

# WEEKLY WEATHER AND CROP BULLETIN

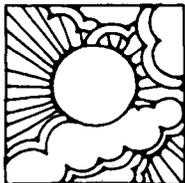
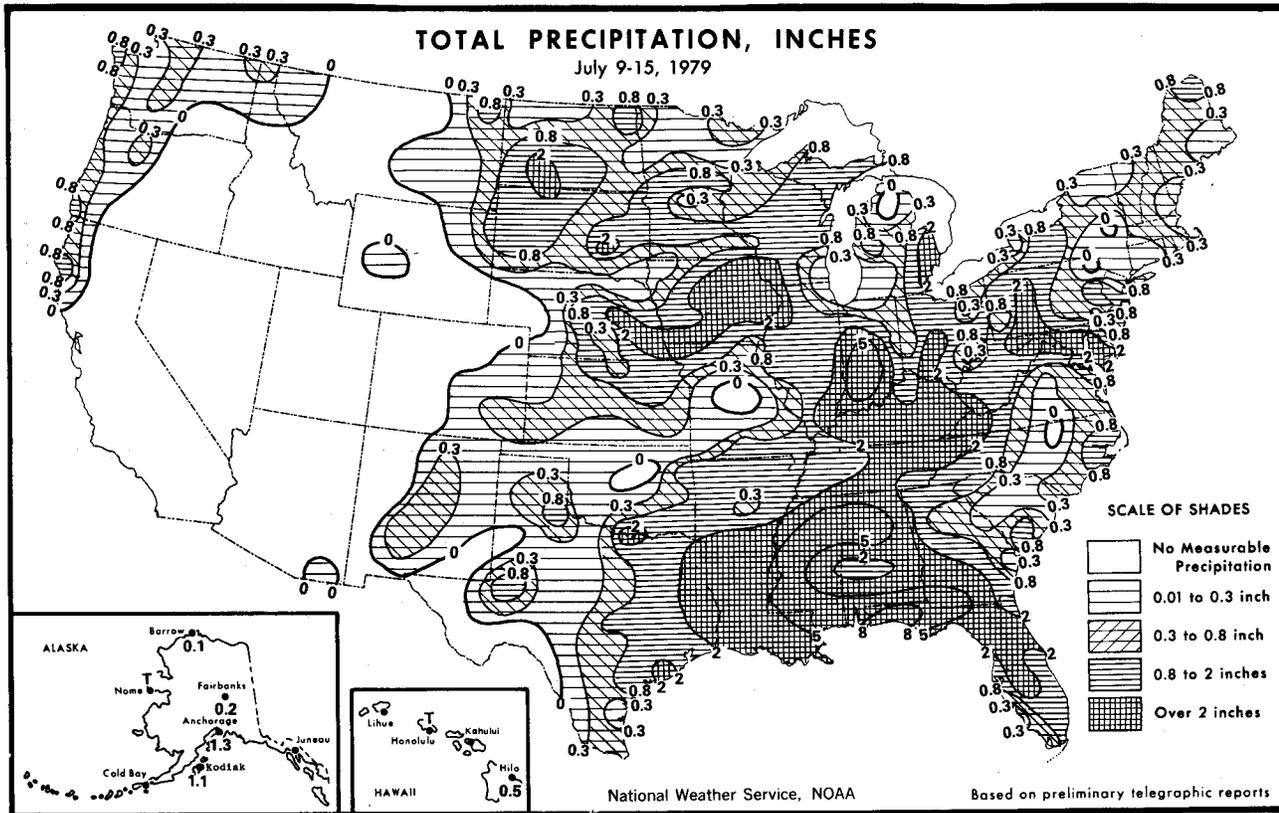
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National Weather Service, NOAA

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## National Weather Summary

July 9 - 15

**HIGHLIGHTS:** High temperatures and very moist air contributed to unsettled weather in most areas east of the Rockies; storms were most frequent in the upper half of the Plains. However, the heaviest rain of the week was associated with Hurricane Bob, which surged over the Louisiana coast at mid-week and moved to the Ohio Valley and middle Atlantic States. Thunderstorms formed over the very dry sections of central Illinois bringing welcome rains of one-half to one inch. Only the Pacific Northwest recorded significant rainfall west of the Rockies.

Several record high temperatures spanned an area from southern New Mexico to West Texas. The country

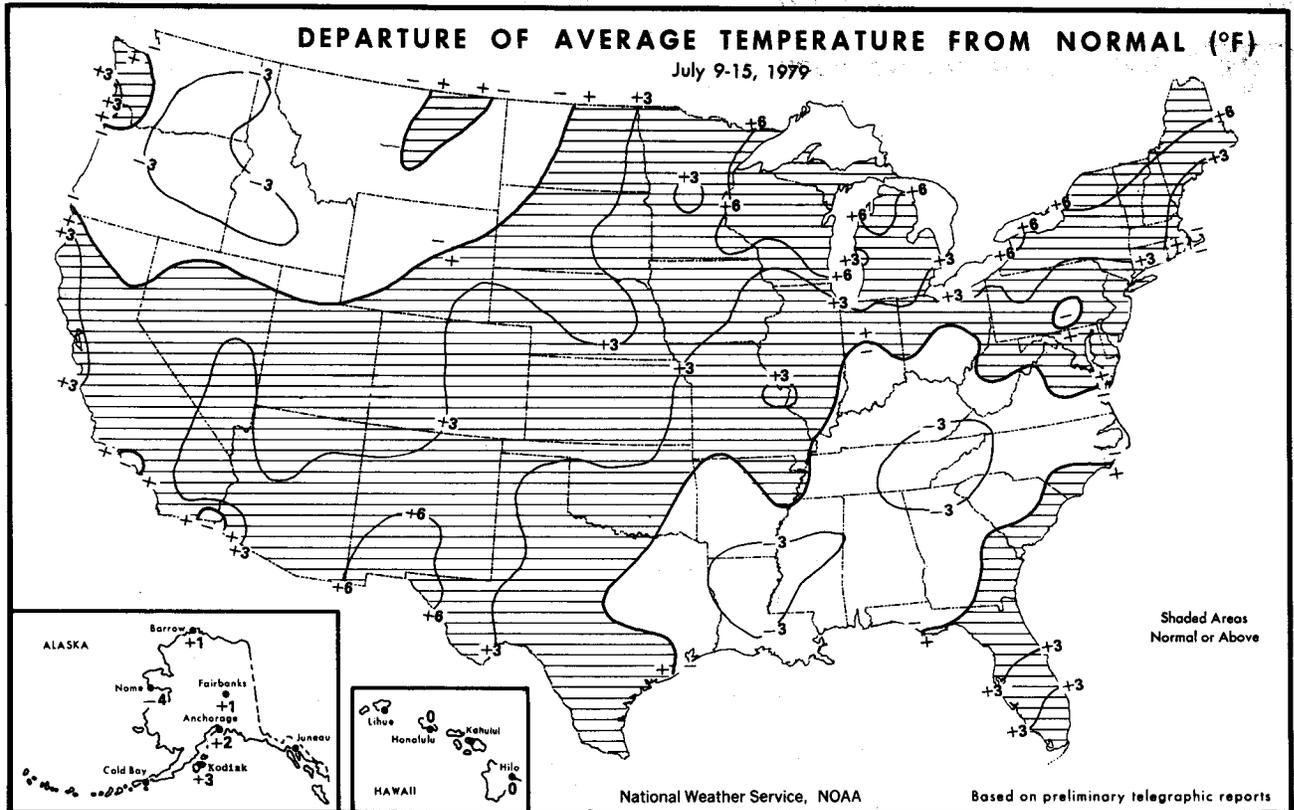
from Arizona to the western Great Lakes ranged 4 to 7 degrees warmer than normal. The Southeast and northern Rockies showed cooler than normal readings.

On Monday morning, showers covered an area from the Gulf Coast through the Ohio Valley; the heaviest rainfall showed more than an inch at Lake Charles, southwestern Louisiana, and Toledo, Ohio.

By afternoon, however, heavy thunderstorms ranged over the southern Plains, Delta Region, and Deep South. Hail and tornadoes hit several sections of Texas. Two and three-quarters inches drenched an area near Alexandria, central Louisiana, and about 2 inches soaked Mobile, southwestern Alabama. The most intense downpours deluged Pensacola, Fla., with 4.25 inches. Light rain dotted the Pacific Northwest.

El Paso, Tex., established a record high reading for July at 110°. By contrast, Washington, D.C., and Baltimore reported temperatures under 90°, marking the longest summer spell without reaching 90° since records began in 1871.

Tropical Storm Bob became a hurricane and threatened the Gulf Coast on Tuesday.



Meantime, typical summer storms rumbled over the southern Plains, Midwest, Ohio Valley, and Pennsylvania. Two to 3 inches of rain fell on Birmingham, Ala., Tallahassee, Fla., and Columbus, Ohio. DuBois, western Pa., notched an inch and a half. A tornado and hail were reported in Nebraska and Iowa; 3 to 5 inches of rain covered parts of northeastern Iowa.

Temperatures persisted hot in the Southwest; records included 112° at El Paso, 104° at Del Rio, southwestern Texas, and Albuquerque's 103°.

Hurricane Bob weakened to a tropical depression as it moved inland on Wednesday, but not before dumping several inches of rain on parts of the Gulf Coastal States. High winds, tornadoes, and localized flooding aggravated the situation.

Strong thunderstorms formed from the Dakotas to the upper Midwest unleashing 2.5 inches southwest of Bismarck, N. Dak., and 3 inches on southwestern Wisconsin and the Detroit area.

For the third consecutive day, El Paso, at 110°, posted a record high reading.

On Thursday, a cold front spread showers from the northern Plains through the Midwest and as far south as Oklahoma, but the heaviest rainfall soaked Florida. While Reeder, southwestern North Dakota, gathered an inch and one-half of rain, 4 inches fell near Panama City, northern Florida, and more than 2 inches doused Tallahassee.

The remnants of Hurricane Bob dropped 1.65 inches of rain on Indianapolis.

Temperatures remained hot in the Southwest and finally passed the 90° mark this year in Washington, D.C., Baltimore, Wilmington, Del., and Philadelphia. Albuquerque equaled its record high at 102°, and Las Vegas tallied a new mark at 114°.

A low pressure center, formed of the remains of Hurricane Bob, triggered torrential rains over the lower half of Indiana on Friday. Three to 7

inches drenched the central sections of the State setting off heavy local flooding.

Thunderstorms rolled over the Deep South and middle Atlantic States producing heavy rain. Jackson, Miss., accumulated 3.65 inches, and Salisbury, eastern Maryland, chalked up nearly 3 inches. Tornadoes, hail, and rain struck parts of the Midwest and central Plains.

Warm air moved into New England, where Burlington, Vt., scored a record 92°.

On Saturday, a cold front continued to spread rain through the Midwest. One to 2 inches covered Cedar Rapids, eastern Iowa, and Peoria, central Illinois. Previously dry Springfield, Ill., scored an inch of rain.

Rain also clouded the East Coast from Florida to New Jersey, as well as the Tennessee Valley and western Pennsylvania. About 2 inches fell at Crossville, east central Tennessee, and Windsor, central New Jersey. Other areas of rain showed about an inch at Bradford, north central Pennsylvania, and Omaha, Nebr.

Thunderstorms carried heavy rains to the eastern sections of the central Plains, Iowa, the Ohio Valley, and the Virginias.

Nearly 2 inches drenched Lincoln, Nebr., while Lamoni, south central Iowa, collected almost 3 inches.

Heavy rain stretched from Kentucky to Virginia. Freeburn, in extreme eastern Kentucky, measured 3 inches of rain in 3 hours, producing severe local flooding. Portions of northern West Virginia and western Virginia received heavy downpours.

One to 2 inch-rainfalls dotted Tennessee, North Carolina, Arkansas, and Kansas.

Albuquerque set a record 7 days in a row above 100°, toppling the former high mark of 6 days set in July 1963.



## National Agricultural Summary

July 9 - 15

**HIGHLIGHTS:** Low precipitation in several parts of the Nation began showing its effect with subnormal soil moisture. Most western rangelands were drying, particularly at lower elevations. Fire hazards increased as grasses dried. Dry conditions in New England stressed some crops and slowed regrowth of hay stubble. Parts of the north central States received some beneficial rains. Heavy rains from the Gulf Coast States northward into the Ohio Valley saturated soils and held fieldwork to only 2 or 3 days. Most other areas of the Nation had from 4 days to a full week available for fieldwork. Grasslands continued to rate fair to mostly good, except in the West and the Northeast, where dry soils reduced growth. Haying advanced rapidly, although rains curtailed some activity in the South. Winter wheat combining stood at 59%, lagging 1978's 72% and the 74% average. Oats and barley harvests started in major production areas. Cotton matured rapidly, particularly in the Southwest; picking was 10 to 14 days away in the lower Rio Grande Valley. Corn tasseling and soybean bloom became widespread in all major production areas. Corn harvest was limited to isolated areas of the South. Rice harvest preparation began in Texas, and combining started in Louisiana. Grain sorghum heading advanced into Kansas; harvest got underway in Texas. Deciduous fruit harvests moved northward; most fruit reached good size with the availability of adequate soil moisture. Vegetable growers in southern areas prepared land for planting later in the year as harvests declined. In northern areas, vegetable growers harvested increasing supplies of summer crops. LP gas rated 10% tight and 87% adequate. Diesel fuel scored 36% tight and 60% adequate. Gasoline stood at 31% tight and 66% adequate. LP gas supplies held steady from the previous week, but diesel and gasoline supplies improved.

**SMALL GRAINS:** Winter wheat harvest spread throughout Nebraska but did not reach the extreme northern producing States. Combining reached 59% complete in the 15 major producing States, short of the 72% last year and the 74% average. Harvest was almost on schedule in several of the eastern north central States but lagged in all of the Great Plains States. Oats and barley combining advanced northward into the major producing areas of the Nation.

Spring wheat heading reached the halfway point in Montana and 95% in South Dakota, both equaling last year and not far behind the average. Heading stood at 48% in North Dakota, and 58% in Minnesota, short of 1978 and the average.

**CORN:** Corn generally rated fair to mostly good, and excellent in some parts of the Corn Belt. Dry soils stressed the crop in the extreme Southeast where some harvesting was underway. Across the South, tasseling was far advanced, and 40 to 50% of the crop reached the dough stage. In the eastern Corn Belt, growth continued to exceed last year and almost reached the average. Tasseling and silking began and ranged from just starting to 5% in Indiana and 10% in Illinois. This stage of development generally lagged recent years. In the western Corn Belt, tasseling started in northern areas and ranged from 10% in Iowa to 15% in Kansas and 39% in Missouri.

**SOYBEANS:** Soybean planting on double-cropped land neared completion. The crop rated fair to good; excess moisture plagued some of the Ohio crop. In the eastern north central States, bloom reached 25 to 41% respectively in Indiana and Illinois; early stands set pods. In the western north central States, bloom ranged up to 10% in Kansas and 23% in Iowa. No podding was reported. In the south central States, early fields bloomed in Arkansas and ranged up to 25% bloom in Louisiana. Pod set ranged from 1% in Tennessee to 8% in Louisiana.

**COTTON:** Cotton rated fair to good, although some poor stands emerged in Missouri. Squaring advanced rapidly toward completion except in the southern Plains where the crop was planted late. Boll set advanced most in the Southeast and ranged from 2 to 26% in the south central States. High temperatures helped promote rapid growth of the southwestern crop. Lower Rio Grande Valley growers defoliated plants and should be ready to pick on a commercial scale in about 10 to 14 days.

**OTHER CROPS:** Grain sorghum heading advanced into Kansas. Heading ranged from 60% in Texas to 5% in Oklahoma and 3% in Kansas. Harvest stood at 17% in Texas, falling short of the 26% last year and the 20% average.

Rice rated good in the Delta Region. Heading ranged from 2% in Mississippi to 53% in Louisiana and 82% in Texas. Texas growers drained fields in preparation for combining; limited harvest began in Louisiana.

**FRUITS AND NUTS:** Deciduous fruit harvests continued to advance northward as tart and sweet cherry, apple, and peach picking spread throughout the northern States. Picking in extreme southern areas wound down. Peach picking reached 74% complete in Georgia and 46% in North Carolina. Fruits of all kinds showed good size and quality because of adequate soil moisture. Texas pecans continued to size well. California almond hull split increased, and some walnuts dropped.

Florida citrus groves rated excellent; soil moisture was adequate. Fruit size increased well with very little late bloom. Florida Valencia picking was almost complete. Arizona citrus rated good. The California Valencia harvest slowed.

**VEGETABLES:** Vegetable production increased in northern areas; growers harvested tomatoes, sweet corn, green peas, peppers, cabbage, broccoli, cauliflower, and snap beans. Southern growers prepared land for planting fall and winter crops. The California processing tomato harvest increased in the San Joaquin Valley.

**PASTURE AND LIVESTOCK:** Pastures in the eastern half of the Nation rated fair to good. Rain improved grasslands in the Southeast. In the West, dry conditions deteriorated rangeland and increased the risk of grass fires, particularly at lower elevations. Most low-elevation pastures rated only poor to fair, but higher elevation pastures scored fair to good. Spraying to control grasshoppers continued, but populations mounted and put increasing pressure on grasslands as well as adjacent cropland. Cattle were in good condition and had adequate stock water available in all areas.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., July 15, 1979

States and Stations	Temperature OF		Precipitation Inches		States and Stations	Temperature OF		Precipitation Inches		States and Stations	Temperature OF		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA. Birmingham . . . . .	78	- 2	5.3	+ 4.1	LA. Baton Rouge . . . . .	78	- 4	3.7	+ 2.2	Youngstown . . . . .	73	+ 2	1.5	+ .6
Mobile . . . . .	79	- 2	5.9	+ 3.8	Lake Charles . . . . .	81	- 1	2.4	+ .9	OKLA. Okla. City . . . . .	82	+ 1	T	- .6
Montgomery . . . . .	80	- 1	1.3	+ .1	New Orleans . . . . .	81	- 1	3.4	+ 1.8	Tulsa . . . . .	85	+ 3	T	- .9
ALASKA. Anchorage . . . . .	60	+ 2	1.3	+ .8	Shreveport . . . . .	80	- 3	4.0	+ 3.3	OREG. Astoria . . . . .	64	+ 4	T	+ .2
Barrow . . . . .	40	+ 1	.1	- .1	MAINE. Caribou . . . . .	72	+ 7	1.1	+ .2	Burns . . . . .	65	- 3	0	- .1
Fairbanks . . . . .	62	+ 1	.2	- .2	Portland . . . . .	70	+ 2	.1	- .5	Medford . . . . .	71	- 1	T	- .1
Juneau . . . . .	--	--	--	--	MD. Baltimore . . . . .	77	0	2.3	+ 1.4	Pendleton . . . . .	69	- 1	T	- .1
Kodiak . . . . .	57	+ 3	1.0	+ .2	MASS. Boston . . . . .	74	+ 1	T	- .6	Portland . . . . .	70	+ 3	T	- .1
Nome . . . . .	46	- 4	T	- .5	Chatham . . . . .	67	- 1	T	- .1	Salem . . . . .	66	+ 1	T	+ .1
ARIZ. Flagstaff . . . . .	67	+ 1	0	- .5	MICH. Alpena . . . . .	70	+ 5	T	- .6	PA. Allentown . . . . .	76	+ 2	1.2	+ .2
Phoenix . . . . .	94	+ 3	0	- .1	Detroit . . . . .	74	+ 2	3.9	+ 3.2	Erie . . . . .	72	+ 3	.3	- .5
Tucson . . . . .	93	+ 4	T	- .5	Flint . . . . .	74	+ 4	1.1	+ .4	Harrisburg . . . . .	73	- 3	.3	- .5
Winslow . . . . .	81	+ 3	T	- .3	Grand Rapids . . . . .	76	+ 5	.1	- .6	Philadelphia . . . . .	78	+ 1	.3	- .6
Yuma . . . . .	93	- 1	0	0	Houghton Lake . . . . .	72	+ 6	T	- .7	Pittsburgh . . . . .	74	+ 2	.4	- .5
ARK. Fort Smith . . . . .	81	- 1	.6	- .2	Lansing . . . . .	75	+ 4	.3	- .3	Scranton . . . . .	74	+ 2	T	- 1.0
Little Rock . . . . .	80	- 1	.4	- .4	Marquette . . . . .	72	+ 6	1.4	+ .7	R. I. Providence . . . . .	74	+ 2	.8	+ .2
CALIF. Bakersfield . . . . .	84	0	0	0	Muskegon . . . . .	72	+ 2	T	- .6	S. C. Charleston . . . . .	82	+ 2	.7	- 1.2
Eureka . . . . .	60	+ 4	.3	+ .3	S. Ste. Marie . . . . .	71	+ 7	.8	+ .2	Columbia . . . . .	79	- 2	T	- 1.3
Fresno . . . . .	82	+ 1	0	0	MINN. Duluth . . . . .	71	+ 6	.3	- .5	Greenville . . . . .	74	- 4	1.4	+ .4
Los Angeles . . . . .	72	- 1	0	0	Internatl Falls . . . . .	69	+ 3	.1	- .8	S. D. Aberdeen . . . . .	72	0	.4	- .2
Red Bluff . . . . .	84	+ 2	T	0	Minneapolis . . . . .	77	+ 5	.8	0	Huron . . . . .	77	+ 4	1.1	+ .6
San Diego . . . . .	71	+ 2	0	0	Rochester . . . . .	77	+ 7	.6	- .3	Rapid City . . . . .	72	0	.9	+ .4
San Francisco . . . . .	67	+ 5	0	0	St. Cloud . . . . .	72	+ 2	.2	- .5	Sioux Falls . . . . .	77	+ 4	.1	- .6
Stockton . . . . .	79	+ 2	0	0	MISS. Jackson . . . . .	78	- 4	6.6	+ 5.6	TENN. Chattanooga . . . . .	74	- 5	1.2	0
COLO. Denver . . . . .	77	+ 4	T	- .4	Meridian . . . . .	80	- 1	1.5	+ .3	Knoxville . . . . .	74	- 4	3.3	+ 2.2
Grand Junction . . . . .	80	+ 1	T	- .1	MO. Columbia . . . . .	79	+ 2	0	- .9	Memphis . . . . .	82	+ 1	.9	+ .1
Pueblo . . . . .	80	+ 4	.2	- .1	Kansas City . . . . .	79	0	.1	- .9	Nashville . . . . .	77	- 2	.9	- .5
CONN. Bridgeport . . . . .	74	0	T	- .8	St. Louis . . . . .	83	+ 5	.3	- .6	TEX. Abilene . . . . .	85	+ 1	.1	0
Hartford . . . . .	77	+ 4	.1	- .7	Springfield . . . . .	78	0	T	- .9	Amarillo . . . . .	80	+ 1	.3	- .4
D. C. Washington . . . . .	80	+ 1	1.3	+ .4	MONT. Billings . . . . .	72	0	T	- .2	Austin . . . . .	84	0	.1	- .3
FLA. Apalachicola . . . . .	82	+ 1	4.4	+ 2.6	Glasgow . . . . .	71	+ 1	T	- .3	Beaumont . . . . .	81	- 2	1.9	+ .6
Daytona Beach . . . . .	83	+ 2	3.4	+ 1.9	Great Falls . . . . .	67	- 2	0	- .3	Brownsville . . . . .	85	+ 1	.4	+ .1
Ft. Myers . . . . .	86	+ 4	.2	- 1.9	Havre . . . . .	69	- 1	0	- .3	Corpus Christi . . . . .	86	+ 1	T	- .4
Jacksonville . . . . .	82	+ 1	1.6	0	Helena . . . . .	67	- 1	0	- .2	Del Rio . . . . .	88	+ 1	0	- .3
Key West . . . . .	86	+ 2	.6	- .4	Kalispell . . . . .	64	0	.2	0	El Paso . . . . .	89	+ 6	T	- .4
Lakeland . . . . .	85	+ 4	3.5	+ 1.6	Miles City . . . . .	72	- 2	.1	- .3	Fort Worth . . . . .	85	0	.4	0
Miami . . . . .	83	+ 1	1.8	+ .2	Missoula . . . . .	65	- 1	0	- .2	Galveston . . . . .	82	- 1	1.9	+ .9
Orlando . . . . .	84	+ 3	2.0	- .1	NEBR. Grand Island . . . . .	78	+ 2	.5	- .2	Houston . . . . .	83	0	1.5	+ .6
Tallahassee . . . . .	80	- 1	7.6	+ 5.5	Lincoln . . . . .	80	+ 3	2.4	+ 1.6	Lubbock . . . . .	84	+ 4	T	- .5
Tampa . . . . .	84	+ 2	.8	- 1.1	Norfolk . . . . .	78	+ 2	.3	- .4	Midland . . . . .	83	+ 1	1.5	+ 1.1
W. Palm Beach . . . . .	82	0	1.3	- .2	N. Platte . . . . .	77	+ 3	0	- .7	San Angelo . . . . .	85	+ 1	T	- .3
GA. Atlanta . . . . .	77	- 1	.8	- .4	Omaha . . . . .	78	+ 3	1.2	+ .4	San Antonio . . . . .	85	0	.4	0
Augusta . . . . .	80	0	.1	- 1.1	Valentine . . . . .	76	+ 2	1.1	- .5	Victoria . . . . .	84	0	1.5	+ .9
Macon . . . . .	80	- 1	1.3	+ .2	NEV. Ely . . . . .	70	+ 3	0	- .1	Waco . . . . .	83	- 2	.8	+ .4
Savannah . . . . .	83	+ 2	.2	- 1.6	Las Vegas . . . . .	95	+ 5	0	- .1	Wichita Falls . . . . .	86	0	.1	- .4
HAWAII. Hilo . . . . .	75	0	.5	- 1.6	Reno . . . . .	70	0	0	- .1	UTAH. Blanding . . . . .	75	+ 2	0	- .2
Honolulu . . . . .	80	0	T	- .1	Winnemucca . . . . .	73	+ 2	0	- .1	Salt Lake City . . . . .	77	0	0	- .1
Kahului . . . . .	78	0	T	- .1	N. H. Concord . . . . .	73	+ 3	.2	- .5	VT. Burlington . . . . .	76	+ 6	T	- .8
Lihue . . . . .	--	--	--	--	N. J. Atlantic City . . . . .	76	+ 1	.8	- .2	VA. Lynchburg . . . . .	75	- 1	.4	- .5
IDAHO. Boise . . . . .	70	- 4	0	0	Trenton . . . . .	76	0	.9	- .2	Norfolk . . . . .	77	- 1	.4	- .9
Lewiston . . . . .	72	- 1	T	- .1	N. MEX. Albuquerque . . . . .	84	+ 5	T	- .3	Richmond . . . . .	78	0	.4	- .9
Pocatello . . . . .	69	- 2	0	- .1	Roswell . . . . .	84	+ 5	T	- .4	Roanoke . . . . .	74	- 1	.8	0
ILL. Cairo . . . . .	--	--	--	--	N. Y. Albany . . . . .	76	+ 4	0	- .7	WASH. Colville . . . . .	67	- 1	0	- .1
Chicago . . . . .	77	+ 2	.3	- .7	Binghamton . . . . .	72	+ 3	.1	- .8	Omak . . . . .	70	- 1	T	- .3
Moline . . . . .	76	+ 2	2.3	+ 1.2	Buffalo . . . . .	76	+ 6	.1	- .5	Quillayute . . . . .	60	+ 1	.8	+ .3
Peoria . . . . .	75	0	1.6	+ .7	New York . . . . .	78	+ 1	.1	- .7	Seattle-Tacoma . . . . .	66	+ 1	.2	+ .1
Rockford . . . . .	75	+ 2	.2	- .8	Rochester . . . . .	76	+ 5	1.7	+ 1.1	Spokane . . . . .	66	- 4	T	- .1
Springfield . . . . .	78	+ 2	1.0	+ .1	Syracuse . . . . .	76	+ 5	.6	- .1	Walla Walla . . . . .	72	- 4	T	- .1
IND. Evansville . . . . .	78	0	2.6	+ 1.7	N. C. Asheville . . . . .	71	- 2	1.3	+ .2	Yakima . . . . .	67	- 4	T	- .1
Ft. Wayne . . . . .	74	+ 1	.6	- .3	Charlotte . . . . .	76	- 2	.5	- .6	W. VA. Beckley . . . . .	69	- 1	1.1	+ .1
Indianapolis . . . . .	74	- 1	5.7	+ 4.8	Greensboro . . . . .	77	0	.4	- .6	Charleston . . . . .	75	0	1.4	+ .2
South Bend . . . . .	77	+ 5	T	- .8	Hatteras . . . . .	77	- 1	.8	- .5	Huntington . . . . .	74	- 1	1.6	+ .6
IOWA. Burlington . . . . .	76	+ 1	.4	- .5	Raleigh . . . . .	76	- 1	T	- 1.1	Parkersburg . . . . .	73	- 2	.1	- .9
Des Moines . . . . .	79	+ 4	1.5	+ .8	Wilmington . . . . .	81	+ 1	.7	- 1.2	WISC. Green Bay . . . . .	76	+ 7	1.2	+ .5
Dubuque . . . . .	74	+ 2	2.5	+ 1.5	N. DAK. Bismarck . . . . .	71	0	1.4	+ .9	La Crosse . . . . .	77	+ 4	.4	- .4
Sioux City . . . . .	79	+ 4	.1	- .7	Fargo . . . . .	75	+ 4	T	- .7	Madison . . . . .	74	+ 4	.6	- .3
KANS. Concordia . . . . .	82	+ 4	.1	- .1	Williston . . . . .	69	- 1	.2	- .3	Milwaukee . . . . .	77	+ 7	.1	- .7
Dodge City . . . . .	82	+ 3	.3	- .4	OHIO. Akron-Canton . . . . .	73	+ 1	.2	- .7	WYO. Casper . . . . .	71	0	T	- .2
Goodland . . . . .	80	+ 4	T	- .6	Cincinnati . . . . .	74	- 1	1.7	+ .7	Cheyenne . . . . .	72	+ 3	0	- .4
Topeka . . . . .	82	+ 4	1.6	+ .6	Cleveland . . . . .	76	+ 5	1.1	+ .3	Lander . . . . .	70	- 1	T	- .2
Wichita . . . . .	84	+ 3	.1	- .9	Columbus . . . . .	71	- 2	2.9	+ 1.9	Sheridan . . . . .	68	- 2	0	- .3
KY. Lexington . . . . .	75	- 1	.8	- .3	Dayton . . . . .	76	+ 2	.6	- .2	P. R. San Juan . . . . .	84	+ 3	.2	- 1.2
Louisville . . . . .	75	- 2	2.2	+ 1.3	Toledo . . . . .	75	+ 3	1.3	+ .5					

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 ESCS State offices in cooperation with the National Weather Service.

**ALABAMA:** Temperatures below normal. Rainfall ranged from less than 0.50 in. to more than 6.00 in.

Fieldwork 2.0 days suitable. Soybeans fair to good; 20% blooming, 17% 1978, 23% average. Corn fair to good; 80% silking, 87% 1978, 79% average. Cotton fair to good; 82% squaring, 76% 1978, 84% average; setting bolls 19%. Peanuts good, 60% pegging, 57% 1978, 74% average. Potatoes, peaches, hay harvested. Pastures fair to good.

**ALASKA:** Cloudy and wet conditions slowed haying in Railbelt. Farmers had 2 to 4 days available for harvesting hay. Harvest first crop hay nearly 67% complete, ahead of 60% year ago. Small grain fields made good growth. Small grain 50% headed, 66% last year. Potatoes and other vegetables made good to excellent growth. Earliest fields potatoes starting to bloom. Soil moisture mostly adequate.

Tanana Valley skies continued fair most of week. Temperatures near average north, slightly below average south. Rainfall below average. Matanuska Valley cloudy and rainy. Rainfall above average for season. Temperatures below average. Kenai Peninsula cloudy and rainy. Rainfall above average. Temperatures below average. Kodiak Island cloudy and rainy. Rainfall above normal. Temperatures below normal.

**ARIZONA:** Mostly hot and dry. Scattered showers White Mountains and southeast. Temperatures near normal. Weather conditions near perfect.

Cotton very good growth, squaring, flowering, boll setting increasing accelerated rate. Some bolls western areas maturing rapidly. Sorghum plantings still active, grain maturing rapidly west. Corn silage harvest well underway, many fields have been completed. Corn for grain tasseling, some early plantings approaching maturity. Saf-flower very good progress, heads maturing. Alfalfa haying making excellent progress, fourth cutting nearing completion west, mostly third cutting other areas. Cantaloup harvest virtually complete Yuma, still active central. Watermelon harvest winding down, volume movement underway. Harvest grapes, other deciduous fruits virtually complete. Citrus groves very good condition, new crop prospects favorable. Diesel, gasoline supplies mostly adequate northern, western, central areas; diesel, gasoline mostly tight southeast; LP gas mostly adequate all areas. Cattle, calves in good condition. Lower ranges only fair. Fire danger extreme. Higher ranges good. Stock water, soil adequate. Summer feed sufficient. Screwworms in southern areas.

**ARKANSAS:** Highest normal 83°; lowest 78°. Highest mean 83°; lowest 78°. Extremes: 97 and 62°. Most rainfall 4.15 in.; least trace.

Soil moisture adequate. Fieldwork 5.1 days suitable. Diesel 51% adequate, 46% tight; gasoline 62% adequate, 32% tight; LP gas 87% adequate. Soybeans good to fair early plantings blooming. Cotton fair to good; 87% squaring, 95% 1978; setting bolls 13%, 41% 1978. Rice good to fair. Corn mostly in milkstage; good condition. Sorghum good condition, early fields heading. Tomato harvest peaked southeast. Peach harvest continued. Hay and pastures fair condition. Cattle good condition.

**CALIFORNIA:** Warmer temperatures than previous week. Extreme northwest coastal region received significant rain.

Cotton 96% squared, 80% last year; 65% bloomed and 22% setting bolls. Wheat 87% harvested. Barley 83% harvested. Corn 48% tassel stage, 34% silk stage. Apricots, freestone peaches, plums, nectarines picked. Grape harvest Coachella Valley wound down. Valencia orange harvest slow. Almond hull split increased. Some walnuts dropped. Broccoli, cauliflower harvest steady central coast, south bay. Cantaloup harvest complete Blythe this week, increasing San Joaquin Valley. Carrot volume heavy Kern district, Salinas Valley. Harvest sweet corn, cucumbers active south coast to Sacramento Valley. Potato harvest active Kern, light River side. Fall crop Tulelake doing well in spite cool temperatures. Market tomatoes harvest active south coast, San Joaquin Valley. Processing tomato harvest increasing San Joaquin Valley. Ranges excellent higher elevations. Lower ranges dry, fire potential great. Cattle in good conditions, adequate water supplies. Sheep grazing barley stubble. Flies, gnats, grasshoppers, posing problems. Supplies of gasoline, diesel, and propane adequate, with only a few isolated reports of tight or surplus supply.

**COLORADO:** Weak cold front produced isolated showers, thunderstorms near Colorado-Kansas border 11th. Isolated thunderstorms continued east 12th. Another cold front 14th produced scattered showers, thunderstorms east of mountains. Isolated showers, thunderstorms in San Luis Valley and along the front range 15th. Temperatures mostly above normal.

Winter wheat turned color 93%, 100% 1978, 98% average; ripe 67%, 92% 1978, 81% average; harvested 31%, 71% 1978, 49% average. Barley turned color 51%, 100% 1978; ripe 20%, 79% 1978; harvested 6%, 47% 1978, 50% average. Corn average height 39 in., 41 in. 1978, tasseled 2%, 4% 1978. Alfalfa hay first cutting 94%, 98% 1978; second cutting 33%, 28% 1978. Ranges and pastures good condition. Livestock very good condition. LP gas, gasoline supplies mostly adequate. Diesel fuel supply tight to adequate.

**FLORIDA:** Typical summertime weather prevailed with scattered thunderstorms and warm temperatures. Rainfall between 1.00 to 2.00 in. with higher amounts locally. High temperatures in 90's and lows in 70's.

Soil moisture mostly adequate; some west central areas short. Corn fair to good condition. Light harvest underway. Tobacco harvest active. Soybean planting virtually complete. Peanuts making good progress. Sugarcane growth excellent. Fuel supplies mostly adequate to tight; where harvest underway, supplies diesel, gasoline, becoming tighter. Panhandle pastures mostly good after recovery from recent rains. Elsewhere, pastures generally good to excellent. Cattle good condition. Citrus grove condition excellent; moisture adequate most all areas. Fruit sizes progressing well, very little late bloom. Cover crops growing tall and rank, Valencia picking almost complete. Season practically over most vegetable crops. Limited supply watermelons Panhandle area. Harvest Gadsden County tomatoes about complete. Very light

supplies sweet corn, cucumbers, eggplant, peppers, squash, okra, peas available. Land preparation summer, fall planting underway.

GEORGIA: Temperatures ranged 2° below normal southwest to 10° below average northeast. Averages from mid-60's mountains to near 80° extreme south. Rain-fall at every station. Totals of 2.00 in. or more common. Heaviest amounts in mountains and extreme south.

Soil moisture mostly adequate to surplus. Fieldwork: 2 days suitable. Corn fair to good; 1% harvested, less than 1% last year. Tobacco fair to mostly good; 41% harvested, 30% last year, 44% average. Soybeans good. Peanuts good; 99% blooming, 92% pegging; last year 96% and 86% respectively. Cotton fair to good; 93% setting bolls, 77% last year, 78% average. Watermelons fair to mostly good; 76% harvested, 63% last year. Peaches good; 74% harvested, 70% last year, 82% average. Apples good; 3% harvested, 1% last year. Pecans fair to good. Pastures and hay fair to mostly good. Cattle and hogs good. LP gas 91% adequate, 5% tight; diesel fuel 62% adequate, 34% tight; gasoline 73% adequate, 25% tight.

HAWAII: Weather hot, humid but favorable. Weekend rains windward Oahu Island beneficial to crops and orchards. Rains on upper slopes of Kona, Hawaii Island, caused flower droppings on snap beans but generally aided crop development. Most other islands dry. Irrigation heavy. Spraying frequent to control insect and disease damage.

Vegetable supplies: Chinese, head cabbage production heavy. Other vegetables light to moderate. Banana, papaya supplies light. Pineapple harvesting heavy, more fields coming into harvest. Sugar harvesting steady. Pastures: rains beneficial, generally fair to good. Fuel supplies adequate.

IDAHO: Warm, dry weather; temperatures ranged from 29 to 101°. Only northern section recorded any measurable precipitation.

Ranges drying out with high fire danger. Irrigation in heavy demand. Winter wheat 50% turned, last year 40%. Spring wheat and barley 30% turned. Potatoes 40% closed middles, 20% last year. First cutting alfalfa done, second just beginning. Green peas 66% done. Grass seed 15% done, 5% last year. Fieldwork: 6.5 days suitable. Soil moisture short to very short. Farm fuel supplies adequate to tight.

ILLINOIS: Temperatures normal to 5° above normal. Precipitation varied from a trace to 2.50 in.

Soil moisture short to adequate. Corn 10% silked, 25% 1978, 44% average; average height all fields 58 in., 58 in. 1978, 60 in. average; height advanced fields 73 in., 78 in. 1978, 76 in. average; condition good. Soybeans 41% bloomed, 22% 1978, 40% average; 10% podded, 6% 1978, 24% average; condition good. Winter wheat 94% harvested, 82% 1978, 94% average. Oats 80% turning yellow, 68% 1978, 87% average; 35% ripe, 47% 1978, 80% average; condition good to fair. Barley 60% combined. Alfalfa hay second crop 65% cut, 50% 1978, 54% average; condition good. Pastures good to fair. Fieldwork: 6.5 days suitable.

INDIANA: Wet week except extreme north. Remnants of hurricane left up to 8.00 in. rain in central and south. Dry north missed. Area averages from 0.30 in. north to 3.80 in. southwest. Heaviest rains around Eminence with considerable flooding.

Fieldwork: 4 days suitable. Topsoil and subsoil moisture fully adequate. Wheat 40% combined, 1978 40%, average 85%. Wheat 95% ripe. Oats less

than 5% combined, 1978 5%, average 25%. Rye 35% combined, 1978 30%, average 65%. Corn 5% silked, 1978 5%, average 30%. Corn 53 in. tall. Soybeans 16 in. tall, 1978 12 in., average 16 in. Soybeans 25% in bloom, 1978 15%, average 30%. Diesel and gasoline 80% adequate.

IOWA: Temperatures 1 to 3° above normal. Moderate to heavy thundershowers fell mostly 11th to 14th except some areas west central, northwest, and north central where little rain fell.

Fieldwork: 6.2 days favorable. Topsoil moisture short to adequate. Subsoil moisture adequate. Corn height averaged 55 in. Corn 10% tasseled, 1978 24%, normal 49%. Soybeans 23% with 75% plants blooming; 1978 34%, normal 41%. Winter wheat 23% harvested, 1978 22%. Second crop alfalfa hay harvest 43%, 1978 34%, normal 49%. Crop conditions: Corn, beans, oats, wheat improved, alfalfa hay, clover hay, and pasture declined. Livestock market movement decreased.

KANSAS: Hot, dry. Average temperatures from 76 to 81° or 3 to 6° above normal. Temperatures reached 100° or more over west and central 13th and 14th. Cold front broke hot spell 15th with 0.50 to 1.50 in. rains north central and northeast.

Wheat harvest 75% complete, 95% year ago, 95% average. Corn 15% tasseled, 20% last year, 35% average. Sorghum 3% headed. Soybeans reached 10% blooming stage, 15% last year. Second cutting alfalfa 70%, 75% last year, 80% average.

KENTUCKY: Temperatures 1 to 2° below normal. Precipitation generally between 1.50 to 2.00 in.; however thunderstorms dropped as much as 3.00 to 4.00 in. over weekend at some localities.

Soil moisture adequate to surplus. Rain limited fieldwork to 3.3 days. Corn good to excellent condition, but late with 26% tasseled compared with 43% last year and average 53%. Soybean planting about finished, emerged beans averaged 14 in. height. Tobacco fair to good condition, 25% over 2 feet and 60% from 1 to 2 feet in height. Wheat harvest about finished. Pasture and hay crops good to excellent.

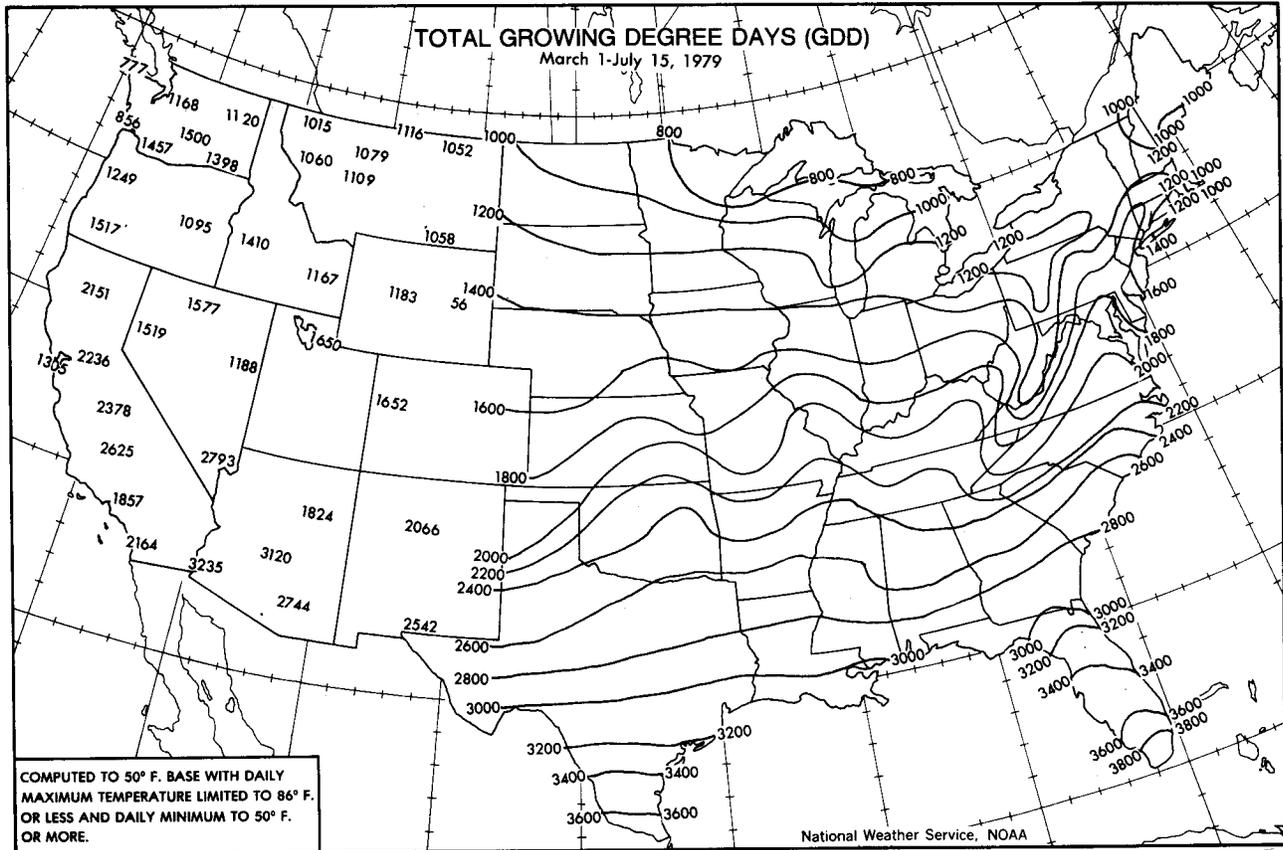
LOUISIANA: Temperatures 1 to 3° below normal. Extremes: 95 and 66°. Rain statewide.

Fieldwork: 3.7 days suitable. Soil moisture adequate. Cotton fair to good; 80% squaring, 90% last year; 26% setting bolls, 54% last year. Soybeans fair to good; 25% blooming, 33% last year; 8% setting pods. Rice good; 53% headed, 66% last year; harvest beginning. Corn fair to good; 96% tasseled; 69% dough, 79% last year; 27% mature, 39% last year. Sorghum fair to good; 32% headed, 67% last year. Sugarcane, sweet-potatoes fair to good. Peach, watermelon, vegetable harvest active. Hay, pastures fair to good. Cattle good.

MARYLAND & DELAWARE: Temperatures 3° below normal. Highs in mid-80's and lows in low 60's. Precipitation light except a few isolated downpours.

Fieldwork: 6.6 days suitable. Soil moisture supplies mostly adequate. Fuel supplies adequate. Corn 25% silked, equaled last year, normal 34%. Soybean planting finishing about normal. Barley harvest 95% complete. Second cutting alfalfa over 65% complete. Tobacco fields need warm weather to eradicate blue mold problem. Harvest of early varieties of apples and peaches underway.

MICHIGAN: Temperatures 3 to 5° above normal Lower, 6 to 7° above Upper. Precipitation near normal over Upper. Very dry week over Lower except for heavy rains over southeast.



**Fieldwork:** 5 days suitable. Soil moisture generally adequate. Pasture feed supplies average. Corn height 40 in., 40 in. last summer, 45 in. normal. Wheat 15% ripened, 25% last year, 15% normal. Oats 10% turned yellow, 15% last year and normal. Second cut hay 15% complete. Sweet cherry harvest nearing completion southwest, just starting northwest. Tart cherry harvest 50% picked southwest, to start July 20 northwest. Strawberry harvest nearing completion statewide. Early blueberry harvest starting. Cabbage harvest slowed by rains southeast. Green pepper and green pea harvest underway.

**MINNESOTA:** Temperatures 2 to 7° above normal except for locally below normal on North Shore. Extremes: 93 and 43°. Precipitation nearly 1.00 in. below normal north and less than 0.50 in. below normal elsewhere except for locally in northeast and southwest. Precipitation totals generally less than 1.00 in. with occasional reports of nearly 2.00 in. in south.

Warm temperatures, adequate moisture pushed crop growth. Crop conditions improving most areas. Moisture stress minimal, apparent only on dry, lighter soils. Some corn nearing tasseling; few soybeans blooming; some early small grains turning color. Green pea pack half completed. Corn 38 in., 1978 54 in., normal 56 in.; soybeans 13 in., 1978 19 in., normal 18 in. Spring wheat 58%, 1978 97%, normal 91%; oats 77%, 1978 97%, normal 94%; barley 66%, 1978 97%, normal 90%. Winter wheat 58%, 1978 88%, normal 86%; rye 64%, 1978 91%, normal 94%. Flax 43% blooming, 1978 65%, normal 77%. First alfalfa hay crop 94% cut, 1978 95%, normal 98%.

**MISSISSIPPI:** Temperatures below normal. Rain statewide with locally heavy amounts which produced flash flooding. Weekly totals of 4.00 to 8.00 in. common.

Soil moisture mostly surplus. Fieldwork: 1.7 days suitable. General rains improved soil moisture conditions but left water standing in low fields and accompanying winds caused some scattered damage to crops. Soybean planting virtually complete; acreage 97% up to stand, 95% 1978, 97% average; 11% blooming, 27% 1978, 19% average; condition good to fair. Cotton 92% squaring, 95% 1978, 85% average; 54% blooming, 71% 1978; 8% setting bolls, 19% 1978, 34% average; condition fair. Rice 2% headed, 6% 1978, 7% average; condition good. Corn 82% silked, 90% 1978, 74% average; 39% dough stage, 53% 1978; condition good. Sorghum 98% planted, 95% 1978; 21% headed, 32% 1978. Hay crops 50% harvested, 55% 1978, 45% average. Peaches 49% harvested, 48% 1978, 66% average. Watermelons 39% harvested, 30% 1978, 31% average. Pasture condition good. Diesel supplies tight to adequate; gasoline adequate to tight; LP gas adequate.

**MISSOURI:** Temperatures within 1° of normal. Precipitation general but light.

Fieldwork: 4.7 days suitable. Double crop soybeans 75% planted, last year 83%. Corn 39% tasseled, last year 26%. Corn 31% silked, last year 15%, normal 43%. Oats 37% harvested, last year 41%, normal 72%. Wheat 77% harvested, last year 85% normal 92%. Cotton 73% squaring, last year 92%, normal 61%. Cotton 31% blooming, last year 63%. Alfalfa hay 2nd cutting 62% harvested, last year 62%, normal 71%. Other hay 85% harvested, last year 80%. Condition of soybeans mostly fair to good. Condition of cotton mostly poor to fair. Soil moisture mostly short to adequate. LP gas mostly adequate. Diesel fuel and gasoline mostly tight to adequate.

**MONTANA:** Hot with generally dry conditions prevailing. Moisture missing again most areas although scattered thunderstorms brought some

relief to central and last midweek. Some hail east where temperatures rose above 100° first half of week. Temperatures continued near normal to 3° above except from 1 to 2° below in southwest.

Soil moisture short. Fieldwork: 7 days suitable. Small grains fair condition; sugarbeets fair to good; potatoes and corn good condition. Winter wheat turning 45%, 50% 1978, 65% average. Spring wheat headed 50%, 50% 1978, 60% average. Barley headed 55%, 50% 1978, 60% average. Oats headed 45%, 45% 1978, 55% average. Winter wheat harvest expected to start August 1. Alfalfa hay first cutting 85% complete, normal 70%. Wild hay cut 40%, normal 35%.

NEBRASKA: Daytime temperatures 3° above normal, nights normal. Precipitation 0.20 in. west and north; over 1.00 in. south central and southeast.

Corn less than 5% silking, year ago 5%, normal 20%; good to excellent condition. Wheat 70% ripe; 90% year ago; 80% normal; harvest 20% complete, 60% year ago, 65% normal. Sorghum and soybeans mostly good condition, no heading or podding. Diesel 45% adequate, 50% tight, 5% deficit; gasoline 65% adequate, 35% tight; LP gas adequate. Fieldwork: 6.0 days suitable.

NEVADA: Temperatures averaged several degrees above normal ranging from 32 to 114°. No precipitation.

Hot temperatures pushed small grains in northern areas. Harvesting underway in North. Potatoes and row crops benefited from hot weather. Ranges extremely dry and fire risk high.

NEW ENGLAND: Temperatures north 5 to 10° above normal. Highs in 90's 13th and 14th. Precipitation scattered with few hundredths falling 11th and 12th and as much as 4.03 in. Connecticut Valley of Massachusetts the 15th.

Scattered showers provided minimal relief; gentle, soaking rain badly needed. Potato crop spotty, earlier planted acres in bloom. Curling in corn fields. Second cut hay poor due lack of moisture. Vegetables require irrigation. Early indications of below average to average blueberry crop and very good cranberry crop. Soil moisture very short to adequate. Fuel adequate to tight. Grazing very short to adequate; farmers supplementing with hay.

NEW JERSEY: Temperatures 1 to 3° above normal. Extremes: 49 and 94°. Rainfall averaged 0.53 in. north, 0.72 in. central and 0.29 in. south. Soil moisture in percent of field capacity 65% north, 55% central and 45% south. Soil temperature averaged 73° north, 76° central and south.

Fieldwork: 6.3 days suitable. Widely scattered heavy showers resulted in extremely varied soil moisture levels. Crop harvest several weeks behind schedule but recent hot weather advanced maturity. Volume of summer vegetables increasing. Peach harvest increasing. Summer variety apple movement increasing. Blueberry supplies heavy. Barley and wheat combining very active. Straw and hay making advancing. Late soybean seeding continued.

NEW MEXICO: Hot and very dry. Few showers north-east late week and isolated rains south central over the weekend.

Cotton good and growing rapidly. In south, 2d alfalfa cutting 95% complete, 3d cutting 20% complete. Wheat and barley harvest almost complete. Irrigated grain sorghum and corn good, dryland fair. Onion harvest continued. Chile in good condition. Pastures and livestock good, but insects causing problems.

NEW YORK: Temperatures above normal. Rainfall subnormal except where isolated thunderstorms fell.

Most areas dry, crop growth slowed. First cutting alfalfa 95% in. clover-timothy hay 95% in, grass silage about done, all same as 1978. Second cutting starting, regrowth slow. Pastures poor. Strawberry harvest nearing completion. Condition of most vegetable crops good. Apples sizing well, condition good.

NORTH CAROLINA: Temperatures 3 to 10° subnormal. Precipitation above normal west; subnormal east.

Fieldwork: 5.1 days suitable. Soil moisture short to adequate. Condition of corn, cotton, soybeans, hay crops, Irish potatoes, sweetpotatoes and apples fair to mostly good. Tobacco mostly fair to good. Peanuts, pasture and summer cucumbers fair to good. Watermelons, spring snap beans, and spring cabbage fair. Spring cucumbers and summer cabbage good. Harvested: Small grains complete; peaches 46%, 1978 46%, average 54%; hays 69%, 1978 77%, average 66%; Irish potatoes 81%, 1978 90%, average 86%; flue-cured tobacco 12%, 1978 7%, average 11%; watermelons 73%, green peppers 60%; summer snap beans 5%; summer cabbage 5%. Phenological stages: Cotton squared 57%; cotton bloomed 29%; corn silking 72%; corn soft dough 47%; corn dent 26%.

NORTH DAKOTA: South wet and north dry. Thunderstorms rumbled in south five consecutive nights and more than 1.00 in. of rain fell on southeast and south central. Temperatures 1 to 6° above normal. Extreme 93 and 49°.

Varying amounts of rainfall in southwest and south central replenished moisture supplies and improved crop condition. Hail damage in southwest corner. Crops mostly fair to good. Small grains deteriorated northwest due to hot weather and no precipitation. Crop development: hard spring wheat 48% headed or beyond, 78% average; durum 27% headed or beyond, 71% average; barley 61% headed or beyond, 83% average.

OHIO: Temperatures just a little above normal. Humidity very high.

Wheat harvest behind but gaining momentum. Corn height ahead of normal, fields look good. Excessive moisture hurting soybeans and tomatoes in north. Corn height 51 in., 46 in. 1978, 48 in. average. Soybean height 16 in., 15 in. 1978, 18 in. average. Wheat harvested 20%, 40% 1978, 70% average. Oats ripe 20%, 15% 1978, 45% average. Oats harvested less than 5%, 0% 1978, 5% average. Alfalfa hay 2nd cut 45%, 30% 1978, 40% average. Other hay 2nd cut 25%, 15% 1978, 15% average. Fieldwork: 3.5 days favorable. Pasture condition good. Soil moisture adequate.

OKLAHOMA: Temperatures 3 to 5° above normal Panhandle and north central. Temperatures 1 to 3° below normal over southeast quarter. Temperatures 1 to 3° above normal elsewhere. Precipitation statewide, however, amounts light, ranging from 0.02 in. Panhandle to 0.77 in. south-east.

Wheat harvest near complete 95% cut, 100% 1978, 100% average. Cotton 20% squaring, 30% 1978, and average, fair to good. Sorghum good, 100% up to stand, 100% 1978, 95% average; 5% heading, 5% 1978, 15% average. Fieldwork: 5.5 days suitable.

OREGON: Maximum temperatures ranged low 70's to high 90's, most over 80°. Temperatures averaged in 60's, 2° below normal. All areas except northern

Cascades and southeast areas reported some precipitation, most in coastal ranges.

Soil moisture supplies short to adequate west, mostly short east. Wheat 89% turning color, 1% harvested. Barley harvest well underway. Spring grains mostly headed and turning color rapidly, lower elevations. Grass seed harvest continued. Second cutting alfalfa underway. Mint field conditions vary widely; normal to poor; spraying for mites. Sugarbeet fields being sprayed and weeded. Grasshoppers damaging wheat, mint, alfalfa, and other crops, spraying in full operation, new outbreaks daily. Sweet cherry harvest virtually over except Union County. Tart cherry harvest underway. Caneberry harvest in full swing. Early peaches being harvested. Some apples being picked. Cranberry bloom complete; some fungus problems. Filbert moth sprays being applied. Most vegetables look good. Early beans ready for harvest. Potatoes and onions progressing normally. Livestock mostly good condition. Range and pasture condition fair to good west, poor to good east. Lack of moisture drying ranges, especially lower elevations. Grasshoppers continue to destroy forage; spraying in full operation.

**PENNSYLVANIA:** Hazy, hot and very humid. Highest temperatures so far this season in upper 80's and 90's. Overnight lows mostly 60's and 70's. Extremes: 94 and 49°. Rainfall from almost daily afternoon thunderstorms totaled from less than 0.50 in. eastern half and western counties to 1.00 to 3.00 in. elsewhere.

Fieldwork: 6 days suitable. Soil moisture adequate. Activities: Spraying; cultivating; making hay; combining small grains; baling straw; harvesting tart cherries, early apples, peaches, tomatoes, sweet corn, potatoes, and other vegetables. Corn height 31 in., last year 32 in. Barley 65% combined, last year 45%. Wheat 10% combined, same last year. Oats 25% turning, 5% ripe, last year 22% turning. Alfalfa hay second cut 25%. Clo-tim first cut 90%. Hay quality mostly good to fair. Amount of feed from pasture average.

**PUERTO RICO:** Island average rainfall 0.70 or 0.52 in. below normal. Temperatures about 82° on coasts and 76° interior. Extremes: 97 and 57°.

**SOUTH CAROLINA:** Temperatures below normal at first, weekend somewhat above. Widely scattered showers, thundershowers; greatest amount 0.80 in.

Soil moisture adequate. Fieldwork: 4.6 days suitable. Corn condition good, maturing rapidly in south with good moisture, sunshine; 20% mature, last year 18%, 16% average. Cotton fair to good, one region dry stresses; generally few insects; setting bolls 56%, 40% last year, 57% average. Soybeans planted; 7% blooming same as last year; good condition except dry region. Tobacco 97% topped ahead of 85% year ago; 28% harvested, 16% last year, 32% average; good condition, some need rains, so ripening faster. Peach size, quality good to excellent due to rains, sunshine; harvest active. Tomatoes 96% harvested, snap beans 89%. Watermelons 56% harvested, good condition with rains, but some vines diseased.

**SOUTH DAKOTA:** Temperatures 4° subnormal to 4° above normal. Rainfall throughout State but amounts varied widely. Greatest amounts Central 1.00 to 3.00 in.

Topsoil moisture northeast and southeast short, adequate elsewhere. Storm flattened some small grain fields in central and west. Grasshoppers remain problem but spraying underway. Crop development behind normal. Some windrowing in southeast and central. Winter wheat 27% ripe, 1978

34%, average 56%. Rye 18% ripe, 1978 34%, average 63%. Oats 13% ripe, 1978 9%, average 37%. Spring wheat 8% ripe, 1978 3%, average 21%. Barley 14% ripe, 1978 11%, average 40%. Flax 78% blooming, 1978 60%, average 81%. Soybeans 21% blooming, 1978 19%, average 44%. Corn height 34 in., 1978 3 in., average 34 in. Alfalfa 2d cutting 13% harvested, 1978 16%, average 25%. Wild hay 30% harvested, 1978 41%, average 43%.

**TENNESSEE:** Rainy and overcast. Precipitation averaged 2.00 in.; some locations 4.00 in. Temperatures 1 to 2° below normal.

Soil moisture surplus. Fieldwork: 1.7 days suitable. Soybeans blooming 10%, 1978 17%, average 23%; setting pods 1%, 1978 3%, average 4%. Corn silked 32%, 1978 59%, average 61%; dough stage 3%, 1978 9%, average 16%. Cotton squaring 65%, 1978 73%, average 73%; setting bolls 2%, 1978 15%, average 22%. Wheat harvested 96%, 1978 97%, average 96%. Oats harvested 93%, 1978 99%, average 94%. Barley harvested 95%, 1978 94%, average 96%. Second cutting alfalfa 90% complete, 1978 88%, average 84%. Row crops fair condition. Pastures and cattle good condition.

**TEXAS:** Scattered showers and thunderstorms in isolated areas. Precipitation below normal east, south central, coast; above normal Trans-Pecos and south Texas; near normal elsewhere.

Open weather prevalent statewide, although some hail occurred portions Panhandle. Small grain harvest nearing completion; only few High Plains wheat fields to be harvested. Sorghum harvesting spread into south central and Coast. Corn harvest began in Lower Rio Grande Valley. Grasshoppers moved from rangelands into bordering cotton fields on Low Plains and Cross-Timbers causing damage and concern for producers. Cotton aided by hot days. Fleahoppers damaging young squares in cotton producing regions. Lower Rio Grande Valley defoliation commenced. Weevil and bollworms buildup light statewide. Irrigation noted drier areas South Texas and Trans-Pecos. General harvesting activity 10 days to two weeks in Valley. Draining of rice fields along Gulf Coast. Infestation of stinkbug and grasshoppers remain minimal although producers keeping wary eye on buildup. Dryland peanut fields needed rain in Cross-Timbers region. Earlier planted fields pegging. Earlier planted fields in South Texas approaching harvest. Fuel supplies remain generally tight to adequate although deficits are showing up. Cotton squaring 49%; setting bolls 16%; open bolls 2%. Rice headed 82%; turning color 22%. Sorghum headed 60%; turning color 44%; mature 31%; harvested for grain 17%, 26% 1978, 20% average. Wheat harvested 98%, 100% 1978, 100% average. Barley harvested 100%, 100% 1978, 100% average. Corn 1%, 0% 1978, 1% average. Oats 100%, 100% 1978, 100% average. Peanuts planted 99%, 100% 1978, 99% average. Soybeans planted 100%, 100% 1978, 100% average.

Lower Rio Grande Valley melon harvest complete. Harvest bell peppers, tomatoes for processing active. Coastal Bend land preparation for fall cucumbers, cabbage active. San Antonio-Winter Garden cantaloup, cabbage, cucumber, field pea, onion, honeydew melon harvest continued. East Texas tomato, sweet corn, bean, pea harvest active. Watermelon movement light, disease prevalent many fields. Insects, disease continued to lower vegetable output. Central Texas watermelon, tomato movement continued increase. North Texas grasshopper populations invading vegetables many areas. Cantaloup, watermelon harvest underway. High Plains harvest onions, potatoes, cucumbers on increase. Watermelon development favorable. Trans-Pecos cantaloup movement underway, onion harvest at

Pecos. Onion harvest underway at Van Horn. Peach supplies available in Hill Country, throughout north, central, east. Pecan nutlets continued to size well. Aphid populations on increase most areas outside Trans-Pecos. Producers central and north spraying for second generation casebearers.

UTAH: Fair and warm conditions with little or no precipitation. Temperatures hot with averages ranging from 3° below to 4° above normal.

Above normal usage of soil moisture by plants during period. Soil moisture stress becoming very serious many ranges and dryland farms. Irrigation water still adequate most areas. Winter wheat headed out, ripening rapidly. Some harvest in progress. Sweet cherry crop virtually harvested. Tart cherry harvest to begin shortly. Second crop alfalfa making rapid growth; cutting to begin next week. Range feed in fair condition, needs rain. Fire danger high. Livestock in good condition.

VIRGINIA: Temperatures below normal. Extremes: 94 and 49°. Scattered showers and thunderstorms with rainfall varying greatly, range near 1.00 in. southwest to less than 0.25 in. east.

Topsoil moisture short to adequate, except adequate to surplus west of mountains. Fieldwork: 4.9 days available. Corn: 40% silked, 40% 1978, 47% average; condition declined in some areas due to dry weather hampering pollination. Tobacco good; blue mold disappearing in drier areas of southern Piedmont flue-cured section, but still problem on burley in wet areas of southwest; flue-cured 2% pulled, 1% 1978, 1% usual. Peanuts fair; soybeans, pastures, hay good. Wheat 90% combined, 72% 1978, 85% average. Rain hindered curing and hay baling west of mountains; some corn in east and some flue-cured tobacco central irrigated. Peaches picked north, apples southwest.

WASHINGTON: West: Temperatures near normal. Precipitation near normal to well above normal. Overcast skies and rain prevailed until weekend clearing.

Green pea harvest underway. Corn making good growth; sweet corn tasseling, field corn growing well. Cauliflower, broccoli, and cabbage being harvested. Raspberry picking underway, showing reduced yield due to winter injury. Strawberry harvest complete. Blueberry harvest starting. Rains helped pastures.

East: Temperatures 3 to 7° below normal. Precipitation near normal to 0.10 in. above normal. Cooler weather with scattered showers until weekend clearing.

Frost caused some temporary damage to sweet corn. Hail damaged some northern orchards. Cherry harvest complete in Yakima Valley, progressing well other areas. Peach, apricot picking underway. Fire blight serious in pears. Hand thinning apples near complete. Green pea harvest complete in Columbia Basin. Digging sweet onions active. Potatoes

look good. Maturity of grain slowed by cool weather. Winds scattered some bluegrass, hay, dry beans in the swath. Harvest of winter wheat just starting. Wheat headed 100%, 1978 100%.

WEST VIRGINIA: Temperatures slightly below normal. Extremes: 96 and 39°. Precipitation well above average northeast, slightly below normal elsewhere.

Fieldwork: 3.6 days suitable. Soil moisture adequate to surplus. Main farm activities: Haying, harvesting small grains and clipping pastures. Barley harvested 52%, 46% 1978. Wheat harvested 15%, 20% 1978. Oats harvested 4%, 2% 1978. Corn mostly good to fair condition. Tobacco mostly fair to good condition. Hay and pasture mostly good to fair condition. Hay 1st cutting 82%, 86% 1978; 2d. cutting 17%, 17% 1978. Fuel supply LP adequate, diesel and gasoline tight to adequate.

WISCONSIN: Temperatures averaged 4° above normal during warmest weather of summer. Highs generally in upper 80's with increasing humidity and some 90° readings later week. Lows mostly in 60's. Extremes: 90 and 58°. Scattered showers and thunderstorms most areas every day but rainfall amounts varied greatly. Weekly totals averaged 0.50 to 1.00 in.

Fieldwork: 6 days suitable. Harvesting of first crop hay done except northern areas. Second crop hay 8% harvested, 1978 10%, normal 5%. Growth of second crop good where moisture received after first cutting. Corn grew rapidly in heat, humidity, and some moisture; average height 40 in., 1978 46 in., normal 45 in.; early corn 6 feet tall and beginning to tassel. Oats 75% headed, 1978 95%, normal 95%. Some late oats in north not headed. Early oats in south rapidly changing color. Winter wheat, barley, and rye ripening. Straw length short to average, very little lodging yet. Soybeans growing well. Pasture condition above normal. Potatoes being irrigated. Harvesting later varieties of peas continued, crop very good. Early sweet corn tasseled and silking. Tobacco plants growing well. Excellent strawberry crop nearing end. Cherries turning color north. Topsoil moisture short to adequate. Areas missed by recent showers in need of rain.

WYOMING: Temperatures above normal; greatest departure 6° above normal in Cheyenne drainage area. Precipitation generally below normal.

Topsoil moisture short. Percent headed: Spring wheat 76%, oats 70%, barley 89%. Percent turning color: Winter wheat 66%; spring wheat 16%; oats 12%; barley 28%. Mature: Winter wheat 14%; oats 3%; barley 8%. Small amount of winter wheat harvested. Hay harvested: Alfalfa 73%; other hay 29%. Corn 5% tasseled. Dry beans 12% in bloom. Fieldwork: 7 days suitable. Livestock contracted for fall delivery: Cattle 6%; calves 10%; lambs 10%. Stock water adequate.

## World Weather and Crop Update

June 1 to mid-July, 1979

USSR. Agricultural production prospects over much of European Russia deteriorated further during June, as the dry conditions which developed in May continued into early July. Less than 15 mm fell over most of the eastern Ukraine, lower Volga region, and then northern Caucasus Mountains. Kharkov received 7 mm, the driest June since 1957. Rostov reported 9 mm, the driest since 1959 when 6 mm fell. The central Ukraine ranged from 25 to 100% of normal, while the southwest was slightly above normal. Substantial rains finally fell over most

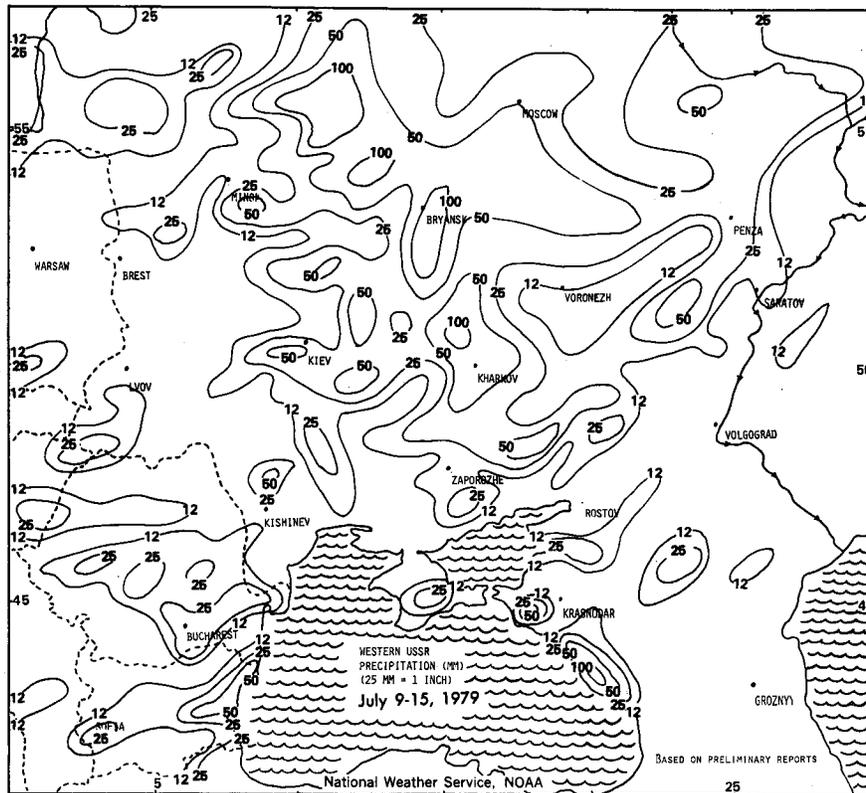
of the Ukraine on July 6-8. Heavier rains occurred over much of the Ukraine and areas to the north this past week. Above-normal moisture of 25 to 80 mm covered a broad area east and north of Kiev. The rains reached over to the Volga River region, but only the northern portions received rain last week. Grain harvest is moving northward, and the rains likely interfered with progress. However, the moisture was badly needed for some spring-planted crops, although they came too late for some areas. The major benefit may be to pastures and forages,

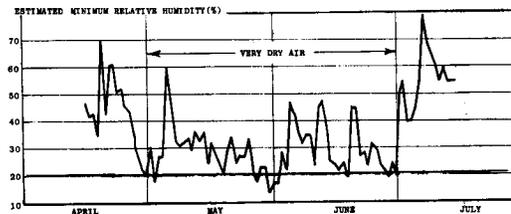
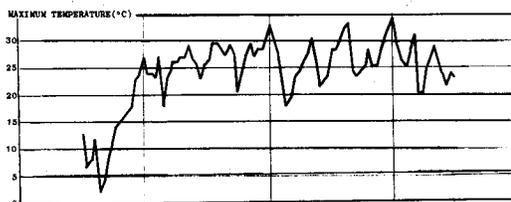
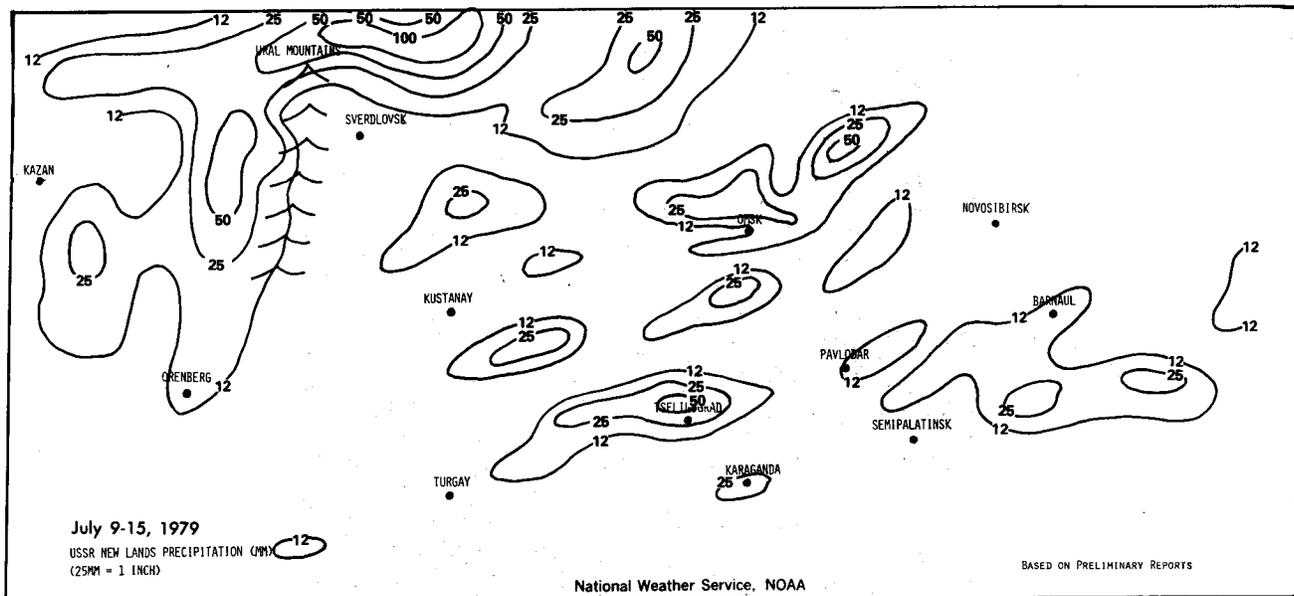


This NOAA/NESS satellite photo, taken on July 12 at 9:00 a.m. CDT, shows the cloud mass of Hurricane Bob as it came in from the Gulf of Mexico. The exaggerated "comma" cloud pattern shows that "Bob" was a rather weak hurricane.

which should begin to recover. Over in the New Lands, June was generally well above normal, and good rains have continued so far into July. Spring

wheat is considered to be in excellent condition, although crop development is 10 to 14 days later than normal.



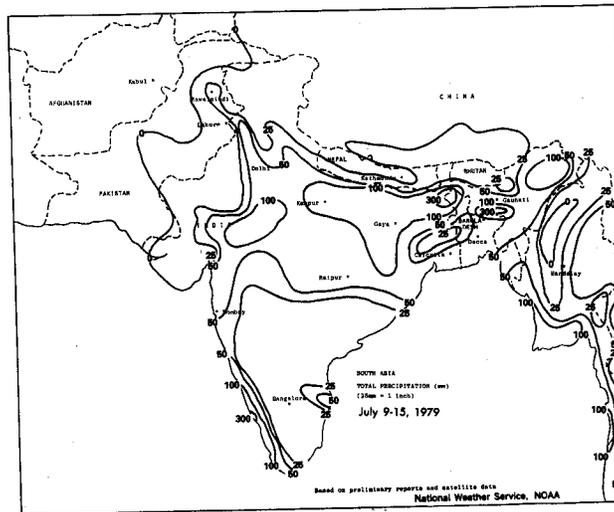
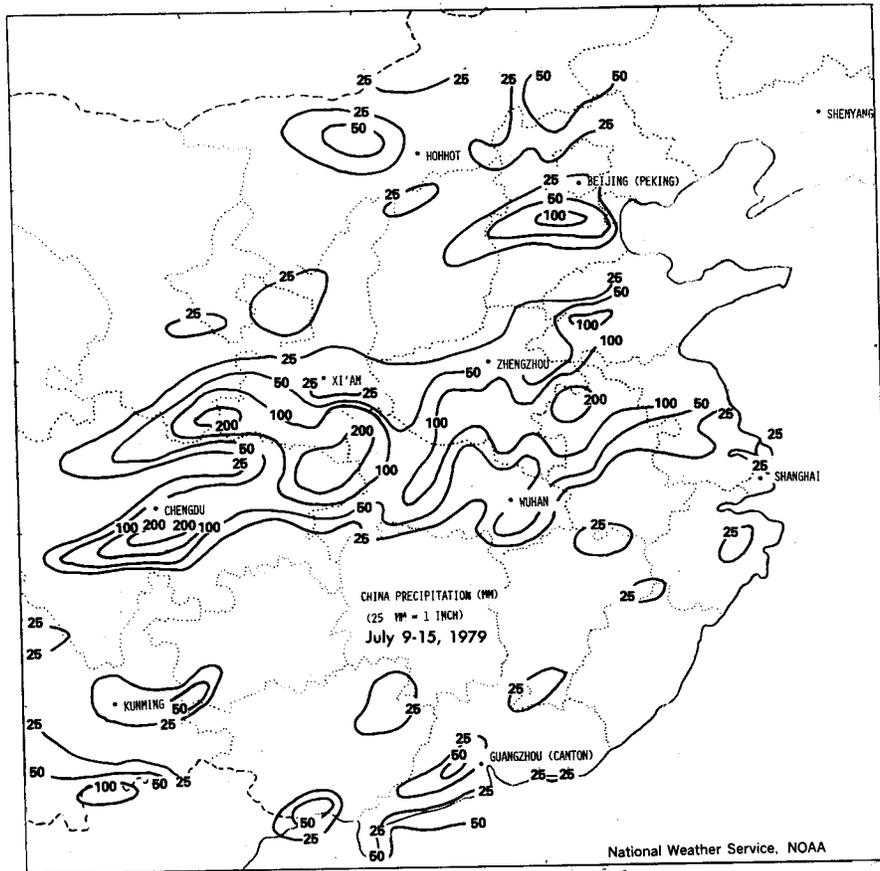


CHINA. Agricultural production has benefited from excellent moisture conditions across nearly all of the country so far this season. June rainfall ranged above normal in almost all areas, with unusually heavy rains in the north central winter wheat areas. This did cause some problems with harvesting, but it is now completed. Production levels have been good. Most rice producing areas have received regular rainfall, although the double-crop region in the south has been dry the past three weeks. Water levels in all the major river systems are good; and irrigation water is more than adequate. The cotton-growing region--corresponding to the winter wheat area--may be having problems with crop development and insects because of the very wet conditions.

INDIA-SOUTHEAST ASIA. Monsoon activity so far this summer has been somewhat erratic and generally light, with nearly all the activity so far associated with two major surges--the last week of June and this

past week. Precipitation totals for the past several weeks are below normal across the country, except in Punjab, Haryana, and Rajasthan. Andhra Pradesh is extremely dry, with precipitation since mid-May only one-third of normal. The activity the past week was associated with a tropical disturbance, which moved east to west across the northern half of the country dropping well-above-normal amounts. Rajasthan received over 100 mm--275% of normal. West Bengal received an average of 200 mm--275% of normal, but the area is still lagging normal for the past eight weeks. However, the rains have provided the much-needed moisture for planting and the development of early-sown crops.

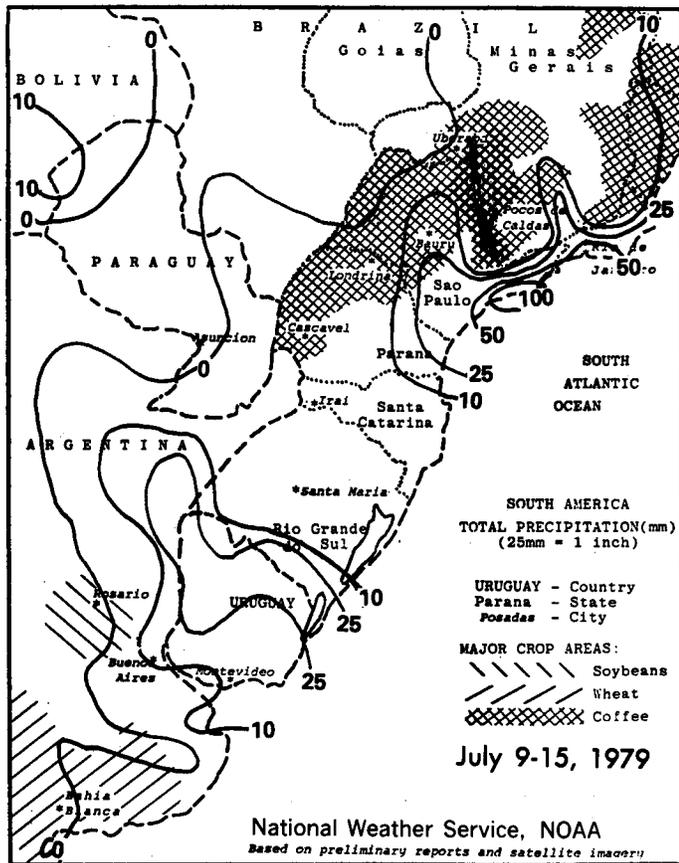
In other areas, rainfall totals in Bangladesh and Pakistan have received about 25% of normal moisture since mid-May. Sri Lanka, Burma, and Laos are very dry. The main rice crop is likely suffering across the region. The next few weeks will be extremely critical.



**AFRICA.** The Sahel region has benefited from good moisture during June and so far in early July. Rainfall amounts ranged from 400 mm along the coast in June to 50 mm well inland--much above normal over the entire region.

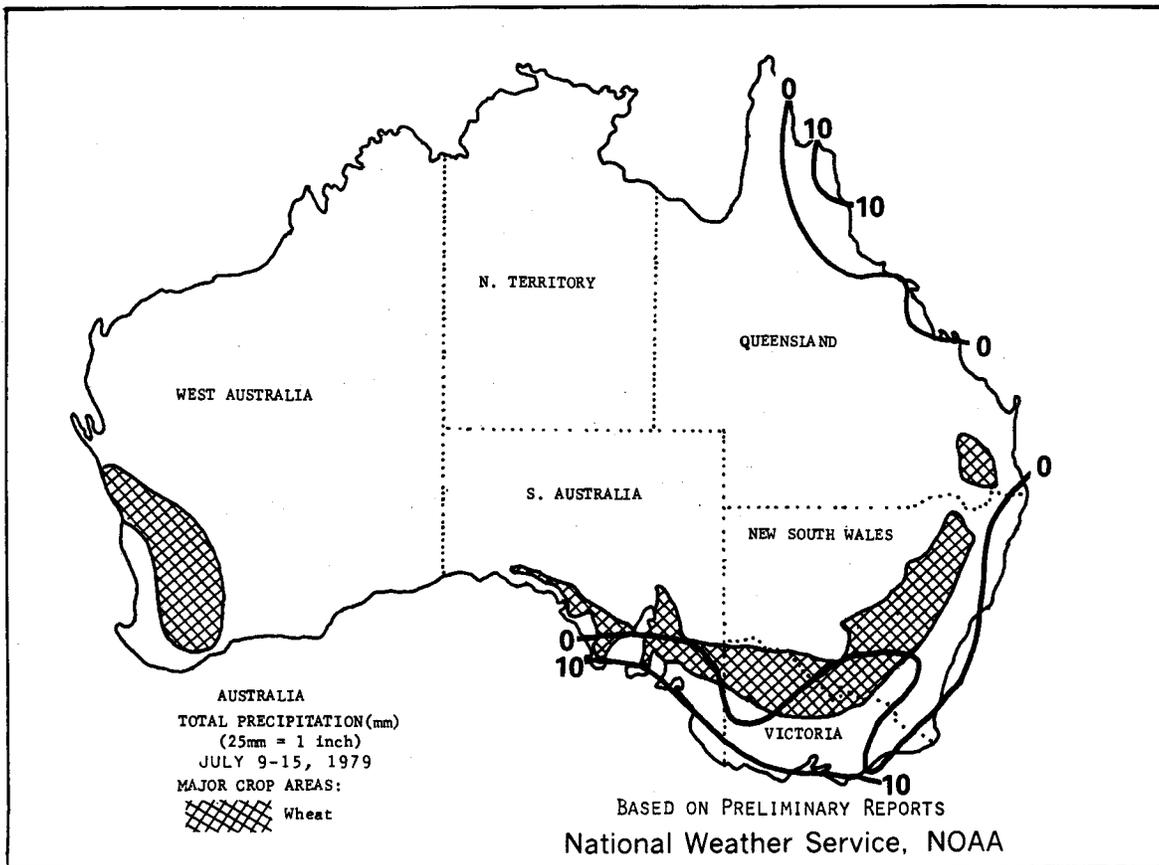
**CANADA.** Moisture conditions across the Prairie Provinces of Canada dropped markedly during June, particularly in the southern half of production areas where rainfall totals were less than half of normal. No significant relief has occurred so far in July, although rainfall approaching normal patterns continue to fallover the northern half of the grain belt.

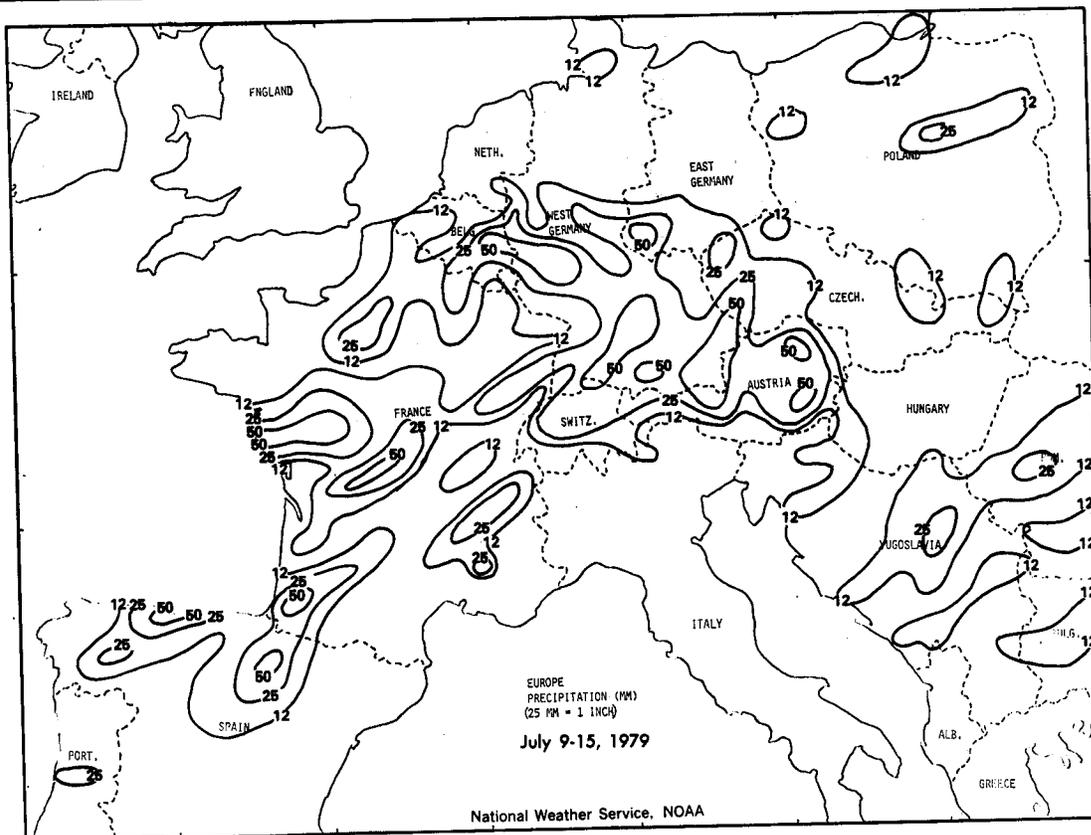
**SOUTH AMERICA.** Rainfall during June was well below normal across most of Argentina and Brazil. In Brazil, amounts were less than 25% of normal. Most of Rio Grande do Sul received less than 40 mm--approximately 25% of the norm. The coffee-growing areas to the north were generally dry, although this is not unusual for this time of year. The winter wheat areas of Argentina have been dry, and some planting delays were experienced in the double-crop areas. Most of the area received 50 to 75% of the expected rainfall.



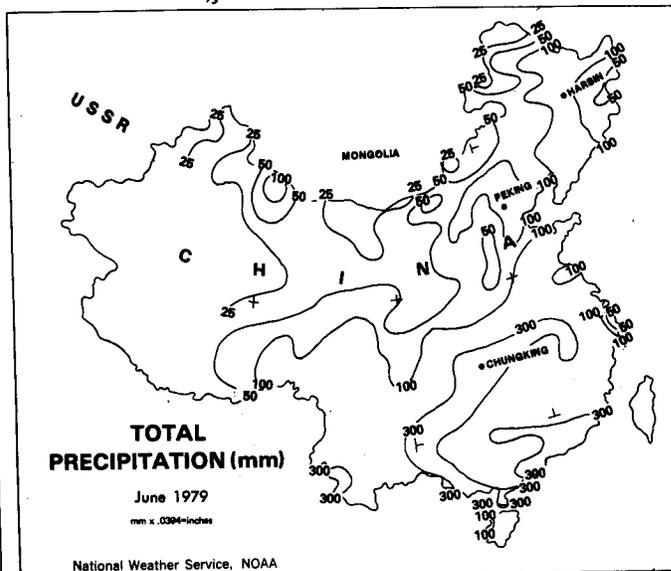
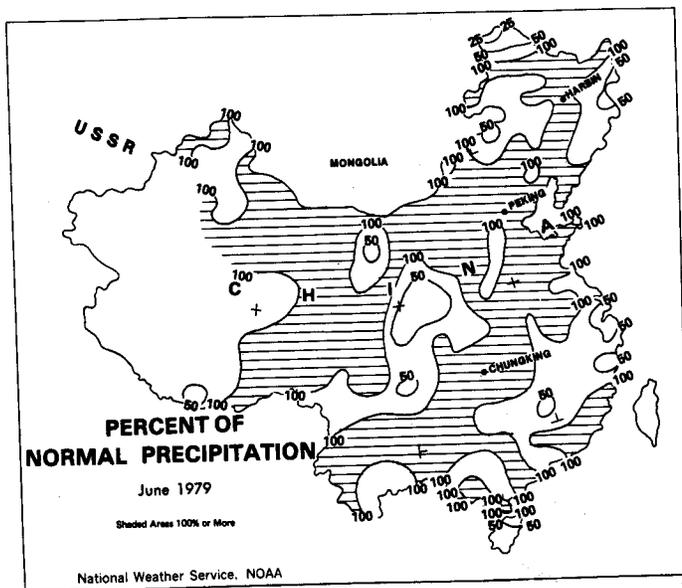
**EUROPE.** Crop conditions generally improved over much of Europe during June. The rainfall distribution changed markedly during the month, but most of the region received normal or above-normal moisture. The driest region centered on western France and parts of Poland, where less than half the normal moisture fell. A serious drought had begun to develop in eastern Europe in May, but the situation was reversed with heavy rains in mid-June. Conditions since that time have been an excellent balance of dryness and rain. Numerous reports have indicated that crop conditions have improved markedly. This past week, above-normal moisture of 25 to 50 mm fell across most of Austria, West Germany, and Switzerland. Rainfall was light in Poland, Czechoslovakia, Hungary, and Yugoslavia. Poland continues to be the driest country in the region, although rains in early July were helpful. In western Europe, good rains fell last week in France and northern Spain. This should provide a real boost to corn and other summer crops.

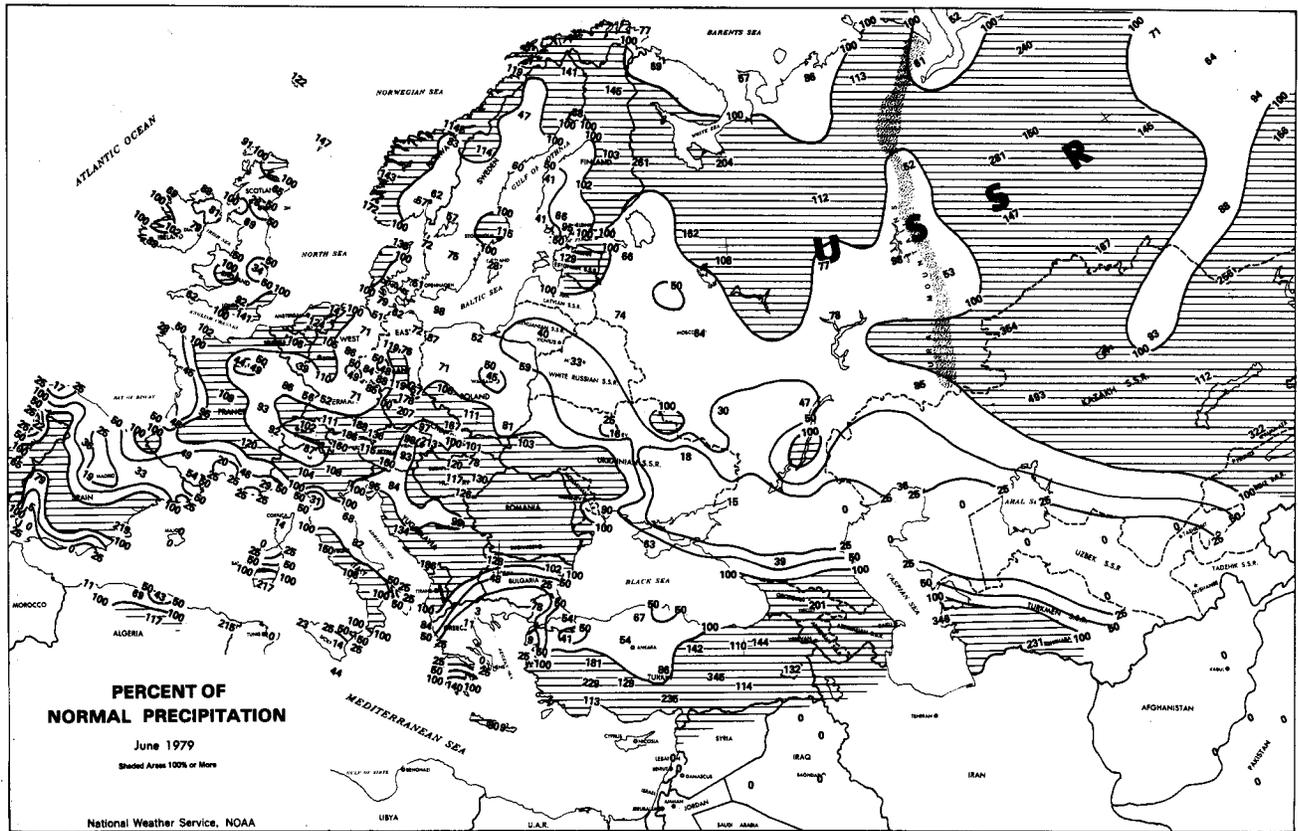
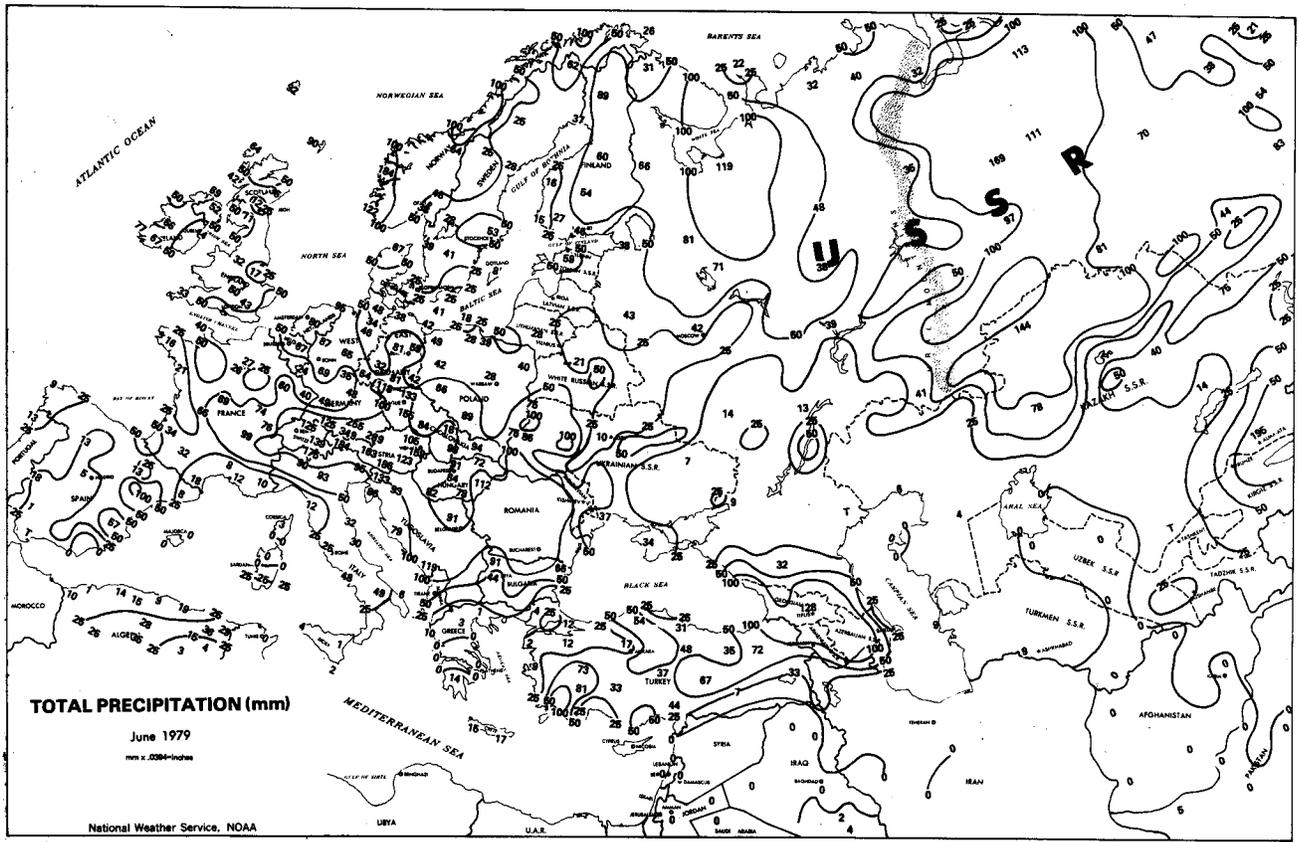
**AUSTRALIA:** Most of the winter region in Australia received below-normal moisture in June, but earlier excellent moisture conditions provided ideal field conditions for planting. Crop condition is considered to be excellent. Moisture demand at this time is relatively low, with good rains in September and October the key to the crop's outcome.

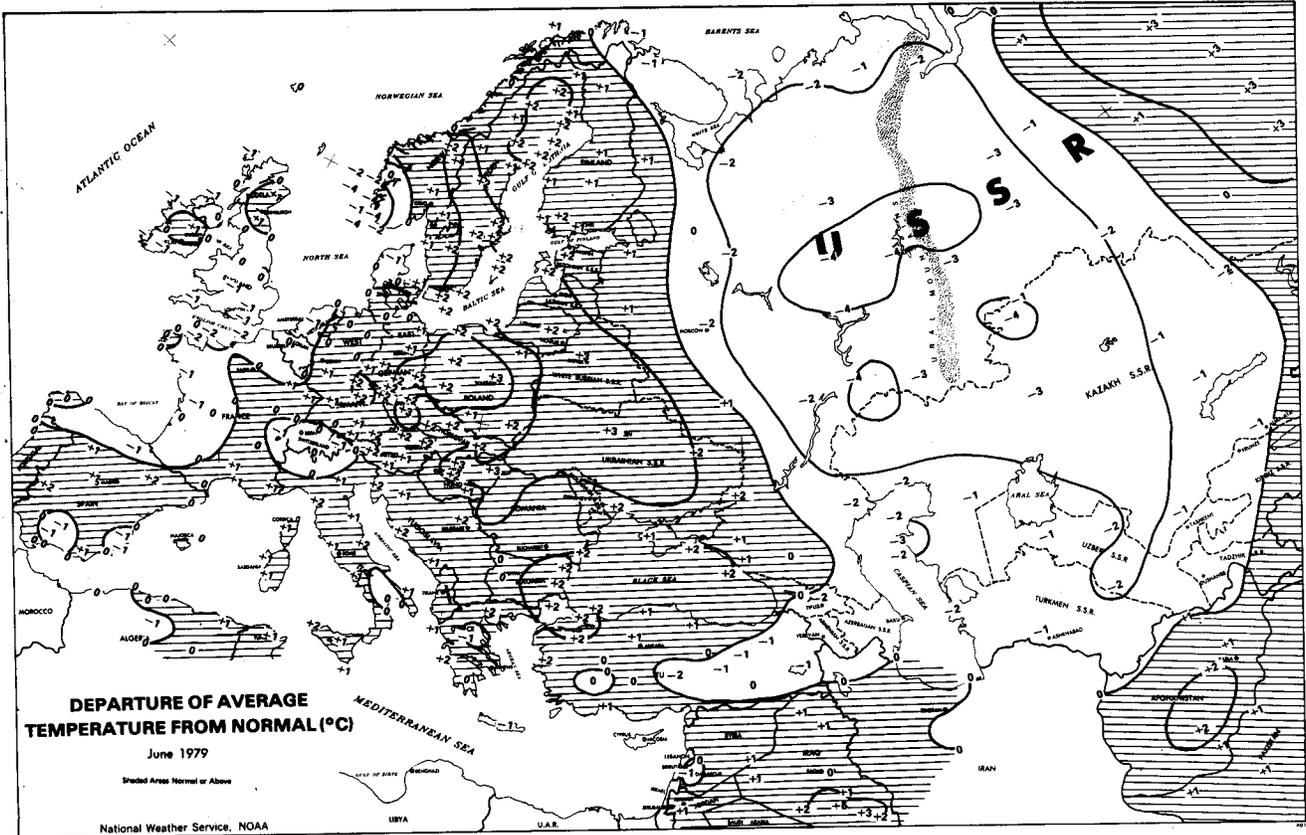
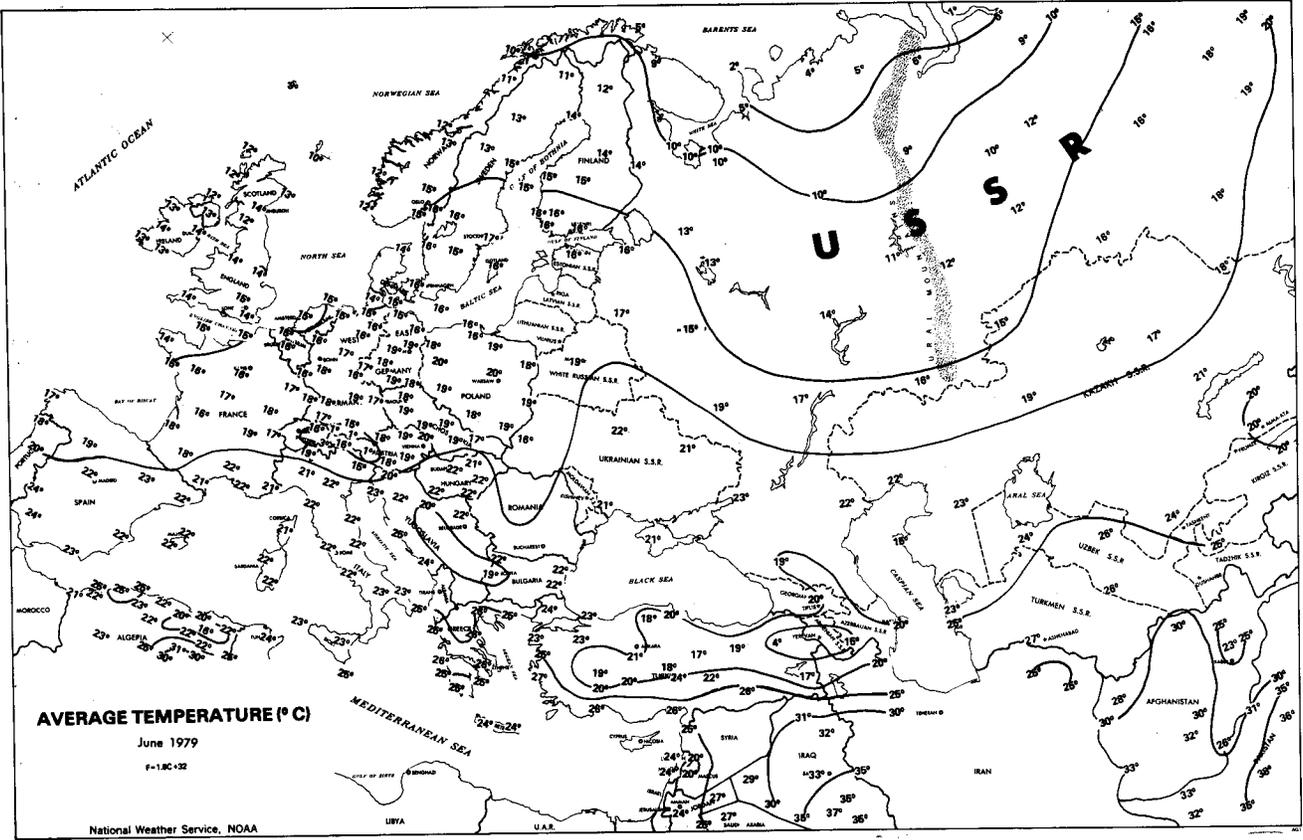


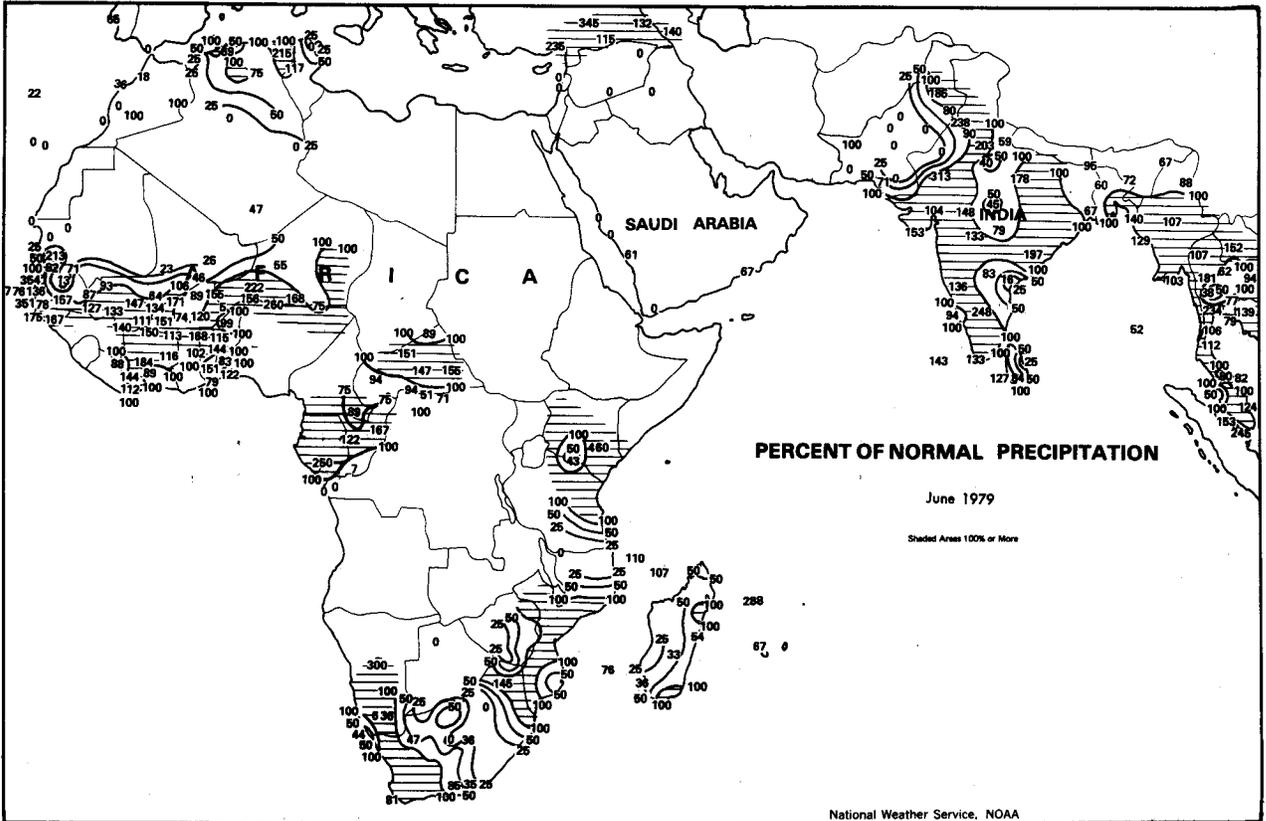
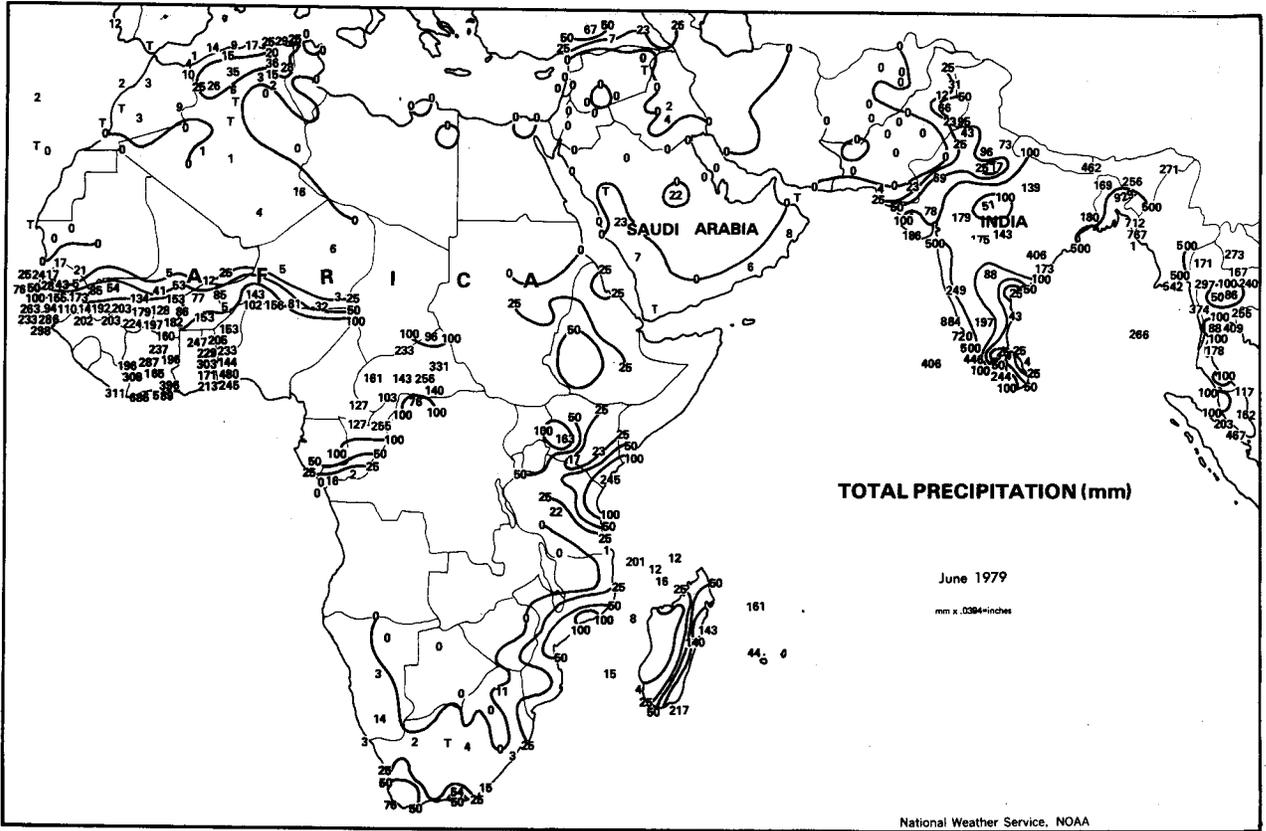


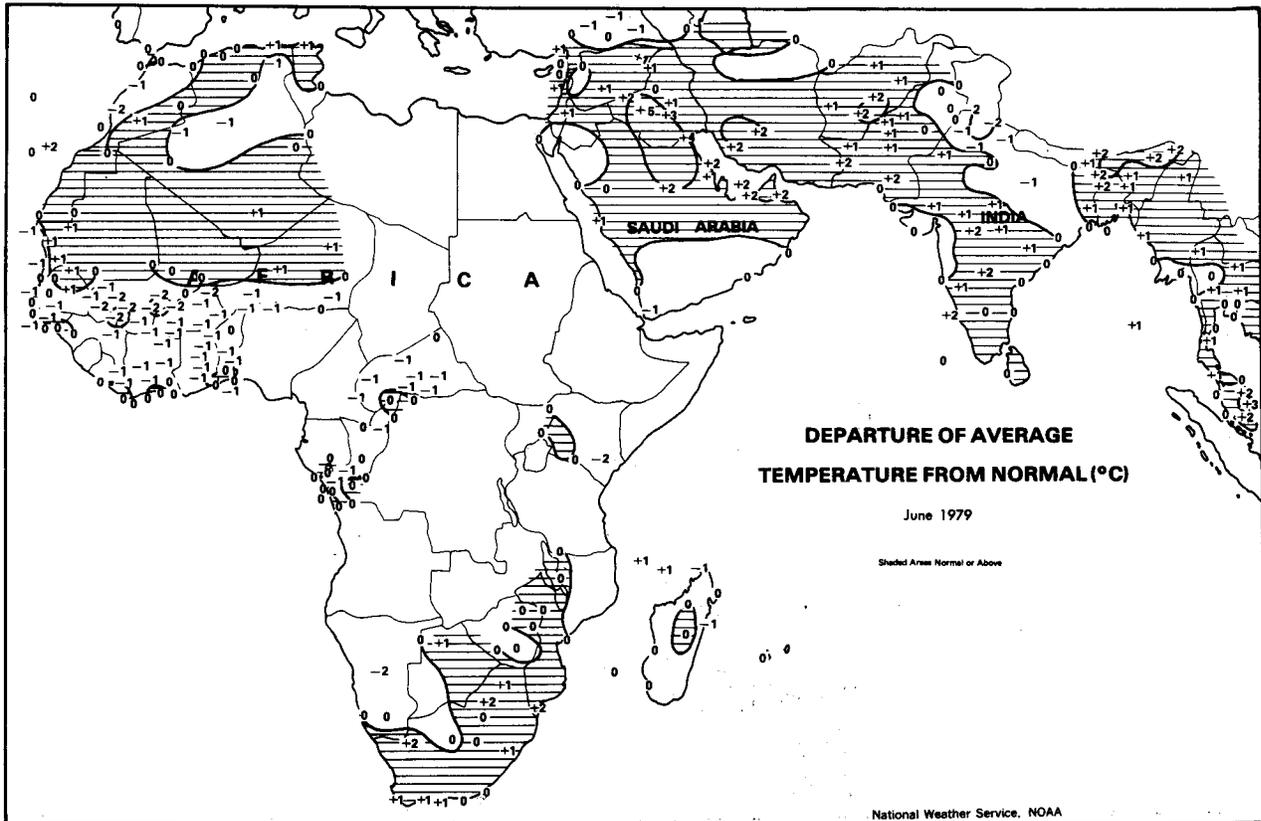
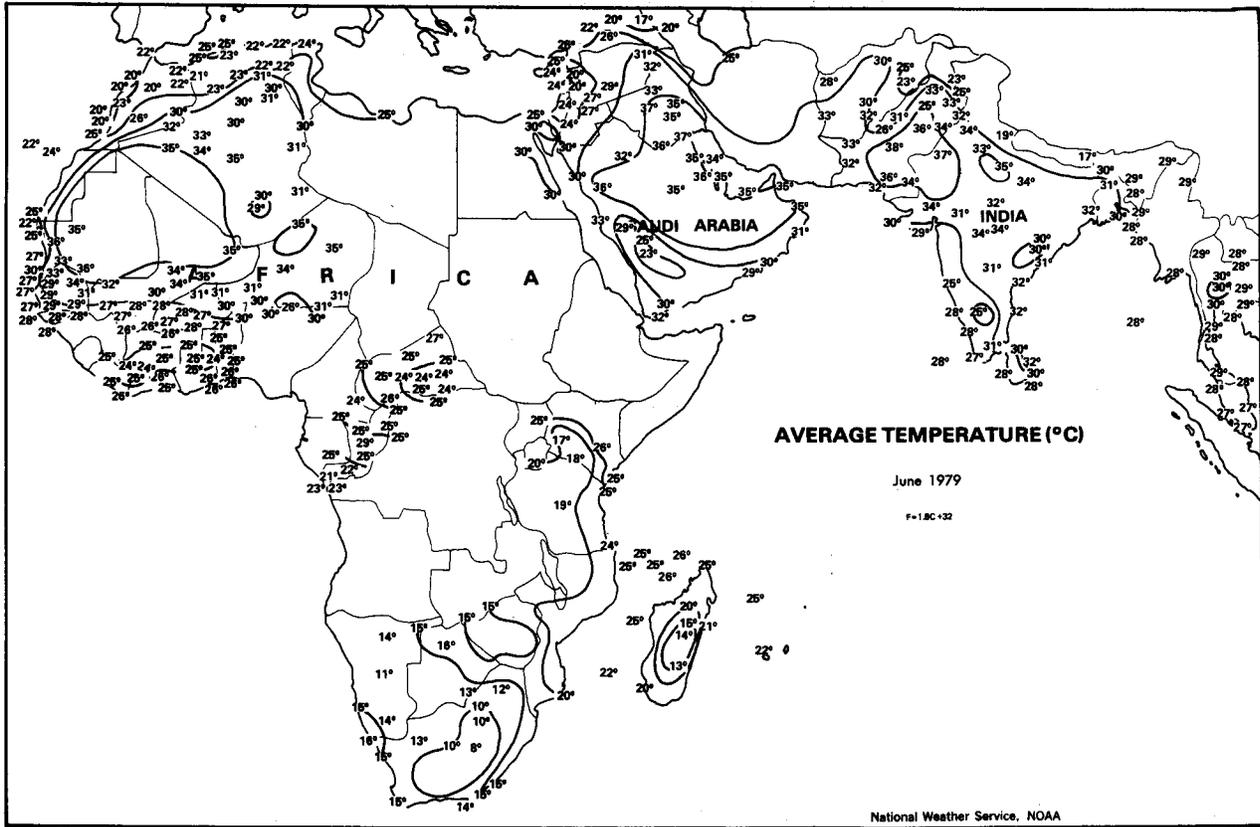
### China Precipitation

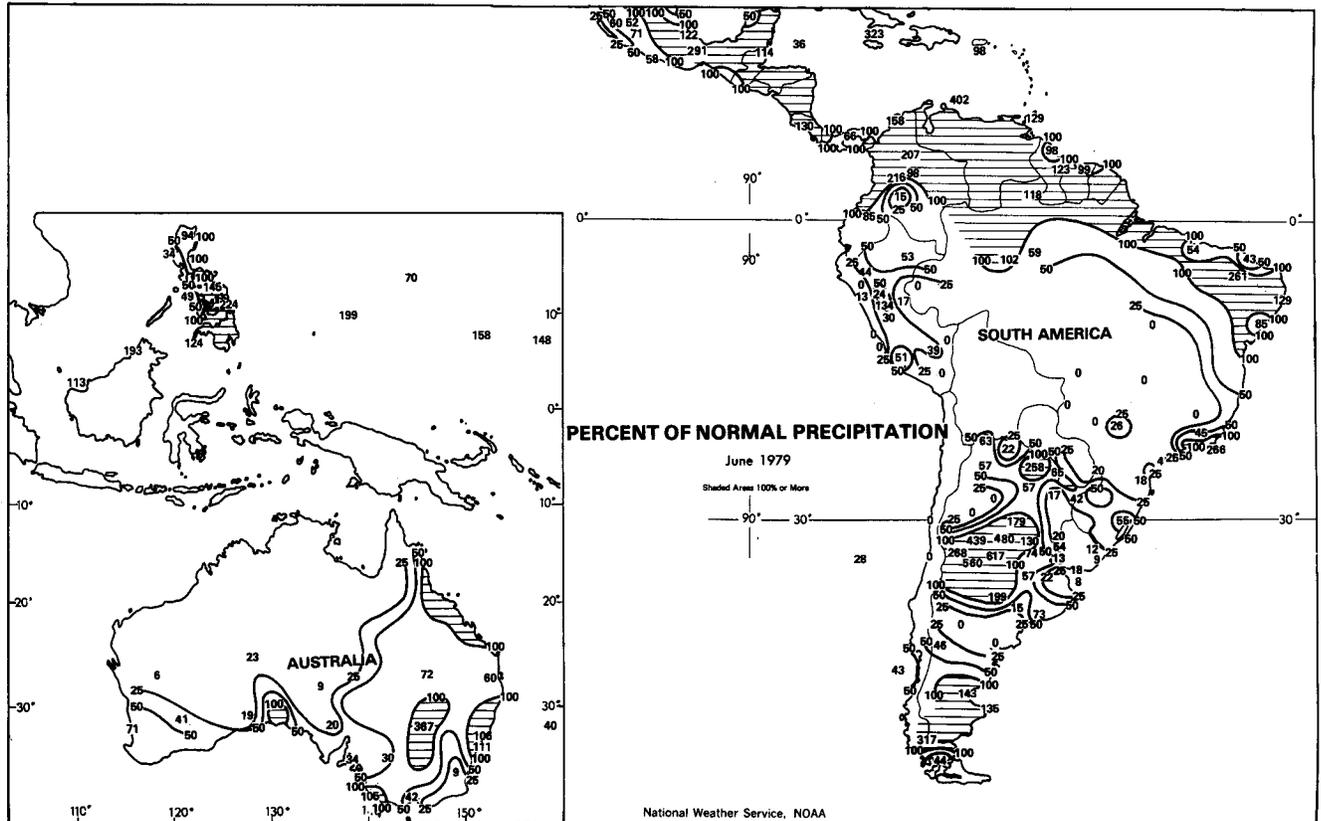
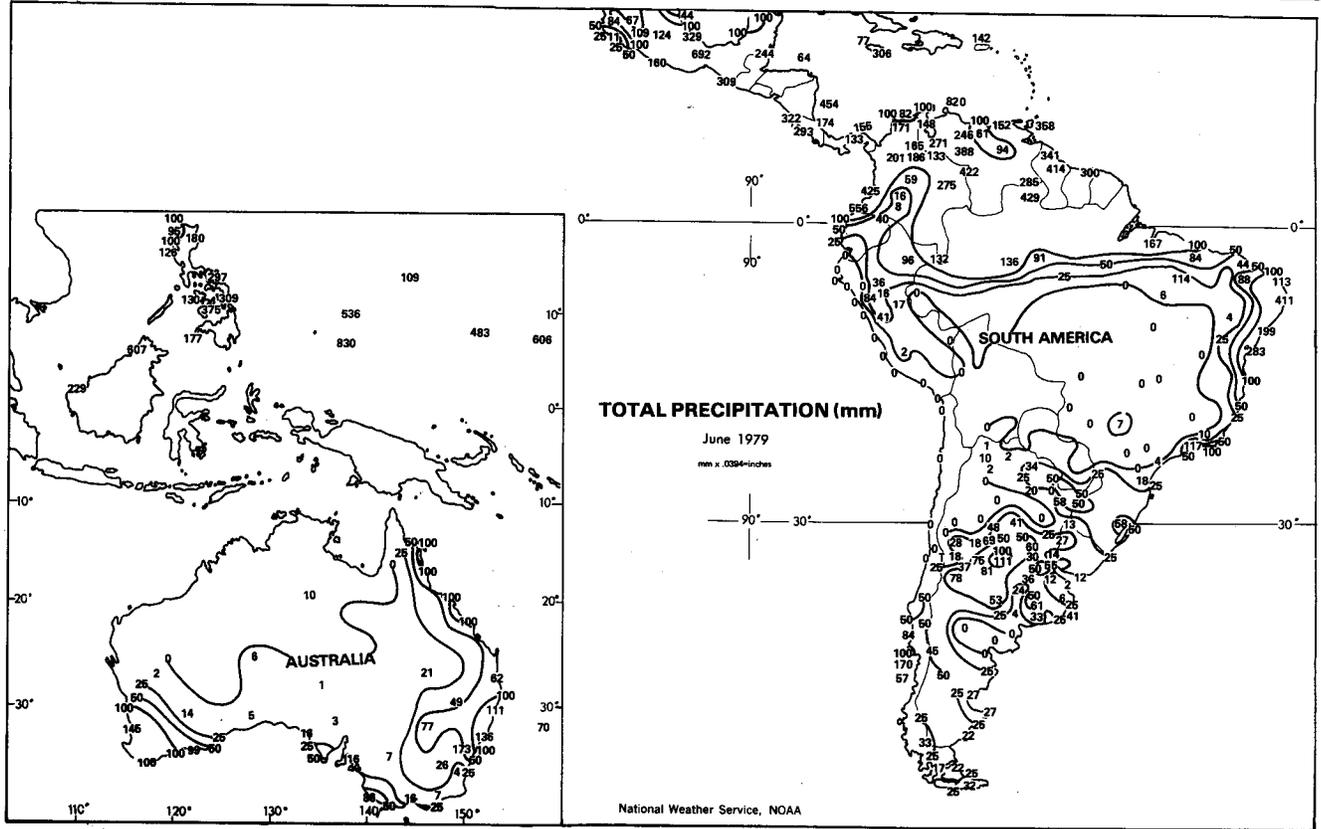


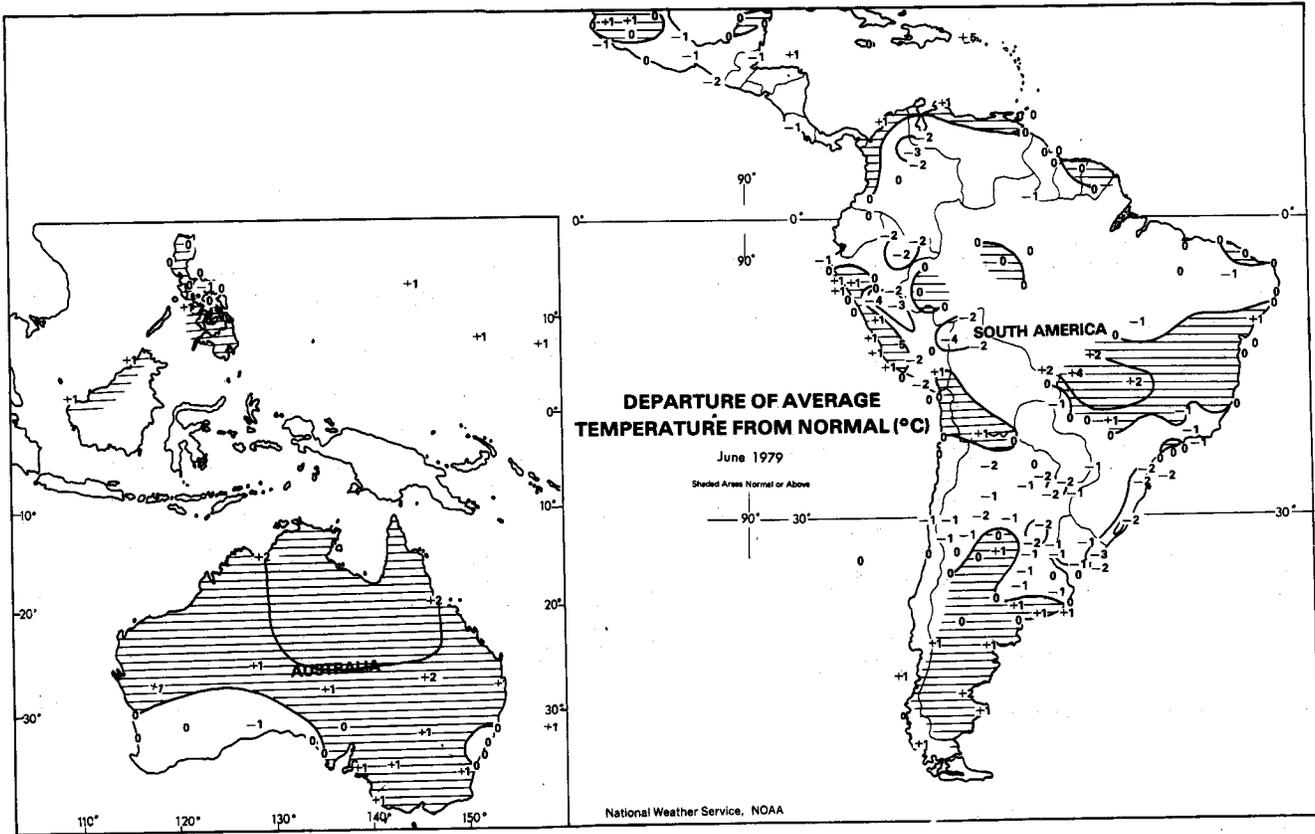
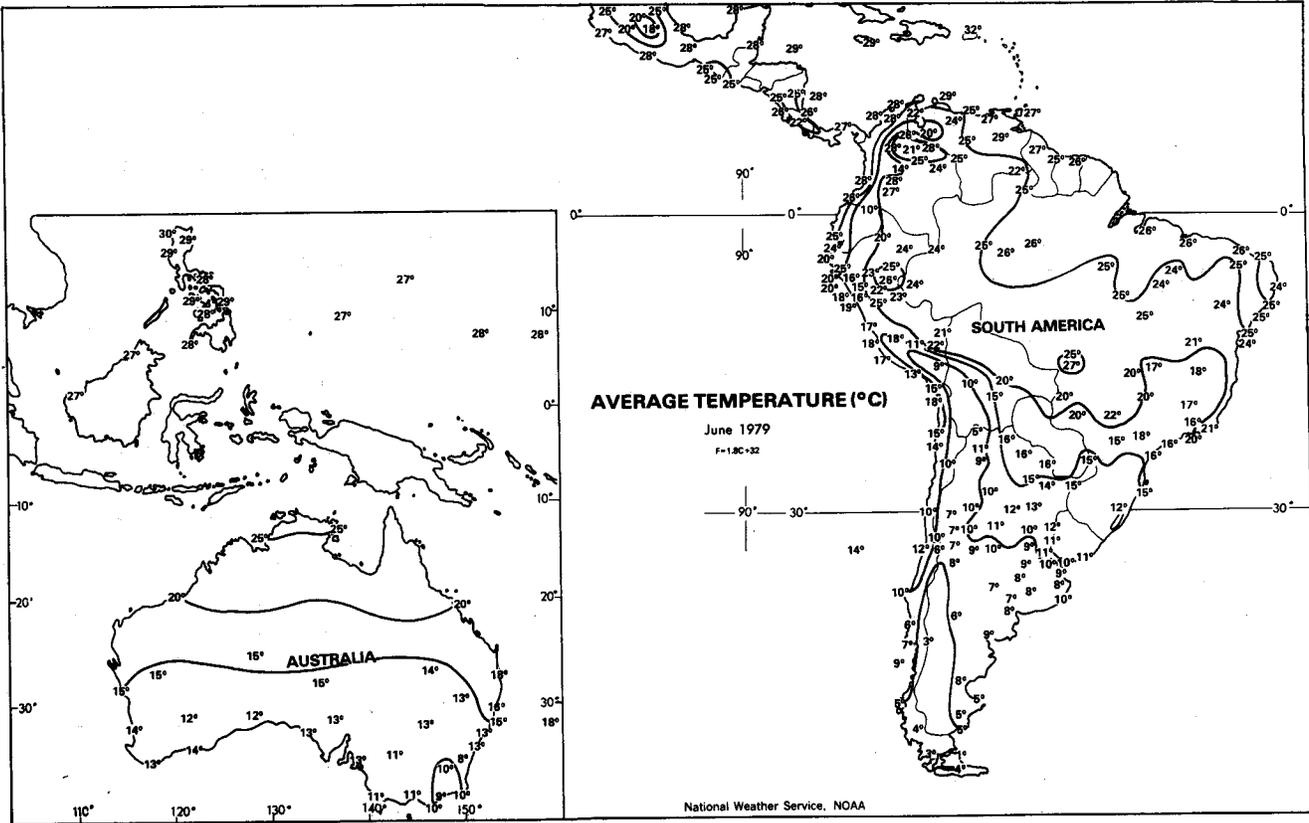




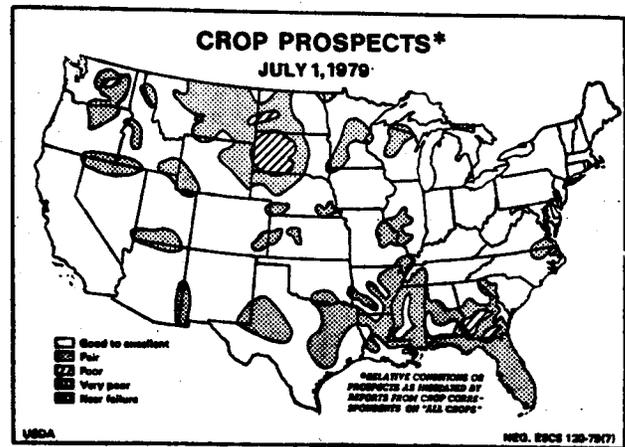
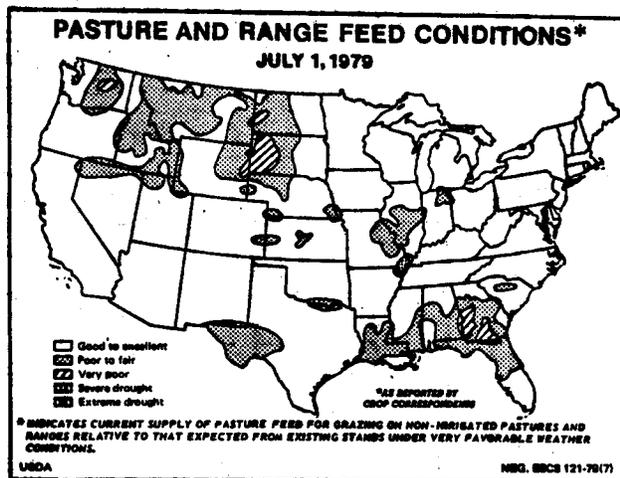
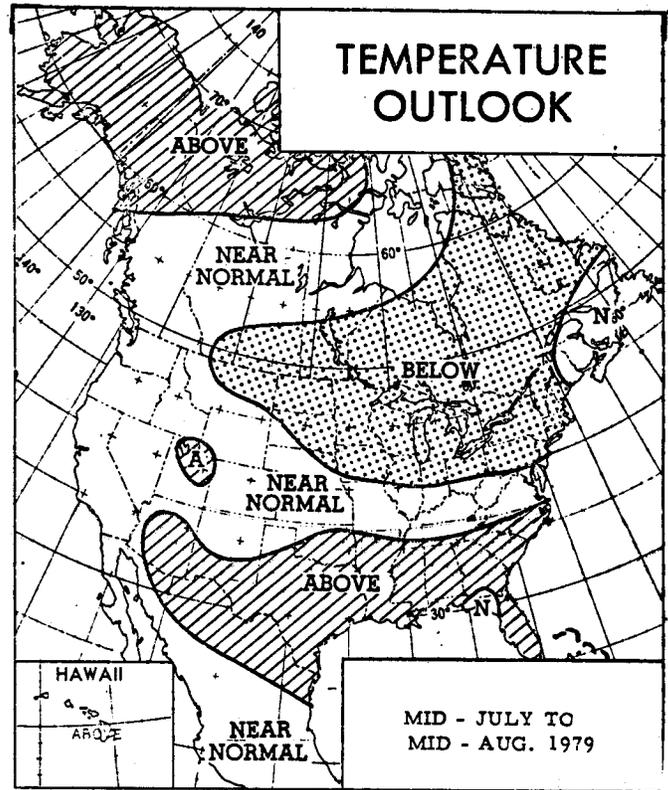
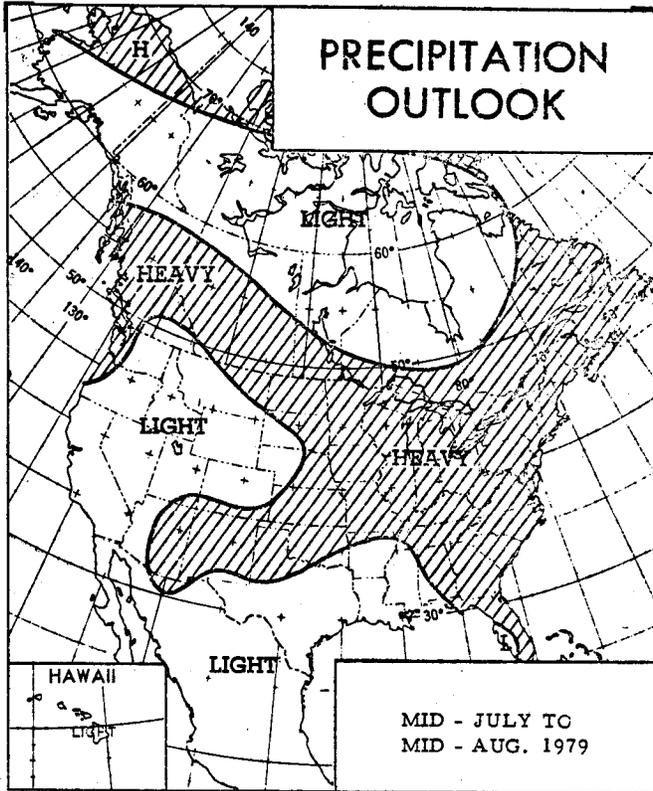


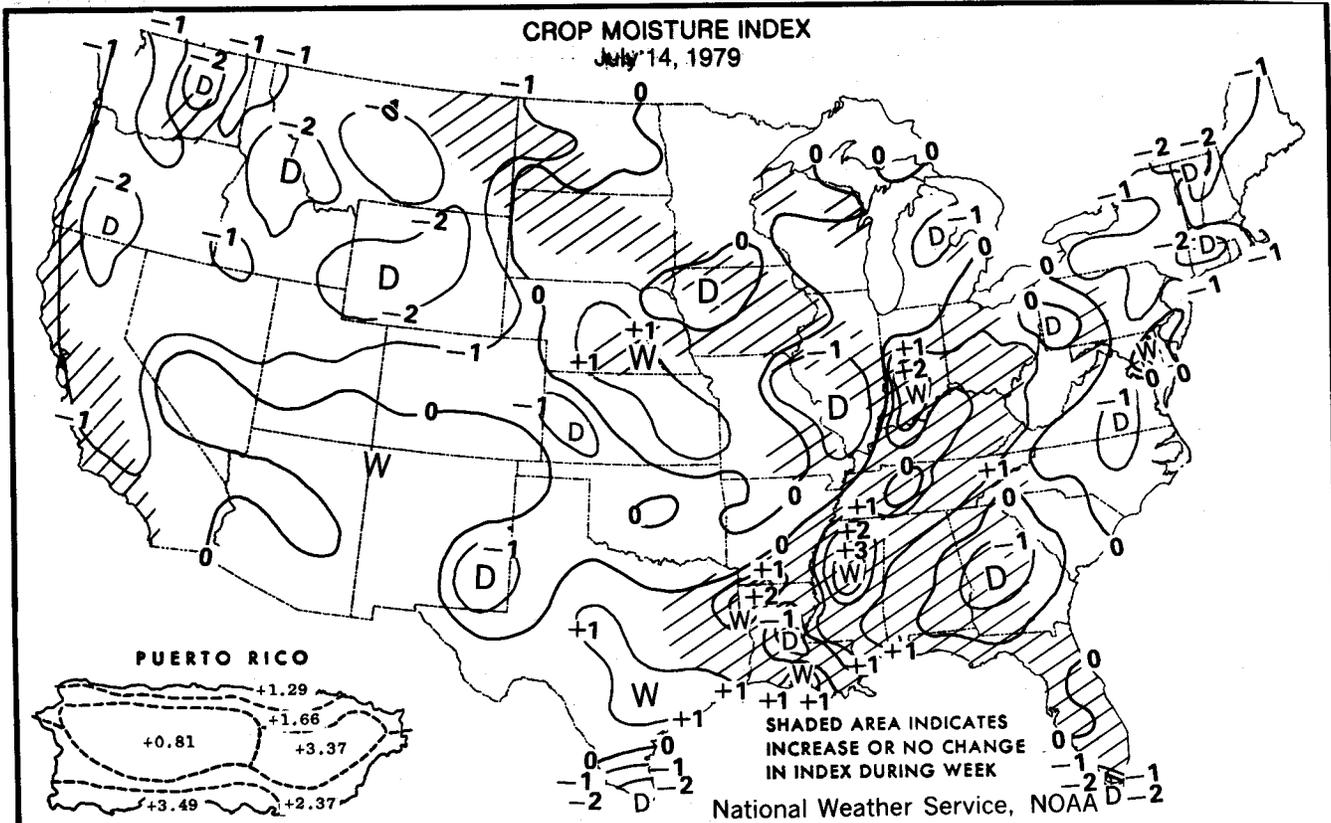






Average Monthly Weather Outlook





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 CONTINUED, RAIN URGENTLY NEEDED
BELOW	-4.0	NOT ENOUGH RAIN, STILL EXTREMELY DRY

RECENT SHOWERS IN THE SOUTHEAST HAVE IMPROVED THE CROP MOISTURE BUT MORE GENERAL RAIN IS NEEDED. THE DRY AREA IN CENTRAL ILLINOIS RECEIVED SOME SHOWER ACTIVITY WHICH WAS CONTINUING AT MAP TIME BUT THE RELIEF WAS ONLY TEMPORARY AND MORE RAIN IS BADLY NEEDED. MUCH OF THE PACIFIC NORTHWEST CONTINUES TO BE VERY DRY BUT, AS THIS IS THE DRY SEASON, RELIEF IS NOT EXPECTED.

**FIRST CLASS MAIL**



**CROP DEVELOPMENT  
 FOR WEEK ENDING JULY 15**

COTTON SQUARING			
	1979	1978	AVG.
ALA	82	76	84
ARIZ	NA	NA	NA
ARK	87	95	NA
CALIF	96	80	NA
GA	100	100	NA
LA	80	90	NA
MISS	92	95	85
MO	73	92	61
N MEX	NA	NA	NA
NC	57	NA	NA
OKLA	20	30	30
SC	NA	NA	NA
TENN	65	73	73
TEX	49	NA	NA

SOYBEANS BLOOMING			
	1979	1978	AVG.
ALA	20	17	23
ARK	1/	NA	NA
GA	NA	NA	NA
ILL	41	22	40
IND	25	15	30
IOWA	10	15	NA
KY	NA	NA	NA
LA	25	33	NA
MICH	NA	NA	NA
MINN	1/	NA	NA
MISS	11	27	19
MO	NA	NA	NA
NEBR	NA	NA	NA
NC	NA	NA	NA
OHIO	NA	NA	NA
SC	7	7	NA
TENN	10	17	23

CORN TASSELING			
	1979	1978	AVG.
COLO	2	4	NA
GA	NA	NA	NA
ILL	10	25	44
IND	5	5	30
IOWA	10	24	49
KANS	15	20	35
KY	26	43	53
MICH	NA	NA	NA
MINN	0	0	0
MO	39	26	NA
NEBR	1/	5	20
NC	72	NA	NA
OHIO	NA	NA	NA
PA	NA	NA	NA
S DAK	NA	NA	NA
VA	40	40	47
WISC	NA	NA	NA

COTTON SETTING BOLLS			
	1979	1978	AVG.
ALA	19	NA	NA
ARIZ	NA	NA	NA
ARK	13	41	NA
CALIF	22	NA	NA
GA	93	77	78
LA	26	54	NA
MISS	8	19	34
MO	NA	NA	NA
N MEX	NA	NA	NA
NC	NA	NA	NA
OKLA	0	0	0
SC	56	40	57
TENN	2	15	22
TEX	16	NA	NA

\* SILKING PROGRESS

**HARVEST PROGRESS:  
 FOR WEEK ENDING JULY 15**

WINTER WHEAT			
	1979	1978	AVG.
CALIF	87	NA	NA
COLO	31	71	49
IDAHO	0	0	0
ILL	94	82	94
IND	40	40	85
KANS	75	95	95
MO	77	85	92
MONT	0	0	0
NEBR	20	60	65
OHIO	20	40	70
OKLA	95	100	100
OREG	1	NA	NA
S DAK	NA	9	24
TEX	98	100	100
WASH	0	0	0
15 STATES	59	72	74

SPRING WHEAT HEADED			
	1979	1978	AVG.
IDAHO	NA	NA	NA
MINN	58	97	91
MONT	50	30	60
N DAK	48	NA	78
S DAK	95	95	99

THESE 15 STATES PRODUCED 95%  
 OF THE 1978 WINTER WHEAT CROP.

NA NOT AVAILABLE  
 17 LESS THAN 5%