

WEEKLY WEATHER AND CROP BULLETIN

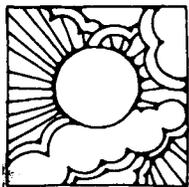
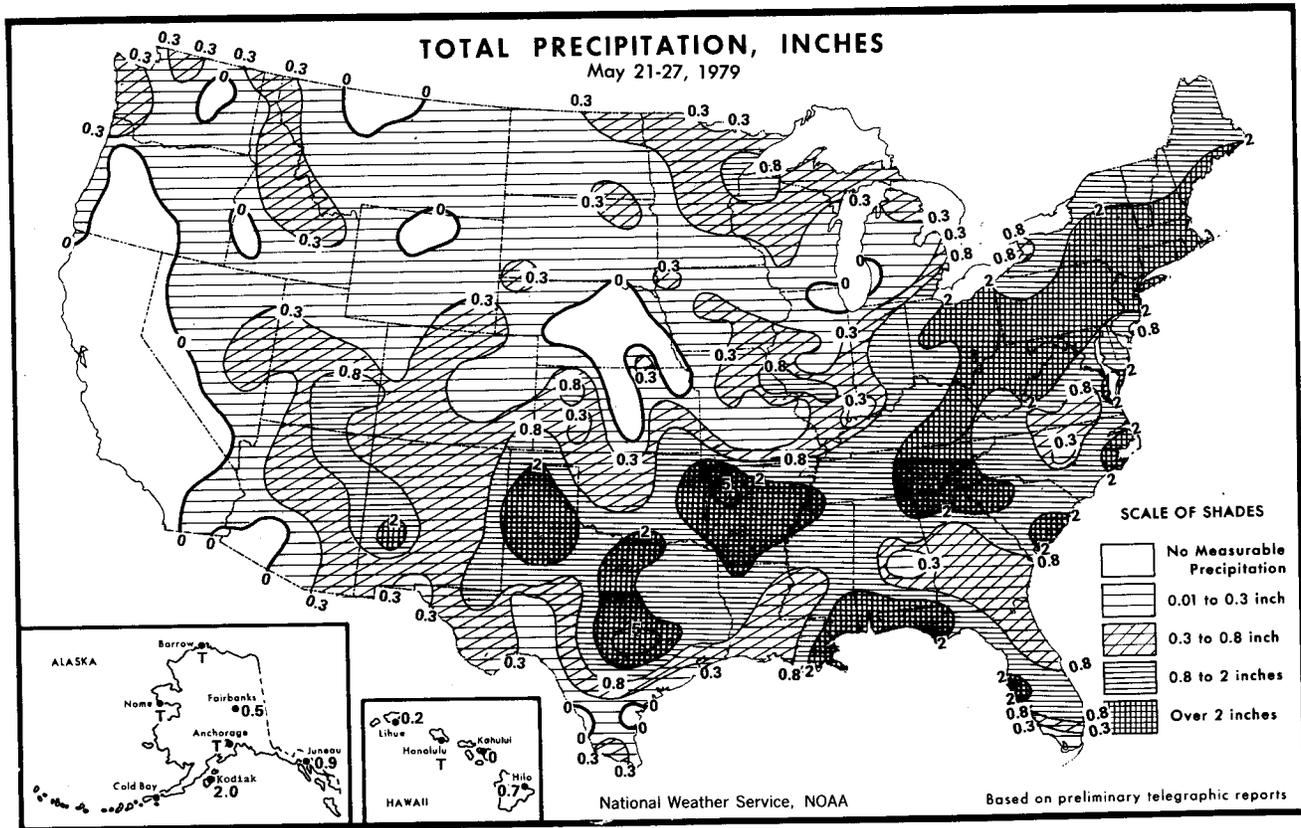
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National Weather Service, NOAA

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National Weather Summary

May 21 - 27

HIGHLIGHTS: A stationary system in the upper air off California caused a continuation of showers in Arizona, New Mexico, and Utah. Storms originating in the Texas Panhandle moved eastward, then northeastward, carrying large amounts of rain from the southern Plains to New England.

The eastern Corn Belt accumulated more than an inch of rain; only light amounts fell elsewhere in the Corn Belt. Much of the northern Plains showed only light rainfall.

The eastern half of the country was generally cooler than normal, while much of the Nation west of the Rockies averaged above-normal readings.

Parts of California's San Joaquin Valley registered temperatures 10 to 13 degrees above normal.

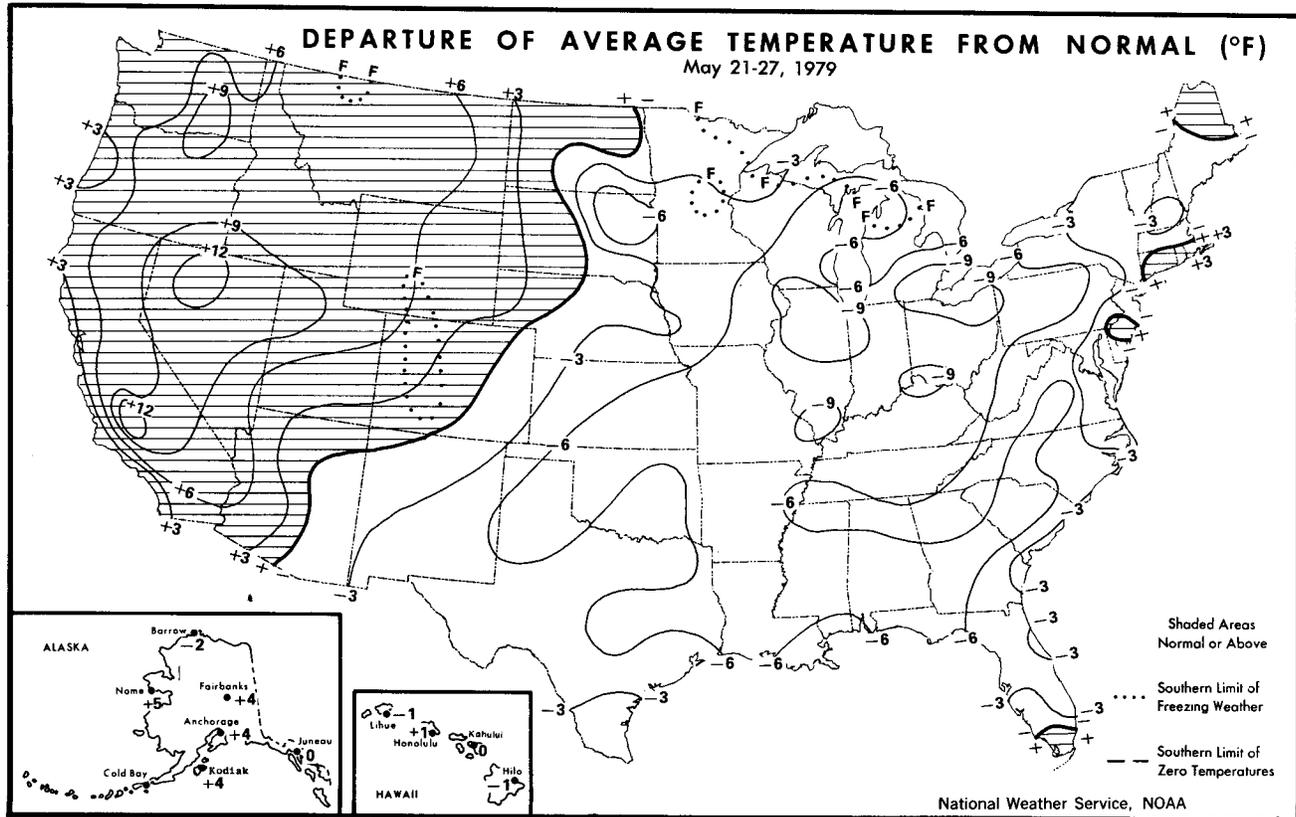
On Monday, very heavy rains and hail fell from New Mexico to Arkansas. Austin gathered more than 5 inches, and Lubbock counted more than 3. About 3 inches fell in less than an hour at Palo Pinto, north central Texas.

Other areas of heavy rain showed two and a half inches at Page, southeastern Oklahoma, and in western Arkansas, Subiaco scored 7 inches and Glenwood, 3 inches.

A band of thunderstorms stretched from the southern Appalachians to the Atlantic Coast; Chattanooga measured more than an inch of rain and Greenville, northern South Carolina, got nearly 2 inches.

The chilly upper Midwest saw two temperature records; in Minnesota, St. Cloud, 30°, and Minneapolis/St. Paul, 34°, set new marks.

Rain persisted in the southern Plains and Delta Region on Tuesday. Houston collected more than an inch, and Boothville, southeastern Louisiana,



notched an inch and a half. Several tornadoes touched down within a 40-mile radius of Houston.

Rain ranged up the southern Atlantic Coast; Fayetteville, southern North Carolina, recorded an inch and one-half.

Temperatures continued cool in the upper Midwest; Muskegon, western Michigan, at 34°, equaled its record low mark.

Thunderstorms rumbled over the Deep South and Atlantic Coast on Wednesday. One to 3 inches of rain drenched many stations along the Gulf Coastal States. Tornadoes touched down along the Alabama/Florida and Alabama/Georgia borders.

Rain swept up the Atlantic Coast as far north as New England; 3 inches soaked Providence, R.I., but most points reported an inch or less. A tornado and hail hit parts of North Carolina. About an inch of rain fell over several sections of the Appalachians.

A slow-moving cold front kept the entire Atlantic Coast damp on Thursday. A sampling of rainfall totals showed 2.5 inches at Tampa, west central Florida; more than 2 inches at Cape Hatteras, N.C.; and an inch and one-half at Scranton, eastern Pennsylvania. Parts of the Ohio Valley and New York State also received up to an inch of rain.

Five tornadoes touched down in the Southeast---3 in Florida and one each in South Carolina and North Carolina.

A large portion of the Nation noted cool readings; Springfield, southern Missouri matched its 1924 record low temperature at 43°.

Heavy rain in the Northeast and record cold over the eastern half of the country dominated Friday's weather picture.

More than 3 inches of rain covered Brandford and Hillsboro, south central New Hampshire, and Sheffield, southwestern Massachusetts. Some streams topped their banks.

By day's end, thunderstorms developed over the Southwest; Hobbs, southeastern New Mexico, weathered hail and 1.2 inches of rain.

More than a dozen stations posted record low temperatures from the Delta Region across the South to Florida. Some new marks included 47° at Fort Smith, western Arkansas, and Jackson, Miss.; 53° at Montgomery, Ala.; Atlanta's 46°; and 56° at Pensacola, in the Florida Panhandle.

On Saturday, rain fell heavily over parts of New Mexico and fell in lighter amounts in sections of the Mississippi and Ohio Valleys.

Truth or Consequences, southwestern New Mexico, registered more than 2.5 inches of rain. One to 2 inches fell in southwestern Colorado. Hail and high winds whipped across the Kansas City area. Three tornadoes---two in northwestern Iowa and one in the Texas Panhandle---were sighted.

More than two dozen cities from the Deep South through the central Appalachians and Ohio Valley called in record low temperatures. A light dusting of snow accompanied the below-freezing readings in West Virginia's high elevations.

A sampling of records showed Baton Rouge's 47°, Atlanta's 43°, 40° at Columbia, S.C., 44° at Asheville, western North Carolina, 47° at Jacksonville, Fla., and 38° at Evansville, southern Indiana.

Thunderstorms, sometimes heavy, extended from the Southwest through Texas to western Tennessee on Sunday. An inch or more dampened Page, Okla., Shirley, north central Arkansas, and Memphis. A late afternoon storm dropped nearly an inch of rain in less than 15 minutes on Kanab, on the Utah/Arizona border. Hail and four tornadoes hit various portions of Texas.

Cold temperatures lingered over the Southeast. Tallahassee, at 44°, chalked up its third consecutive record low reading. Other records saw 42° at Cape Hatteras, N.C., Tampa's 57°, and 45° at Augusta, eastern Georgia.



National Agricultural Summary

May 21 - 27

HIGHLIGHTS: Above-normal temperatures in the West helped fruit tree development and grass growth. Subnormal temperatures in the East slowed soil warming and delayed crop growth. Rains in the south central States and the East delayed planting progress. Most areas of the Nation had six days suitable for fieldwork, except most of the south central States, the South Atlantic, and the North Atlantic regions where only 2 to 4 days were available. Winter wheat generally rated good with heading advancing into Nebraska. Winter wheat combining was confined to extreme southern areas. Corn planting advanced to 89% complete, equaling the average and surpassing the 75% last year. Soybean planting advanced to 47%, falling between last year's 35% and the 51% average. Cotton planting reached 76%, one point less than 1978 and four points below the average. Grain sorghum planting stood at 46%, equaling last year but short of the 52% average. Rice seeding advanced to 90%, slightly lagging 1978's 93% and the 95% average. Pastures generally rated good providing above-normal forage in the Southwest, but dryness reduced roughage in the northern Mountain States. Deciduous fruits reached full to past bloom in extreme northern production areas. Peach picking advanced across the South. Vegetable planting advanced in northern areas, although low temperatures slowed growth. Fuel supplies rated mostly adequate, although supplies of diesel fuel and gasoline continued to tighten from the previous week.

SMALL GRAINS: Winter wheat rated good throughout most major production areas. Heading advanced into Nebraska where less than 5% was headed compared with 15% last year. Yellowing of ripening grain showed in Texas and California. Combining of winter wheat advanced across extreme southern areas of the Nation. Texas harvest stood at 3%, Louisiana 17%, Alabama 10% and Georgia 14%. Rains helped dryland stands on the Texas Plains, but accompanying winds lodged some fields. Dry stress was evident in some Washington winter wheat fields.

Spring wheat seeding advanced to 71%, short of the 84% last year and average. Seeding in Idaho and South Dakota was virtually complete but lagged at 60% in North Dakota. Farmers should be able to finish small grain seeding with one more week of good weather.

CORN: Corn generally rated fair to mostly good, although low temperatures in northern production areas slowed growth and caused pale color in young plants. Emergence ranged from 35% to 65% in Corn Belt States. Tasseling and silking became evident in the South.

Nationally, corn planting reached 89% compared with 75% last year and the 89% average. In the eastern Corn Belt, seeding reached 87%, far ahead of 1978's 62% and surpassing the 82% average. In the Western Corn Belt, seeding reached 86%, edging ahead of last year's 80% but short of 89% average.

SOYBEANS: Soybeans generally rated good, although only 15 to 16% of the crop was emerged in the north central States. Northern areas needed higher temperatures and some localities needed additional moisture for improved growth.

Soybean seeding in the Nation advanced to 47%, ahead of last year's 35% but slightly behind the 51% average. Growers in the eastern north central States advanced planting to 62%, far ahead of last year's 23% and also surpassing the 54% average.

In the western north central States, seeding stood at 47%, 2 points ahead of last year but 11 points below the average. Rains delayed planting in the south central States, where seeding stood at 31%, falling behind 1978's 34% and 41% average. In the Southeast, planting reached 58%, staying ahead of 1978's 43% and the 50% average.

COTTON: Cotton planting advanced to 76%, slightly behind last year's 77% and the 80% average. Planting neared completion except in Texas at 61% and Oklahoma at 30%. Emergence ranged from 65 to 80% in the Delta. Squaring was evident in Arizona and Texas. Bolls were observed on stands in southern Texas. Cotton on the Texas Plains got needed rain. The crop generally rated fair to good.

OTHER CROPS: Grain sorghum seedings reached 46%, equaling last year but six points below the average. Most States were close to normal planting progress, except Nebraska, at 30%, lagged the average by 25 points. In Texas, 18% of the crop headed, and 2% began turning color.

Rice seeding reached 90%, slightly behind last year and average. Seedings neared completion, except Arkansas at 79% and Mississippi 86%; both States dropped a bit more than ten points below last year.

Peanut seeding moved well along in the Southeast, but Texas, at 28%, lagged the average by seven points. In Georgia, 15% of the peanuts bloomed and 2% began pegging.

Tobacco transplanting generally surpassed last year but lagged the average. In Kentucky, plant supplies were adequate but becoming large for transplanting. Tennessee plant supplies ran low.

FRUITS AND NUTS: Deciduous fruit bloom reached full or past peak in northern production areas. Orchards rated generally good, although wet areas in New England reported apple scab, and peach winter damage showed in Ohio. Peach harvest advanced across the South reaching 1% in South Carolina and 3% in Georgia. Pacific Northwest growers thinned and sprayed fruit and nut trees. Higher temperatures helped growth and development.

Florida citrus groves rated excellent; rains reduced the need for irrigation. Old crop Valencia harvest was active, while new crop fruit growth progressed well. Arizona growers harvested Valencias and grapefruit. California growers harvested grapefruit, lemons, and Valencias. Growers also harvested apricots, Bing cherries, grapes, nectarines, plums, and freestone peaches. Almond and walnut development scored very good in California.

VEGETABLES: Growers in northern production areas continued to plant a wide variety of vegetables including sweet corn, peas, broccoli, and cauliflower. Northern growers harvested lettuce, cabbage greens, and asparagus. Florida vegetable shipments declined 9% from the previous week. Okra and watermelon supplies increased, while other crops held steady or declined. Texas growers harvested a wide range of vegetables. Warm temperatures in East Texas improved growing conditions. Crops in North Texas made good progress. California growers harvested asparagus, broccoli, cauliflower, cantaloupe, celery, sweet corn, lettuce, onions, strawberries, and fresh market tomatoes.

PASTURES AND LIVESTOCK: Pastures generally rated good providing normal amounts of forage. Only the northern Mountain States reported drying conditions and subnormal amounts of roughage from grasslands. Rains delayed hay harvests across the South. Cattle generally rated good. Most herds moved to summer ranges except in the extreme North.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., May 27, 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 . . .	66	- 6	.6	- .2	LA. Baton Rouge . . .	70	- 6	.4	- .5	Youngstown . . .	51	- 9	2.7	+ 1.9
Mobile . . .	71	- 5	3.8	+ 2.8	Lake Charles . . .	71	- 6	.3	- .8	OKLA. Okla. City . . .	64	- 6	.7	- .5
Montgomery . . .	68	- 6	.1	- .7	New Orleans . . .	72	- 5	1.2	+ .2	Tulsa . . .	66	- 5	1.3	+ .1
ALASKA Anchorage . . .	53	+ 4	T	- .1	Shreveport . . .	69	- 6	1.9	+ .8	OREG. Astoria . . .	57	+ 4	.4	- .2
Barrow . . .	22	- 2	T	- .1	MAINE. Caribou . . .	54	+ 1	1.5	+ .8	Burns . . .	60	+ 6	.2	- .1
Fairbanks . . .	55	+ 4	.5	+ .3	Portland . . .	54	- 1	2.7	+ 2.0	Medford . . .	62	+ 3	0	- .4
Juneau . . .	49	0	.1	+ .2	MD. Baltimore . . .	64	- 2	1.1	+ .3	Pendleton . . .	70	+10	T	- .3
Kodiak . . .	49	+ 4	2.0	+ 1.0	MASS. Boston . . .	59	- 2	2.1	+ 1.3	Portland . . .	64	+ 6	.2	- .3
Nome . . .	44	+ 5	T	- .1	Chatham . . .	58	-	2.4	-	Salem . . .	60	+ 3	T	- .5
ARIZ. Flagstaff . . .	52	0	.7	+ .6	MICH. Alpena . . .	50	- 3	.3	- .3	PA. Allentown . . .	61	- 2	3.1	+ 2.3
Phoenix . . .	82	+ 4	T	0	Detroit . . .	50	-11	1.4	+ .6	Erie . . .	50	- 7	1.7	+ .9
Tucson . . .	74	- 2	.1	+ .1	Flint . . .	52	- 6	.3	- .4	Harrisburg . . .	60	- 6	2.8	+ 2.0
Winslow . . .	64	- 1	.8	+ .7	Grand Rapids . . .	55	- 5	T	- .4	Philadelphia . . .	68	+ 2	1.6	+ .8
Yuma . . .	84	+ 4	T	0	Houghton Lake . . .	49	- 7	.3	- .4	Pittsburgh . . .	55	- 7	3.7	+ 2.1
ARK. Fort Smith . . .	64	- 8	2.3	+ 1.1	Lansing . . .	50	-10	.1	- .7	Scranton . . .	56	- 5	2.9	+ 2.9
Little Rock . . .	65	- 7	3.6	+ 2.5	Marquette . . .	46	- 5	.5	- .2	R.I. Providence . . .	60	+ 1	4.6	+ 3.8
CALIF. Bakersfield . . .	85	+13	0	0	Muskegon . . .	53	- 5	0	- .6	S.C. Charleston . . .	71	- 3	2.7	+ 1.7
Eureka . . .	56	+ 3	0	- .4	S. Ste. Marie . . .	49	- 3	.4	- .3	Columbia . . .	67	- 7	1.8	+ 1.0
Fresno . . .	76	+ 7	0	0	MINN. Duluth . . .	50	- 2	.9	0	Greenville . . .	67	- 4	3.5	+ 2.9
Los Angeles . . .	66	+ 1	0	0	Internatl Falls . . .	52	- 1	.2	- .5	S.D. Aberdeen . . .	49	- 9	.6	0
Red Bluff . . .	77	+ 8	0	- .2	Minneapolis . . .	56	- 4	.6	- .2	Huron . . .	54	- 6	T	- .7
San Diego . . .	66	+ 2	T	0	Rochester . . .	54	- 5	.1	- .8	Rapid City . . .	61	+ 3	.1	- .6
San Francisco . . .	61	+ 2	T	- .1	St. Cloud . . .	54	- 4	.4	- .5	Sioux Falls . . .	59	- 1	.2	- .6
Stockton . . .	74	+ 7	0	- .1	MISS. Jackson . . .	68	- 6	.7	- .2	TENN. Chattanooga . . .	64	- 7	3.8	+ 3.1
COLO. Denver . . .	61	+ 2	.2	- .4	Meridian . . .	67	- 7	1.5	+ .7	Knoxville . . .	63	- 7	3.2	+ 2.5
Grand Junction . . .	68	+ 3	.1	0	MO. Columbia . . .	61	- 6	.3	- .8	Memphis . . .	68	- 5	2.1	+ 1.2
Pueblo . . .	63	0	.1	- .3	Kansas City . . .	61	- 6	T	- 1.1	Nashville . . .	64	- 7	1.8	+ .9
CONN. Bridgeport . . .	63	+ 2	2.5	+ 1.7	St. Louis . . .	62	- 6	.3	- .6	TEX. Abilene . . .	69	- 5	.7	- .2
Hartford . . .	63	+ 2	2.5	+ 1.7	Springfield . . .	59	- 8	.2	- .9	Amarillo . . .	61	- 7	2.2	+ 1.5
D.C. Washington . . .	67	- 2	1.1	+ .2	MONT. Billings . . .	65	+ 8	.2	- .3	Austin . . .	71	- 6	5.7	+ 4.8
FLA. Apalachicola . . .	70	- 6	1.8	+ 1.1	Glasgow . . .	62	+ 6	.2	- .2	Beaumont . . .	72	- 5	.7	- .4
Daytona Beach . . .	74	- 2	.3	- .5	Great Falls . . .	61	+ 7	T	- .6	Brownsville . . .	78	- 2	.3	- .3
Ft. Myers . . .	77	- 2	.3	- .9	Havre . . .	63	+ 6	T	- .4	Corpus Christi . . .	78	- 1	T	- .8
Jacksonville . . .	72	- 4	.3	- .5	Helena . . .	62	+ 8	.1	- .4	Del Rio . . .	77	- 3	.1	- .5
Key West . . .	82	0	0	- .6	Kalispell . . .	60	+ 7	.1	- .4	El Paso . . .	70	- 4	.1	0
Lakeland . . .	-	-	-	-	Miles City . . .	65	+ 6	.1	- .5	Fort Worth . . .	71	- 3	.8	- .2
Miami . . .	81	+ 2	T	- 1.6	Missoula . . .	60	+ 6	.2	- .2	Galveston . . .	74	- 4	.2	- .6
Orlando . . .	73	- 5	.8	0	NEBR. Grand Island . . .	60	- 3	0	- .9	Houston . . .	73	- 4	.6	- .6
Tallahassee . . .	69	- 7	1.6	+ .6	Lincoln . . .	61	- 4	0	- .9	Lubbock . . .	65	- 7	3.3	+ 2.5
Tampa . . .	74	- 4	2.6	+ 1.9	Norfolk . . .	61	- 2	T	- 1.0	Midland . . .	69	- 5	.1	- .4
W. Palm Beach . . .	74	- 4	1.2	- .2	N. Platte . . .	60	- 1	T	- .8	San Angelo . . .	71	- 5	.5	- .1
GA. Atlanta . . .	67	- 4	.3	- .5	Omaha . . .	62	- 1	T	- 1.0	San Antonio . . .	75	- 3	.9	+ .2
Augusta . . .	68	- 6	1.6	+ .8	Valentine . . .	60	+ 1	.2	- .5	Victoria . . .	75	- 3	.2	- .7
Macon . . .	69	- 6	.3	- .5	NEV. Ely . . .	61	+ 9	.8	+ .6	Waco . . .	70	- 6	1.1	+ .1
Savannah . . .	74	- 1	.7	- .4	Las Vegas . . .	82	+ 6	T	0	Wichita Falls . . .	69	- 5	.8	- .3
HAWAII. Hilo . . .	73	- 1	.7	- 1.3	Reno . . .	65	+ 9	T	- .1	UTAH. Blanding . . .	62	+ 3	.4	+ .3
Honolulu . . .	78	+ 1	T	- .2	Winnemucca . . .	69	+13	T	- .2	Salt Lake City . . .	69	+ 9	.1	- .2
Kahului . . .	76	0	0	- .1	N.H. Concord . . .	55	- 3	3.6	+ 2.9	VT. Burlington . . .	57	- 1	1.6	+ .9
Lihue . . .	75	- 1	.2	- .3	N.J. Atlantic City . . .	64	0	.7	- .1	VA. Lynchburg . . .	61	- 6	1.0	+ .2
IDAHO. Boise . . .	67	+ 8	T	- .3	Trenton . . .	64	- 1	4.2	+ 3.4	Norfolk . . .	68	- 1	1.1	+ .3
Lewiston . . .	66	+ 6	.1	- .3	N.MEX. Albuquerque . . .	66	- 2	.7	+ .6	Richmond . . .	67	- 2	.6	- .2
Pocatello . . .	63	+ 7	T	- .3	Roswell . . .	67	- 4	.5	+ .2	Roanoke . . .	61	- 5	.4	- .4
ILL. Cairo . . .	63	- 9	.4	- .8	N.Y. Albany . . .	58	- 2	3.0	+ 2.2	WASH. Colville . . .	62	+ 5	.3	- .1
Chicago . . .	54	- 9	T	- .8	Binghamton . . .	52	- 6	2.6	+ 1.7	Omak . . .	65	+ 6	0	- .3
Moline . . .	56	- 8	T	- .9	Buffalo . . .	54	- 4	.8	+ .2	Quillayute . . .	55	+ 3	.5	- .4
Peoria . . .	54	- 10	.5	- .3	New York . . .	63	- 1	2.4	+ 1.7	Seattle-Tacoma . . .	60	+ 4	.1	- .3
Rockford . . .	53	- 9	0	- .9	Rochester . . .	54	- 5	1.7	+ 1.1	Spokane . . .	62	+ 5	T	- .3
Springfield . . .	60	- 6	.2	- .6	Syracuse . . .	57	- 2	2.1	+ 1.4	Walla Walla . . .	68	+ 6	T	- .4
IND. Evansville . . .	60	- 8	.2	- .8	N.C. Asheville . . .	61	- 5	1.1	+ .3	Yakima . . .	64	+ 4	T	- .3
Ft. Wayne . . .	56	- 6	1.3	+ .4	Charlotte . . .	65	- 6	1.0	+ .3	W. VA. Beckley . . .	57	+ 3	1.5	+ .6
Indianapolis . . .	57	- 8	.9	0	Greensboro . . .	64	- 5	.4	- .3	Charleston . . .	60	- 7	1.9	+ 1.1
South Bend . . .	53	- 8	T	- .7	Hatteras . . .	66	- 3	2.5	+ 1.7	Huntington . . .	61	- 6	2.0	+ 1.1
IOWA. Burlington . . .	56	- 8	.4	- .4	Raleigh . . .	64	- 5	.3	- .5	Parkersburg . . .	59	- 7	3.1	+ 2.3
Des Moines . . .	60	- 4	T	- 1.0	Wilmington . . .	71	- 2	1.0	0	WISC. Green Bay . . .	51	- 6	.2	- .5
Dubuque . . .	52	- 9	.1	- 1.0	N. DAK. Bismarck . . .	56	- 1	.2	- .4	La Crosse . . .	54	- 8	.1	- .8
Sioux City . . .	60	- 3	T	- .9	Fargo . . .	57	0	.1	- .4	Madison . . .	53	- 6	T	- .8
KANS. Concordia . . .	62	- 3	T	- 1.1	Williston . . .	60	+ 3	.1	- .4	Milwaukee . . .	52	- 5	T	- .7
Dodge City . . .	61	- 5	.2	- .6	OHIO. Akron-Canton . . .	51	-10	3.7	+ 2.8	WYO. Casper . . .	58	+ 3	.1	- .3
Goodland . . .	60	- 1	.1	- .5	Cincinnati . . .	56	-10	1.5	+ .7	Cheyenne . . .	57	+ 2	.4	- .2
Topeka . . .	60	- 7	0	- 1.0	Cleveland . . .	51	-10	4.0	+ 3.2	Lander . . .	62	+ 7	T	- .6
Wichita . . .	63	- 6	T	- .9	Columbus . . .	56	- 8	1.4	+ .5	Sheridan . . .	59	+ 4	T	- .6
KY. Lexington . . .	59	- 8	1.3	+ .3	Dayton . . .	57	- 7	1.4	+ .6	P.R. San Juan . . .	81	+ 1	.5	- 1.0
Louisville . . .	60	- 7	1.2	+ .2	Toledo . . .	52	-10	1.9	+ 1.1					

Based on 1941-70 normals

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State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by ESCS State offices in cooperation with the National Weather Service.

ALABAMA: Temperatures 5° below normal. Lows near 40° on 26th. Rainfall 23d and 24th, heaviest total 3.78 in. Showers 27th north half.

Fieldwork: 4.6 days suitable. Soil moisture adequate. Soybean planting main activity. Corn planted 98%, 93% 1978 and average. Soybeans planted 57%, 47% 1978, 50% average. Cotton planted 99%, 94% 1978. Peanuts planted 98%, 87% 1978, 93% average. Sorghum planted 50%, 39% 1978. Wheat: Turning 82%, 49% 1978; harvested 10%, 8% 1978, 18% average. Crops and pastures generally good condition. Sugarcane beetle infestation corn becoming problem.

ARIZONA: Fairly dry weather beginning week, scattered showers midweek, thunderstorms statewide. Heaviest east, northern areas. Temperatures near normal.

Cotton planting virtually complete, squaring increasing western area. Cultivation, weed control, irrigation active. Alfalfa haying full swing, third cutting well advanced west, regrowth second cutting good progress central. Combining small grains making good progress. Corn, sorghum, safflower all growing well, safflower full bloom early fields. Sugarbeet harvest increasing, making good progress both Yuma, Salt River Valley, good quality. Lettuce harvest underway Willcox area. Cantaloups, watermelons good progress. Digging potatoes, dry onions full swing. Harvest Valencias, grapefruit still active. Diesel fuel tight, some farmers seeking different suppliers, no widespread delay farmwork. Supplies LP gas generally adequate. Gasoline supplies tight southeast, generally adequate central, north. Range, pasture conditions generally good. Stock water, soil moisture adequate. Ranges supplying above average amounts feed. Cattle, calves mostly good condition.

ARKANSAS: Cool, wet. Lowest temperature 69°; highest 75°. Lowest mean 60°; highest 71°. Extremes: 38 and 88°. Least amount of precipitation 0.29 in.; most 5.65 in.

Planting delayed by rains, replanting expected. Earlier planted fields good, except cotton. Soil moisture adequate to surplus. Fieldwork: 2.6 days suitable. Soybeans fair; planting 13%, 28% 1978, 34% average. Cotton conditions fair; acceptable stand on 65% of acreage; planting 95%, 88% 1978, 93% average. Rice condition fair to good; planting 79%, 91% 1978 and average. Corn and sorghum crops fair to good condition. Sorghum planting 64%, 72% 1978, 71% average. Small grain crops fair to good condition; yield prospects good. Harvest expected one to two weeks. Strawberry harvest winding down. Tomatoes fair condition. Peaches good to excellent condition; limited harvest. Apples excellent condition. Grapes blooming. Watermelons good condition. Pastures good. Hay harvest delayed by rains. Cattle good condition.

CALIFORNIA: Second week average temperatures well above normal. Some light amounts of precipitation over extreme southeast early week but generally 0.10 in. or less. Greatest departure in temperatures in Sacramento Valley but central coast and San Joaquin Valley quite warm also. Upper level high pressure ridge continued as dominant control.

Small grains 86% turning color stage. Small grains being cut for hay; Harvesting desert area. Cotton growing well. Rice 93% planted, 85% year

ago; 66% emerged. Fertilizing, treating shrimp continues. Corn 84% planted, 66% emerged. Planting sugarbeets continues. Harvesting reported San Joaquin, Imperial Valleys. Irrigation and spraying continues. Apricot harvest began. Bing cherry harvest underway, moderate crop. Grape development very good. Harvest Coachella Valley started. Thinning cling peaches continues. Nectarine, plum, and freestone peach volume increasing. Desert grapefruit 80% complete. Good demand. Lemon movement slow. Valencia harvest underway all areas. Almond, walnut development very good. Most asparagus to processors. Broccoli, cauliflower, plentiful central coast. Cantaloup harvest expected Imperial Valley this week. Celery harvest increasing central coast. Sweet corn harvest full swing desert. Lettuce movement heavy central coast. Onion harvest started San Joaquin Valley; continues heavy desert. Strawberry harvest near peak central coast. South coast berries mostly processing. Market tomato harvest increasing Imperial Valley, started south coast, San Joaquin Valley. Processing tomatoes blooming, set looks good. Watermelon harvest started Imperial Valley. Winds dried rangeland. Ranges furnished good feed. Grasshoppers problem some foothill areas. Movement livestock summer pastures continuing. Cattle good condition making good gains. Sheep grazing abandoned lettuce fields San Joaquin Valley.

COLORADO: Showers, thunderstorms east of mountains. Amounts from 0.50 to 0.75 in. Temperatures 3 to 5° above normal west; 2 to 4° below normal east.

Winter wheat condition good; jointed 73%, 84% 1978, 73% average; headed 17%. Spring wheat seeded 96%, emerged 62%. Spring barley 96% seeded, 100% 1978; emerged 89%. Oats seeded 81%, 100% 1978; emerged 73%. Corn 87% seeded, 93% 1978, 94% average, emerged 56%, 68% 1978. Sorghum 30% seeded, 38% 1978, 39% average. Sugarbeet seeding nearing completion, 82% emerged, 92% 1978. Alfalfa hay good condition, starting harvest first cutting. Ranges and pastures good condition. Fieldwork: 4 days suitable. LP gas and gasoline supplies adequate, diesel fuel tight to adequate.

FLORIDA: High pressure early week gave way to active cool front and widespread showers statewide by midweek. Showers lingered over south, 25th. Significant rainfall occurred in most areas, generally ranging from 0.50 to 1.00 in. Many areas received over 2.00 in. Cool temperatures with several locations reporting record low morning readings. Overall, temperatures a little below normal except extreme south.

Soil moisture mostly adequate, short few areas central, north. Corn good progress, silking in south. Peanuts good growth, planting practically complete. Soybean planting active, good progress made to date. Tobacco harvest increasing. Small grain harvest full swing. Peach harvest nearing completion. Citrus grove condition excellent. Rain most areas, very little irrigation. New crop fruit progressing well. Old crop Valencia harvest very active, some labor shortage. Grazing conditions mostly good to excellent; however additional rain would benefit pastures on higher, sandy soils in many areas. Cattle, calves generally good condition. Overall vegetable crop condition variable, few good to very good. Many crops declining seasonally and completing harvest. Fruit quality,

yields fair to good. Volume decreasing; shipments down 9% from previous week. Supplies okra up considerably. Harvest watermelons increased while eggplant, parsley held steady. Snap bean, cabbage, carrot, celery, chinese cabbage, sweet corn, cucumber, escarole, lettuce, pepper, radish, squash, tomato supplies decreased. Watermelon supplies increasing west central, southeast, north central areas. Quality, size good to very good. Crops north and west fair to good condition. Harvest declining southwest area. Light supplies expected through this week. Fruit quality remains good, size mostly medium. Sweet corn harvest shifting from Everglades to Zellword area. Potato harvest active Hastings area.

GEORGIA: Temperatures mid-60's northeast mountains to low and mid-70's across central and south. Extremes: 94 and 43°. Rainfall variable; 0.50 in. or less over much of central and south, 3.00 to 5.00 in. in mountains.

Soil moisture mostly adequate to surplus. Fieldwork: 4 days suitable; much less north. Diseases and insects on increase, especially corn, wheat, tobacco. Corn fair to mostly good. Tobacco fair to good, some loss due to wet condition in southeast. Soybeans good; 62% planted, 54% last year, 51% average; wet conditions delaying planting north. Peanuts fair to mostly good; 15% blooming, 5% last year; 2% pegging, 1% last year. Cotton good: 23% squaring, 2% last year, 6% average. Sorghum 46% planted, 45% last year, 40% average. Wheat 14% harvested, 7% last year, 21% average. Oats 15% harvested, 10% last year, 24% average. Hay crops good, delay in harvesting due to wet conditions. Watermelons fair to mostly good. Peaches good; 3% harvested, 2% last year, 9% average. Apples good. Vegetables fair to good. Cool nights and wet conditions, southeast, slowed development. Pastures good. Cattle and hogs good. LP gas, diesel fuel, gasoline supplies rated adequate.

HAWAII: Weather favorable. Most areas dry. Occasional rains mainly higher windward sections. Insect infestation increasing. Reducing yields some crops. Vegetable supplies: Market glut; some mustard cabbage fields abandoned. Others adequate. Banana, papaya supplies light. Pineapple harvesting increasing. Sugar harvesting active. Pastures generally fair to good.

IDAHO: Temperatures about 5° above normal. Precipitation below normal.

Spring planting near completion. Potato and corn planted 90%, last year 80%. Dry beans 20% planted, 30% last year. Planting of other crops virtually complete. Spring wheat 90% emerged, potatoes 25%. Sugarbeet thinning 25% complete. Winter wheat 30% boot stage. Fieldwork: 6.6 days suitable. Soil moisture short to adequate. Lower ranges dry. Farm fuel supplies mostly adequate, same as last week.

ILLINOIS: Temperatures 6 to 10° below normal. Precipitation 0.70 in. or less north, 0.05 in. or less central, up to 1.00 in. south.

Soil moisture short to adequate. Corn planting 91% complete, 58% 1978, 85% average. Soybean planting 61% complete, 28% 1978, 53% average. Winter wheat good; 75% headed, 47% 1978, 86% average. Oats good. Alfalfa hay 1st crop cut 20% complete, 9% 1978, 24% average; good condition. Pastures good. Fieldwork: 6.5 days suitable.

INDIANA: Temperatures 8° below normal and ranged from mid-30's to high 70's. Rainfall slight in northwest (0.10 in.), heavy in east central (1.60

in.) other areas 0.40 to 1.00 in. Sunshine 52% of possible.

Fieldwork averaged 6 days. Topsoil moisture short to mostly adequate. Subsoil moisture mostly adequate. Plowing almost complete, 1978 75%, average 100%. Corn 90% planted, 1978 45%, average 80%; 50% emerged, 1978 45%, average 65%. Soybeans 55% planted, 1978 10%, average 50%; 15% emerged, 1978 5%, average 35%. Wheat fair to mostly good; 35% headed, 1978 30%, average 75%. Pastures good.

IOWA: Cool, dry. Precipitation mostly confined to 24 and 25th as light showers. Cold east averaged 7 or 8° subnormal while west averaged 3 or 4° subnormal. Few freezing temperatures reported on 24th in northwest and on 25th in central and east.

Fieldwork: 6.3 days favorable. Topsoil and subsoil moisture adequate. Fertilizer nearly all applied, 1978 87%. Oat acreage nearly all emerged, 1978 95%. Corn acreage planted 99%, 1978 83%, normal 93%. Corn acreage emerged 65%, 1978 50%, normal 69%. Soybean acreage planted 68%, 1978 57%, normal 67%. Soybeans emerged 16%, 1978 15%, normal 28%. Crop conditions good: Corn, oats, wheat, clover hay, alfalfa hay, pasture. Live-stock market movement variable, little disease problems.

KANSAS: Cool week; heavy rains southeast, scattered showers southwest. Temperatures well below normal with averages 60° central to around 64° south central and southeast. Precipitation ranged from 0.20 in. northwest to around 4.00 in. southeast. No severe weather.

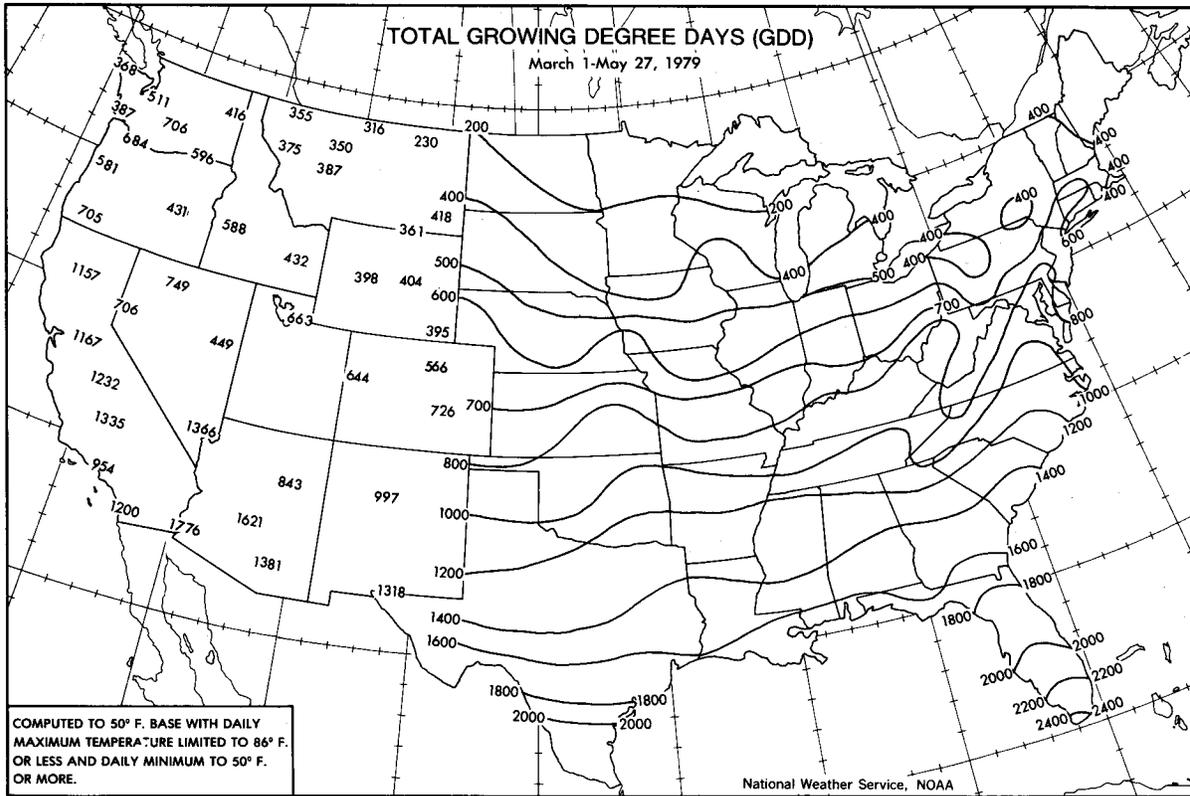
Wheat development one week later than normal; 60% headed, last year 80%, average 90%. Corn 80% planted, last year 80%, average 90%. Sorghum planting 25% complete, last year 15%, average 25%. Soybeans planted 20%, last year 20%, average 25%. First cutting alfalfa hay 45% completed, last year 30%, average 50%. Soil moisture generally adequate. Some subsoil shortages western third. Farm fuel situation varied, some tight to deficient supplies of diesel fuel western third. Most gasoline shortages eastern third and northwest.

KENTUCKY: Temperatures 5 to 10° below normal with the coldest on 24th and 25th. Rain fell nearly every day, ranging from around 0.75 in. west to around 2.00 in. east.

Fieldwork: 2.5 days favorable; less in west where corn and soybean planting well behind normal. Rain most areas. Soil moisture adequate to surplus. Setting burley tobacco active in central and blue-grass area, 16% complete statewide, last year 6% and average 28%. Plants adequate supply, becoming too large as fields too wet to set some areas. Corn 68% planted, last year 59%, average 80%. Soybeans 22% planted, 15% last year, and 33% average. Small grains mostly good. Farm fuel supplies generally adequate but increasing concern as local stations limit operating hours.

LOUISIANA: Temperatures 5 to 6° below normal. Extremes: 90 and 46°. Light showers statewide early week.

Fieldwork: 5.6 days suitable. Soil moisture adequate. Cotton 99% planted, 95% last year, 90% average; 80% emerged. Rice good; 96% planted, 93% emerged. Soybeans 50% planted, 55% last year, 53% average; 30% emerged. Corn fair to good; 9% tasseling, 10% last year. Sorghum 62% planted, 55% last year, 56% average; 40% emerged. Sweet-potatoes 64% transplanted, 62% last year and average. Tomatoes, vegetables being harvested south and Irish potatoes north. Wheat 17% harvested, 12% last year, 30% average. Hay, pasture, cattle good.



MARYLAND & DELAWARE: Temperatures about normal. Highs in mid-70's and lows in upper 40's to mid-50's. Precipitation moderate, between 1.00 and 3.00 in.

Fieldwork: 4.4 days suitable. Soil moisture adequate to surplus. Pastures supplying average amounts of feed. Fuel supplies for farmwork adequate. Corn planting about 85% complete, 65% last year, 84% normal. Soybean planting 20% complete, 20% last year, 25% normal. Small grains headed and beginning to turn. First cutting alfalfa over 70% complete, clover and clover mixtures nearly 40% complete. Tobacco fields 15% planted.

MICHIGAN: Temperatures 3 to 11° below normal. Coolest temperatures dropped to freezing or below. Precipitation ranged from less than 0.10 in. up to 1.92 in.

Fieldwork: 5 days suitable. Soil moisture supplies adequate. Pasture feed supplies average. Plowing 90% complete, 85% last year and normal. Corn 80% planted, 90% last year, 85% normal. Oats 95% seeded, 95% normal. Dry beans 2% planted, 5% normal. Soybeans 40% planted, 25% last year, 35% normal. Potatoes 75% planted, 80% last year, 75% normal. Most fruit trees have developed past bloom. Apples in full bloom northwest. Asparagus 50% harvested. Onions and carrots in good condition. Paper off of celery. Cool weather slowing vegetable development.

MINNESOTA: Temperatures near normal northwest to 5° subnormal southeast. Extremes: 79 and 24°. Below freezing temperatures recorded much of north central and central, locally west central and southeast. Precipitation averaged 0.10 to 0.25 in. subnormal north and east central, 0.50 to 0.75 in. subnormal elsewhere, except narrow band of normal

to 0.60 in. above normal extreme northwest to head of Lake Superior.

Fieldwork progressed rapidly. Most planting should be completed this week if weather permits. Planted: Corn 76%, 1978 89%, normal 91%; soybeans 44%, 1978 72%, normal 70%; spring wheat 72%, 1978 99%, normal 87%; oats 83%, 1978 96%, normal 91%; barley 64%, 1978 96%, normal 82%; flax 38%, 1978 67%, normal 68%; sunflowers 32%, 1978 69%, normal 68%; sugarbeets 90%, 1978 99%, normal 84%; potatoes 37%, 1978 76%, normal 68%; green peas for processing 65%, 1978 87%, normal 92%; sweet corn 45%, 1978 68%, normal 67%.

MISSISSIPPI: Temperatures normal or above early week, below normal late week with record daily lows many locations. Rain midweek most areas.

Soil moisture mostly adequate but ranges from excessive to adequate northern third. **Fieldwork:** 4.5 days suitable. Soybean planting full swing, land preparation, hay harvest very active. Rain slowed progress some northern areas. Cotton 97% planted, 97% 1978, 92% average; 79% up to stand, 77% 1978, 77% average; condition fair. Soybeans 34% planted, 30% 1978, 40% average; 16% up to stand, 12% 1978, 24% average. Rice 86% planted, 97% 1978, 91% average; 63% up to stand, 92% 1978, 78% average; condition good to fair. Corn 93% planted, 95% 1978, 90% average; 80% up to stand, 80% 1978; condition good to fair. Winter wheat 39% ripe, 36% 1978; 7% harvested, 3% 1978, 11% average; condition good. Peanuts 81% planted, 72% 1978. Sorghum 54% planted, 42% 1978, 48% average. Sweet-potatoes 53% planted, 66% 1978, 57% average. Hay crops 17% harvested, 20% 1978, 21% average. Pastures good condition. Peaches good to fair condition. Fuel supplies tightened with LP gas rated mostly adequate; diesel, adequate to tight;

and gasoline mostly adequate with scattered tight supplies.

MISSOURI: Temperatures 6 to 8° below normal. Showers and thunderstorm early week in south. More rain late week across State. Rainfall averaged 0.25 in. or less northeast Prairie, 0.50 to 1.00 in. central, 1.50 to 2.50 in. south.

Fieldwork: 4.3 days suitable. Corn 84% planted, last year 28%, normal 81%. Soybeans 29% planted, last year 15%, normal 45%. Grain sorghum, 34% planted, last year 19%, normal 45%. Cotton 80% planted, last year and normal 97%. Wheat 72% headed, last year 59%, normal 94%. Wheat 2% turning color, last year 3%, normal 26%. First cutting alfalfa 30% complete, last year 17%, normal 38%. Winter wheat and pasture in mostly good condition. Soil moisture supplies mostly adequate.

MONTANA: Warm, dry. Temperatures 2 to 7° above normal.

Good planting progress. Soil moisture mostly adequate, some drying of topsoil occurring. Fieldwork: 6.3 days suitable. Winter wheat fair condition. Very little in boot, last year 10%, average 20%. Planting progress: Spring wheat 75%, 75% 1978, 85% average. Barley 75%, 70% 1978, 80% average. Oats 65%, 75% 1978, 75% average. Corn 55%, 60% 1978, 65% average. Potatoes 50%, 55% 1978, 60% average. Dry beans 60%, 75% 1978, 65% average. Sugarbeets 90%, 100% 1978, 90% average. Spring wheat and barley emerged 25%. Cattle moved to summer range range 65%, sheep 70%, about normal. Range growth less than average.

NEBRASKA: Precipitation isolated showers; highly variable in amounts; averaged 0.10 in. Temperatures near normal; lows in 40's, highs in 80's.

Winter wheat fair to good; 70% jointing, 85% year ago; less than 5% heading, 15% year ago. Corn planting 85% complete, 90% year ago, 90% normal; emergence 35%, year ago 50%. Sorghum planting 30% complete, year ago 40%, normal 55%. Soybean planting 30% complete, 35% year ago, normal 50%. Sorghum and soybeans less than 5% emerged, less than 5% year ago. Diesel supplies tight. Gasoline adequate to tight. LP gas mostly adequate. Fieldwork: 6.1 days suitable.

NEVADA: Normal weather midweek, much above normal temperatures early and late. Extremes: 103 and 28°. Scattered showers last half of period.

Not all days favorable for fieldwork. Low night temperatures slowing crop growth. Summer ranges providing good grazing.

NEW ENGLAND: Slow moving low pressure system brought 4 day rain starting 23d. Heavy rain, ranging from 3.00 to 5.30 in. let up on 26th with scattered showers into 27th. With the heavy cloud cover daytime temperatures subnormal but nighttime readings above normal.

Rain slowed fieldwork and caused some crop damage. Corn planting 40 to 100% complete and potatoes 50 to 100% complete. Vegetable crops spurred by warm weather and better than adequate moisture. Apple scab appeared in areas of excess moisture and cranberries have about escaped any frost damage. Some hay cut and available grazing rated adequate. Fuel supplies adequate with only isolated incidents of tight supplies.

NEW JERSEY: Temperatures 1 to 3° below normal. Extremes: 40 and 81°. Rainfall 3.57 in. north, 2.61 in. central and 1.29 in. south. Soil moisture in percent of field capacity 96% north, 94% central

and 86% south. Soil temperature 60° north, 64° central and south.

Fieldwork: 3 days suitable. Frequent showers continue to interrupt planting and spraying, most crops growing nicely. Asparagus, lettuce, cabbage, escarole, spinach and "greens" moving to market. Deciduous fruit set heavy; some fruit dropping. Strawberry harvest becoming general. Rye being cut for straw. Hay growth heavy. Weather delaying cutting. Early field corn up 6 to 8 in. Many corn and soybean fields eroded. Most fuel supplies adequate.

NEW MEXICO: Rain from near 0.33 to over 1.00 in. Temperatures 3 to 8° subnormal; persistent cloudiness.

Cotton planting 95% complete. Crop slightly retarded due to unseasonably cool nights. Alfalfa 1st cutting 80% complete south and less than 5% complete north. Few producers in extreme south starting 2d cutting. Wheat and barley good; practically all headed, 30% coloring. Corn planting almost complete south, still active north. About 80% of irrigated grain sorghum planted. Chile and onions good. Lettuce harvest active. Ranges fair, livestock good. Lamb marking active.

NEW YORK: Temperatures slightly below normal and precipitation well above normal. Rainfall totaled 1.00 to 3.00 in.

Fieldwork active until showers came at midweek. Corn 70% planted, 55% 1978. Oats 92% planted, 90% 1978. Wheat making good progress. Pastures green and lush. New hay fields in excellent condition. Haying active. Onions making good growth. Early cabbage transplants developing on Long Island. Strawberries showing good development and fruit set. Apples sizing in Hudson Valley. Peach set light. Pears, sweet and tart cherry set good. Grape shoot growth 8 to 12 in.

NORTH CAROLINA: Temperatures near normal. Precipitation 1.00 to 3.00 in.

Fieldwork: 2.2 days suitable. Soil moisture adequate to surplus. Condition of wheat, oats, barley, corn, Irish potatoes, pasture and peaches fair to mostly good. Cotton, tobacco and vegetables fair to good. Planted: Flue-cured tobacco 95%, 1978 84%, average 90%; burley tobacco 28%, 1978 17%, average 42%; soybeans 51%, 1978 30%, average 51%; peanuts 72%, 1978 80%, average 86%; sweetpotatoes 58%, 1978 38%, average 53%; sorghum 34%, 1978 35%, average 50%.

NORTH DAKOTA: Mild, dry weather prevailed. Temperatures 1 to 5° above normal. Freezing temperatures reported at only one station. Extremes: 31 and 83°. Precipitation generally less than 0.20 in.

Weather allowed good progress in field operations. Fieldwork: 6.8 days suitable. Seeding full swing north; could finish small grains coming week south. Wild oats becoming problem. Topsoil moisture becoming short south. Planted: Hard red spring wheat 60%, 79% 1978, 79% average; durum 43%, 73% 1978, 71% average; oats 56%, 74% 1978, 77% average; barley 56%, 82% 1978, 77% average; potatoes 38%, 84% 1978, 66% average.

OHIO: Rainfall totals by 25th excess of 1.00 in. Periods of rain continued through weekend. Below normal temperatures. Soil temperatures lowered slightly, falling into 50's.

Except for the northeast, spring planted crops benefited by rain. Warm weather needed to stimulate growth and germination. Condition of crops very good. Alfalfa weevil damage reached economic levels. Transplanting tomato plants winding down.

Transplanting tobacco plants just underway. Peach orchards now showing evidence of past severe winters. Wheat crop looks good. Corn planted 95%, 60% 1978, 85% average. Soybeans planted 80%, 25% 1978, 65% average. Corn emerged 70%. Alfalfa cut 20%, 5% 1978, 15% average. Wheat headed 35%, 15% 1978, 40% average. Oats headed 1%, 0% 1978, 1% average. Fieldwork: 4.5 days favorable. Pasture condition good. Soil moisture adequate to surplus.

OKLAHOMA: Temperatures 4 to 7° below normal. Rainfall all areas, but below normal except southeast where rainfall averaged 5.81 in. Elsewhere, weekly averages ranged from 0.16 in. west central to 1.26 in. east central.

Precipitation slowed seedbed preparation and planting activity. Wheat and small grains benefited from cool nighttime temperatures. Wheat 35% soft dough or later, 40% 1978, 60% average. Sorghum seedbeds 90% prepared, 95% 1978, 90% average. Sorghum 30% planted, 35% 1978 and average. Sorghum 20% up to stand, 10% 1978, 15% average. Cotton seedbeds 95% prepared, 100% 1978, 90% average. Cotton 30% planted, 40% 1978, 35% average. Cotton 10% up to stand, 20% 1978, 10% average. Fieldwork: 4.5 days suitable.

OREGON: Week started with much above normal temperatures. Scattered showers and cooler weather toward end of week. Greatest precipitation amounts in northeast, up to 0.25 in. Maximum temperatures in 80's and lower 90's except upper 60's to lower 70's along coast. Minimum temperatures in low 30's and 40's.

Soil moisture supplies range from short to adequate. Grain hay and seed crops fair to good condition. Winter wheat 26% headed. Haying and silage cutting in full swing; good quality being made. Some mint fields show poor growth; insects and weeds being sprayed. Other field activities: Fallow tillage, weed and insect spraying, fertilizing, cultivating, and final seeding of spring crops. Strawberry crop condition excellent, picking to start early June. Blueberries blooming; set heavy. Caneberries in full bloom. Thinning of peach and apple trees continue. Spraying fruit and nut orchards continue. Irrigation in some areas. Vegetables planting on schedule, crops look good. Potato planting continues in late areas; early crop beginning to close rows. Livestock in good condition. Range and pastures in good condition. Potato planting 94%, 96% 1978, 98% normal.

PENNSYLVANIA: Cool, cloudy and wet. Showers and thunderstorms every day but 24th produced 2.00 to 3.00 in. rainfall and up to nearly 4.00 in. north-east. Absence of appreciable sunshine kept temperatures 2 to 10° below normal for coolest week since early May. Extremes: 80 and 29°.

Fieldwork: 2 days suitable. Soil moisture mostly surplus. Activities: Spraying; cutting hay; planting corn, potatoes, soybeans; setting tobacco, tomato and cabbage plants; harvesting asparagus, sugar peas; equipment maintenance. Plowing complete, last year 87%. Soybeans 36% planted, last year 13%. Potatoes 84% planted, last year 72%. Corn 78% planted, last year 48%, averaging 70%. Barley 65% headed; 26% boot; last year 22% headed. Wheat 37% headed; 47% boot; last year 5% headed. Hay stands mostly good. First cutting alfalfa 6%, mostly silage. Quality of hay poor. Apples all in or past full bloom.

PUERTO RICO: Island average rainfall 2.71 in. or 0.98 in. above normal. Temperatures averaged about 77° on coasts and 73° interior. Extremes: 90 and 52°.

SOUTH CAROLINA: Temperatures below normal, highest early in week. New daily low records in 40's established 26th, 27th many locations. Hail 22d, 24th scattered across ridge, Piedmont. Rainfall heavier than usual, generally during first half.

Soil moisture adequate to surplus. Fieldwork: 2.5 days suitable. Corn condition fair to good; 1% silked; some armyworms, other insects causing damage; lighter soils leached of nutrients by rains. Cotton condition fair to good; very little required replanting; some blowing sand damage or insect pressures. Soybean stands good, rains impeded entering low fields; 60% planted, 44% last year, 48% average. Tobacco condition good, some crop drowning, blue mold due to unseasonable cool, moist weather occasionally fairly severe in low areas; light soil leached by rains required more fertilizer. Good peaches, Camdens ending in coastal plains by June 1, best harvest in years; Earlireds, Junegolds ready this week. Ridge Camden volume increasing, starting in Piedmont. Scattered hail May 22 damaged small areas ridge, Piedmont. Peaches harvested 1%, 1% last year. Grapes forming well, benefiting from frequent rains. Wheat, oat condition fair to good; period of dry, hot weather needed to complete ripening. Powdery mildew, rust occasionally severe wheat due weather. Wheat 32% ripe; oats 22%; wheat, oats, rye 1% harvested, behind 1978's 2 to 6%. Grain hay 60% harvested, some left on ground due rainy condition; 66% last year, 76% average. Harvest snap beans 36%; all cucumbers 15%; cabbage 56%. Condition of vegetables, melons fair to good except tomatoes good. Major ground rot in cucumbers reported. Harvest peak around first of June; overall volume above 1978.

SOUTH DAKOTA: Temperatures to 5° subnormal. Extremes: 89 and 29°. Precipitation 0.10 or less except east 0.10 to 0.57 in. Growing degree days normal.

Topsoil moisture short west, generally adequate elsewhere. Fieldwork: 6 days suitable. Fuel supplies tight to adequate. Oats 99% seeded, 1978 95%, average 99%. Barley 99% seeded, 1978 96%, average 98%. Spring wheat 99% seeded, 1978 99%, average 100%. Flax 66% planted, 1978 58%, average 77%. Corn 66% planted, 1978 68%, average 77%. Soybeans 34% planted, 1978 41%, average 56%. Sorghum 23% planted, 1978 23%, average 27%. Sunflowers 16% planted, 1978 7%. Winter wheat 20% boot, 1978 49%, average 48%. Rye 20% boot, 1978 71%, average 64%.

TENNESSEE: Low pressure all week. Rainfall heavy; amounts 4.00 in. some locations. Temperatures 7° below normal.

Fieldwork: 1.1 day suitable. Soil moisture surplus. Corn planting 79% complete, 1978 82%, average 83%. Cotton 82% planted, 1978 90%, average 92%. Soybeans 17% planted, 1978 27%, average 38%. Tobacco 38% transplanted, 1978 22%, average 50%. Plant supply low some areas. Wheat 94% headed, 1978 94%, average 98%. Oats 93% headed, 1978 88%, average 93%. Barley 96% headed, 1978 80%, average 97%. First cutting alfalfa 75% complete, 1978 60%, average 75%. Pastures and cattle good condition. Some cutworm damage commercial tomatoes. Snap bean planting slowed by rains. Fuel supplies mostly adequate.

TEXAS: Cold front entered State 21st producing thunderstorm activity throughout Texas. Remainder of week cloudy skies prevailed. Rainfall generally 0.50 to 1.00 in. above normal throughout Texas.

Rains throughout much of Panhandle helped alleviate dry topsoil moisture conditions. Fuel supplies for farming remain generally tight to adequate.

quate with no areas suffering work delays due to lack of fuel. Cotton planting active on both High and Low Plains. Most dryland fields received needed rains. Insect buildup remained minimal. Corn continued to make good progress with sufficient moisture. Sorghum planting continued Plains and Cross-Timbers but finished or winding down in other areas. Insect activity light. Rains will benefit wheat head development in Panhandle. Strong moisture laden winds caused lodging on portions of Low Plains and Cross-Timbers. Harvest centered in south although harvest also progressing on Edwards Plateau. First cutting hay full swing throughout north and east. Weeds and rain affected quality. Farmers ready for second cutting alfalfa in Trans-Pecos. Soybean plantings lagging due to excess moisture in Gulf Coast region. About 25% of bean crop on High Plains planted. Cotton planted 61%, 65% 1978, 75% average; squaring 9%; setting bolls 3%. Rice planted 99%, 100% 1978, 99% average; emerged 92%. Sorghum planted 78%, 83% 1978, 81% average; headed 18%; turning color 2%. Wheat headed 99%; turning color 37%; harvested for grain 3%, 2% 1978, 6% average. Barley harvested 13%, 0% 1978, 6% average. Flax harvested 73%, 83% 1978, 71% average. Oats harvested 26%, 19% 1978, 18% average. Peanuts planted 28%, 27% 1978, 35% average. Soybeans planted 19%, 26% 1978, 35% average. Sunflowers planted 21%, 1% 1978, 25% average.

Bell pepper, cucumber, cantaloup, honeydew, potato, sweet corn, watermelon harvest active. Tomatoes in light supply. Onion harvest winding down some fields plowed under due market conditions. East Texas warm weather improved growing conditions most vegetables. North Texas melon planting continued, earlier plantings making good growth. High Plains bell peppers, tomatoes, potatoes, onions making good progress. Watermelon planting active. Peach harvest active from South Texas, across Hill Country, into East Texas. Pecan producers central and east spraying first generation casebearer control. Infestations reported light most areas. Some trees at El Paso received minor hail damage. Range and pasture most areas of High Plains continued to improve with rains. Cattle continue move off grazed-out wheat. Above average grazing prevalent throughout central and east although heavy weed populations some areas causing problems. Hay-harvesting active, Trans-Pecos, rainfall needed to boost forage production. Statewide, livestock conditions ranged good to excellent.

UTAH: Recurring shower and thunderstorm latter part period. Amounts generally light to moderate but locally heavy few localities. Temperatures ranged from near normal to 7° above.

Fuel supplies generally adequate but some reports of tight supplies. Soil moisture adequate in south, short in north. Fieldwork: 7 days suitable; southeast only 3 to 5 days suitable. Fruit crop prospects good. Field corn, potatoes, and tomatoes 85% planted, sweet corn and snap beans 65% planted. Alfalfa hay in good condition. Range feed supplies and livestock in good condition.

VIRGINIA: Showers and thunderstorms during much of period. Rainfall averaged 1.25 in. Temperatures near normal. Extremes: 85 and 37°.

Topsoil moisture adequate to surplus; totally surplus southeast and east. Fieldwork: 1.9 days suitable. Planting progress: Corn 89%, 82% 1978, 89% usual; Tidewater and southeast corn 97%, 91% 1978; soybeans 21%, 16% 1978, 33% average; Tidewater and southeast soybeans 17%, 11% 1978; peanuts 80%, 75% 1978, 89% usual. Tobacco set: Flue-cured 69%, 31% 1978, 63% average; fire-cured 40%, 15% 1978, 44% usual; burley 8%, 14% 1978,

34% average; sun-cured 32%, 12% 1978, 39% usual. Barley combined 2%, 0% 1978, 1% average. Stands of corn, cotton good, peanuts fair. Conditions of pastures, hay good. Warmer weather and sunny days needed most areas. Farmwork fuel supplies mostly adequate; diesel supplies tightening most areas.

WASHINGTON: West: Temperatures 3 to 4° above normal. Precipitation 0.30 to 0.80 in. below normal. Warm, dry weather was interrupted by weekend showers.

Strawberries ripening, harvest to start soon. Raspberries at peak bloom. Planting green peas, corn near complete. Seeding broccoli, cauliflower active. Carrot, lettuce, spinach harvest started. Green chopping silage active. Pastures growing well.

East: Temperatures 4 to 6° above normal. Precipitation 0.20 to 0.30 in. below normal. Weather warm, generally dry, until weekend rains and winds.

Fruit trees responded to warm weather. Fruit drop from apples and cherries will insure good fruit size. Asparagus cutting continues. Green peas seeded and starting to bloom. Corn planted, 6 to 8 in. tall early areas. First cutting alfalfa hay underway. Moisture stress conditions evident in grain stands. Wheat starting to head. Working summerfallow, fertilizing for next year's grain active. Livestock on spring range. Some ranges in central area dry. Wheat headed 13%, 1978 22%.

WEST VIRGINIA: Precipitation above normal. Temperatures below normal. Extremes: 89 and 31°.

Fieldwork: 2.8 days suitable. Soil moisture adequate to surplus. Main activities: Plowing and planting corn, haying and fencing. Small grains good to fair condition. Oats 97% planted, 86% emerged. Barley 18% pre-jointed, 31% jointing, and 51% headed. Wheat 46% pre-jointed, 35% jointed and 19% headed. Corn mostly fair to good condition; 73% planted, 41% emerged. Tobacco beds 93% emerged, 22% set. Pasture and hay mostly good. Fuel supply adequate, with some part-time weekend farmers having difficulty finding fuel.

WISCONSIN: Cool, dry. Temperatures 8° below normal. Highs in 50's and 60's but warmed to 70's weekend. Lows in 30's with scattered light frost. Record low 34° Madison morning 25th. Rainfall light in scattered showers 21st to 23d, little or none south to less than 0.50 in. other areas. Memorial holiday weekend sunny and pleasant.

Planting of crops continued. Fieldwork: 4 days suitable. Corn 70% planted, 1978 80%, normal 75%. Most farmers done planting corn in south. Early corn growth slowed by cool temperatures, has pale color. Soybeans 35% planted, 1978 35%, normal 33%. Need moisture south for germination and remaining planting of soybeans. Oats 90% planted, 1978 100%, normal 99%. Some bypassing wet fields north and planting corn where drier. Spring plowing 85% done, 1978 95%, normal 95%. Hay growth slow north but near cutting stage south. Pasture conditions normal. Most potato planting completed central area but slow north due to wet fields. Planting of peas and sweet corn continuing at near normal schedule but warmer temperatures needed for growth. Cool soils slowing planting of some vegetable crops such as snap and lima beans. Cherry trees beginning to bloom, apple trees have not bloomed yet in north. Insect development slowed by cool weather. Soil moisture mostly adequate to surplus, but rain needed south.

WYOMING: Temperatures above normal. Maximums generally in 70's and 80's. Minimums generally

in low 30's to low 40's. Precipitation generally below normal. Many stations reported no precipitation or trace.

Topsoil moisture short to adequate. Fieldwork: 6 days suitable. Acreage planted: Oats 87%; corn 61%; spring wheat 82%; barley 93%; potatoes 82%; dry beans 24%. Acreage emerged: Spring wheat 66%; oats 64%, barley 68%, sugarbeets 80%; corn

36%; potatoes 20%. Winter wheat starting to head out; fair to good condition. Prospects spring planted small grains and alfalfa fair to good. Summer grazing prospects mostly good, stock water mostly adequate. Range ewes lambed 84%; range sheep shorn 95%. Supplies of LP gas adequate most areas. Diesel fuel and gasoline tight in some areas.

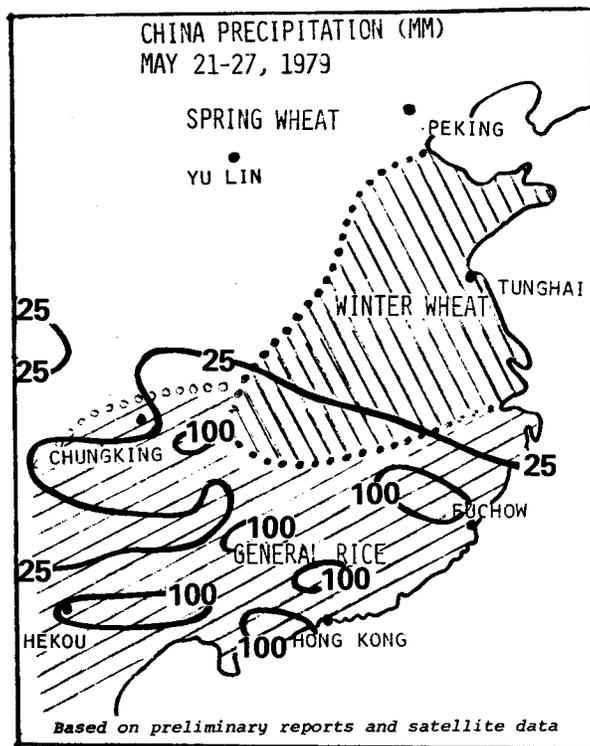
World Weather and Crop Update

April 1 thru late May

USSR. Precipitation over much of the winter grains region of the Soviet Union ranged from 0 to 10 mm. Some heavier precipitation did fall in the western portions of the Ukraine. Good rains fell across the New Lands, where recent seedings should have benefited from 20 to 35 mm---well above normal for this time of the year. Dryness is developing in the lower Volga River region, where little or no moisture has fallen the past three weeks. April was generally wet across the entire country, and this has provided a good soil moisture base. Planting was delayed and crop development is lagging normal because of heavy rains in European USSR. However, the warm, dry conditions of the

past three weeks should have allowed crops to "catch up" to some extent.

CHINA. The winter grains region remained generally dry this past week, much like the previous week. This should have improved crop development in the northern half of the region, as well as conditions for harvest in the southern half. Rainfall generally ranged from 25 to 75 mm in the rice-tea region of central China. The double crops area received 50 to 100 mm. Some good rains also fell over the Szechwan rice-producing region, where some dryness was reported.



AUSTRALIA. A slow-moving frontal system produced good rainfall across much of the winter grains area of New South Wales with amounts ranging from 25 to 35 mm. The northeastern portion of the area received less than 10 mm. This moisture is very important for winter grains which are being planted.

INDIA-SOUTHEAST ASIA. Rainfall increased sharply over the northern States this past week with 25 to 50 mm common. The remainder of the country was generally dry except for scattered showers. Monsoon activity should begin to develop in early June. Generous rains fell across much of Thailand, Burma, and northern Malaysia. It was the best rain so far this spring for Thailand.

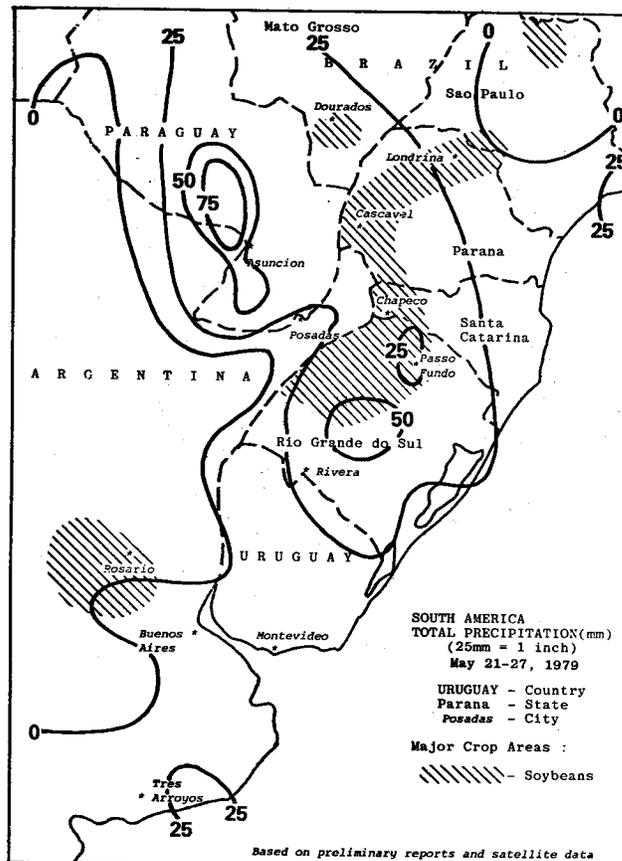
AFRICA. North Africa stayed generally dry this past week with only very light showers in Tunisia. Amount were generally less than 2 mm. Winter wheat harvest is nearing completion in the area. In the Sahel, rainfall continued across most of the areas, although parts of the Ivory Coast, Ghana, and Togo were generally dry. To both the east and west, 25 to 50 mm soaked the area which is slightly below normal for most of the region. In South Africa, some showers did occur throughout the Maize Triangle, where the corn is mature and harvesting is underway.

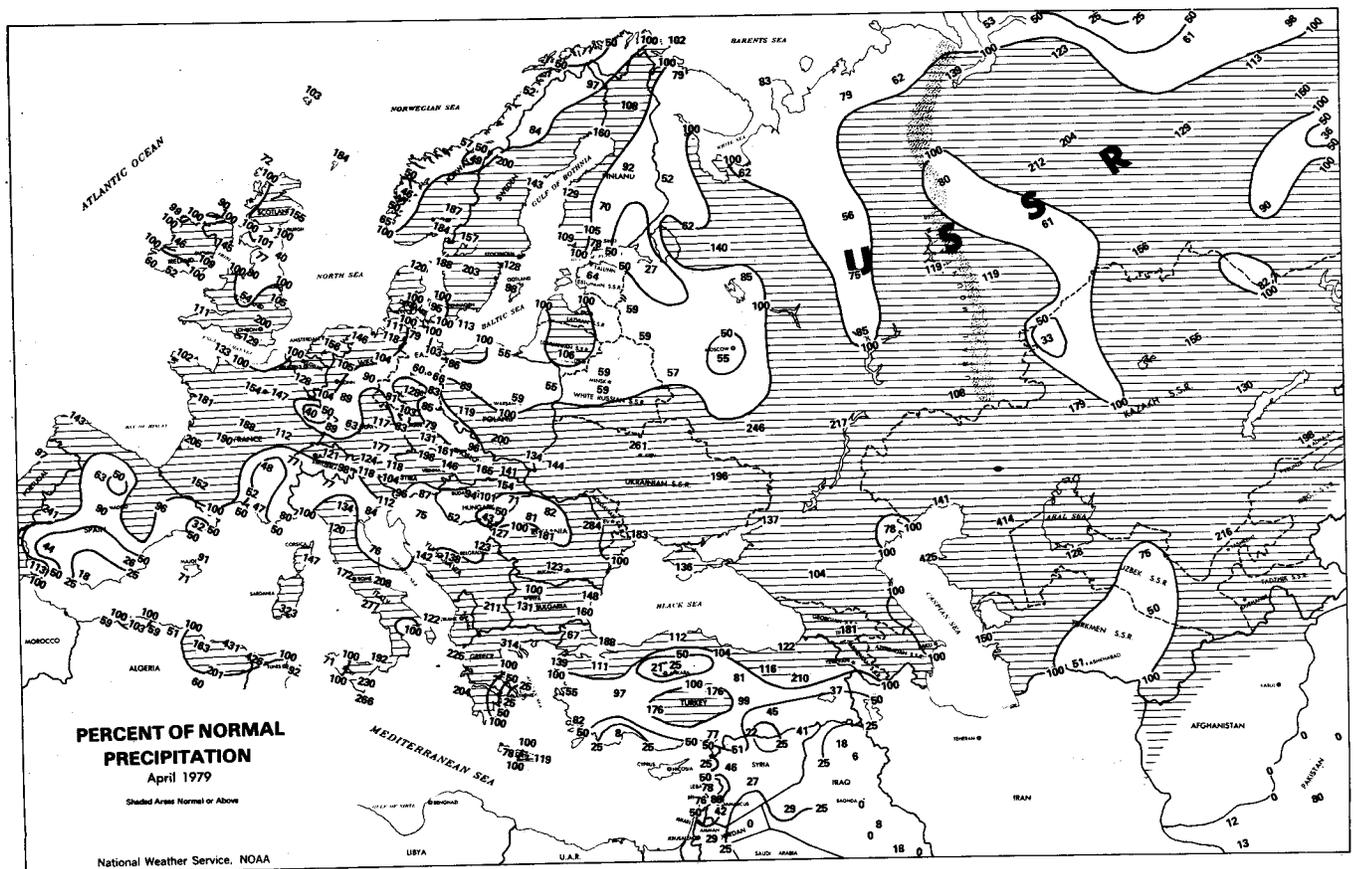
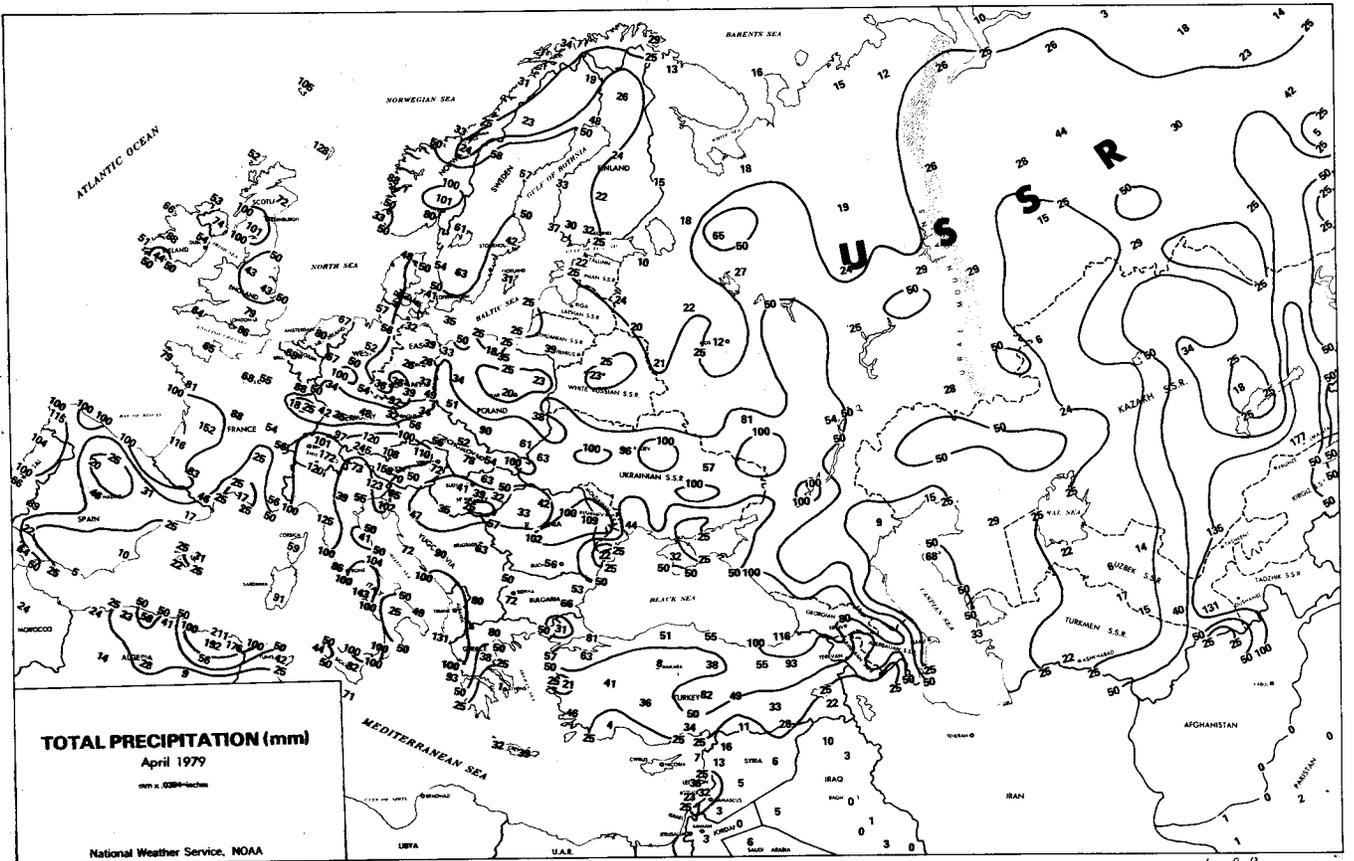
EUROPE. Precipitation over most of Europe was light this past week. Only western Europe received above-normal moisture with most of France receiving 50 to 75 mm. In southwestern France, more than 100 mm of rain has fallen in the past two weeks. Growing conditions over the remainder of Europe are generally good with adequate to above-normal

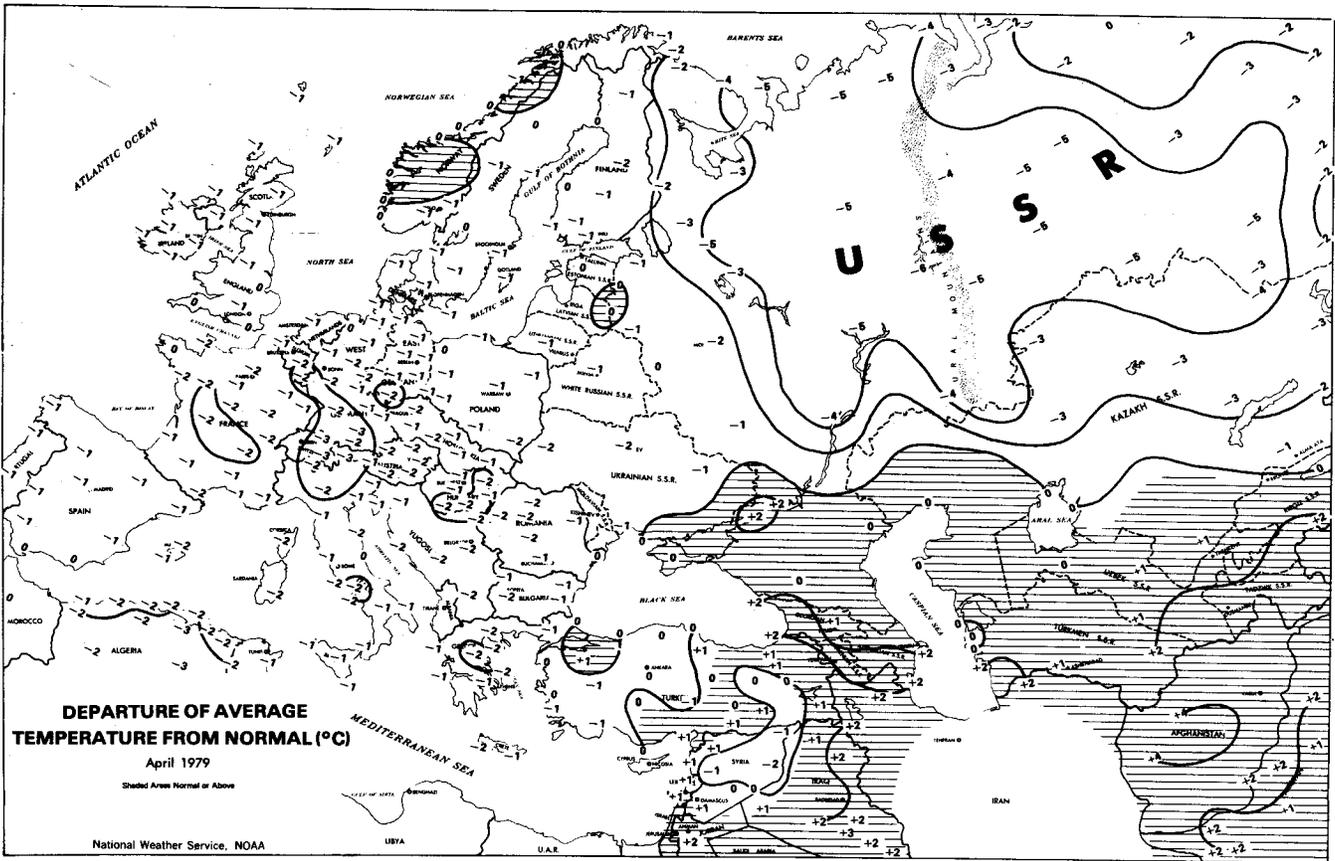
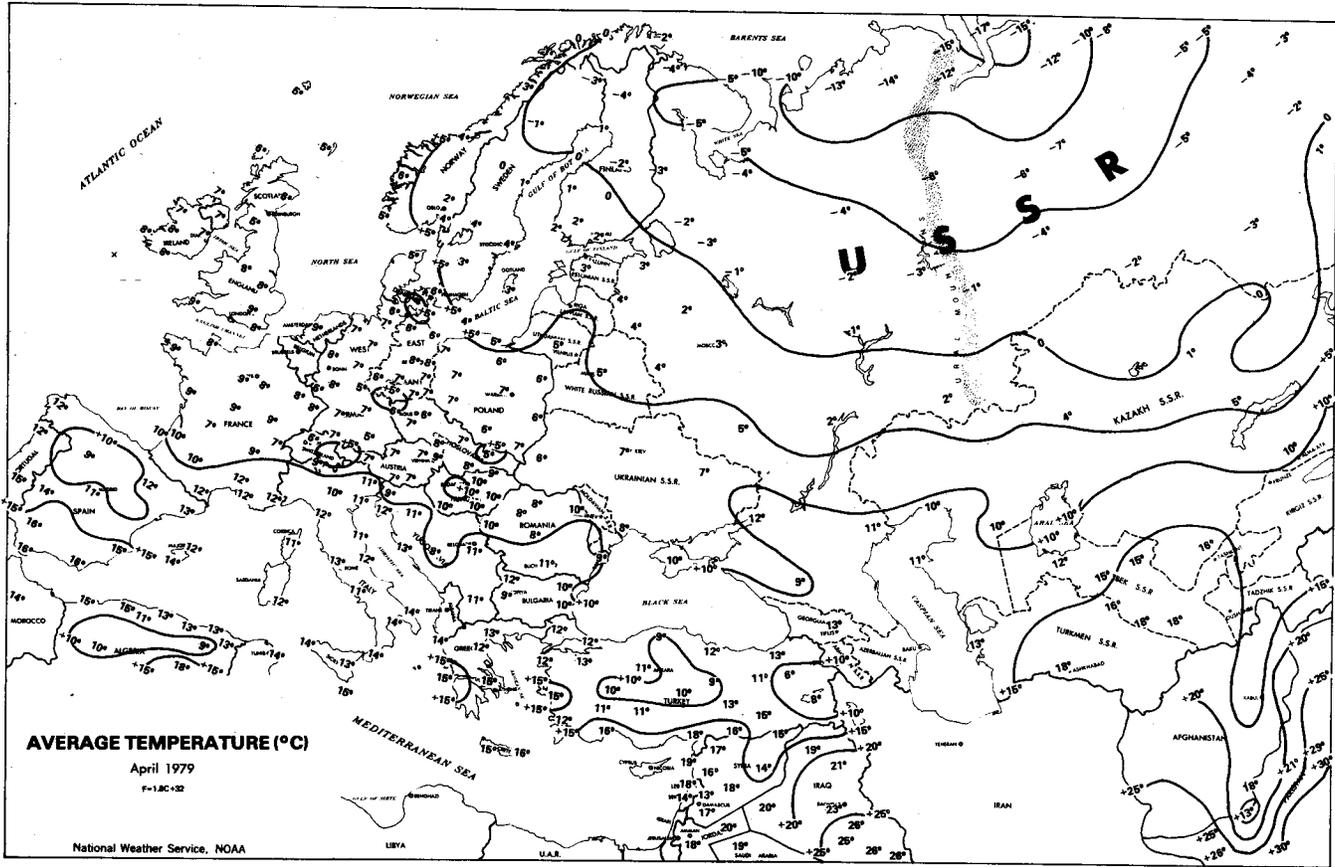
soil moisture in most areas as a result of the very wet conditions that prevailed during most of April and early May. April precipitation accumulated above normal across all of Europe except in some areas along the Mediterranean. Temperatures were colder than normal, which slowed the early development of winter grains.

SOUTH AMERICA. Heavy rains dotted much of southern Brazil again this week with heaviest amounts in Rio Grande do Sul. All of Rio Grande do Sul and much of Santa Catarina and Parana received at least 25 mm of moisture which is about normal for the period. Soil moisture levels in the region should be very good considering above-normal moisture through April and the heavy rains of the past three weeks. In Argentina, most of the agricultural areas were dry with only light amounts reported in the winter wheat region, where seeding is underway. Cold temperatures also moved into the region last week with near-freezing readings reported in the soybean-producing areas. However, this did not hurt the crop.

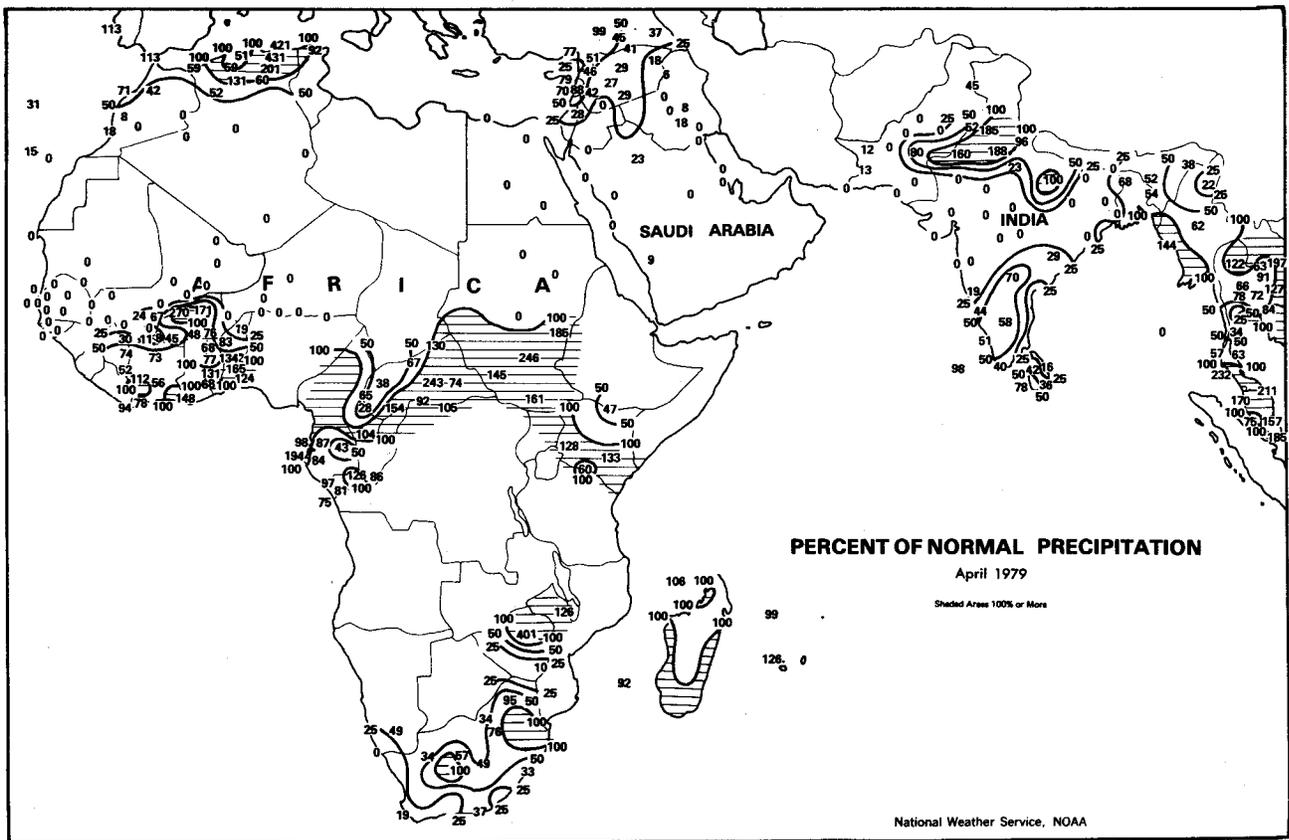
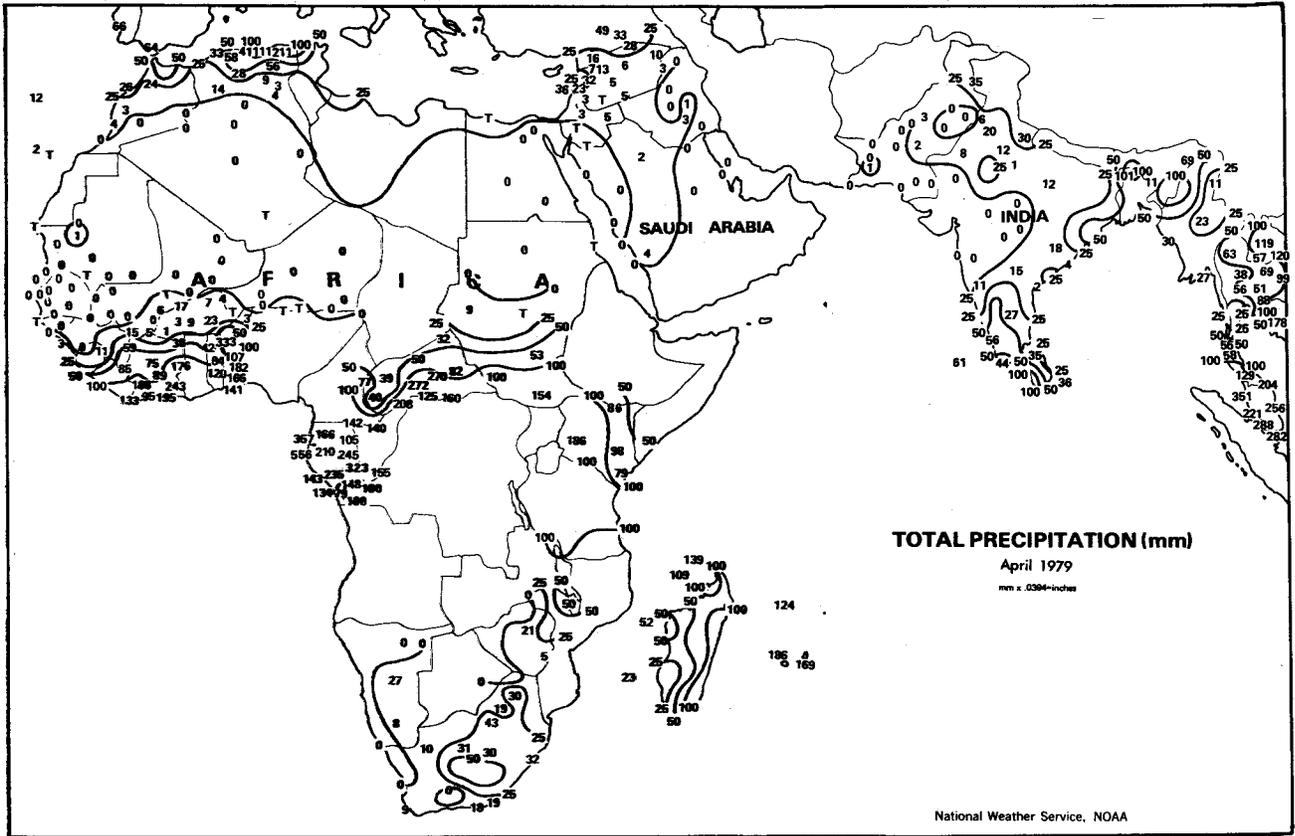
MEXICO. Subnormal rainfall during April and May caused soil moisture shortages in some northeastern citrus areas but helped strawberries in the central highlands. A few showers may have dampened the Zamora district this week according to satellite photos. Sunny, dry weather dominated the Culican tomato and west coast vegetable fields in April and May. Temperature maxima averaged 28 to 33°C in the major exporting production areas this week; minima were 18 to 22°C except 14 to 18°C in the highlands.

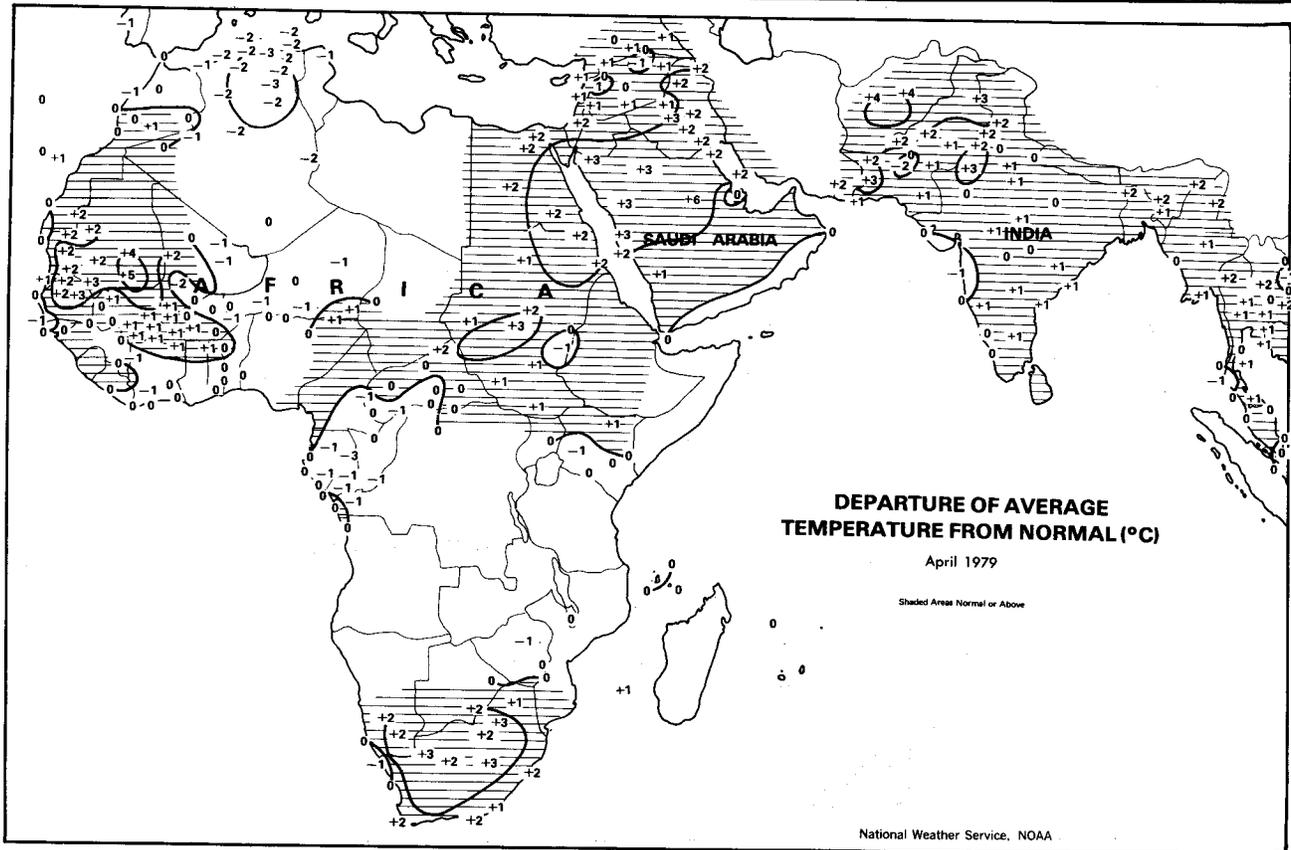
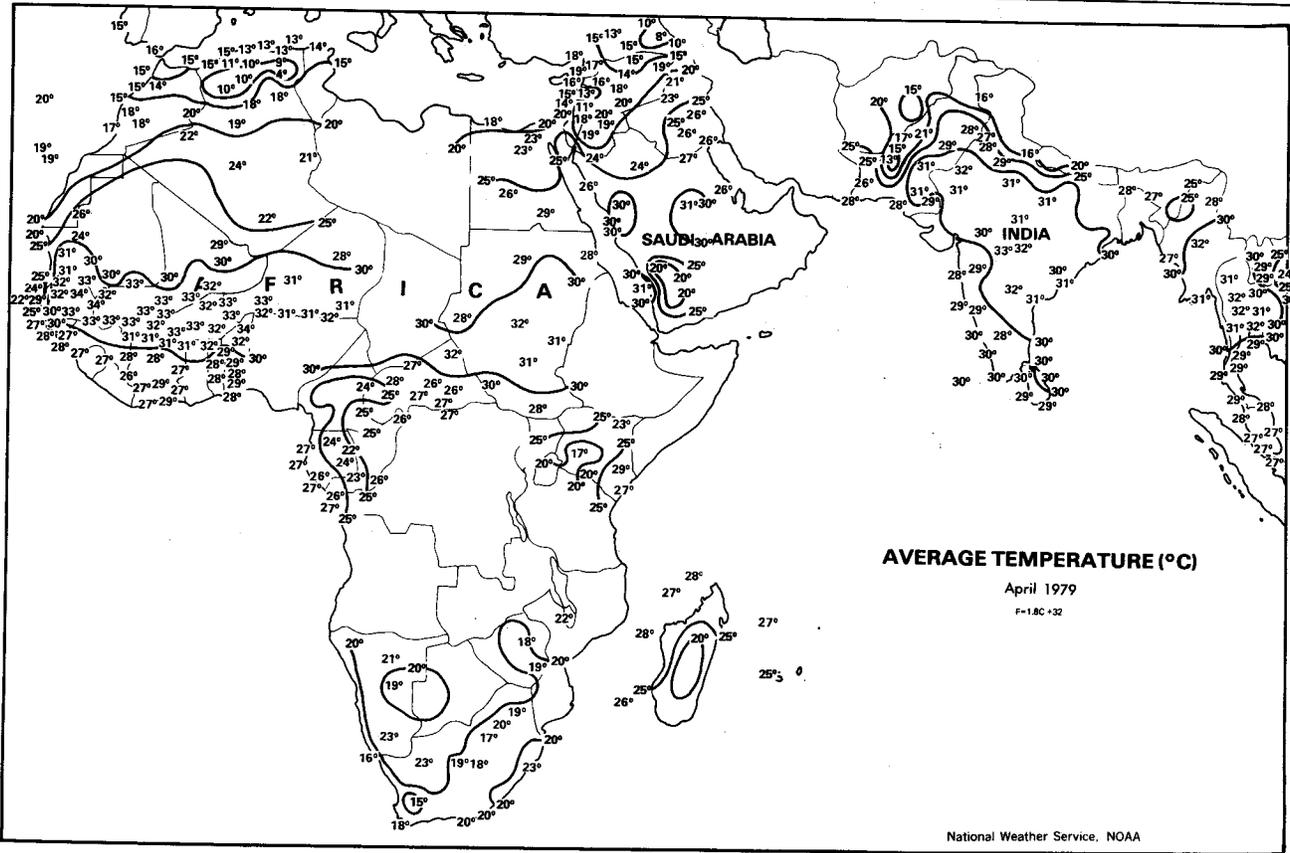


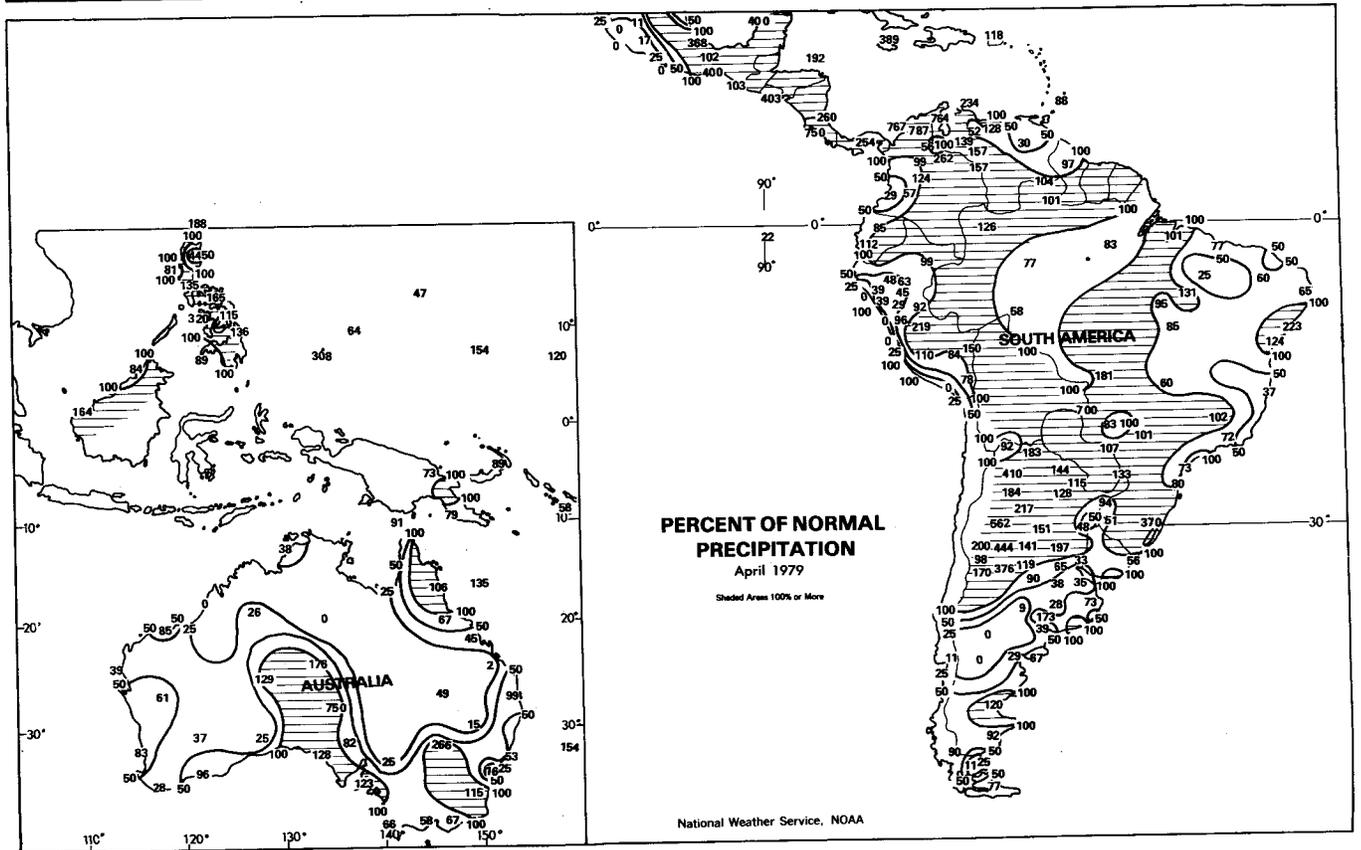
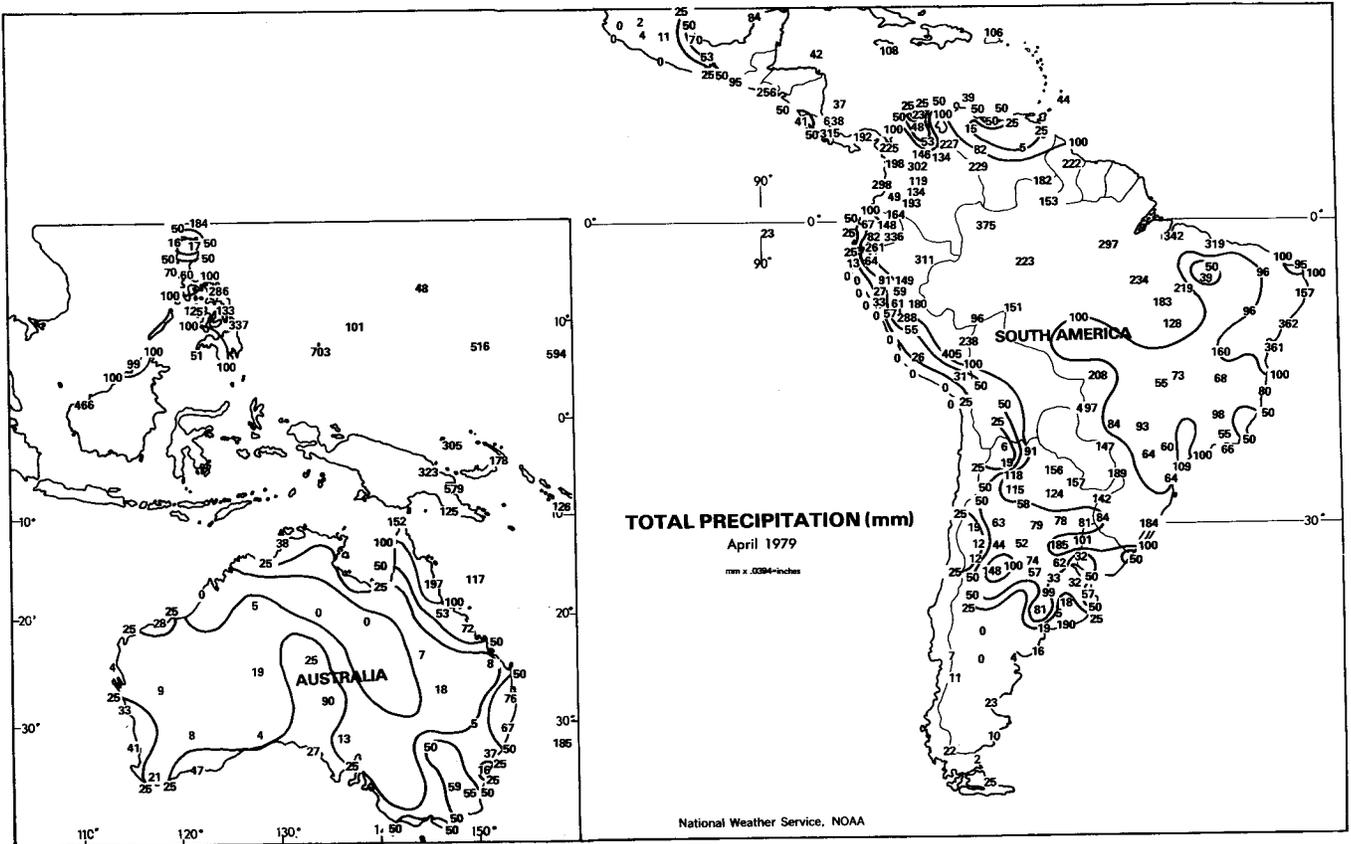


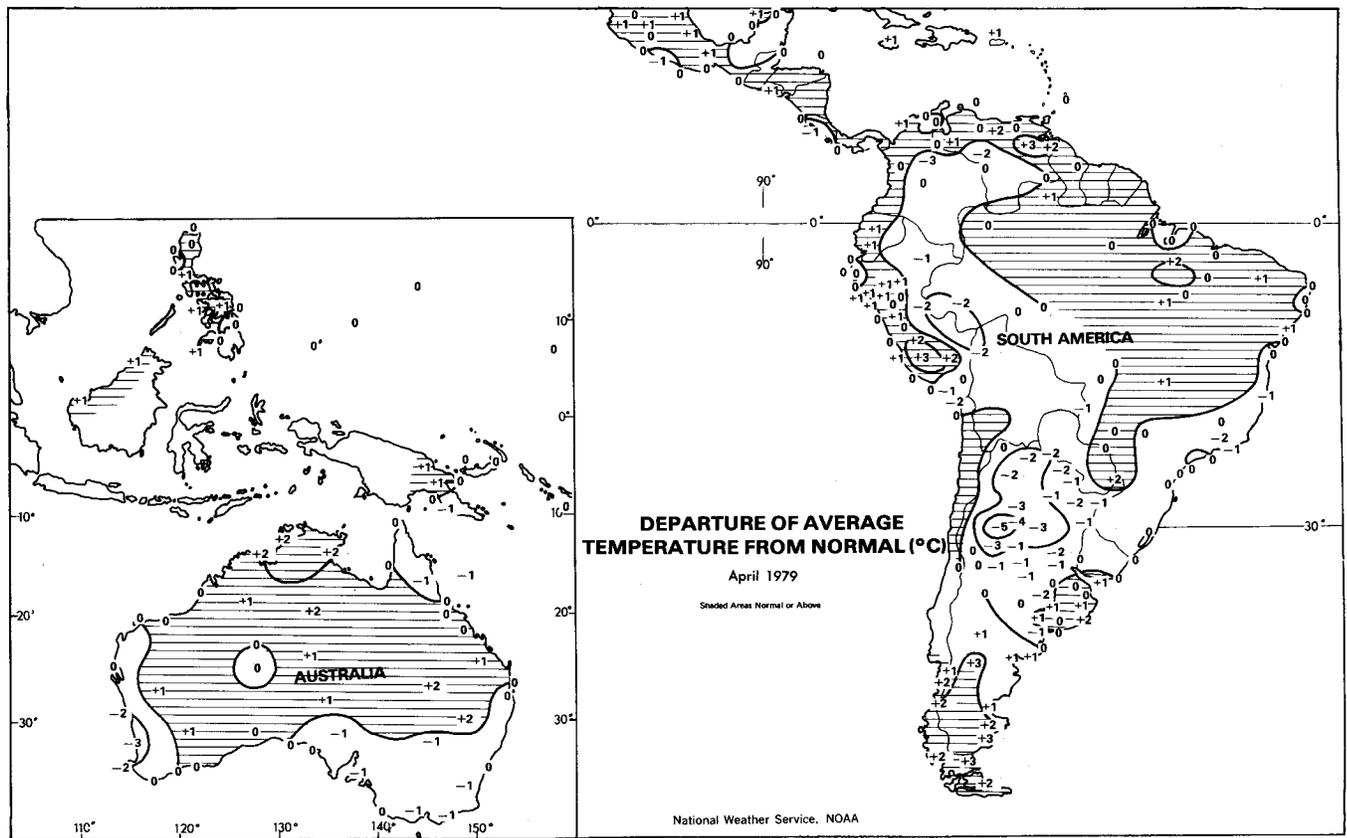
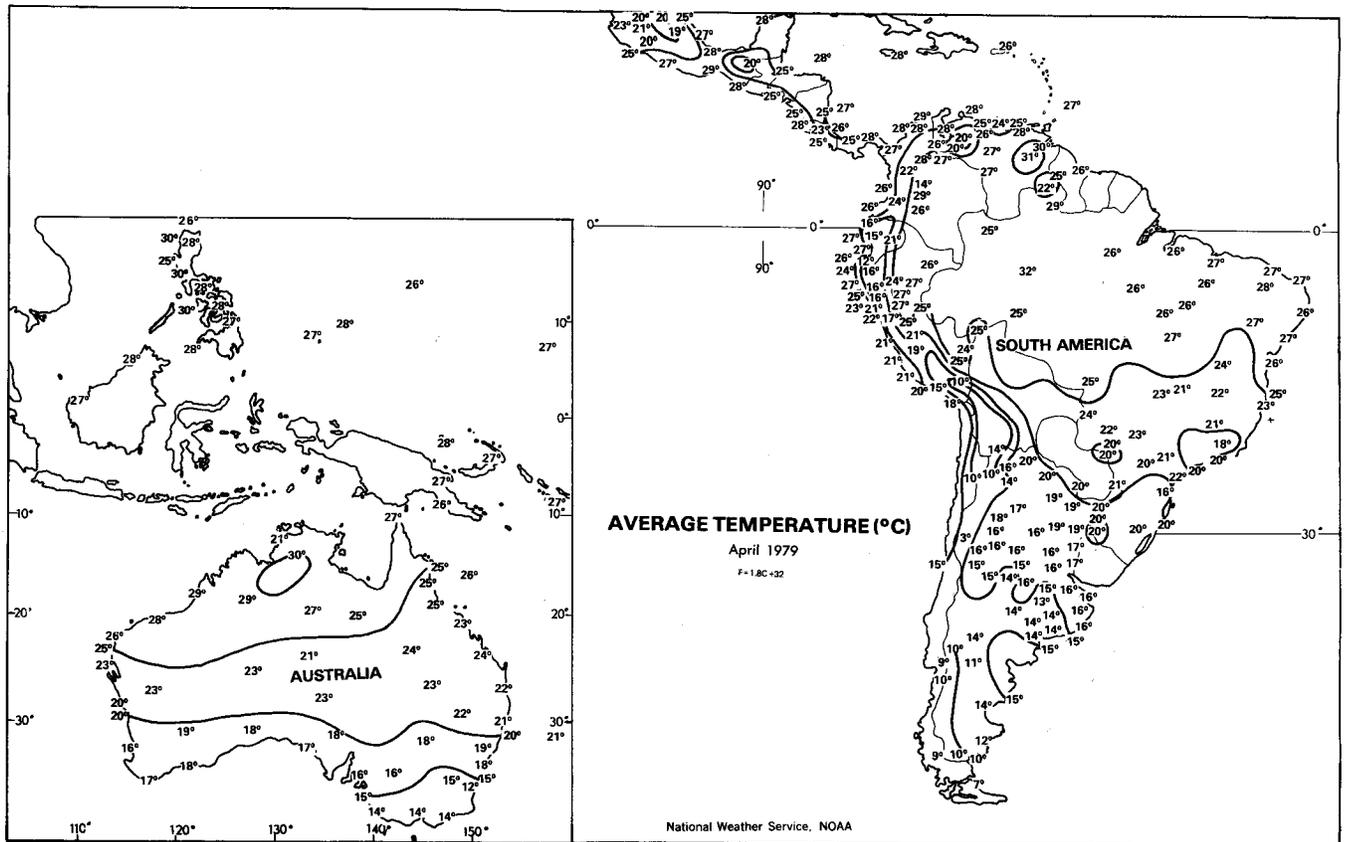


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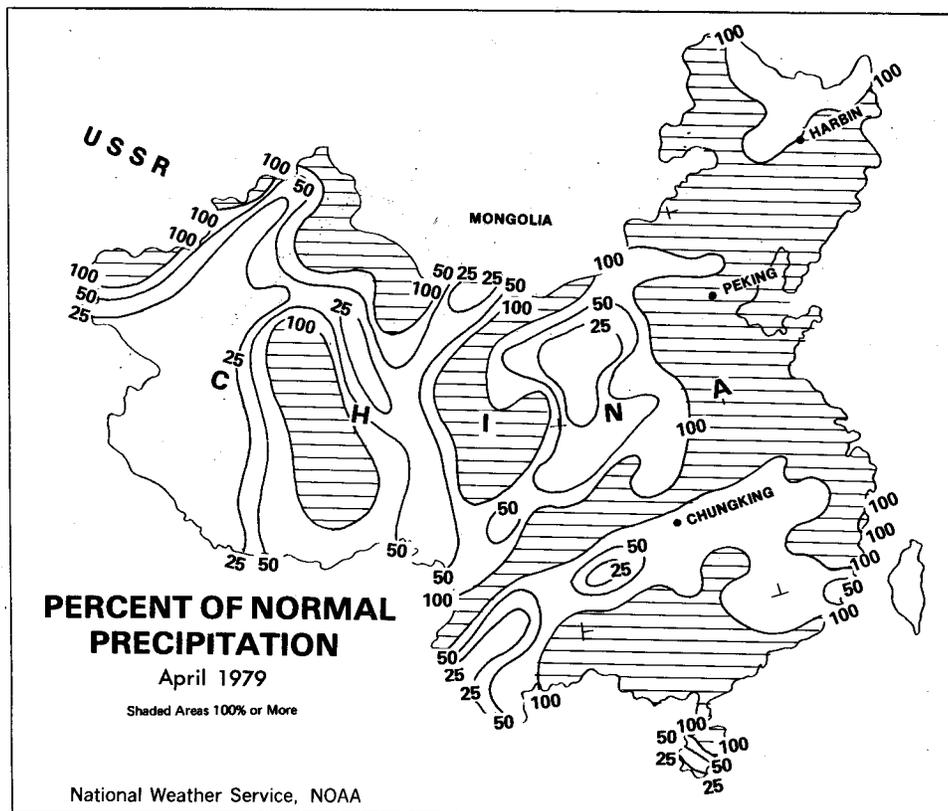
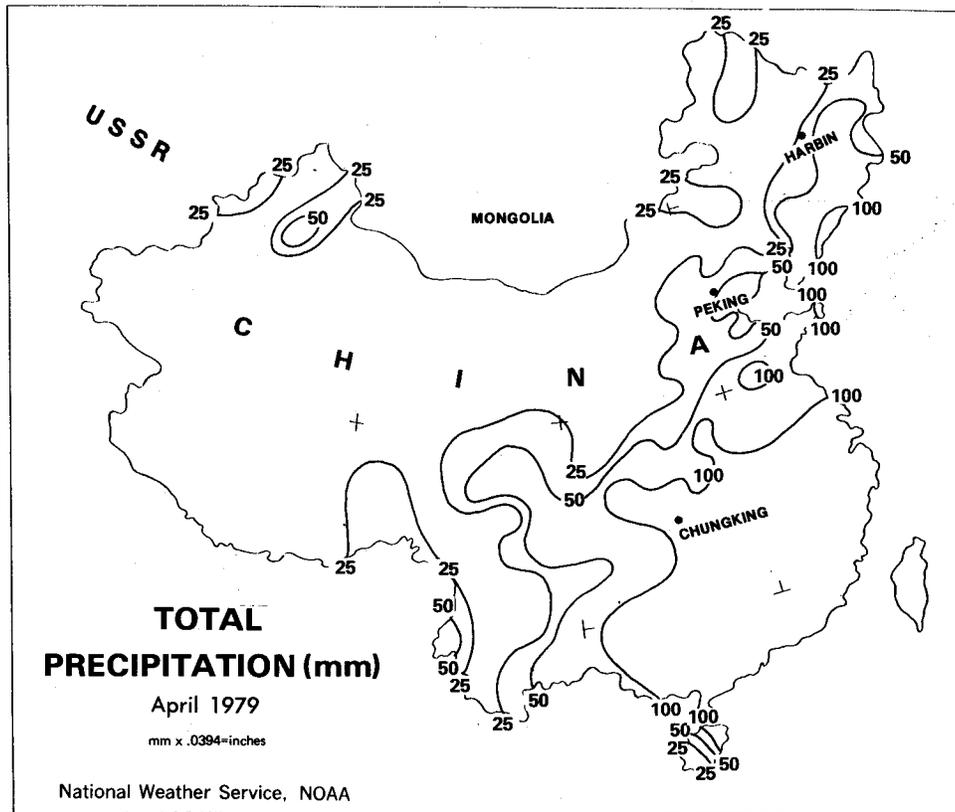




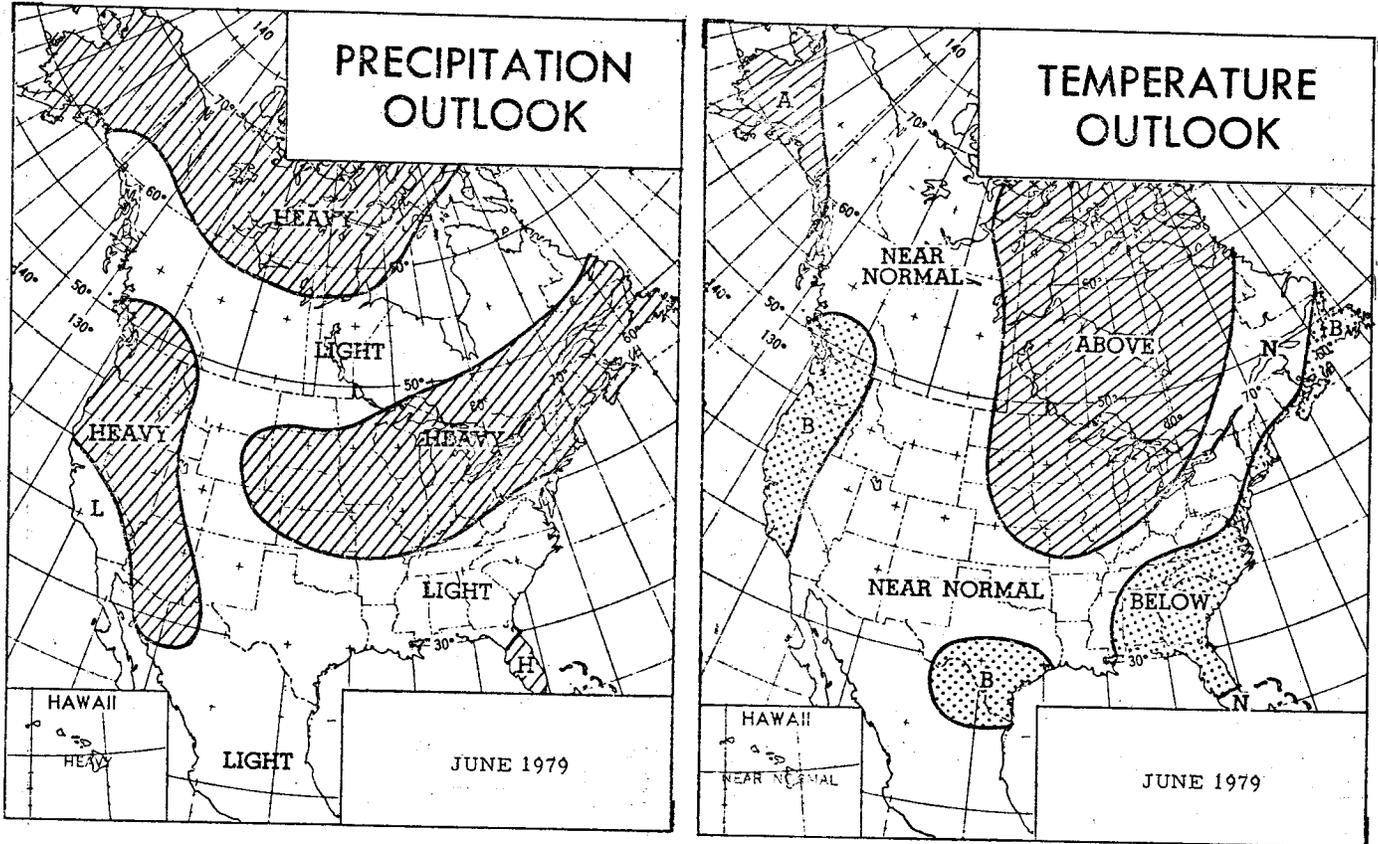




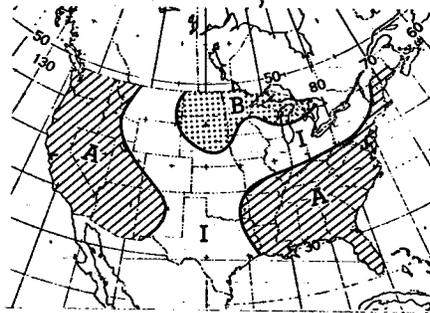
China Precipitation



Average Monthly Weather Outlook



OUTLOOK FOR SUMMER AVERAGE TEMPERATURES
June through August 1979

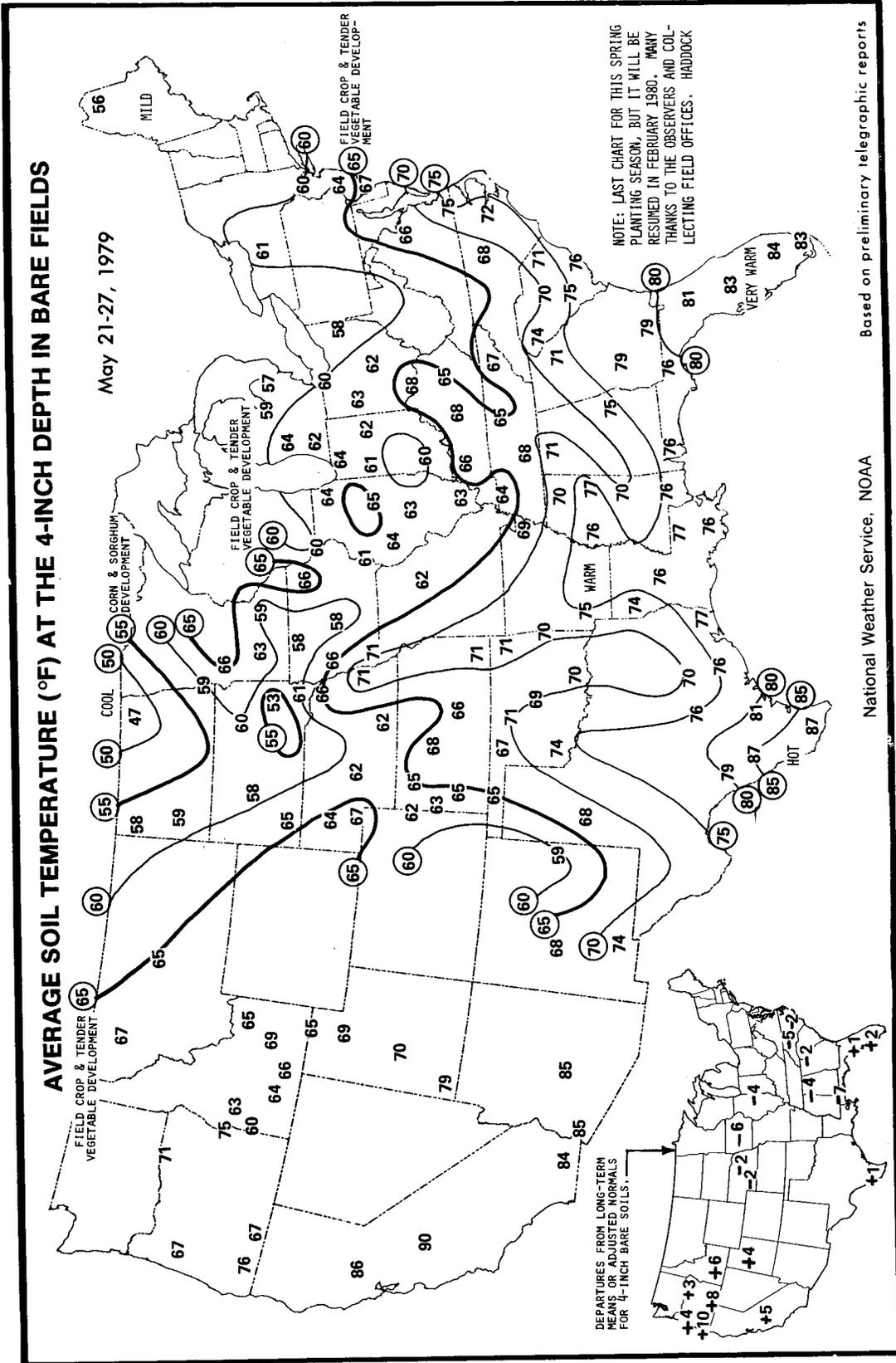


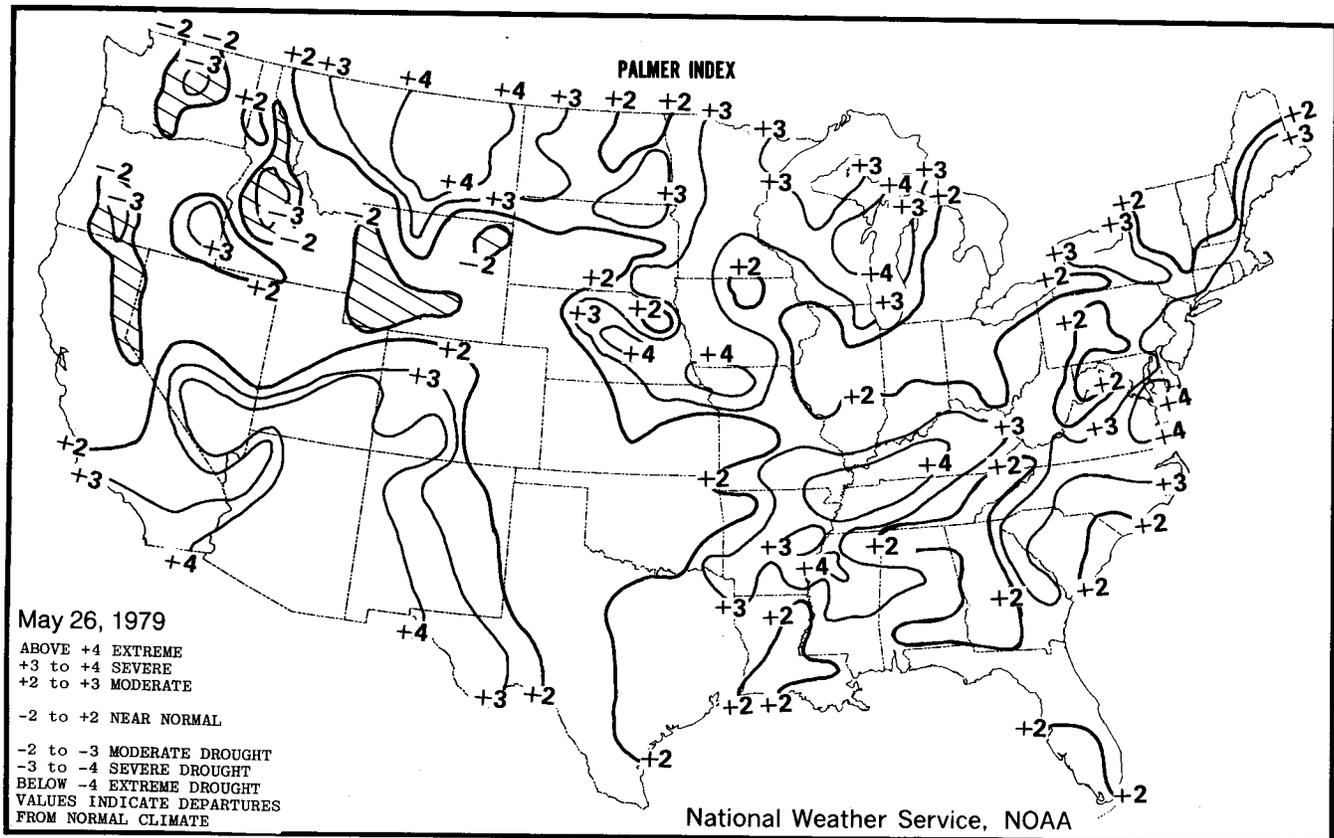
-  Above Normal, 60% chance of occurrence
-  Below Normal, 60% chance of occurrence
-  Indeterminate, 50% chance of Above Normal
50% chance of Below Normal

The two categories Above and Below are to be compared to the long-term average or "normal" temperatures of the years 1941-70. Each category has a natural climatic frequency or probability of 50%. Each carries a 60% probability of occurring where forecast (shaded area), based on the verification scores of twenty years of experimental seasonal predictions.

NOAA, National Weather Service
Climate Analysis Center

May 30, 1979





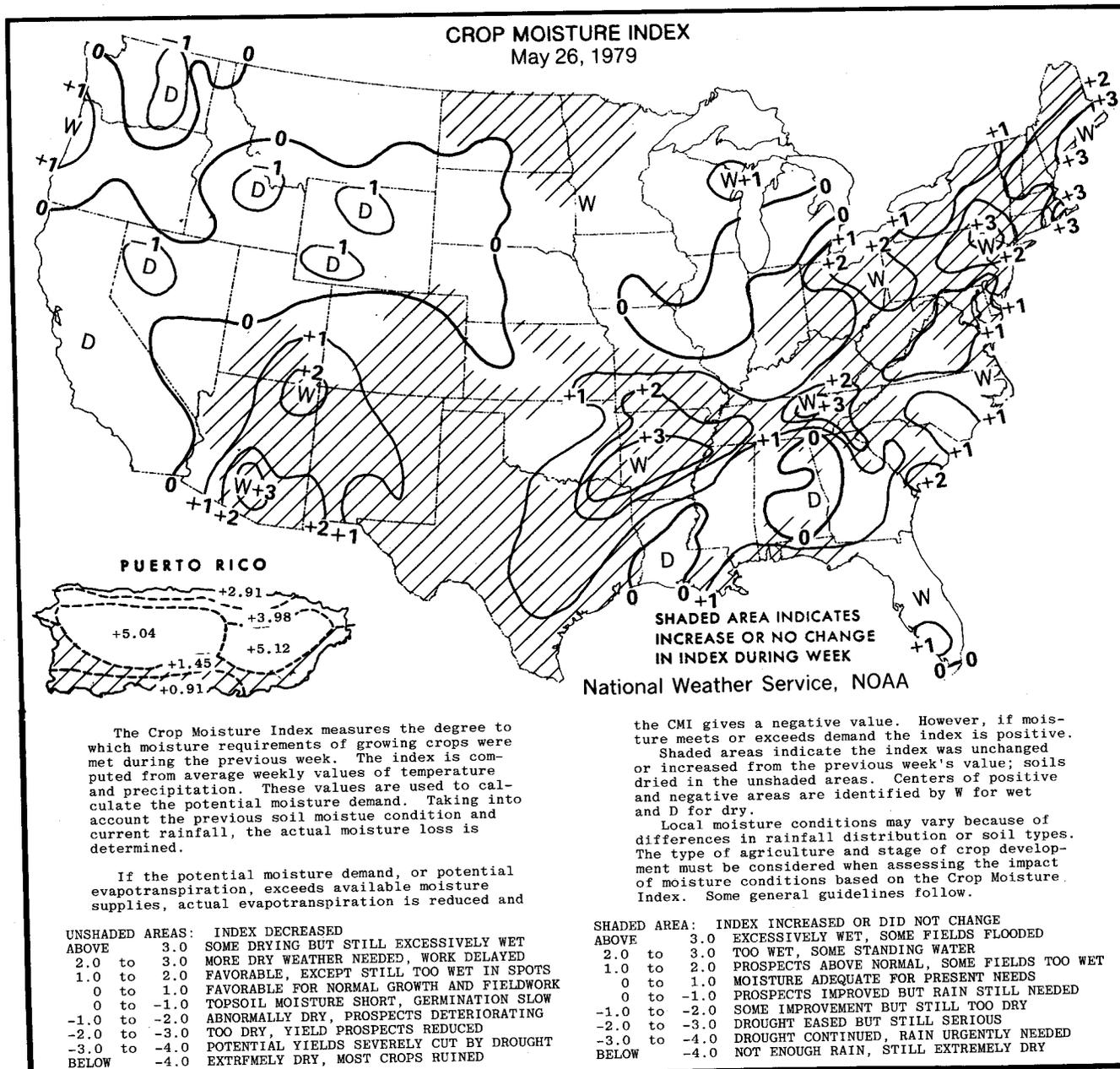
The Palmer Index

The Palmer Index is an index of meteorological drought, which may be defined as a prolonged and abnormal moisture deficiency. The general concept is one of supply and demand. Supply is represented by precipitation and stored soil moisture. Demand is the combination of potential evapotranspiration, the amount needed to recharge the soil moisture, and the runoff needed to keep the rivers, lakes, and reservoirs at a normal level. The results of this water balance accounting produce a positive or negative anomaly which is then weighted by a climate factor. The final product is an index that expresses the abnormality for that particular place for the period of time being computed. This manipulation allows the index to have a reasonably comparable local significance in space and time, that is, a certain index value obtained for a division in New York would have the same local significance as a like value in the more arid areas of western Kansas. This monthly increment is added to a portion of the previous month's index to include the duration of the anomaly in the final index.

The Palmer Index was designed as a climatological indicator of the scope and severity of past droughts. Using the Palmer Index on a real-time basis presents difficulties. A day or so of normal or better rainfall is certainly welcome in an area that has experienced a long drought, but one cannot know whether it indicates the end of the drought or just a brief respite. In order to

make the program have some real-time value, a system of computing a "probability" that a weather spell has ended was devised. This is not entirely satisfactory, but does allow one to assign a definite index value at times when there may be some doubt as to whether it should be positive (wet) or negative (dry).

Another aspect of using the Palmer Index is that one must remember that the demand part of the computations includes three parameters---potential evapotranspiration, recharge of soil moisture, and runoff, any one of which may produce a negative index. For instance if only enough rain fell to satisfy most of the expected evapotranspiration, but not enough to supply the expected recharge and runoff, then a negative index would result. If such a situation continued then one might find that agriculture was progressing at a near normal pace but the Palmer Index would be indicating a worsening drought. In this situation the drought would cause shallow wells and springs to go dry and the levels of rivers, lakes and reservoirs to fall below normal and, if this odd situation continued long enough, would cause serious economic stress to the livestock industry and eventually to other industries and cities. Then if rainfall fell below the minimum needed for agriculture, crops would suffer drastic and rapid decline because there would be no reserve water in the soil. Such a situation, to some extent, occurred during the Northeast drought in the 1960's when New York City almost ran out of water.



HEAVY SHOWERS AND THUNDERSTORMS FROM EASTERN OKLAHOMA THROUGH TENNESSEE HAS PUT MUCH OF THAT AREA BACK INTO THE "EXCESSIVELY WET, SOME FIELDS FLOODED" CROP MOISTURE CATEGORY. SOME SLIGHT DRYNESS IS EXPANDING FROM CALIFORNIA THROUGH NORTHERN NEVADA AND WYOMING. CONTINUING SHOWERS IN THE SOUTHWEST IS KEEPING A RATHER HIGH LEVEL OF CROP MOISTURE IN THAT AREA.

IMMEDIATE - U. S. Weather Report

This Report Will be Treated in All Respects as Letter Mail

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FIRST CLASS MAIL

SEEDING PROGRESS

FOR WEEK ENDING MAY 27

	SOYBEANS		
	1979	1978	AVG.
ALA	57	47	50
ARK	13	28	34
GA	62	54	51
ILL	61	28	53
IND	55	10	50
IOWA	68	57	67
KANS	20	20	25
KY	22	15	33
LA	50	55	53
MICH	40	25	35
MINN	44	72	70
MISS	34	30	40
MO	29	15	45
NEBR	30	35	50
NC	51	30	51
OHIO	80	25	65
SC	60	44	48
TENN	17	28	38
18 STATES	47	35	51

THESE 18 STATES PRODUCED 95% OF THE 1979 SOYBEAN CROP.

	WINTER WHEAT HEADED		
	1979	1978	AVG.
CALIF	100	NA	NA
COLO	17	NA	NA
IDAHO	NA	NA	NA
ILL	75	47	86
IND	35	30	75
KANS	60	80	90
MO	72	59	94
MONT	0	0	0
NEBR	17	15	NA
OHIO	NA	NA	NA
OKLA	100	100	100
OREG	26	NA	NA
S DAK	0	0	0
TEX	99	NA	NA
WASH	13	22	NA

NA NOT AVAILABLE

	CORN		
	1979	1978	AVG.
COLO	87	93	94
GA	100	100	100
ILL	91	58	85
IND	90	45	80
IOWA	99	83	93
KANS	80	80	90
KY	68	59	80
MICH	80	90	85
MINN	76	89	91
MO	84	28	81
NEBR	85	90	90
NC	100	95	100
OHIO	95	60	85
PA	78	48	70
S DAK	66	68	77
VA	89	82	89
WISC	70	80	75
17 STATES	89	75	89

THESE 17 STATES PRODUCED 93% OF THE 1979 CORN CROP.

	RICE		
	1979	1978	AVG.
ARK	79	91	91
CALIF	93	85	NA
LA	96	NA	NA
MISS	86	97	91
TEX	99	100	99
5 STATES	90	93	95

THESE 5 STATES PRODUCED 99% OF THE 1979 RICE CROP.

	RICE EMERGED		
	1979	1978	AVG.
ARK	NA	NA	NA
CALIF	66	NA	NA
LA	93	NA	NA
MISS	63	92	78
TEX	92	NA	NA

17 LESS THAN 5%

	COTTON		
	1979	1978	AVG.
ALA	99	94	99
ARIZ	100	NA	NA
ARK	95	88	93
CALIF	100	100	NA
GA	100	NA	NA
LA	99	95	90
MISS	97	97	92
MO	80	97	97
N MEX	95	NA	NA
NC	100	92	100
OKLA	30	40	35
SC	100	95	100
TENN	82	90	92
TEX	61	65	75
14 STATES	76	77	80

THESE 14 STATES PRODUCED 99% OF THE 1979 COTTON CROP.

	GRAIN SORGHUM		
	1979	1978	AVG.
COLO	30	38	39
KANS	25	15	25
MO	34	19	45
NEBR	30	40	55
OKLA	30	35	35
S DAK	23	23	27
TEX	78	83	81
7 STATES	46	46	52

THESE 7 STATES PRODUCED 92% OF THE 1979 GRAIN SORGHUM CROP.

	SPRING WHEAT		
	1979	1978	AVG.
IDAHO	100	100	100
MINN	72	99	87
MONT	75	75	85
N DAK	60	79	79
S DAK	99	99	100
5 STATES	71	84	84

THESE 5 STATES PRODUCED 95% OF THE 1979 SPRING WHEAT CROP EXCLUDING DURUM.