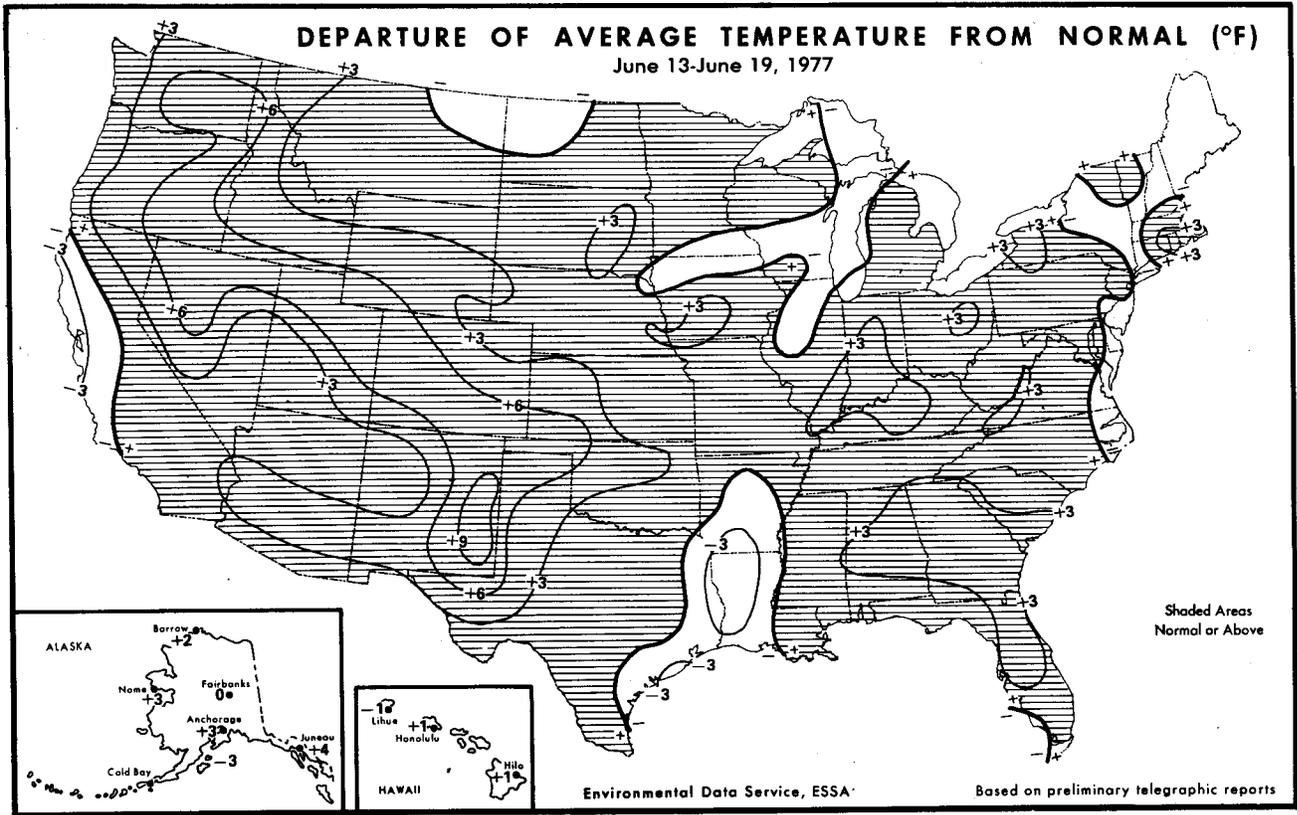
Afternoon tornadoes ripped Colorado, Florida, and South Carolina. Early evening thunderstorms stalked the west central Great Plains and moved to the Texas Panhandle where hail peppered several

areas. Other locales of intense weather included the Ohio Valley and the Southeast. Isolated showers dotted the northern half of the West Coast eastward to Montana and Utah.

Tuesday launched locally heavy rains in Texas, Louisiana, Florida, and western North Dakota. By afternoon, hail and tornadoes battered parts of South Carolina, Nebraska, and North Dakota. Twisters also touched down in South Dakota and Florida.

Showers and thunderstorms moved from Texas through the lower Mississippi Valley as far east as South Carolina. Showers were also scattered from southern Pennsylvania southward to North Carolina and from eastern New York to northern New England. Rain drenched the west central Great Plains. Tampa, Fla., notched a record high temperature for the third consecutive day.

Torrential rains inundated eastern Texas on Wednesday; hardest hit was Victoria which sloshed through 9.30 inches. A band of thunderstorms



marched from Texas across the lower Mississippi Valley to the western portions of Alabama, Tennessee, and Kentucky. Six inches of hail jolted an area near Cut Bank, Mont.

Later in the day, heavy thunderstorms soaked the lower Ohio and middle Mississippi Valleys as well as the Atlantic and Gulf Coasts and across Florida. Paducah, Ky., reeled under 5.35 inches. Evening thunderstorms, some severe and containing hail, crashed over the Dakotas and Minnesota.

Thursday rainfall was heavy before dawn in the upper Mississippi Valley and the northeastern Great Plains. Nearly four inches fell, appropriately enough, in Watertown, S. Dak. By early afternoon, this rain had reached as far south as Missouri and eastward to Michigan. Showers developed over the Rockies while increasingly intense weather moved into the western Plains. Tornadoes whirled through Illinois and Alabama. High winds and hail pummeled Wyoming and Nebraska. Thundershowers brought a wet evening to western Iowa, lower Michigan, and the Texas Panhandle.

Chipping in with record-breaking high temperatures for the day were El Paso, 105°, and Roswell, N. Mex., 107°.

Weather was unstable and sometimes intense from the Great Plains to the Atlantic Coast except the lower Ohio Valley on Friday. Howling winds, heavy

rain, and crop-damaging hail tore through Kansas and Nebraska. Hail peppered parts of Colorado, Illinois, Indiana, and Pennsylvania. Toward late afternoon and evening, heavy thunderstorms raked the Mississippi Valley and the lower half of the Atlantic Coast States. Tornadoes were sighted in Nebraska, Minnesota, and Wisconsin.

Pre-dawn Saturday thunderstorms continued in Kansas and Nebraska; in Kansas, Manhattan reported more than six inches of rain and Fredonia was shelled by hail. Thunderstorms occurred over much of the area east of the Mississippi Valley. By nightfall, thunderstorms gained strength over parts of the lower half of the Plains. Showers dotted the Gulf Coast States eastward to Georgia and the Carolinas, the middle Atlantic Coast region, and the central Appalachians. Twisters spun through Wyoming, Kansas, Missouri, and New York.

Continuous showers and thunderstorms triggered flooding in the lower Missouri Valley on Sunday. Thunderstorms redeveloped late at night enhancing the possibilities of more overflow.

Occasional showers and thunderstorms also fell through western Kentucky and the eastern portions of Oklahoma and Kansas; over the northern Plains; northern New England, southern Florida, the upper Great Lakes; and from Utah and Nevada eastward to the northern Rockies.

## National Agricultural Summary

June 13 - 19

**HIGHLIGHTS:** Rains brought improved soybean planting conditions to the south central States, but lodged winter wheat in the upper Great Plains. Locally heavy rain and hail damaged fields from Texas to Minnesota. Corn developed rapidly, particularly in the north central States. Cotton squared throughout the South and began setting bolls in the southern Atlantic States. Farmers have planted 92% of the soybean crop, slightly behind last year but ahead of average. Sorghum planting reached 94% complete, ahead of both 1976 and the average. Winter wheat harvest advanced to 26% complete, double the 1976 rate and well ahead of the 19% average. Soil moisture rated short in the western States, adequate in most of the Great Plains, short to adequate and improving in the east central States, and mostly short along the Atlantic Coast except North Carolina. Pastures rated poor to fair through much of the Nation and good to excellent in the Great Plains. Fruit growers picked peaches and sweet cherries.

**SMALL GRAINS:** Winter wheat producers combined 26% of the 1977 crop, double the pace attained last year and well ahead of the 19% average. Rains slowed combining in parts of the Great Plains. In Oklahoma, combining reached 72% compared with 38% in 1976 and the 55% average. Texas growers harvested 57% of the wheat crop; hail damaged a few fields on the northern Plains. Kansas wheat producers combined 15% of the crop. At this time last year none was harvested and normally only 5% was harvested. Rains lodged some wheat and may delay harvesting. Nebraska farmers harvested some fields in the Southeast. Harvesting was almost complete in the southern States and starting in the north central States.

The oats crop headed on short straw in the north central States; the crop ranged from 33% headed in North Dakota to 89% in South Dakota.

**CORN:** The corn crop grew fast and developed earlier than normal. Dry soils stressed the crop in isolated parts of the country including Missouri and Georgia, but generally corn rated good. Corn in the eastern north central States attained a height of 15 to 36 inches. Last year, the crop height ranged from 9 to 22 inches and normally 9 to 18 inches.

In the western north central States, the Minnesota crop grew exceptionally fast with some of the earliest fields almost ready to tassel. Some of the Missouri corn crop curled, showing the effect of dry soil. The crop reached a height of 17 to 32 inches.

The southern corn crop ranged from 10 to 66% silked. Soil moisture improved, but many areas have dry soils and locally the corn needs more moisture.

**COTTON:** Farmers almost finished planting the 1977 cotton crop. Only a small acreage remains to be planted in Texas and Oklahoma. Squaring was widespread and some fields began blooming in the Delta and setting bolls in the southern Atlantic States. Hail damaged some cotton in the Texas Panhandle; many of the fields will be replanted. Cotton squared on the southern Low Plains. Insect damage was light, however, populations increased in southern Texas. Oklahoma cotton rated fair to good; some early irrigated stands squared.

Arkansas rains stimulated plant growth; some plants began blooming. The Georgia crop rated fair to good with 62% of the acreage showing squares and 28% setting bolls, almost twice the 1976 figures. In the Delta States, squaring ranged from 27 to 65%. The Arizona crop squared and set bolls.

**SOYBEANS:** Rains improved planting conditions in most of the southern States. Producers reached 80% complete in the south central States lagging the 1976 figure by 5 points but ahead of the average by 4 points. Planting was 80 to 88% complete in the southern Atlantic Coast States. Elsewhere planting was virtually complete with the exception of double crop soybeans. The crop rated fair to good; rains helped growth in the southern States. Excess rains yellowed some of the Minnesota crop. Missouri farmers planted double crop soybeans.

**OTHER CROPS:** Sorghum growers in the seven major States planted 94% of the 1977 crop surpassing both 1976's 92% and the 86% average. Most of the planting remaining to be done was in Kansas. Hail damaged some Texas fields on the northern Plains. Sorghum formed heads on the southern Low Plains. The rice crop was in good condition. Rains lowered water pumping requirements in Arkansas. About 15% of the Louisiana crop headed along with some early Texas rice.

The potato crop grew rapidly in Maine. In Idaho, 35% of the potato crop was 6 inches tall and 15% grew to 12 inches.

Georgia peanuts were in fair to good condition; 67% of the crop bloomed and 40% pegged. Pegging was ahead of 1976's 17%. Pegging reached 13% in Alabama; rains improved planting conditions in Texas.

**FRUITS AND NUTS:** Peach picking advanced in southern areas, but most of the fruit was small. Georgia growers picked a little over half the peach crop and North Carolina growers reached 20%. Producers thinned peaches in northern areas. Growers picked sweet cherries in Michigan and the Pacific Coast States.

Florida citrus growers curtailed irrigating groves after rains improved soil moisture. Texas citrus growers diverted the last fruit to processors and began irrigating and spraying groves.

**VEGETABLES:** Harvests of tomatoes and sweet corn extended northward into New Jersey. Florida vegetable shipments dropped 25%; supplies of sweet corn, eggplant, and celery held steady, but most other vegetable supplies declined. Texas growers harvested melons and a wide variety of vegetables. Rains flooded some fields in the eastern part of Texas, but some northern Texas fields needed moisture. California growers harvested heavy volumes of broccoli, cauliflower and lettuce.

**PASTURES AND LIVESTOCK:** Pastures rated poor to fair in most of the U. S. with the exception of the Great Plains where grasslands rated good to excellent. Recent rains improved the south central States pastures, however, not enough to keep farmers from culling herds to conserve feed. Producers in several western States hauled stock water to cattle.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., June 19, 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 . . .	81	+ 3	.6	-.3	La.Baton Rouge . . .	82	+ 1	1.1	+ .3	Youngstown . . .	69	+ 2	1.7	+ .9
Mobile . . .	83	+ 2	.6	-.8	Lake Charles . . .	78	+ 3	4.5	+3.4	OKLA.Okla. City . . .	80	+ 3	T	-1.0
Montgomery . . .	84	+ 5	1.3	+ .4	New Orleans . . .	83	+ 2	.5	-.6	Tulsa . . .	82	+ 4	T	-1.1
ALASKA.Anchorage . . .	58	+ 3	T	-.2	Shreveport . . .	78	+ 3	1.5	+ .7	OREG.Astoria . . .	58	+ 1	T	-.6
Barrow . . .	35	+ 2	.1	0	MAINE.Caribou . . .	58	+ 2	2.0	+1.2	Burns . . .	65	+ 6	.3	+ .1
Fairbanks . . .	60	0	2.4	+2.0	Portland . . .	71	+ 2	.7	-.5	Medford . . .	69	+ 5	.1	+ .1
Juneau . . .	57	+ 4	.2	-.4	MD.Baltimore . . .	75	+ 2	.7	-.2	Pendleton . . .	71	+ 5	0	-.2
Kodiak . . .	47	+ 3	2.5	+1.5	MASS.Boston . . .	70	+ 2	.2	-.6	Portland . . .	65	+ 3	0	-.4
Nome . . .	49	+ 3	.1	-.1	Chatham . . .	62	---	.1	---	Salem . . .	62	+ 1	0	-.3
ARIZ.Flagstaff . . .	60	+ 2	0	-.1	MICH.Alpena . . .	64	+ 3	T	-.7	PA.Allentown . . .	73	+ 3	.1	-.7
Phoenix . . .	89	+ 4	0	0	Detroit . . .	70	+ 1	.3	-.5	Erie . . .	66	+ 1	1.2	+ .4
Tucson . . .	85	+ 3	0	0	Flint . . .	67	+ 1	1.3	+ .5	Harrisburg . . .	72	0	.5	-.2
Winslow . . .	73	+ 1	0	-.1	Grand Rapids . . .	68	0	.9	+ .1	Philadelphia . . .	72	- 1	.3	-.5
Yuma . . .	88	+ 2	0	0	Houghton Lake . . .	65	+ 2	T	-.8	Pittsburgh . . .	69	0	.7	-.1
ARK.Fort Smith . . .	80	+ 2	T	-.9	Lansing . . .	68	0	.5	-.3	Scranton . . .	68	0	.9	+ .1
Little Rock . . .	77	+ 2	.9	+ .1	Marquette . . .	60	0	.1	-.7	R.I. Providence . . .	70	+ 3	.3	-.3
CALIF.Bakersfield . . .	78	+ 1	0	0	Muskegon . . .	65	- 1	.1	-.5	S.C. Charleston . . .	82	+ 4	.8	-.7
Eureka . . .	52	- 3	T	-.1	S. St. Marie . . .	57	- 2	.5	-.3	Columbia . . .	79	0	1.8	+ .9
Fresno . . .	74	0	T	0	MINN.Duluth . . .	59	0	.7	-.4	Greenville . . .	79	+ 3	1.6	+ .6
Los Angeles . . .	68	0	0	0	Internatl Falls . . .	63	+ 2	1.1	+ .2	S.D. Aberdeen . . .	68	+ 2	.6	-.3
Red Bluff . . .	76	0	T	-.1	Minneapolis . . .	68	+ 1	1.3	+ .4	Huron . . .	70	+ 3	T	-.9
San Diego . . .	66	+ 1	0	0	Rochester . . .	66	0	2.0	+ .9	Rapid City . . .	66	+ 2	.6	-.3
San Francisco . . .	58	- 4	T	0	St. Cloud . . .	66	+ 1	1.8	+ .7	Sioux Falls . . .	70	+ 2	1.1	0
Stockton . . .	70	- 2	0	0	MISS.Jackson . . .	80	0	.7	-.1	TENN.Chattanooga . . .	79	+ 3	1.1	+ .3
COLO.Denver . . .	71	+ 5	.4	0	Meridian . . .	83	+ 3	1.0	+ .2	Knoxville . . .	77	+ 1	2.3	+1.5
Grand Junction . . .	78	+ 7	0	-.1	MO.Columbia . . .	74	+ 1	.1	-1.0	Memphis . . .	80	+ 1	2.3	+1.5
Pueblo . . .	77	+ 6	.1	-.2	Kansas City . . .	75	+ 1	2.4	+1.1	Nashville . . .	78	+ 1	1.0	+ .2
CONN.Bridgeport . . .	67	- 1	T	-.6	St. Louis . . .	76	+ 1	.7	-.4	TEX.Abilene . . .	83	+ 2	0	-.6
Hartford . . .	71	+ 3	.7	-.1	Springfield . . .	76	+ 2	1.3	+ .2	Amarillo . . .	81	+ 6	.4	-.4
D.C.Washington . . .	76	+ 1	1.2	+ .4	MONT.Billings . . .	64	+ 1	.2	-.4	Austin . . .	82	0	.4	-.3
FLA.Apalachicola . . .	81	+ 1	T	-1.3	Glasgow . . .	61	- 1	.2	-.5	Beaumont . . .	82	+ 1	3.2	+2.1
Daytona Beach . . .	83	+ 3	.6	-1.0	Great Falls . . .	61	0	.4	-.4	Brownsville . . .	84	+ 1	.2	-.5
Ft. Myers . . .	81	0	1.3	-.9	Havre . . .	64	+ 2	.3	-.3	Corpus Christi . . .	83	0	2.2	+1.6
Jacksonville . . .	82	+ 3	.3	-1.2	Helena . . .	60	+ 1	.9	+ .3	Dallas . . .	---	---	---	---
Key West . . .	84	0	T	-1.1	Kalispell . . .	62	+ 5	.3	-.3	Del Rio . . .	85	0	T	-.5
Lakeland . . .	85	+ 4	.6	-1.0	Miles City . . .	67	+ 2	.9	+ .1	El Paso . . .	84	+ 3	0	-.1
Miami . . .	82	+ 1	1.1	-1.1	Missoula . . .	62	+ 3	T	-.5	Fort Worth . . .	83	+ 2	T	-.7
Orlando . . .	84	+ 4	3.5	+1.8	NEBR.Grand Island . . .	72	+ 1	.8	-.3	Galveston . . .	79	- 3	1.0	+ .0
Tallahassee . . .	82	+ 2	.6	-1.0	Lincoln . . .	75	+ 3	.1	-1.1	Houston . . .	81	0	3.1	+2.0
Tampa . . .	84	+ 3	1.2	-.4	Norfolk . . .	72	+ 2	1.9	+ .7	Lubbock . . .	83	+ 5	T	-.6
W.Palm Beach . . .	82	+ 1	T	-2.0	N.Platte . . .	70	+ 2	.3	-.6	Midland . . .	86	+ 6	0	-.3
GA.Atlanta . . .	79	+ 3	.1	-.7	Omaha . . .	72	+ 1	.3	-.9	San Angelo . . .	84	+ 2	0	-.4
Augusta . . .	81	+ 3	.3	-.5	Valentine . . .	69	+ 2	1.9	+1.0	San Antonio . . .	83	0	.3	-.4
Macon . . .	84	+ 4	.1	-.8	NEV.Ely . . .	59	+ 1	T	-.2	Victoria . . .	81	- 1	9.3	+8.5
Savannah . . .	83	+ 4	1.1	-.3	Las Vegas . . .	84	+ 2	0	0	Waco . . .	84	+ 2	.2	-.4
HAWAII.Hilo . . .	76	+ 1	1.4	-.1	Reno . . .	64	+ 3	.4	+ .3	Wichita Falls . . .	83	+ 1	0	-.8
Honolulu . . .	80	+ 1	T	-.1	Winnemucca . . .	69	+ 7	T	-.3	UTAH.Blanding . . .	69	+ 3	0	-.1
Kahului . . .	---	---	---	---	N.H.Concord . . .	65	0	.3	-.5	Salt Lake City . . .	73	+ 7	0	-.3
Lahue . . .	77	- 1	.4	0	N.J.Atlantic City . . .	69	- 2	.1	-.7	VT.Burlington . . .	73	0	1.4	+ .6
IDAHO.Boise . . .	69	+ 4	T	-.3	Trenton . . .	74	+ 2	.1	-.6	VA.Lynchburg . . .	74	- 1	.3	-.5
Lewiston . . .	73	+ 8	.1	-.4	N.MEX.Albuquerque . . .	77	+ 2	0	-.1	Norfolk . . .	75	- 0	.5	-.3
Pocatello . . .	67	+ 5	.1	-.2	Roswell . . .	86	+ 9	0	-.3	Roanoke . . .	73	+ 3	.2	-.6
ILL.Cairo . . .	81	+ 3	.1	-.9	N.Y.Albany . . .	68	0	.5	-.2	WASH.Colville . . .	66	+ 5	.6	+ .2
Chicago . . .	72	+ 1	.7	-.2	Binghamton . . .	66	+ 1	.7	-.1	Omak . . .	69	+ 5	.1	-.2
Moline . . .	71	0	.8	-.3	Buffalo . . .	70	+ 4	.5	0	Quillayute . . .	56	+ 1	T	-.8
Peoria . . .	71	- 1	T	-.9	New York . . .	73	+ 1	T	-.6	Seattle-Tacoma . . .	63	+ 3	T	-.4
Rockford . . .	68	- 1	.6	-.5	Rochester . . .	70	+ 3	.4	-.2	Spokane . . .	67	+ 6	T	-.4
Springfield . . .	73	0	.2	-.8	Syracuse . . .	66	- 1	.4	-.4	Walla Walla . . .	74	+ 7	0	-.3
IND.Evansville . . .	78	+ 3	.7	-.1	N.C.Asheville . . .	71	0	1.5	+ .6	Yakima . . .	71	+ 7	0	-.2
Ft. Wayne . . .	72	+ 2	.1	-.8	Charlotte . . .	77	+ 1	1.4	+ .5	W.Va.Beckley . . .	68	0	1.5	+ .6
Indianapolis . . .	75	+ 3	.3	-.7	Greensboro . . .	76	+ 1	T	-.9	Charleston . . .	74	+ 2	2.3	+1.5
South Bend . . .	71	+ 2	.3	-.6	Hatteras . . .	74	- 1	.1	-1.1	Huntington . . .	74	+ 1	.7	-.1
IOWA.Burlington . . .	72	0	T	-1.1	Raleigh . . .	75	0	2.8	+1.5	Parkersburg . . .	74	+ 1	.5	-.4
Des Moines . . .	75	+ 4	T	-1.2	Wilmington . . .	78	0	.4	-.5	WIS.Green Bay . . .	65	0	T	-.8
Dubuque . . .	69	+ 1	.1	-1.2	N.DAK.Bismarck . . .	64	0	.4	-.2	La Crosse . . .	68	- 1	.4	-.7
Sioux City . . .	69	- 2	2.4	+1.3	Fargo . . .	67	+ 2	.6	-.2	Madison . . .	66	0	.4	-.7
KANS.Concordia . . .	74	+ 1	3.0	+1.8	Williston . . .	62	- 1	1.0	+ .2	Milwaukee . . .	65	0	.4	-.4
Dodge City . . .	80	+ 6	.2	-.6	OHIO.Akron-Canton . . .	72	+ 3	.3	-.5	WYO.Casper . . .	66	+ 4	T	-.4
Goodland . . .	72	+ 3	.2	-.5	Cincinnati . . .	73	0	.5	-.4	Cheyenne . . .	63	+ 2	.5	-.1
Topeka . . .	75	+ 1	5.0	+3.6	Cleveland . . .	69	+ 1	1.1	+ .3	Lander . . .	65	+ 4	T	-.5
Wichita . . .	78	+ 2	.2	-.9	Columbus . . .	73	+ 2	.6	-.4	Sheridan . . .	61	0	.6	-.2
KY.Lexington . . .	77	+ 4	1.0	0	Dayton . . .	73	+ 1	.2	-.7	P.R.San Juan . . .	82	+ 1	.4	-.9
Louisville . . .	77	+ 3	3.6	+2.7	Toledo . . .	70	+ 1	T	-.8					

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:** Daily rains in north, scattered showers in south provided some relief from drought. Rainfall central and south well below normal.

Fieldwork: 5.3 days suitable. Soil moisture short. Cotton fair condition; 27% squaring, 5% 1976, 25% average. Corn poor to fair condition; 37% tasselled, 25% 1976, 23% average. Dry weather causing early maturity. Soybeans fair condition; 74% planted, 73% 1976, 80% average. Peanuts fair to good; 13% pegging, 12% 1975, 15% average. Wheat harvest 81% complete, 77% 1976. Pastures, hay poor to fair.

**ALASKA:** Tanana Valley cloudy and very wet. Temperatures near normal. Matanuska Valley precipitation below normal. Temperatures below normal. Kenai Peninsula cooler than normal. Precipitation near normal. Kodiak Island cloudy; heavier than normal precipitation. Temperatures slightly cooler than normal.

Crop growth generally moderate throughout rail-belt. Grain slightly ahead year ago. Hay harvest underway. Soil moisture mostly adequate.

**ARIZONA:** No precipitation. Temperatures normal. Weather favorable fieldwork. Irrigation, weed control, harvest on schedule. Cotton southwest

squaring, setting bolls; squaring central areas; southeast crop good growth. Sorghum planting, following small grain, continues southwest, central. Planting, emergence complete southeast. Wheat, barley harvest well advanced southwest. Harvest just starting south central, southeast. Earlier plantings safflower reaching maturity, later plantings setting seed, developing. Sugarbeet harvest completed southwest, continues central. Cantaloup harvest Yuma, satisfactory sizes, quality. Watermelon development, sizing satisfactory. Melon, early grape, plum harvest in progress. Valencia orange, grapefruit harvest about finished. Ranges, livestock conditions generally poor to fair. Short supplies forage, stock water, soil moisture. Supplemental feeding, water hauling many areas.

**ARKANSAS:** Temperatures ranged from 82 at El Dorado to 75°. Extremes: 100 and 62°. Most precipitation 3.20 in. and least 0.01 in.

Soil moisture short to adequate. Fieldwork: 4.5 days suitable. Soybeans 79% planted, 87% last year, average 72%. Precipitation promoted cotton growth. Plants squaring with some blooms. Plant bugs building up; some fields requiring treatment. Crop rated good. Rice good condition; recent rains reduced pumping of irrigation water some areas for several days. Corn fair to good. Sorghum planting 96% complete, 94% last year. Wheat harvest 94% complete, 87% 1976. Oat harvest 97% complete, 87% year ago. Pastures below average. Livestock marketing heavy due to short pastures.

**CALIFORNIA:** Precipitation intensities generally light but some moderate to heavy; mostly over Sierra Nevada, but also over northern mountains, coast and interior. Temperatures dropped to a little below normal; greatest departure along central coast. Highest temperatures about midweek.

Small grain harvest progressing. Rice, cotton good condition. Sugarbeets, cotton developing well in warm weather. Cherry harvest complete Central Valley. Nectarine, peach, plum harvest

continues. Broccoli, cauliflower, lettuce volume heavy. Desert watermelon, cantaloup, spring potatoes at peak. Honeydew beginning. Tomato increasing. Rangeland dry, showers improved local conditions. Cattle moved; lack water, streams, ponds. Cattle on beet tops continue to move summer range. Culling, supplemental feeding, water hauling continues.

**COLORADO:** Temperatures 2 to 6° above normal. No rainfall on Colorado and Rio Grande drainage areas; elsewhere 0.20 to 0.60 in. Dense fog, drizzle or low clouds moved east 17th. Several severe thunderstorms and hail, some baseball size, over eastern plains.

Winter wheat in fair condition, 62% turning color. Sugarbeet 89% thinned, 57% 1976, 50% average. First cutting alfalfa 62% complete. Soil moisture short. Spring seedings: Sorghum 95% 1977, 94% 1976, 82% average. Dry bean 86% 1977, 92% 1976, 84% average. Corn very good condition. Pastures and range fair east, poor west. Livestock good condition.

**FLORIDA:** Partly cloudy with widely scattered thundershowers. Temperatures near to slightly above normal. Rainfall highly variable with average amounts 0.25 to 0.50 in.

Soil moisture very short north, west; mostly short to adequate central, south; excessive some southern areas. Corn very poor in dry areas. Peanuts, soybeans very slow progress. Tobacco fair to good condition where irrigated; other suffering from dry weather. Sugarcane good condition. Wheat and oat harvest practically complete. Pasture condition variable, as rainfall spotty; most areas very dry. Drought conditions continue eastern Panhandle; scattered areas north, central Peninsula. Southern pastures mostly fair. Cattle condition poor to good depending upon rainfall. Most citrus trees excellent condition, rain most areas. Very little irrigation. Very little late bloom. Orange harvest declined. Moisture level continues adequate to excessive in some southern vegetable areas. North, west areas continue very dry. Crop conditions fair; declining seasonally. Overall shipments down 25%. Supplies sweet corn, eggplant, celery held steady. Snap beans, cabbage, carrots, cucumbers, peppers, radishes, squash, tomatoes, watermelons, potatoes decreased. Watermelon quality generally good, volume steady.

**GEORGIA:** Temperatures 1 to 5° above normal. Rainfall 0.25 to 0.50 in. with locally heavier amounts greater than 2.00 in. Scattered thundershowers weekend.

Soil moisture short. Fieldwork: 6 days suitable. Corn poor to fair; still declining. Tobacco mostly fair to good; 5% harvested, last year 16%, average 9%. Cotton mostly fair to good; 62% squaring, 38% last year; 28% setting bolls, 10% last year. Insect control active. Peanuts mostly fair to good; 67% blooming, 55% last year; 40% pegging, 17% last year. Applying landplaster. Soybeans mostly fair to good; 80% planted, 84% last year, average 81%. Weed control active. Grain sorghum 55% planted, 68% last year. Oat harvest 89% complete, last year 86%, average 76%. Hay condition mostly poor to fair. Peaches fair to good; 52% harvested, last year 53%, average 34%. Volumes declining and dry conditions prevented

sizing. Apples fair to good. Watermelons mostly fair to good; 13% harvested, 7% last year. Pasture condition critical and declining. Cattle mostly fair to good. Hogs fair to mostly good.

**HAWAII:** Weather warm and favorable. Light showers mainly windward areas. Leeward dry.

Irrigation heavier all sections. Mustard and Chinese cabbage short. Lettuce getting plentiful. Others adequate. Banana supplies gradually increasing. Papaya supplies heavy. Pineapple harvesting active. Sugar harvesting steady. Pastures fair to good.

**IDAHO:** Above normal temperature. Extremes: 92 and 37°. Precipitation varied widely; maximum 0.71 in.

Generally good crop growth. Some scattered hail damage.

**ILLINOIS:** Temperatures 1° below normal north, 3° above normal extreme south. Precipitation little or none west and central, up to 0.75 in. elsewhere.

Corn good; average height all fields 36 in., 22 in. 1976, 18 in. average; most advanced fields 52 in., 33 in. 1976, 30 in. average. Soybeans good to fair; 80% of full stand. Winter wheat 30% combined, 15% 1976, 8% average. Oats 94% headed, 89% 1976, 81% average; 20% turned yellow, 6% 1976, 4% average; mostly fair to good. Second crop alfalfa hay 15% cut; mostly fair. Pastures good to fair. Soil moisture short. Fieldwork: 5.8 days suitable.

**INDIANA:** Scattered showers 0.30 to 0.60 in. most areas. Some local showers 1.00 to 2.00 in. Temperatures 2° above normal and ranged from 50 to 95°.

Fieldwork: 6 days suitable. Topsoil and subsoil moisture mostly short to adequate. Pastures poor to mostly fair. Wheat combining started, 1976 5%. Wheat 20% ripe, 1976 25%. Wheat condition fair to good. Barley and rye harvest underway. Oats 85% headed. Corn 23 in., 1976 18 in., average 14 in.; condition fair to good. Soybeans 6 in., 1976 5 in., average 5 in.; stands mostly fair.

**IOWA:** Temperatures near normal. Moderate showers northwest tapering off to light and spotty over south and east.

Topsoil moisture improved but mostly short. Subsoil moisture short. Corn 32 in. tall and in good condition. 1st cutting clover hay 81% harvested, 53% last year, and 35% average. 2d cutting alfalfa hay 7% complete, earliest reported. Oats, wheat, alfalfa, clover hay and soybeans rated good to fair. Pastures fair to poor. Livestock good but some herds suffering from insects and heat stress.

**KANSAS:** Heavy rains, local flooding, spotted damaging storms east. Rainfall in west quite variable, ranging little or none southwest to locally 0.50 to 1.50 in. northwest. Temperatures averaged 73 to 76°, 1 to 3° above normal central and east, 3 to 6° above normal west.

Wheat harvest in full swing. Heavy rains over weekend may delay harvesting. Rains caused heavy lodging wheat, 15% harvested, none last year, 5% average. Topsoil moisture adequate. Subsoil moisture short west, adequate elsewhere. Sorghum planting 85%, same last year, average 75%. Soybean planting 75%, same last year, average 70%. First cutting alfalfa 100%, last year and average 95%. Second cutting alfalfa 20%, last year and average

10%. Livestock on excellent pastures. Spraying flies on cattle.

**KENTUCKY:** Temperatures few degrees above normal; precipitation 0.80 in. west to around 2.50 in. central.

Fieldwork: 5.3 days suitable. Soil moisture short. Wheat harvest 36% complete. Soybean planting 81% complete, 69% last year, 71% average. Emerged soybeans about 7 in. high. Corn varies from excellent to suffering from lack of moisture. Early planted corn making good growth but additional moisture is critical during approaching tasseling and milk stages. Most burley and dark tobaccos set once, but resetting prevalent due to drought caused poor stands. Growth on early set tobacco mostly good with 56% over 6 in. high. Pastures revived in areas receiving moisture but still browning elsewhere.

**LOUISIANA:** Temperatures near normal. Extremes: 63 and 97°. Shower activity early week statewide.

Soil moisture short north and southeast. Adequate in other areas. Main activities: Machinery repairs, weed control and caring for livestock. Rice condition good; 15% headed. Cotton condition fair to good; 28% squaring. Corn condition fair: 66% silked. Sorghum 83% planted, 88% last year: 80% up to stand. Soybeans 79% planted, 91% last year, 80% average; 70% up to stand; condition fair to good. Sugarcane condition good. Sweetpotato transplanting 83%, same as year ago. Oat and wheat harvest near complete. Pasture and hay condition fair. Cattle fair to good.

**MARYLAND & DELAWARE:** Temperatures 4° below normal. Highs averaged high 70's to 80, lows 50's to low 60's. Precipitation widespread, mostly 0.50 to 1.00 in.

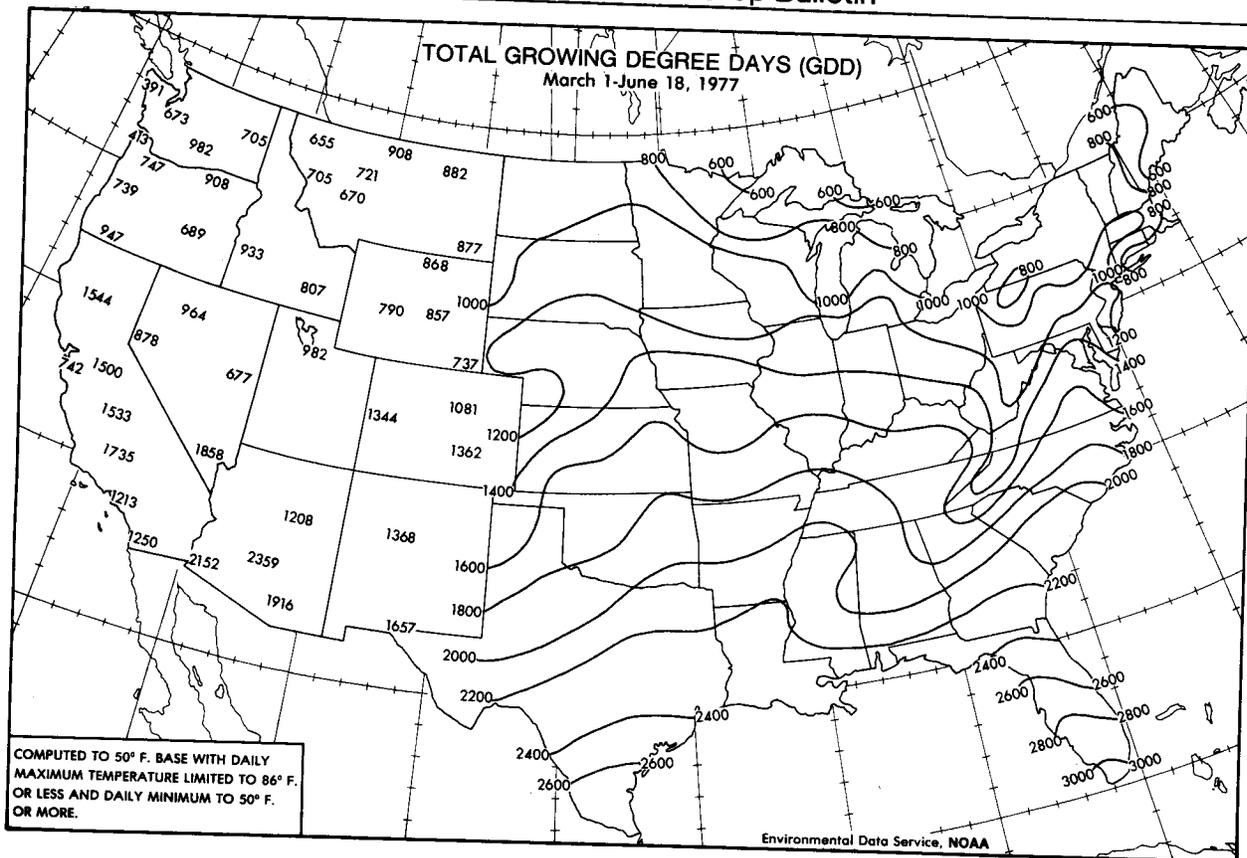
Soil moisture adequate. Pastures short. Corn in good condition. Soybean planting 80%, about normal. Alfalfa first cutting near complete; second cutting 25%. Harvesting asparagus almost complete, peas for processing 85%, snapbeans 50%, barley 30%, wheat just starting. Fruit growers thinning peaches. Cultivating and sidedressing tobacco.

**MICHIGAN:** Temperatures 3° below normal Upper and western Lower to 2° above normal eastern Lower. Temperatures warmed midweek to 80's and low 90's. Precipitation spotty ranging from zero to 1.59 in.

Soil moisture mostly short. Fieldwork: 6 days suitable. Pasture feed supplies short. Corn height 15 in., 9 in. last year, 6 in. normal. Winter wheat 100% headed, 15% yellow; 1976 85% headed, 10% yellow; normal 80% headed, 5% yellow. Oats 35% headed, 15% last year, 10% normal. Dry beans 80% planted, 65% last year, 60% normal. Soybeans 98% planted, 90% last year, 85% normal. Hay 65% first cut, 45% last year, 30% normal. Vegetable and fruit development below average. Asparagus harvest complete, 90% last year and normal. Strawberry harvest 60% picked, 30% last year, 15% normal. Sweet cherry harvest underway.

**MINNESOTA:** Temperatures near normal. Extremes: 87 and 39°. Precipitation 2.00 to 4.00 in. in parts of south central, southwest and north central and 1.00 to 2.00 in. elsewhere except 0.50 to 1.00 in. east central and southeast.

Soil moisture adequate. Corn continued exceptional growth; tassels about to emerge on most advanced fields. Soybeans mostly good, some southern fields yellowed by excess moisture. Small grains filling in south. Some rust and smut appearing. Winter wheat, rye turning ripe. Moisture



enhanced second crop alfalfa hay prospects. Height: Corn 29 in., 1976 16 in., normal 11 in.; soybeans 9 in., 1976 6 in., normal 5 in. Heading: Spring wheat 73%, 1976 56%, normal 19%; oats 78%, 1976 67%, normal 25%; barley 73%, 1976 57%, normal 21%. Turning ripe: Winter wheat 25%, 1976 5%, normal 1%; rye 27%, 1976 18%, normal 4%. Flax 51% blooming, 1976 22%, normal 11%. First crop alfalfa hay 85% cut, 1976 71%, normal 57%.

**MISSISSIPPI:** Temperatures 1 to 2° above normal. Extremes: 61 and 102°.

Soil moisture short south and east central; adequate to short elsewhere. Fieldwork: 4.3 days suitable. Soybeans 76% planted, 89% 1976, 77% average; 62% up to stand, 76% 1976. Cotton 65% squaring, 7% 1976, 22% average; 6% blooming. Winter wheat 93% harvested, 81% 1976, 71% average. Oats 96% harvested, 81% 1976, 74% average. Corn 29% silked, 17% 1976. Hay crops 39% harvested, 34% 1976, 33% average. Peaches 25% harvested, 21% 1976, 20% average. Irish potatoes 65% harvested, 59% 1976, 54% average. Sorghums 78% planted, 82% 1976, 78% average. Sweetpotatoes 89% planted, 80% 1976, 77% average. Crops in fair to good condition. Pastures in poor condition.

**MISSOURI:** Temperatures above normal. Precipitation light averaging less than 0.25 in. West central and south received more scattered rainfall, averaging about 1.00 in.

Fieldwork: 5.9 days suitable. 35% double crop soybeans now planted. Wheat 83% ripened, 48% 1976, 48% normal; 42% winter wheat harvested, 22% 1976, 14% normal. Hay harvest: cutting alfalfa 29% harvested, 11% 1976, 7% normal. 9% of corn tassel. Pasture condition fair. Cotton mostly fair to good. Reports of herbicide carryover dam-

age to soybeans. Need rain badly. Corn starting to curl. Soil moisture short.

**MONTANA:** Frequent showers; south and extreme east received heaviest precipitation. Temperatures 3° above normal west and southwest to a few degrees below normal east.

Soils dry. Winter wheat, spring grains fair to good. Winter wheat 80% headed, 60% last year, 25% average. About 10% spring wheat headed, same as last year and ahead of normal. Barley 5% headed, oats 10% headed. About 60% sugarbeets thinned. About 15% alfalfa cut, last year and average 5%. Irrigation water supplies below average.

**NEBRASKA:** Temperatures 1 to 4° above normal. Precipitation ranged from trace to near 4.00 in.

Topsoil moisture adequate. Winter wheat mostly good condition; 50% turned. Harvest continues in southeast. Corn, sorghum and soybeans in mostly good condition. Some replanting in hail damaged areas. First cutting alfalfa nearly complete. Pasture and range feed supplies mostly adequate.

**NEVADA:** Widespread thundershowers north and central. South continued dry. Temperatures above normal as a result of warm nights, daytime temperatures below normal.

Showers brought much needed moisture to the soil but unfortunately caught a lot of hay fields without hay. Range and small grain fields benefitted from the rain and moderate temperatures. Livestock holding up well.

**NEW ENGLAND:** Temperatures seasonal with no major fluctuations. Rainfall confined to northeast early week with more general distribution after midweek. Amounts totalled to 2.00 in. or more

some northeast areas with from trace to near 1.00 in. over west and south.

Maine potatoes growing rapidly. Vegetable growth slowed by cool, rainy weather. Weeds problem for field corn. Applies, peaches, pears sizing well but spraying for insects a problem. First cutting hay light in all areas but harvesting proceeding ahead of schedule.

**NEW JERSEY:** Dry but temperatures close to normal. Extremes: 50 and 92°. Rainfall averaged 0.13 in. north, 0.25 in. central and 0.11 in. south. Soil moisture in percent of field capacity 69% north, 59% central and 44% south. Soil temperature 72° north and central and 74° south.

Soil moisture barely adequate. Early tomato harvest underway. Sweet corn harvest started under plastic beginning. Early summer vegetable harvest increasing. Strawberry harvest nearing completion. Barley combining increasing. Wheat maturing rapidly. Planting field corn and soybeans well advanced. Some second cutting hay underway.

**NEW MEXICO:** Hot and dry. Temperatures 2 to 9° above normal. Very little wind or clouds and low humidities.

Harvesting irrigated dryland winter wheat begun with less than 5% harvested in major producing area. Durum wheat good condition and approaching harvest. Barley harvest begun with 10% harvested. Cotton in good condition. Second cutting alfalfa 50% completed south; first cut nearing completion north. Grain sorghum 95% planted with 75% acceptable stand. Corn making rapid growth. Apples in good condition. Lettuce harvest completed. Ranges fair to poor. Livestock fair to good.

**NEW YORK:** Dry early week; 1.00 in. or less later. Rainfall 1.00 to 3.00 in. below normal over last 5 weeks. Temperatures near normal; 60's to lower 70's. Extremes: 87 and 31°.

Moisture deficiency widespread. Early planted corn good condition. Oats heading on short straw. Hay harvest in full swing. Pasture condition poor to fair. Early onions fair condition, some stands thin. Sweet corn, snap beans and cabbage planting continues but delayed with dry conditions. Some early variety potatoes in bloom. Apples sizing well. Sweet cherries beginning to ripen.

**NORTH CAROLINA:** Temperatures about normal. Precipitation, as scattered showers, measured 2.00 in. or more in mountains, lighter elsewhere.

Fieldwork: 5.9 days suitable. Soil moisture adequate. Farm activities: Planting soybeans, harvesting small grains, cultivating, and topdressing tobacco. Crop conditions: Corn, peanuts, Irish potatoes, peaches, and apples mostly good. Tobacco, soybeans, cotton, sweetpotatoes, hay crops and pastures fair to good. Planting: Soybeans 87% complete, 1976 83%; sorghum 90%, 1976 82%. Burley tobacco transplanting 97%, 1976 98%. Sweetpotato transplanting 92%, 1976 87%. Harvesting: Wheat 51% complete, 1976 59%, average 38%; oats 69%, 1976 68%, average 49%; barley 69%, 1976 73%, average 54%; rye 59%, 1976 69%, average 46%; peaches 20%, 1976 14%, average 15%; hay 49%, 1976 53%; Irish potatoes 32%, 1976 31%.

**NORTH DAKOTA:** Temperatures near normal. Extremes: 88 and 45°. Rain of 1.00 in. or more.

Condition of small grains mostly fair to good. About 33% of spring seeded small grains heading or beyond. Pastures improving with recent rains but growth below normal, especially central where condition of pasture growth poor.

**OHIO:** Near normal temperatures. Scattered showers. greatest amount 1.66 in.

Crop conditions fair to good. Additional moisture badly needed for normal growth. Soil moisture deteriorated slightly, mostly short. Corn, 17 in., 16 in. 1976, 13 in. normal. Soybeans, 7 in., same as last year, 5 in. normal. Hay first cutting completed; new growth slow. Wheat 70% turning, 60% 1976, 45% normal; 5% ripe. Barley combining began. Oats 80% headed, equal to 1976, 55% normal. Tobacco setting 85% complete, ahead of schedule.

**OKLAHOMA:** Temperatures 1 to 4° above normal. Light rain in east and northwest, little elsewhere.

Topsoil moisture short. Subsoil moisture short to adequate. Wheat good condition: 72% harvested, 38% 1976, 55% average. Oats good condition: 78% harvested, 47% 1976, and 57% average. Barley good condition: 78% harvested, 59% 1976, 72% average. Corn good condition: 10% tasseling, 2% 1976. Sorghum good condition: growth slowing under hot weather: 61% up to stand, 60% 1976. Cotton fair to good condition with some early irrigated acreages squaring: 71% up to stand, 61% 1976, 66% average. Peanuts 71% up to stand, 62% 1976; good condition. Soybeans good condition: 48% up to stand, 47% 1976. Alfalfa and prairie hay good condition. Pastures and range good condition but beginning to feel effects of hot, dry weather. Cattle good condition.

**OREGON:** Dry returned to west. Above average precipitation in northeast with 0.30 to 0.40 in., elsewhere 0.10 to 0.20 in. recorded. Temperatures near seasonal norms. Extremes: mid-90's, low 40's west; high 80's, mid-30's east.

Fall seeded grains and other field crops continue in fair to good condition in west and in poor to fair condition in central and east. Haying activity picking up. Thinning orchards. Fruit sizing well. Cherry harvest underway. Vegetables for processing being planted. Pea harvest continuing. Potatoes emerging. Livestock in poor to good condition depending on location. Range and pasture conditions vary from poor in east to good in western valleys. Feed supplies adequate.

**PENNSYLVANIA:** Seasonably warm and humid; little temperature variation. Extremes: 88 and 41°. Showers and thunderstorms 14th, 17th and 18th provided from 0.50 in. south and central to 2.50 in. north central.

Fieldwork: 5 days suitable. Moisture adequate to short. Activities: Spraying, making hay, peach and nectarine thinning, planting soybeans, transplanting tobacco, harvesting berries and vegetables. Corn 10 in. tall, last year 9 in. Soybeans 92% planted, 1976 86%. Tobacco 89% transplanted, last year 87%. Barley 69% turning yellow, last year 55%. Wheat 88% headed; 7% turning--behind last year. Oats headed 47%, last year 43%. Alfalfa first cut 81%, last year 70%.

**PUERTO RICO:** Island rainfall 0.78 in. or 0.77 in. below normal. Temperatures 81° coasts, 75° interior. Extremes: 95 and 61°.

Rainfall well below normal. Despite some heavier showers drought intensified. Water supplies critical. Major planting operations delayed. Crops already planted are under severe stress in nonirrigated zones.

**SOUTH CAROLINA:** Temperatures near normal. Scattered thundershowers; only south, northeast rain deficient.

Tobacco condition fair to good. Budworms active. Plants making excellent progress. Corn condition fair except early planted fields burned many areas, tasselling prematurely. Over 50%

crop silked. Soybean planting nearing completion. Rain helped growth, germination. Soybean planting: 88% 1977, 80% 1976, 80% average. Cotton condition fair to good. Over 67% plants squared. Peach harvest continues. Sizes smaller than average due earlier dry weather. Small grains, pastures, watermelons, grapes fair condition.

**SOUTH DAKOTA:** Thunderstorms east. precipitation to 6.88 in. Most stations above average for year and growing season. High temperature 80's, 90's southwest; lows 40's and 50's. Extremes: 41 and 97°.

Topsoil moisture adequate. Field crop development rapid. Some hail, rain damage. Weed and insect problems continue. Spring wheat: 80% headed, 80% 1976, 28% normal. Oats: 89% headed, 81% 1976, 35% normal. Winter wheat: 35% turning color, 35% 1976, 9% normal. Oats: 14% turning color, 9% 1976, 0% normal. Soybeans: 8% in bloom, 0% 1976, 0% normal. Corn: 17 in. tall, 10 in. 1976, 10 in. normal. Pastures and ranges responded to rains.

**TENNESSEE:** Temperatures normal west, 1 to 5° above normal east. Precipitation averaged 0.75 in.

Soil moisture short but improved. Livestock and pastures poor condition. Fieldwork: 4.4 days suitable. Soybeans planted 90% 1977, 85% 1976, 77% normal. Wheat harvested 65% 1977, 47% 1976, 37% normal. Oats harvested 40% 1977, 30% 1976, 34% normal. Barley harvested 60% 1977, 47% 1976, 54% normal. Tobacco transplanted 100% 1977, 98% 1976, 98% normal. 2d cutting alfalfa 55% 1977, 52% 1976, 38% normal. Corn silking 13% 1977, 1% 1976, 6% normal. Cotton squaring 33% 1977, 6% 1976, 19% normal.

**TEXAS:** Heavy thunderstorm activity east, south, early week; mostly fair, hot weather later. Temperatures 4 to 5° above normal west; 2 to 3° above normal north, central, east, south; near normal to 2° below normal Blacklands. Rainfall below normal west, Panhandle, central; near normal Blacklands; above normal southeast.

Wheat harvest excellent progress; active northern High Plains. Few fields hail damaged northern Plains. Cotton planting virtually complete. Small acreages cotton damaged or destroyed by hail Panhandle; many will be replanted. Early cotton good growth; squaring southern Low Plains. Boll weevil, boll worm damage still light, but increasing Coastal Bend, Lower Valley. Sorghum planting nearing completion. Some fields northern Plains light hail damage. Early sorghum southern Low Plains forming heads. Early fields Lower Valley ready for harvest. Corn growth on Plains generally good to excellent. Few fields northern High Plains light hail damage. Rains improved outlook east, south, central. Fields Coastal Bend, Lower Valley maturing. Rice heading; growth generally good. Few levees Upper Coast washed out; in general rains welcome. Soybean planting fair progress. Rains east, south central, Coastal Bend, improved planting conditions. Parts of Blacklands need rain to finish planting. Peanut planting fair progress. Rain improved planting conditions east, south central; Cross-Timbers, Blacklands need rain. Cotton planted: 99%, 97% 1976, 97% average. Sorghum planted: 97%, 95% 1976, 94% average. Peanuts planted: 77%, 73% 1976, 76% average. Soybeans planted: 84%, 82% 1976, 84% average. Wheat harvested: 57%, 47% 1976, 62% average. Barley harvested: 76%, 52% 1976, 72% average. Oats harvested: 90%, 84% 1976, 92% average. Flax harvested: 100%, 98% 1976, 99% average. Citrus harvest for fresh use complete, remaining fruit will go to processors. Irrigation spraying schedules active within groves.

Watermelon harvest active. Tomato, sweet corn, cucumber, squash, okra, bean, pea harvest continues. Peach harvest active. Heavy rains certain localities east damaged mature fruit; overall rainfall benefited most orchards. Recent rains improved grazing east, upper coast, and parts of Blacklands. Some supplemental feeding in Trans-Pecos where ranges very dry. Pastures other areas adequate to good. Livestock fair to good condition.

**UTAH:** Few widely scattered showers and thunderstorms. Amounts generally light to little or none but few heavier accumulations northern mountains. Temperatures ranged from near normal to 6° above. Soil moisture deficit continues very serious southeast. Nonirrigated land soil moisture short. Range feed poor. Sugarbeet thinning 85% completed. Irrigation water in ditches 50 to 75% normal. Winter wheat condition fair with 80% headed. Alfalfa hay first crop harvest 40% completed. Sweet cherry picking expected to start 24th. Cattle moving to summer range.

**VIRGINIA:** Temperatures several degrees below normal. Extremes: 91 and 38°. Rainfall slightly more than 0.50 in.

Topsoil moisture short. Fieldwork: 5.2 days suitable. Small grain and hay harvest and soybean planting primary activities. Corn stands good except in north. Cultivation active. Soybeans 73% planted, 77% 1976, average 72%; good condition. Barley 50% combined, 55% 1976, 39% average. Oat harvest 26% complete, 36% 1976, average 30%. Wheat 21% harvested, 23% 1976, 12% average. Landplaster and chemicals applied to peanuts; stands good. Tobacco cultivation, chemical applications, resetting active; mostly good stands. Pasture condition mostly poor. Potato harvest continued. All crops need moisture.

**WASHINGTON:** West: Temperatures 1° above to 3° subnormal. Precipitation below normal.

Considerable hay and grass silage made. Peas making good growth, some in full bloom. Pastures and hay growing rapidly.

East: Temperatures 2 to 3° above normal. Precipitation below normal.

Cherry harvest continues. Cherries in excellent condition, good size. Moisture adequate in grape vineyards, grapes forming. Baling alfalfa hay. Cereal crops improving in cooler areas. Wheat, barley 65 to 100% headed. Some recrop wheat tilled under to conserve moisture. Cattle in good condition.

**WEST VIRGINIA:** Temperatures above normal. Precipitation above normal.

Main farm activities: Hay harvesting, gardening, general farm chores. Soil moisture short. 1st cutting hay 71% complete, 51% 1976, 48% average. 2d cutting 7% complete. Wheat 88% headed. Barley 53% headed, 10% harvested. Oats 68% headed. Corn 98% planted; 93% emerged. Pastures poor.

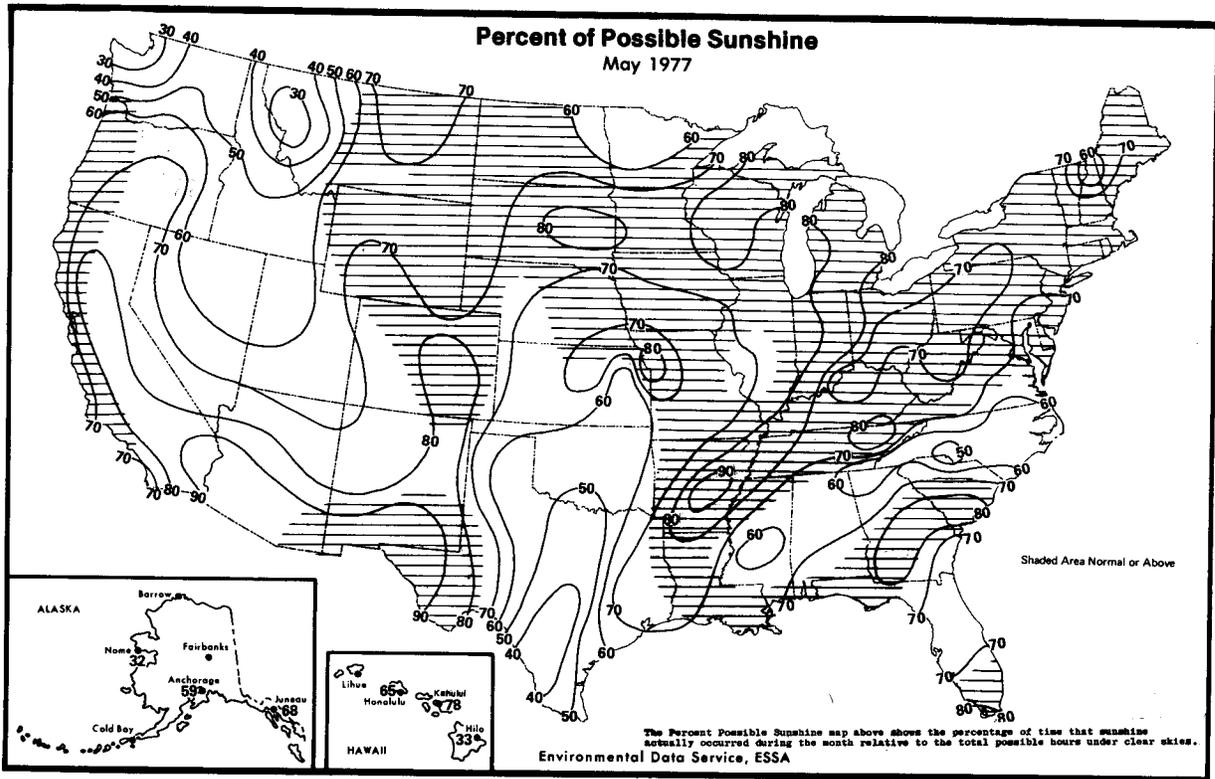
**WISCONSIN:** Temperatures slightly below normal. Rainfall widespread, ranging from 0.01 in. to near 2.00 in. Most showers after midweek, with heaviest amounts north and west.

First crop haying 70% completed, 1976 55%, normal 25%. Second crop regrowth good. Corn averages 21 in. height, 1976 13 in., normal 9 in.; very good for this early in season. Oats 55% headed, 1976 30%, normal 15%. Oats look good. Straw length shorter than normal. Smut a problem on susceptible oat varieties. Some oatlage put in silos. Winter wheat turning color. Soybeans generally good. Tobacco planting well advanced.

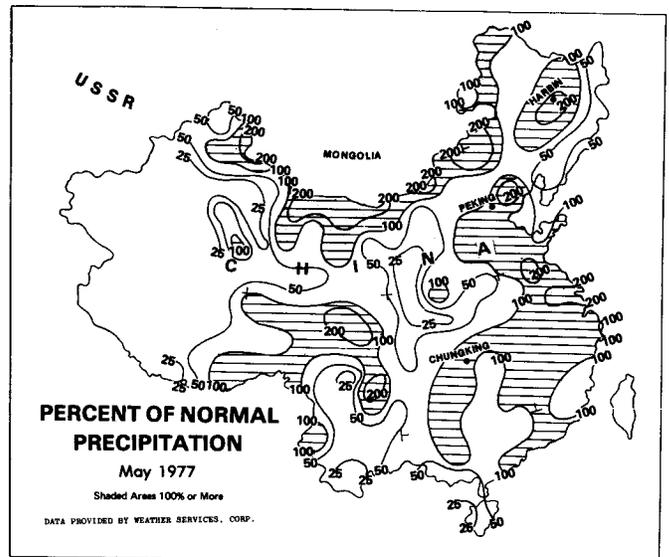
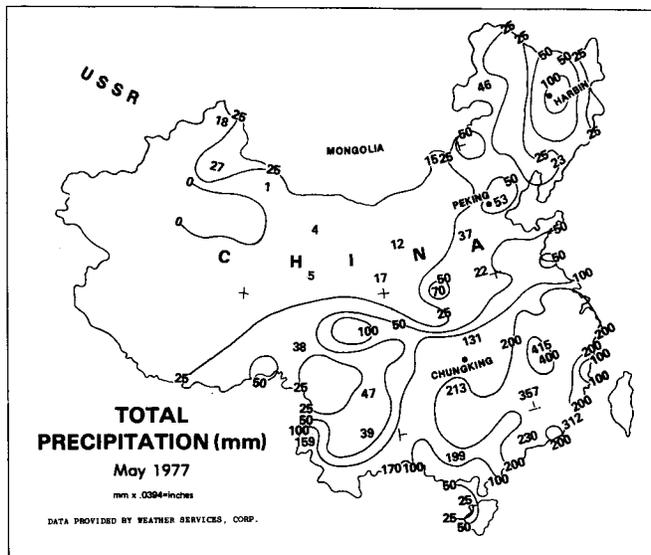
Pasture conditions below normal but better than year ago. Early peas and strawberries poor to fair. Sweet corn and other vegetable crops good. Soil moisture short to adequate.

WYOMING: Temperatures above normal. Southeast corner warmest with readings in upper 80's and 90's. Precipitation below normal. Northeast corner 1.50 in., about 0.50 in. above normal.

Soil moisture short. Potatoes 89% emerged, dry beans 81% up. Winter wheat 76% headed. Sugarbeets 75% thinned. Alfalfa hay 16% harvested. Prospects for small grains, sugarbeets, corn and alfalfa fair to good. Ranges and pasture condition fair to good. Stock water short in west and adequate elsewhere.



China Precipitation



## World Weather and Crop Update

**USSR.** Weather has been cool and wet over much of European USSR the past month while the principal agricultural regions in Asiatic USSR were dominated by above normal temperatures and below normal precipitation. Spring sowing was completed by early June. Prospects for winter grains in general continue to be favorable, but excessive precipitation in recent weeks could reduce prospective yields in some areas, especially in the eastern and southern Ukraine. The cool, wet weather of recent weeks also retarded development of row crops and interfered with the hay harvest in some areas. In the principal spring wheat regions of western Siberia and northern Kazakhstan, summer-like temperatures combined with below normal rainfall to dry out topsoil in some areas, and crops began to show moisture stress. Surface moisture was short in a number of areas; good rains were needed to deep spring-sown crops from deteriorating.

**ASIA.** In the People's Republic of China, excellent rains in recent weeks in the northeast improved the moisture picture in this important region producing spring wheat, soybeans, and coarse grains. May rains also improved the outlook for crops in the north China Plain, the PRC's leading winter wheat belt as well as a major producer of coarse grains, oilseeds, and cotton. However, June precipitation has been below normal in some areas, and unirrigated crops needed moisture to prevent crops from deteriorating. Rice-growing areas south of the Yangtze River have received abundant rainfall--excessive in places--and crops in general developed normally despite severe spring drought in the extreme south which interfered with rice transplanting. In India, the southwest monsoon set in over Kerala (southernmost tip of India) on June 1, the normal date. Its progress by mid-June, however, was sluggish and behind schedule although it was slowly working its way inland. Precipitation during May and the first half of June was normal or above over most of the country. Moreover, fairly widespread premonsoon in several areas in northern and northwestern India proved beneficial for the sowing of fall and winter-harvested crops. In Australia, ample precipitation in the east and southeast provided excellent conditions for the sowing of winter grains in these regions. A shortage of moisture in southern and southwestern Australia, however, impeded fall seeding, but recent heavy rains in these areas should provide adequate moisture to complete sowing operations.

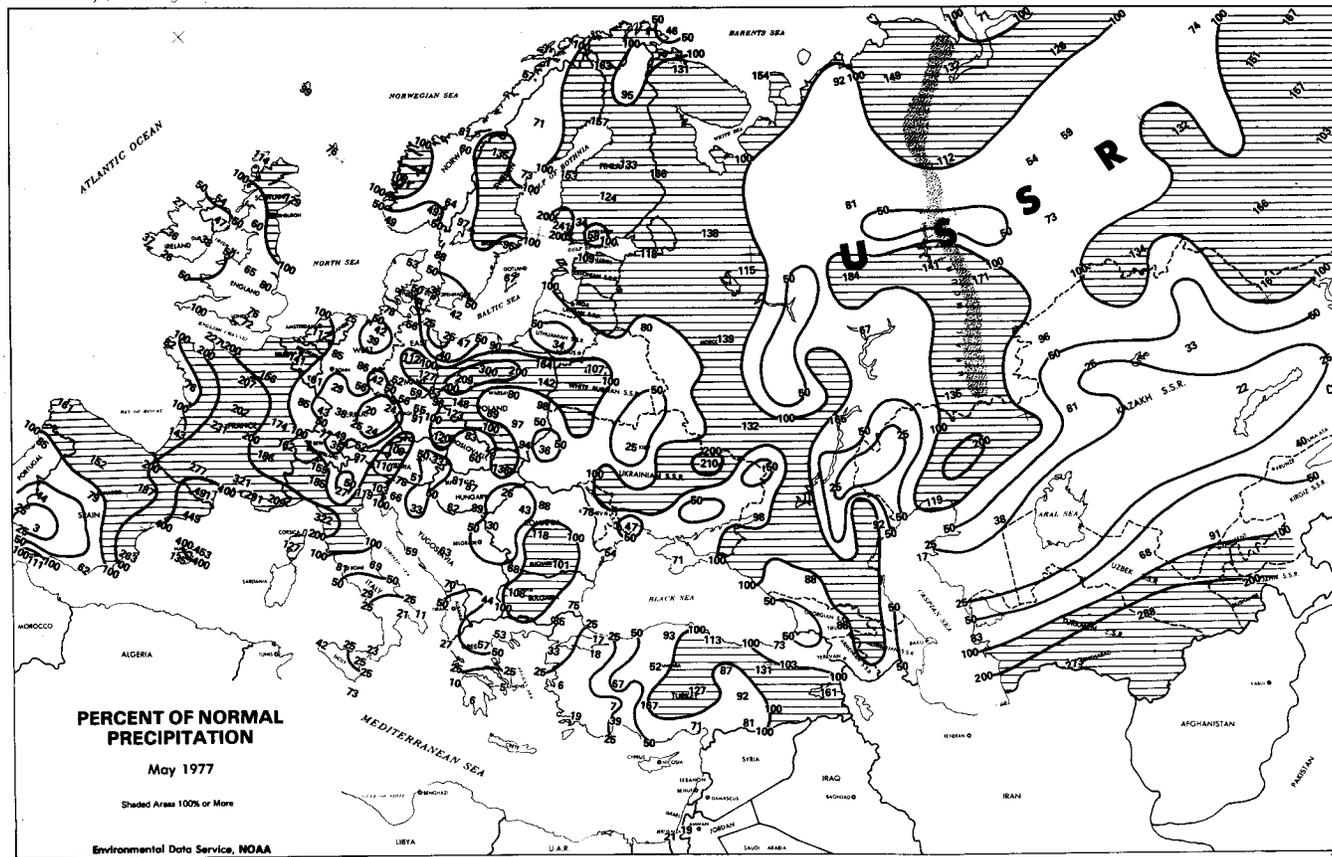
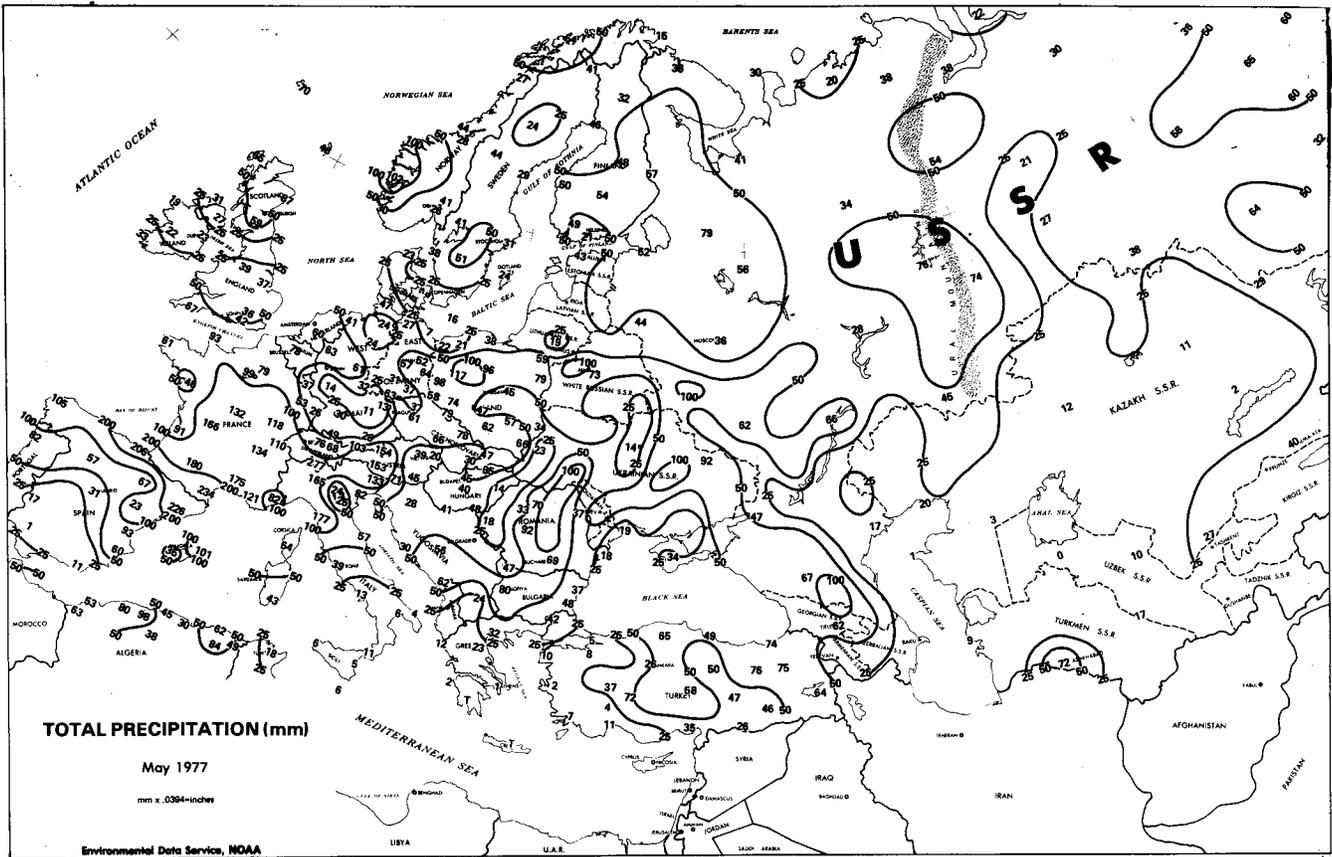
**SOUTH AMERICA.** In Brazil's coffee-producing areas subject to frost, temperatures were normal and mild except for light frost in mid-May in Parana. Below normal precipitation in May, however, adversely affected Parana's newly-planted wheat crops, but recent heavy rains in southern Brazil should help to alleviate any moisture deficit in Parana and Rio Grande do Sul. In Argentina, May's below normal

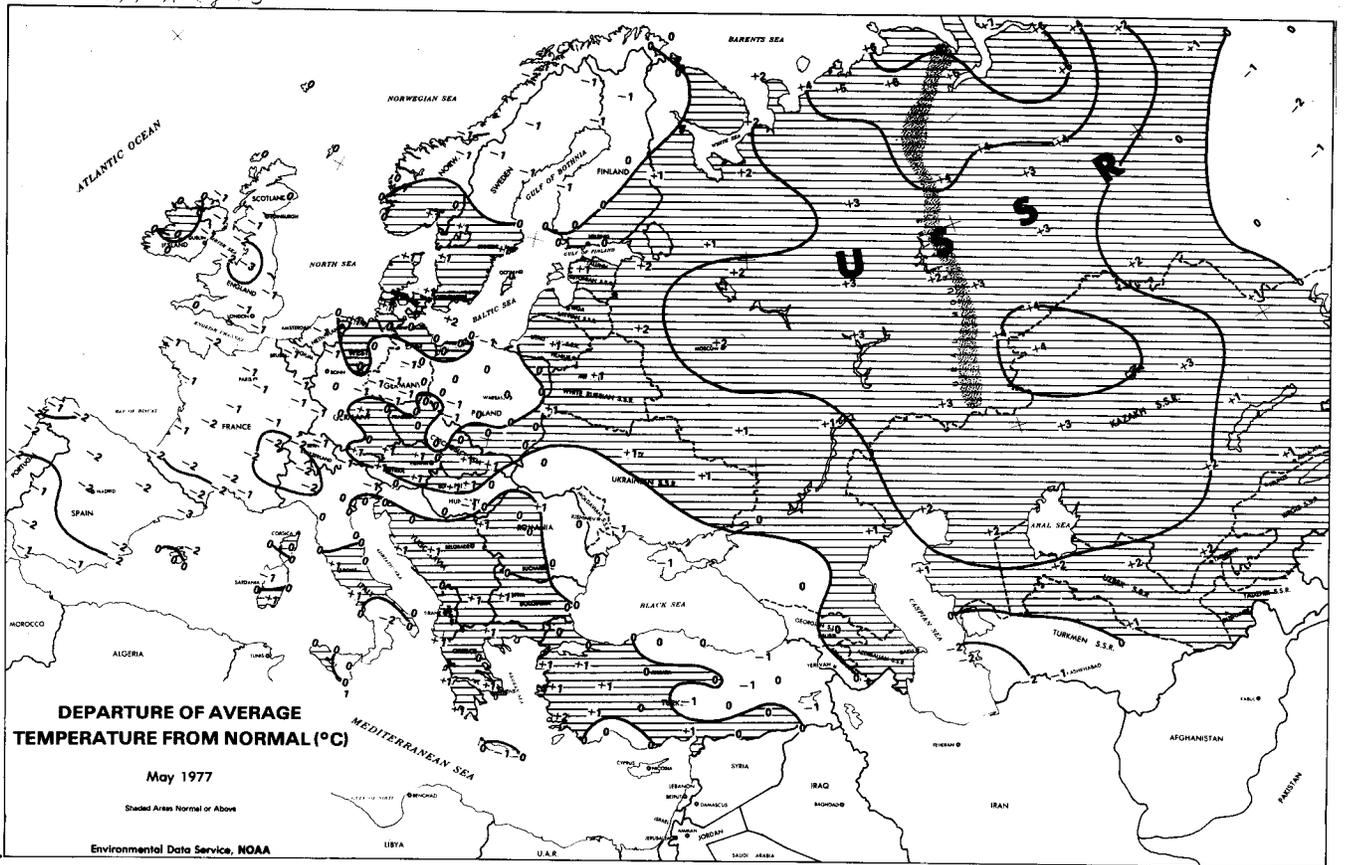
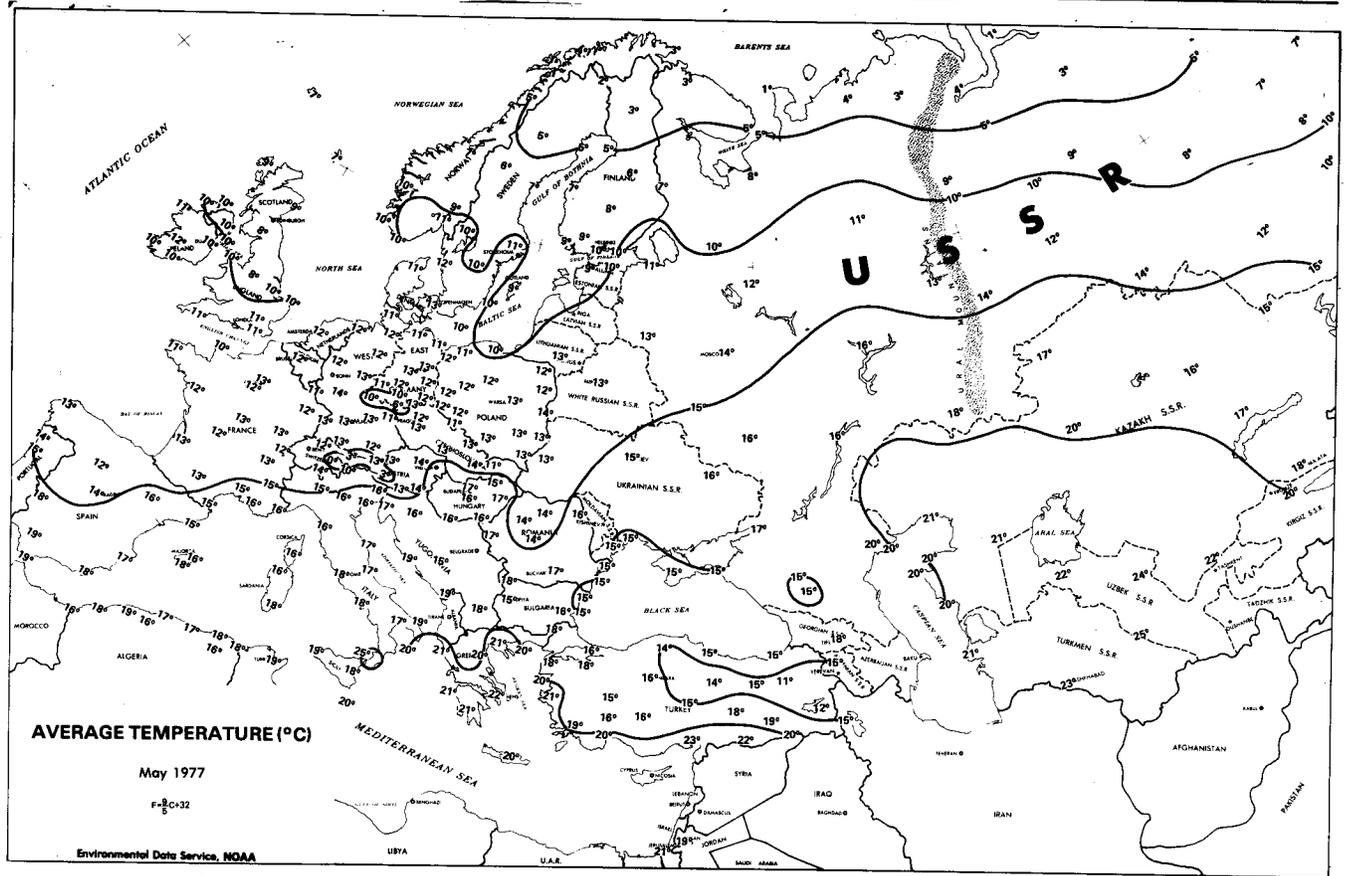
temperatures combined with below normal precipitation to provide near ideal conditions for the harvest of summer grains and oilseeds. But the dry weather that persisted through mid-June delayed soil preparation and planting of winter grains in some areas, especially in the west. May's early killing frosts reduced the carrying capacity of pastures in some areas.

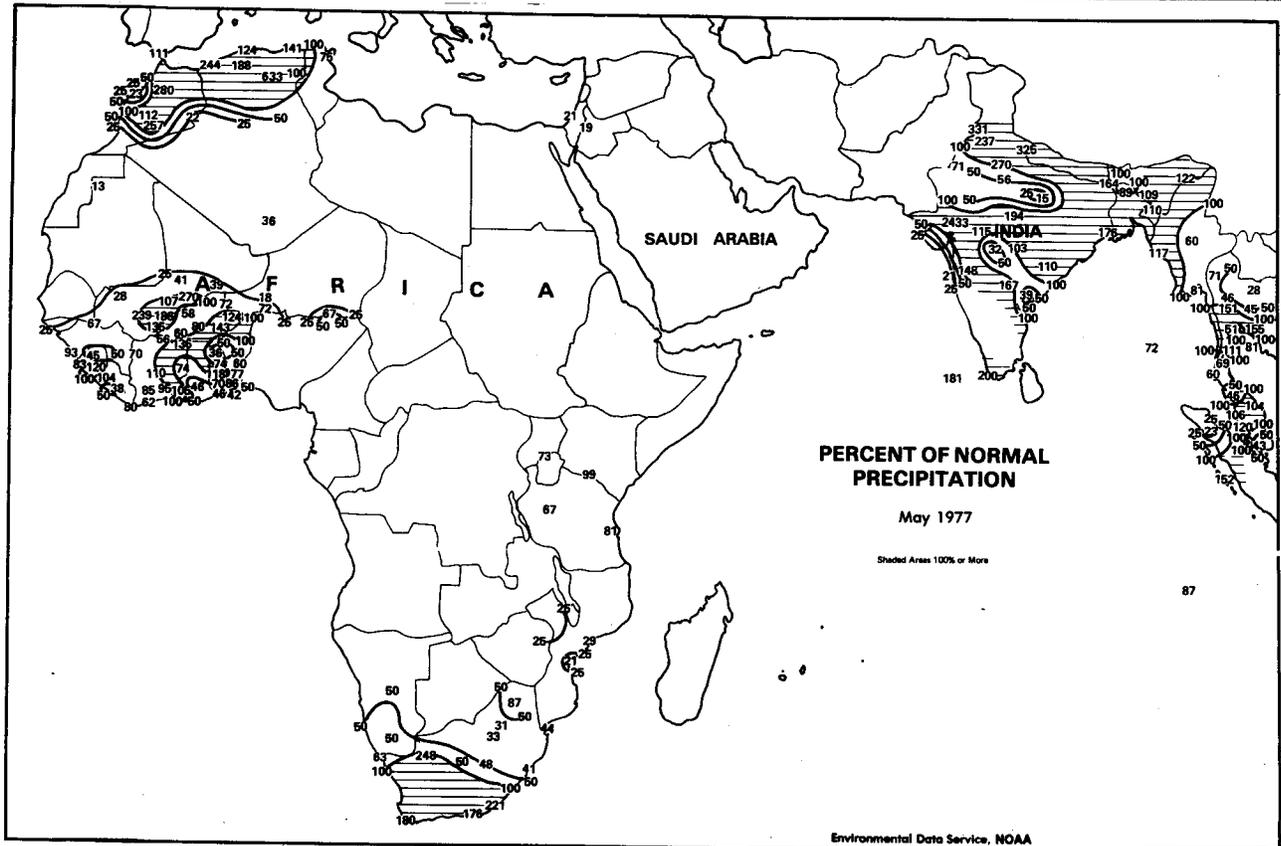
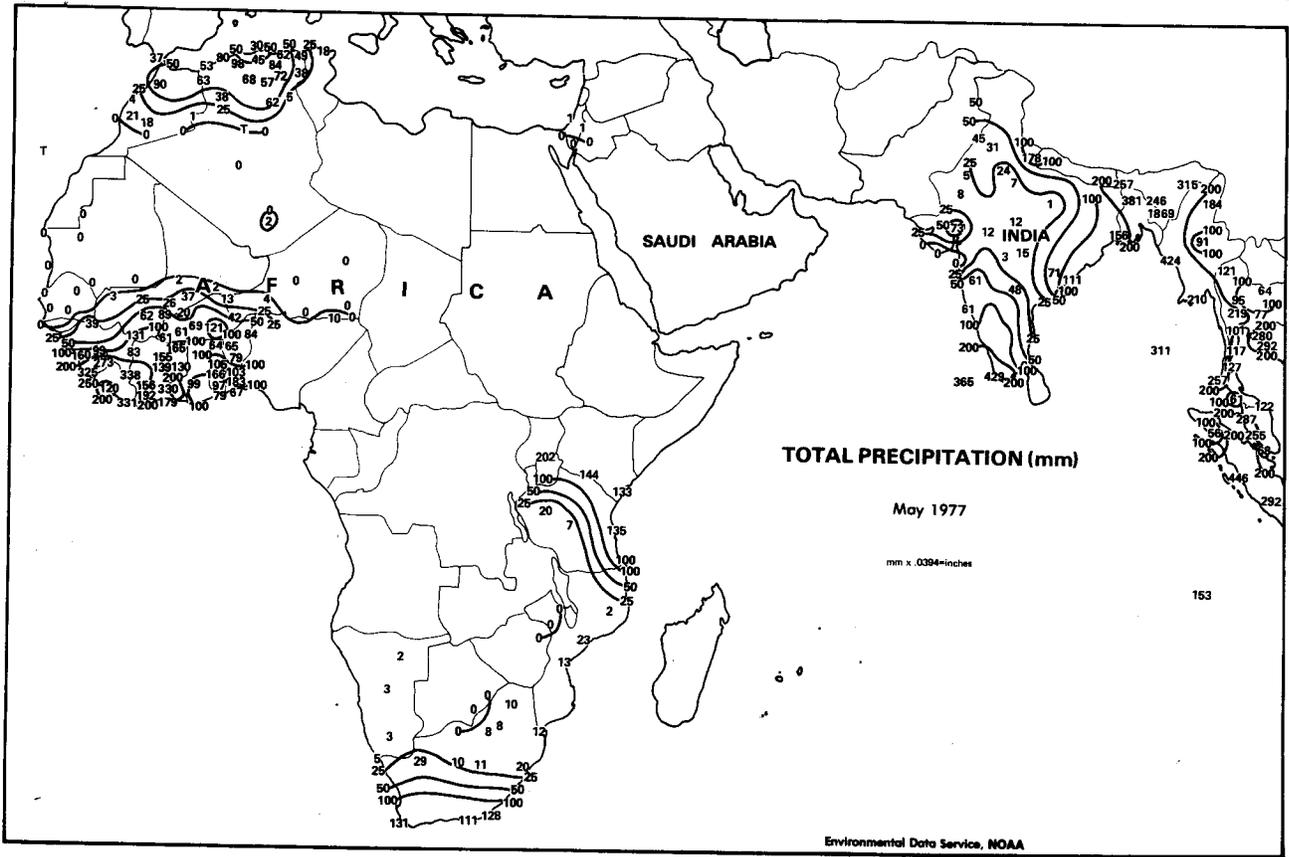
**EUROPE.** The cool, wet spring which had hurt winter grains and spring crops in western Europe was broken by a much needed warm, dry spell at the end of May that continued into the first week of June. As of mid-June, however, temperatures were again below normal and moderate to locally heavy rains fell over most of this region in the past week. A persistent dry area in central and southern Spain received some moisture relief in the first half of June, but more rain was needed in those areas. Italy's northern half had generally above average precipitation in May, but southern Italy received less than 50 percent of normal rainfall, and unirrigated crops needed moisture. In eastern Europe, precipitation was below normal from May into mid-June over most of the area. Prospects for winter grains, were favorable, but additional precipitation was needed to maintain good growing conditions for spring-sown crops.

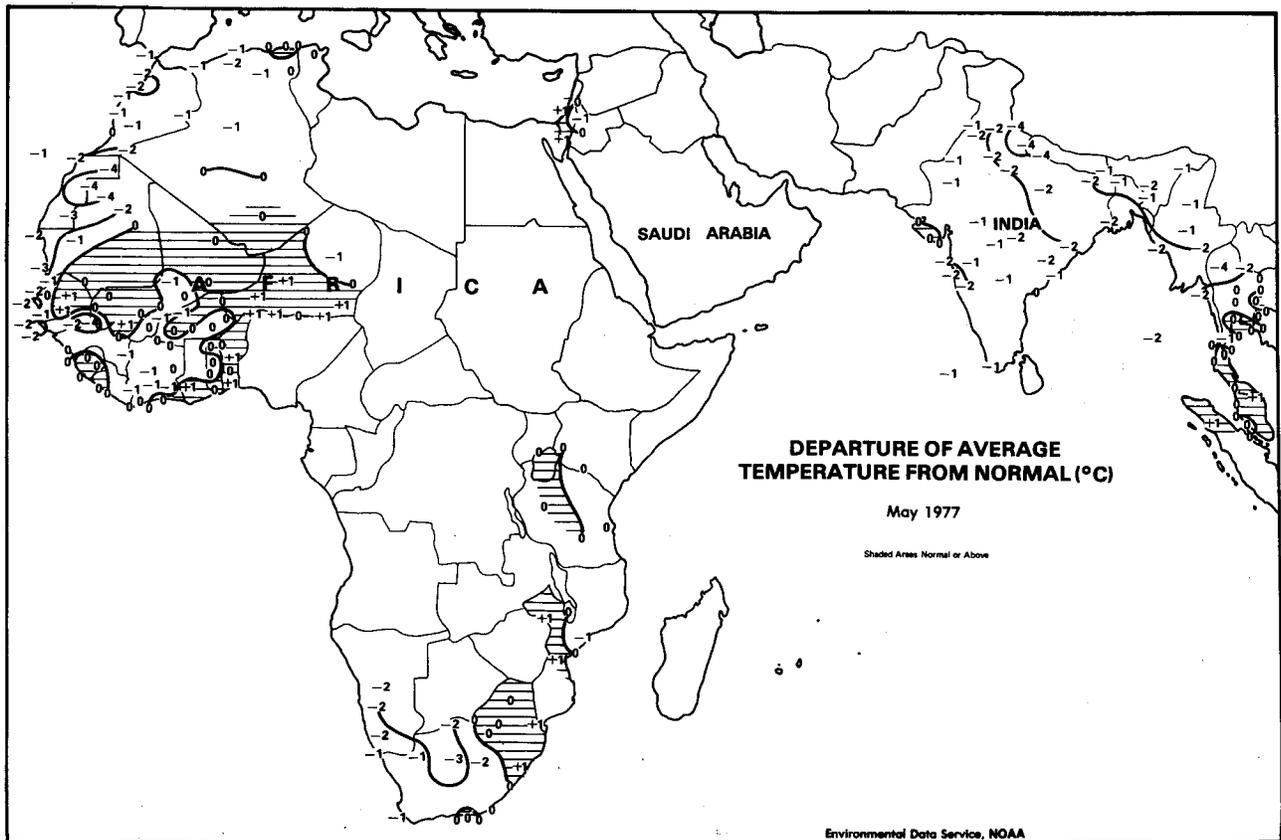
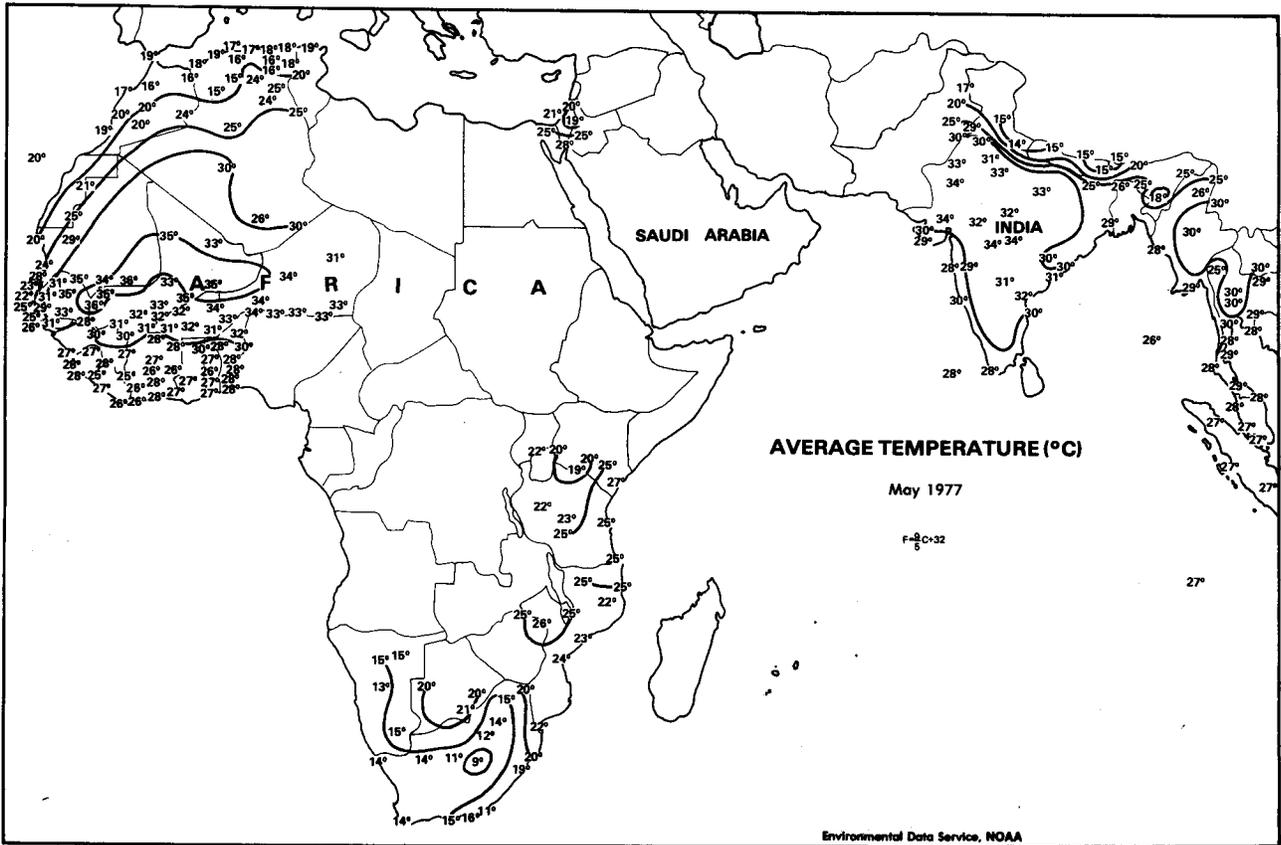
**AFRICA.** May precipitation in North Africa was above normal in Algeria and Morocco, but rains evidently were too late to prevent a drastic reduction in the production of winter grains in those countries. There has been little precipitation in this region thus far in June. In South Africa, rainfall in May was less than 50 percent of normal in the maize triangle, but provided excellent harvesting conditions. However, May rainfall was well above normal in the wheat growing regions in the south and southwest.

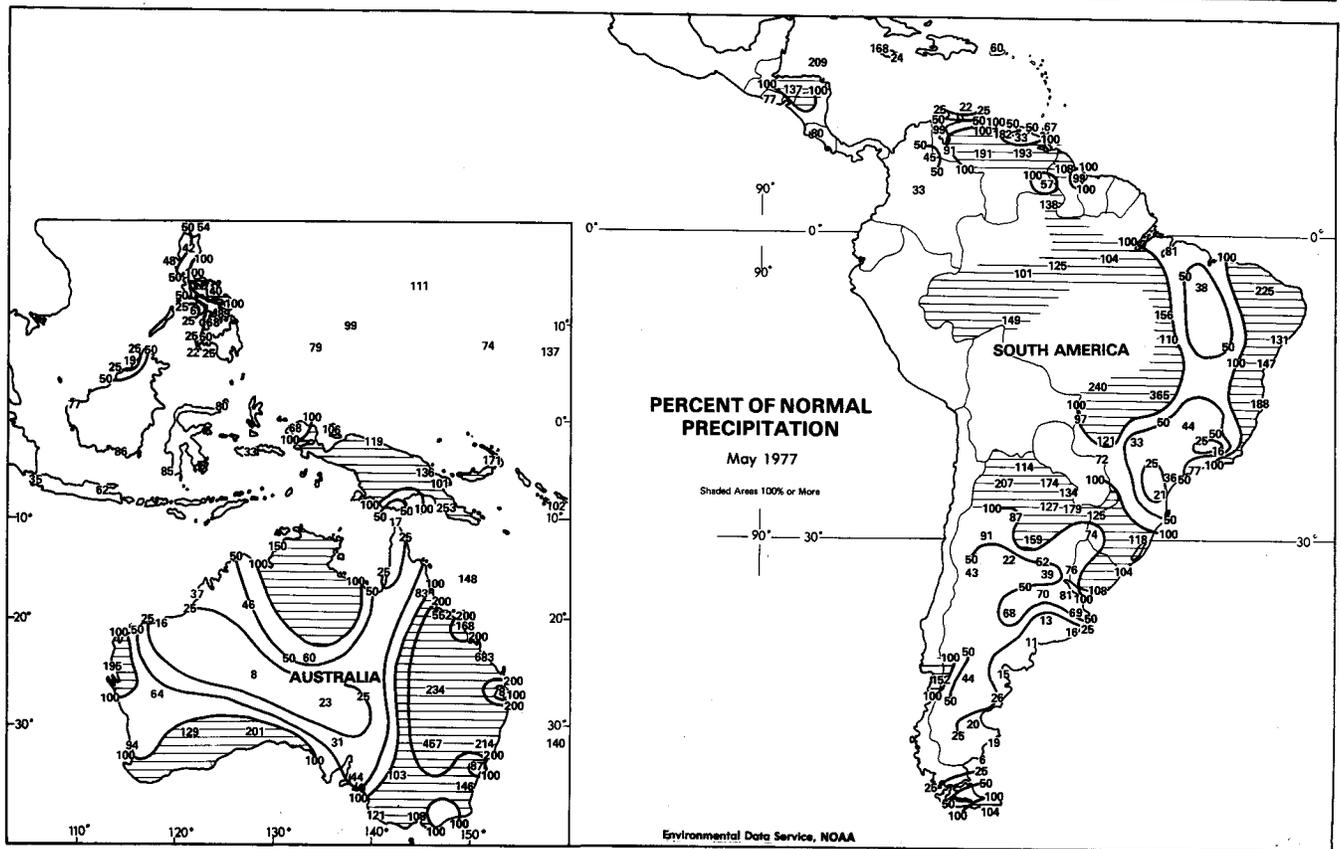
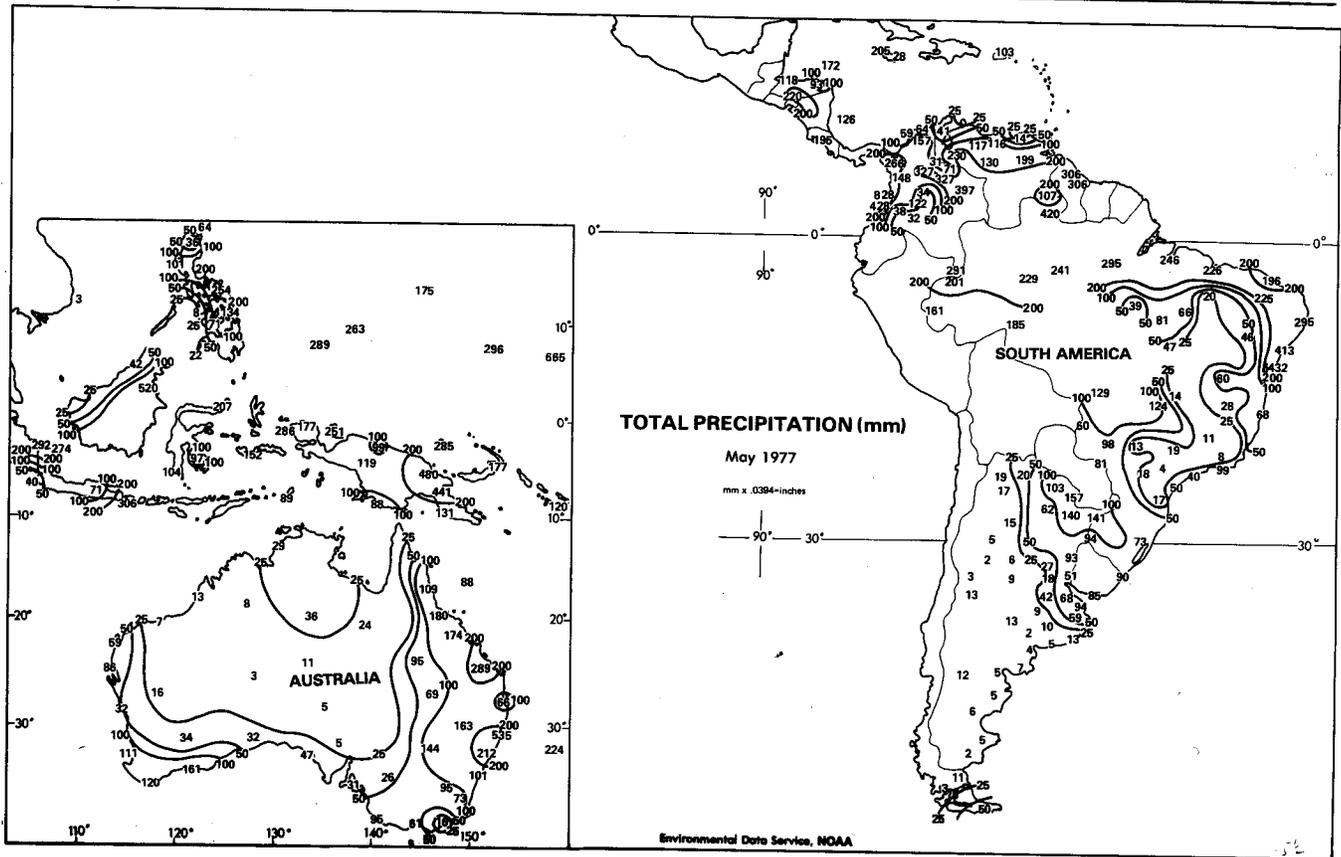
**NORTH AMERICA.** Excellent rains throughout the northern Great Plains and the adjacent Prairie Provinces of Canada greatly improved the outlook for spring wheat crops in these regions. The drought in southern Alberta, however, was not broken, and crop prospects were pessimistic. The dry spell in the Atlantic coastal states which had parched crops and pastures from Virginia to Florida was interrupted, but pockets of drought remain in some southeastern regions, especially Alabama and Georgia. Good rains have also fallen over most of the Corn Belt and Delta states which had suffered from drought of varying intensities. California remained seasonally dry although unseasonally heavy rains fell in southern California in early June.

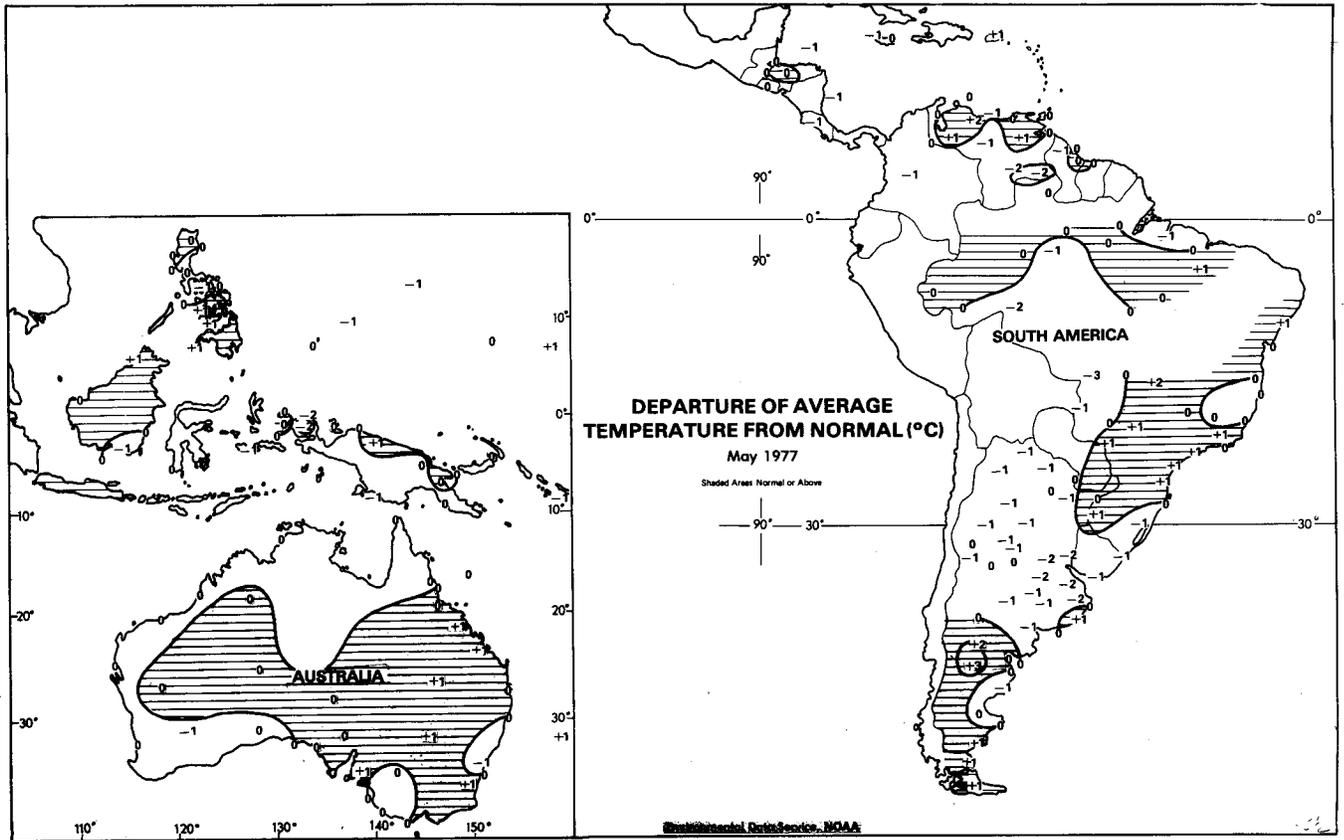
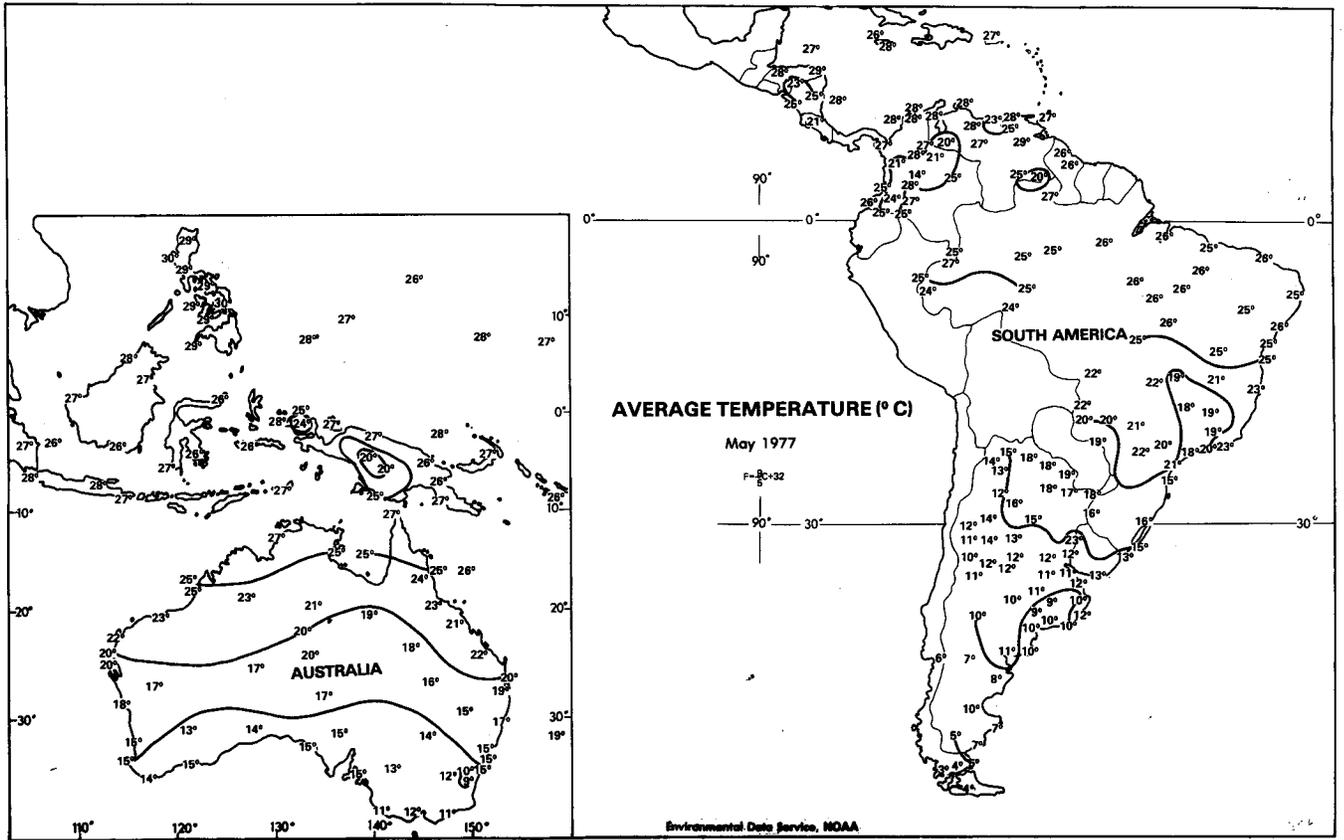














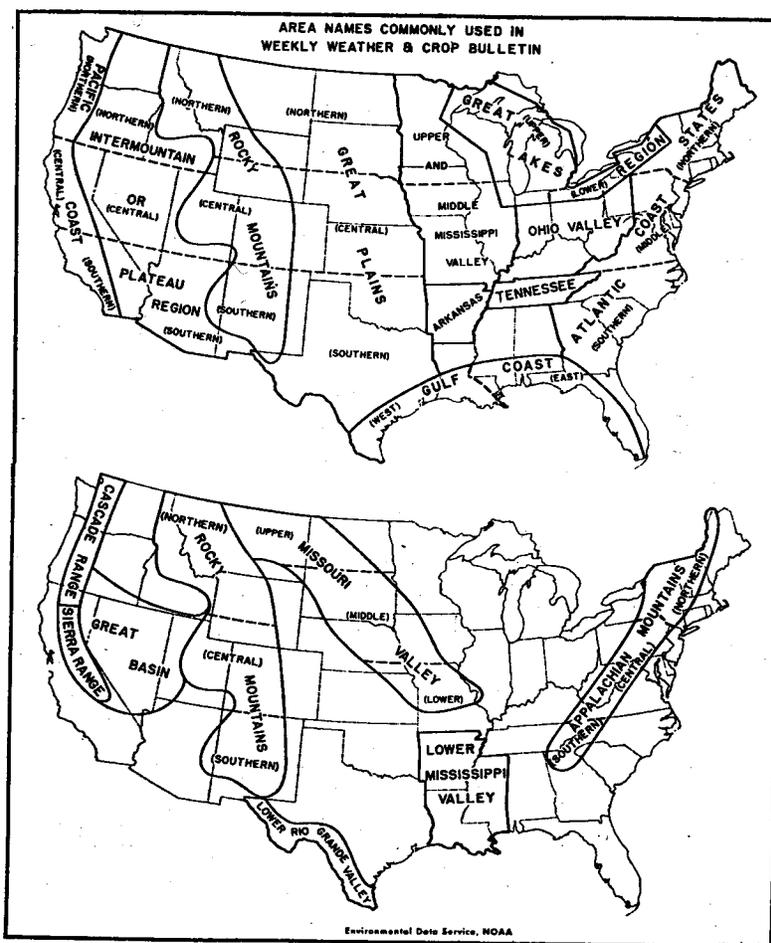
## Canadian Prairie Province Crop Improves

**HIGHLIGHTS:** Moisture conditions improved dramatically since early spring when supplies were very low. Total precipitation was well above normal. Moisture reserves were good in most districts except the southern regions. Little serious crop damage was reported in districts that received excessive moisture. Seeding was completed in most areas save the Peace River District. Farmers reseeded in several locales while field operations began for weeds and insect pests. Insect damage was light, but weed control caused serious concern. Crops made excellent progress, and prospects were generally good. Hay and pasture conditions appeared to have recovered extremely well after a very poor early spring.

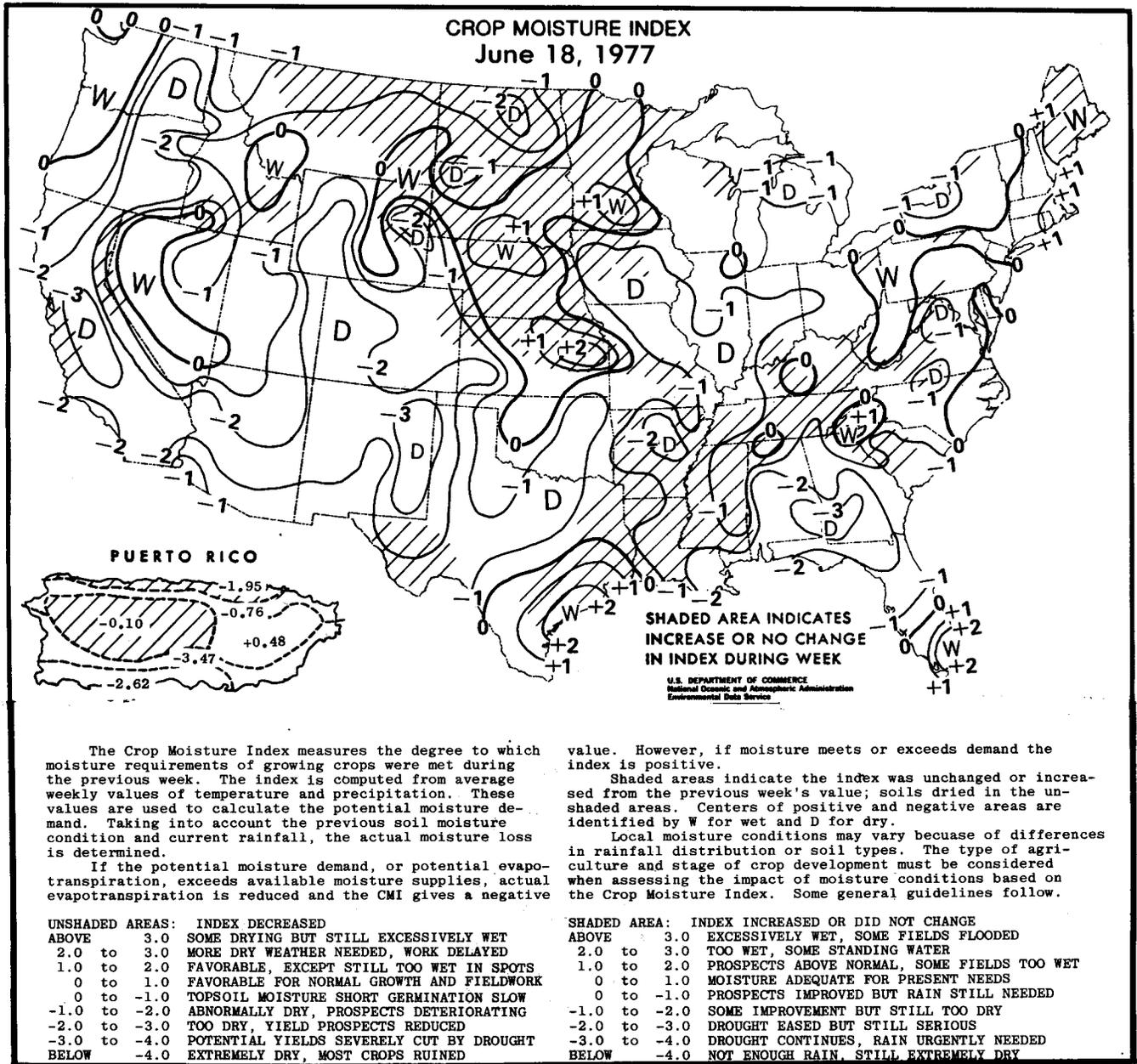
**Saskatchewan** - Farmers finished planting in all areas except some northern districts. Wild oat infestations, crusting soil from heavy rains, and deep seeding in the early spring prompted considerable reseeding. Moisture supplies rated average to good throughout the province, but more rain is required in the southern half to maintain growth at the current rate. Crop development varied considerably; wheat was in the two-to-four leaf stage. Crop growth was excellent under ideal leaf conditions. Weed growth was heavy, but spraying progressed favorably. Flea beetles attacked, however, damage was light. Pastures were much improved and the hay crop started to flower.

**Manitoba** - The eastern and central parts of the province reported more rain in early June. Pasture and hay crops were good except in the drier areas in the south and west where conditions were fair. Haying operations began; seeding was nearly completed although significant amounts of reseeding was necessary because of poor emergence of early-seeded crops or weed problems. Crop prospects were generally favorable. Spraying for weeds was underway in all districts.

**Alberta** - Producers completed seeding in most areas of the province. Only the northwest and Peace River regions had significant acreage left to plant; this was caused by earlier heavy rains and water-logged soils. In these regions, farmers increased their summerfallow acreage and switched to earlier maturing varieties of barley and rapeseed. Moisture conditions were good except in the southern regions where only fair hay and pasture growth was reported. Fall grains headed and rapeseed started to bloom in the southwest regions. Wild oats and other weeds had serious problems; spraying began throughout the province. (Statistics Canada, June 9, 1977).



WHEN OTHER AREAS ARE MENTIONED, SUCH AS STATES OR GROUPS OF STATES, OTHER WELL KNOWN NAMES ARE USED.





**FIRST CLASS MAIL**

**Planting Progress**

Percent planted as of June 19

**SORGHUM**

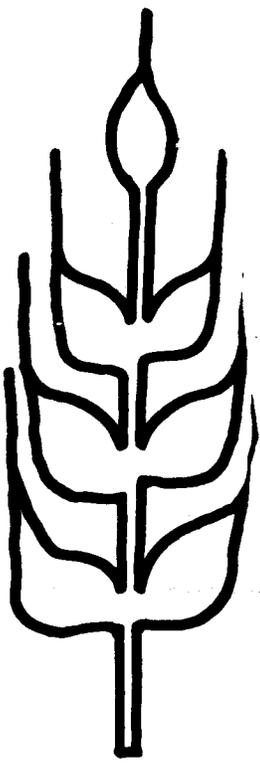
	1977	1976	Avg.
Colo.	95	94	82
Kans.	85	85	75
Mo.	100	NA	NA
Nebr.	100	100	100
Okla.	90	88	65
S. D.	100	NA	NA
Tex.	97	95	94
7-States	94	92	86

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

**SOYBEANS**

	1977	1976	Avg.
Ala.	74	73	80
Ark.	79	87	72
Ga.	80	84	81
Ill.	100	100	NA
Ind.	100	100	NA
Iowa	100	100	NA
Kans.	75	75	70
Ky.	81	69	71
La.	79	91	80
Mich.	98	90	85
Minn.	100	100	NA
Miss.	76	89	77
Mo.	100	100	NA
Nebr.	100	100	100
N. C.	87	83	NA
Ohio	100	100	NA
S. C.	88	80	80
Tenn.	90	85	77
U. S.	92	94	80

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



**HARVESTING PROGRESS**

Percent harvested as of June 19

**WINTER WHEAT**

	1977	1976	Avg.
Colo.	0	0	0
Ind.	1/	5	1/
Iowa	0	0	0
Kans.	15	0	5
Mo.	42	22	14
Mont.	0	0	0
Nebr.	1/	1/	1/
Ohio	0	0	0
Okla.	72	38	55
Tex.	57	47	62
U. S.	26	13	19

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

NA = Not Available.

1/ Less than 5%.