

# WEEKLY WEATHER AND CROP BULLETIN

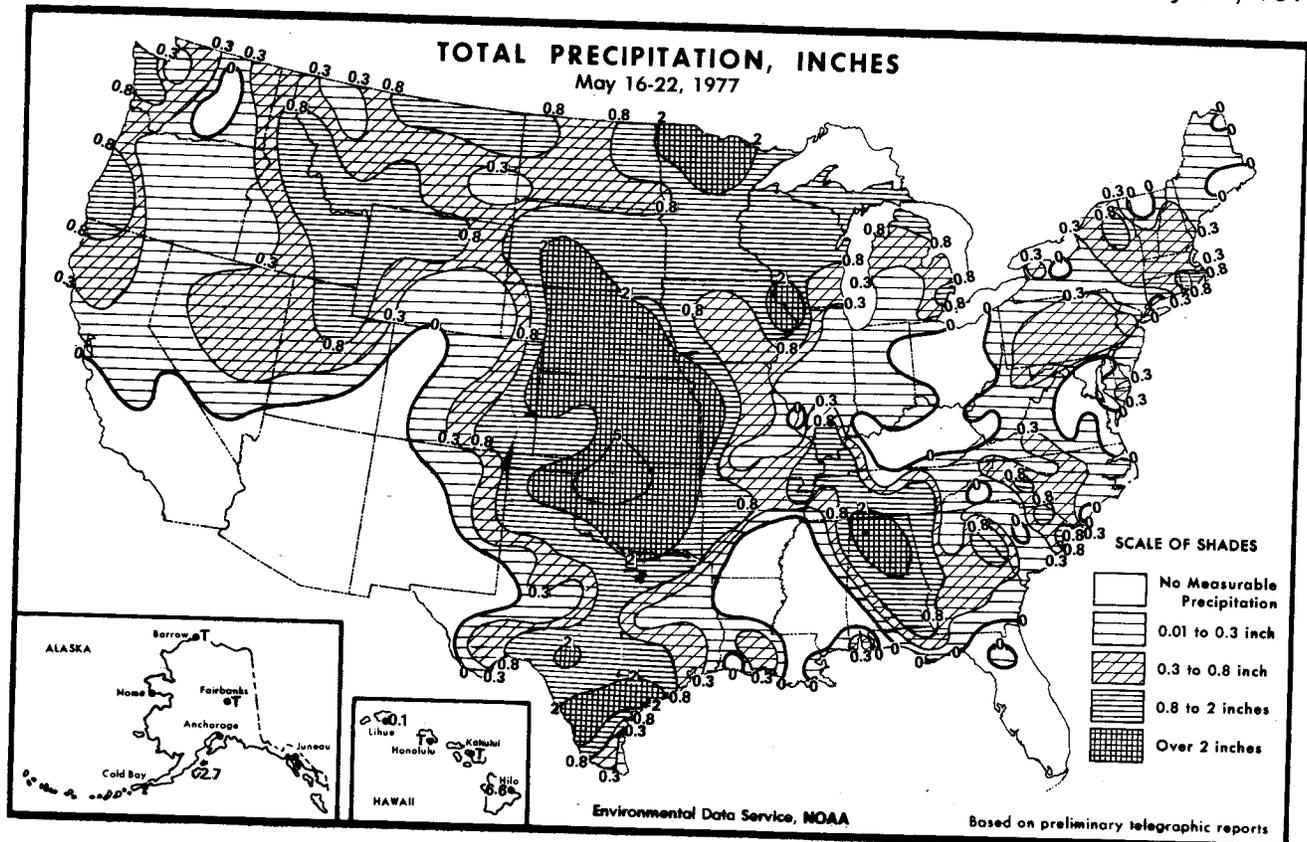
U.S. DEPARTMENT OF COMMERCE  
Environmental Data Service, NOAA

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service

Volume 64, No. 21

Washington, D.C.

May 24, 1977



## National Weather Summary For the week of May 16-22

**HIGHLIGHTS:** A semi-stationary high pressure system over the Southeast refused to yield to a series of storms that moved from the Rocky Mountains eastward. Dry conditions prevailed through most of the week in the southeastern portion of the country. The Nation's midsection was subjected to unstable, severe weather nearly every day of the week. Heavy thunderstorms with some flooding, hail, and tornadoes covered most of the Great Plains.

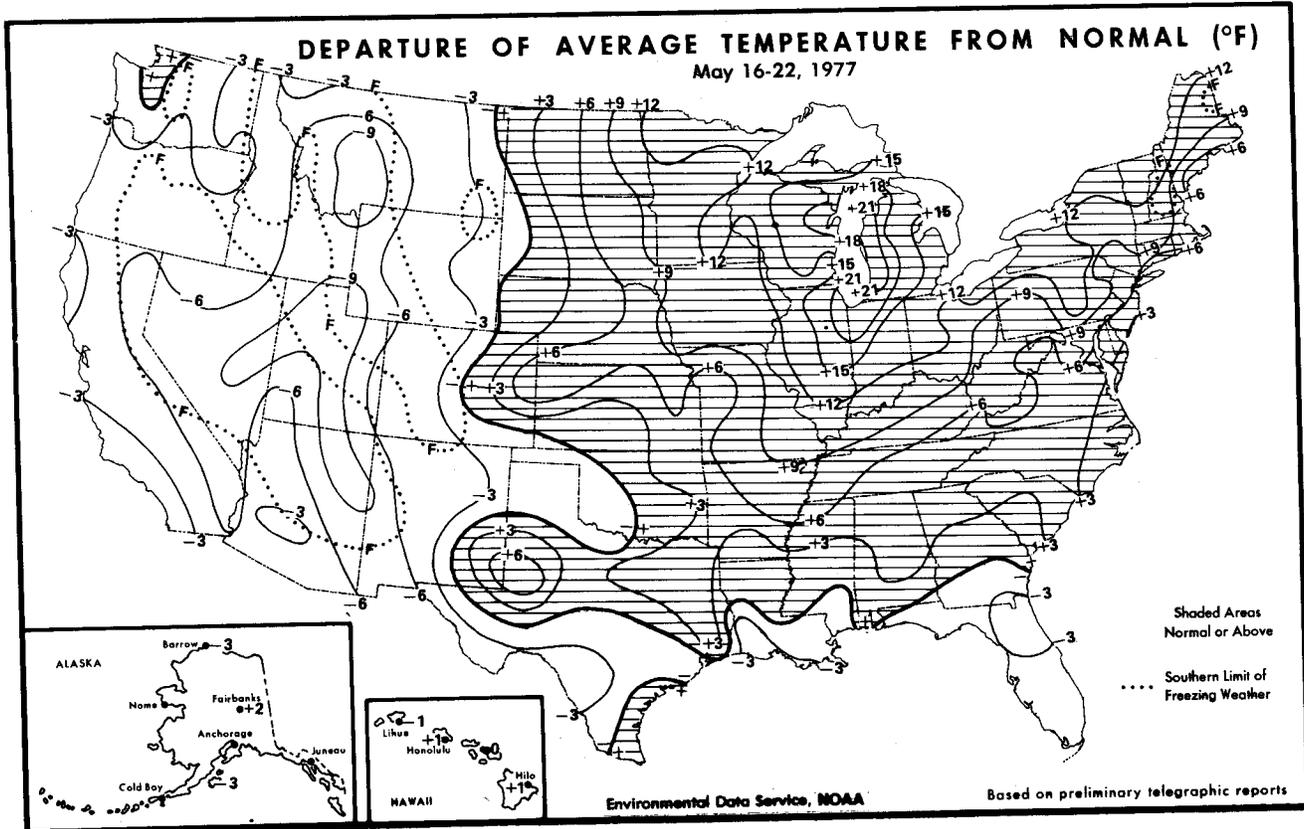
By week's end, a weak frontal system moved south-eastward from eastern Canada and brought some scattered showers to the Appalachians and parts of the Southeast.

Temperatures were warmer than normal east of the Rockies; record high readings were common from the Great Lakes northeastward to Maine. West of the Rockies, temperatures were cooler than expected. Freezing air in Utah injured some crops; heavier-than-usual snow was recorded in the higher elevations.

Moist, cool air brought early Monday showers to the Intermountain region and the Pacific Northwest southward to northern California. Light showers in the western north and central Great Plains and from eastern Texas to the upper Great Lakes began the day; by afternoon, thunderstorms and hail hit the lower half of the Plains into the upper Midwest. Large hail battered portions of Texas, New Mexico, and Iowa. More than two and one-half inches of rain doused eastern Nebraska. Toward evening, showers and thunderstorms dampened an area from the Plains through the western Ohio Valley, the Pacific Coast to the northern Rockies, and along the Texas Gulf Coast.

On Tuesday morning, a band of showers and thunderstorms extended from western Louisiana northward to western Minnesota. Snow whitened the Intermountain region eastward to the Rockies.

Heavy afternoon and evening thunderstorms drenched the Great Lakes. Widely scattered thun-



derstorms occurred in southern Texas, the southern Appalachians, Maine, and the Dakotas. Severe weather made news in the Texas Panhandle; eight tornadoes and large hail battered the area. Southeastern Michigan received heavy thunderstorms. The Southeast continued to suffer very dry conditions. Atlanta was nearly seven inches below normal precipitation for the year.

Daybreak, Wednesday, showed widely scattered thunderstorms and showers east of the Rockies except the Southeast. At midday, some isolated showers and thunderstorms were spotted from the Louisiana Coast up the Appalachian chain to New England and the lower Great Lakes. Thunderstorms in the west central Plains became heavier; large hail and 30 tornadoes stalked the southern half of the Great Plains. Once again, the Texas Panhandle bore the brunt of this activity.

Heavy thunderstorms also clipped western Iowa, the upper Ohio Valley, and the northern sections of Virginia and Maryland. Snow was a problem in the mountains of Wyoming.

Thursday's sunrise was darkened by a line of thunderstorms from Amarillo, Texas, to eastern New Mexico. The routine of heavy rains in the southern half of the Plains continued. Eleven tornadoes and hail accompanied the severe weather. Kansas and Oklahoma were especially hard hit; several Kansas streams topped their banks. Thunderstorms hit many areas east of the Mississippi River. Seasonal rarities belonged to northwestern Wyoming and its 14 inches of snow, and Jacksonville, Fla., which recorded 51°, breaking a 32-year-old record low by three degrees.

Friday dawned with a 75-mile wide line of scattered thundershowers from the Gulf Coast of Louisiana to northern Minnesota. A familiar pattern developed over the central U.S. Ranks of thunderstorms marched across the Plains and spanned 20 tornadoes and hail; western Texas was raked by most of the twisters. Oklahoma and Kansas were soaked by heavy rains; evening thunderstorms dotted areas from the central Rockies across the Plains to the Mississippi Valley, upper Great Lakes, and the Ohio Valley. Even the Southeast got some much-needed moisture.

Afternoon temperatures baked the Midwest; Chicago reported in the 90's for the fifth consecutive day.

Saturday was no different for the Plains; more violent weather rolled through many sections. Tornadoes dashed through parts of Nebraska, Kansas, Missouri, South Dakota, and Minnesota. Showers were scattered across the northern Rockies, Great Lakes, lower Ohio Valley, southern Texas, and from Alabama to the Carolinas. Record high temperatures broke into the 90's in Vermont, New York, Michigan, Indiana, and Illinois.

A deep storm system was centered over the eastern portion of the northern Great Plains on Sunday morning. The southern portion became stationary over Kansas and Missouri and blew in strong hail-producing thunderstorms. The Mississippi Valley and Great Lakes received rain along the eastern boundary of the system. Funnel clouds and hail were reported from Texas to North Dakota. Parts of Texas were inundated; Laredo was awash in five inches of rain and the Rio Grande overflowed.

## National Agricultural Summary

For the week of May 16-22

**HIGHLIGHTS:** Rains throughout most of the Great Plains boosted winter wheat condition and growth. Clear weather gave farmers the chance to keep up the fast planting pace over most of the Nation east of the Great Plains; farmers in the South Atlantic States delayed planting soybeans, hoping for more rain. Soybean planting advanced to 62% complete leaving last year's 50% and the average 34% far behind. Corn producers reached 93% complete edging out 1976's 91%, and significantly ahead of the 75% average. Cotton growers advanced to 74% complete, within a few points of both last year and the average. Spring wheat planting was almost complete. Soil moisture moved further to the short side, the penalty for an extended period of near ideal planting weather. Germination was not a problem except in some southern States. Only States in the Great Plains reported adequate soil moisture. Grasslands began to mirror the effects of the hot and dry weather in the Central States as well as the West.

**SMALL GRAINS:** The Nation's winter wheat rated good. Rains helped wheat in the Great Plains from Texas to parts of the Dakotas; the crop grew very rapidly. Combining advanced across the extreme southern areas of the country. In northern areas, winter wheat headed earlier than normal ranging up to 13% in South Dakota. Wheat turned color in areas as far north as Missouri.

Kansas rains promoted excellent wheat growth. The crop was 85% headed, but not yet turning color. Hail caused minimal damage in some areas. Oklahoma wheat rated good as 45% showed soft dough to ripe stage. Texas wheat reached the soft dough stage in the northern High Plains and began turning color in the southern High Plains. Combines sliced through southern Texas, and should be operating on the High Plains in 2 weeks. Spring wheat seedings were complete; the wheat grew well except in the Northwest where dry soil stressed the crop.

**CORN:** U. S. corn farmers planted 93% of the crop by May 22, slightly ahead of 1976's 91% and significantly ahead of the 75% average. Another week of clear weather in most of the Corn Belt allowed farmers in most States to pass the 90% mark.

In the eastern North Central States, farmers reached 93% complete compared with 89% last year and the 70% average. Illinois farmers advanced to 98% complete. Producers in other States reached 90% complete; 20 to 25% of the crop was planted in 1 week. Progress in Ohio, Indiana and Illinois equalled last year, but Michigan and Wisconsin farmers set a faster pace this year.

In the western North Central States, farmers advanced to 94% finished, a point ahead of 1976 and 17 points ahead of the average. Only South Dakota and Kansas farmers with 81 and 85% of the corn crop planted respectively were less than 90% complete.

The crop emerged well and grew rapidly in all areas of the country except along the South Atlantic Coast.

**SOYBEANS:** As farmers finished planting corn they turned their attention to planting soybeans. Across the Nation, 62% of the soybean crop was planted by May 22, 12 points more than 1976 and almost twice the average 34%. In one week, U. S. farmers planted 30% of the crop.

In the eastern North Central States, soybean planting reached 68% complete, 8 points ahead of last year and 30 points more than average. In one week, farmers planted 42% of the crop. Early plantings emerged.

In the western North Central States planting advanced to 71% complete, compared with 55% last year and 35% average. In one week, these farmers planted 32% of the crop; the early plantings emerged well.

Farmers reached 52% complete in the South Central States compared with 37% last year and 29% average. Dry soils slowed planting in some States, especially Arkansas and Kentucky.

**COTTON:** Producers in the 11 southern States planted 74% of the 1977 cotton crop by May 22, 3 points less than 1976 and 1 point more than average. Planting in most of the 11 States reached 95 to 100% complete; Oklahoma producers reached 20% complete and Texas growers 59%. Cotton was in fair to good condition. The crop squared in Georgia, Texas and Arizona. Low temperatures slowed growth in California, and rains delayed planting in Texas.

**OTHER CROPS:** Sorghum planting in the major producing States advanced to 50% complete staying ahead of 1976's 45% and the 42% average. Storms slowed progress in Texas where some fields were damaged.

Rice seeding was nearly complete and planting was up to good stands. Growers fertilized, flooded fields, and applied weed controls.

Peanut planting was almost complete in the Atlantic Coast States, and reached 23% complete in Oklahoma and 26% in Texas.

Maine potato farmers were to begin planting the 1977 crop by May 22. Irish potato planting was well along in the North Central States. Idaho growers planted 80% of the crop compared with 65% last year; Oregon potatoes emerged.

**FRUITS AND NUTS:** Growers harvested peaches in Texas, Arizona, Louisiana, Florida, Georgia, and South Carolina. Georgia growers picked 10% of the crop, but dry weather kept size small. The peach crop in northern areas varied depending on earlier frost damage; the Oregon peach crop had a heavy set. Citrus growers harvested valencias and grapefruit. Florida citrus groves needed rain; growers irrigated, but some wells ran dry and young trees wilted.

**VEGETABLES:** Growers in northern areas harvested asparagus, spinach, lettuce, strawberries and some cabbage. Summer season vegetable crops emerged. In Florida, vegetable shipments increased 12% with sweet corn, okra, tomatoes and watermelons leading the advance. Most crops declined, but celery, peppers and potatoes held steady. Texas growers harvested bell peppers, cabbage, squash, onions, tomatoes, cucumbers, watermelons, and cantaloups. Rains slowed the harvest in some areas, however, other areas needed moisture. Arizona producers harvested lettuce, potatoes and onions. California vegetable growers picked lettuce, asparagus, broccoli, cauliflower, and strawberries.

**PASTURES AND LIVESTOCK:** Pastures rated fair to good in most of the South Central States, eastern North Central States and southern Great Plains. The poorest grazing was in the western States, the southern Atlantic Coast States and the Dakotas. Western ranchers moved cattle to higher elevations to search for adequate forage supplies.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., May 22, 1977

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA, Birmingham . . .	75	+ 4	2.4	+1.6	La. Baton Rouge . . .	75	0	0	-1.0	Youngstown . . .	70	+12	.1	-.8
Mobile . . .	76	+ 1	.4	-.6	Lake Charles . . .	71	- 5	0	-1.2	OKLA, Okla. City . . .	69	0	4.6	+3.4
Montgomery . . .	77	+ 4	1.2	+ .4	New Orleans . . .	74	- 2	T	-1.0	Tulsa . . .	73	+ 4	3.9	+2.7
ALASKA, Anchorage . . .	51	+ 2	T	-.2	Shreveport . . .	74	+ 1	.1	-1.1	OREG, Astoria . . .	50	- 3	.5	-.1
Barrow . . .	18	- 3	T	0	MAINE, Caribou . . .	63	+12	T	-.7	Burns . . .	49	- 4	.1	-.1
Fairbanks . . .	51	+ 2	T	-.2	Portland . . .	59	+ 5	.1	-.6	Medford . . .	53	- 5	1.1	+ .7
Juneau . . .	41	- 3	2.7	+1.7	MD, Baltimore . . .	71	+ 7	T	-.8	Pendleton . . .	58	- 1	.1	-.2
Kodiak . . .	41	- 3	2.7	+1.7	MASS, Boston . . .	68	+ 8	.1	-.7	Portland . . .	55	- 2	.5	0
Nome . . .	45	- 6	0	-.1	Chatham . . .	57	- 1	1.2	---	Salem . . .	52	- 4	.1	-.4
ARIZ, Flagstaff . . .	65	- 2	0	0	MICH, Alpena . . .	67	+16	1.4	+ .8	PA, Allentown . . .	71	+10	.4	-.4
Phoenix . . .	79	- 5	0	0	Detroit . . .	73	+14	.8	+ .1	Erie . . .	68	+13	.2	-.6
Tucson . . .	69	- 5	0	0	Flint . . .	72	+15	.5	-.2	Harrisburg . . .	78	+14	.4	-.5
Winslow . . .	55	- 9	0	-.1	Grand Rapids . . .	79	+21	.2	-.5	Philadelphia . . .	70	+ 6	.1	-.7
Yuma . . .	73	- 6	0	0	Houghton Lake . . .	70	+16	.7	+ .1	Pittsburgh . . .	69	+ 8	.7	-.1
ARK, Fort Smith . . .	74	+ 3	1.9	+ .6	Lansing . . .	76	+18	T	-.8	Scranton . . .	68	+ 8	.3	-.5
Little Rock . . .	76	+ 6	T	-1.2	Marquette . . .	65	+14	1.0	+ .3	R.I. Providence . . .	66	+ 8	.9	+ .1
CALIF, Bakersfield . . .	68	- 3	T	0	Muskegon . . .	72	+16	.2	-.4	S.C. Charleston . . .	77	+ 4	.1	-.8
Eureka . . .	52	- 1	.6	+ .1	S. Ste. Marie . . .	66	+16	1.3	+ .6	Columbia . . .	76	+ 3	T	-.8
Fresno . . .	64	- 4	.1	0	MINN, Duluth . . .	61	+11	1.1	+ .3	Greenville . . .	75	+ 5	.5	+ .9
Los Angeles . . .	64	- 1	0	0	Internatl Falls . . .	65	+14	2.2	+1.5	S.D. Aberdeen . . .	65	+ 8	1.5	+ .9
Red Bluff . . .	64	- 4	.7	+ .5	Minneapolis . . .	70	+12	1.0	+ .2	Huron . . .	65	+ 7	1.4	+ .8
San Diego . . .	62	- 2	0	0	Rochester . . .	68	+11	1.9	+1.1	Rapid City . . .	55	- 1	1.7	+1.1
San Francisco . . .	55	- 4	.1	0	St. Cloud . . .	67	+11	1.7	+ .9	Sioux Falls . . .	68	+ 9	1.3	+ .5
Stockton . . .	62	- 4	.1	0	MISS, Jackson . . .	75	+ 2	0	-1.0	TENN, Chattanooga . . .	73	+ 4	.4	-.4
COLO, Denver . . .	58	0	.1	-.5	Meridian . . .	73	0	0	-.8	Knoxville . . .	74	+ 5	1	-.6
Grand Junction . . .	58	- 5	0	-.5	MO, Columbia . . .	71	+ 6	.4	-.7	Memphis . . .	79	+ 7	0	-1.0
Pueblo . . .	62	0	.5	+ .1	Kansas City . . .	71	+ 5	3.7	+2.7	Nashville . . .	75	+ 6	.1	-.8
CONN, Bridgeport . . .	63	+ 4	T	-.8	St. Louis . . .	77	+10	T	-.8	TEX, Abilene . . .	73	0	.1	-.8
Hartford . . .	69	+10	.6	-.2	Springfield . . .	72	+ 6	.2	-.9	Amarillo . . .	65	- 1	1.5	+ .8
D.C. Washington . . .	73	+ 6	T	-.9	MONT, Billings . . .	49	- 6	.7	+ .2	Austin . . .	75	- 1	1.0	+ .1
FLA, Apalachicola . . .	74	- 1	0	-.6	Glasgow . . .	51	- 4	1.1	+ .8	Beaumont . . .	78	+ 3	.2	-.9
Daytona Beach . . .	73	- 3	T	-.6	Great Falls . . .	45	- 9	.7	+ .1	Brownsville . . .	81	+ 1	.3	-.3
Ft. Myers . . .	76	- 2	0	-1.0	Havre . . .	51	- 5	1.0	+ .7	Corpus Christi . . .	80	+ 2	.3	-.5
Jacksonville . . .	72	- 3	T	-.7	Helena . . .	44	- 9	.3	-.4	Dallas . . .	76	- 3	.9	+ .3
Key West . . .	79	- 2	0	-.6	Kalispell . . .	49	- 3	.2	-.4	Del Rio . . .	67	- 6	0	-.1
Lakeland . . .	76	- 1	0	-.8	Miles City . . .	54	- 3	.2	-.9	El Paso . . .	67	- 6	.8	-.2
Miami . . .	77	- 1	T	-1.4	Missoula . . .	47	- 6	.9	+ .5	Fort Worth . . .	79	+ 6	.8	-.2
Orlando . . .	74	- 3	0	-.7	NEBR, Grand Island . . .	68	+ 6	3.7	+2.8	Galveston . . .	76	- 1	.3	-.4
Tallahassee . . .	73	- 2	.1	-.8	Lincoln . . .	69	+ 6	4.1	+3.2	Houston . . .	75	- 1	.7	-.5
Tampa . . .	76	- 2	0	-.6	Norfolk . . .	68	+ 3	2.3	+1.5	Lubbock . . .	73	+ 4	.1	-.7
W. Palm Beach . . .	78	0	T	-1.2	N. Platte . . .	72	+ 3	1.7	+ .8	Midland . . .	80	+ 7	T	-.6
GA, Atlanta . . .	73	+ 3	.1	-.7	Omaha . . .	61	+ 3	2.4	+1.7	San Angelo . . .	75	0	.3	-.3
Augusta . . .	75	+ 3	1.3	+ .5	Valentine . . .	62	- 9	.5	+ .3	San Antonio . . .	74	- 3	1.1	+ .4
Macon . . .	76	+ 2	.8	0	NEV, Ely . . .	42	- 9	.5	+ .3	Victoria . . .	77	0	2.2	+1.3
Savannah . . .	76	+ 2	T	-1.0	Las Vegas . . .	67	- 7	T	0	Waco . . .	77	+ 2	.3	-.7
HAWAII, Hilo . . .	75	+ 1	6.6	+4.4	Reno . . .	48	- 7	.2	0	Wichita Falls . . .	72	- 1	1.7	+ .6
Honolulu . . .	78	+ 1	T	-.2	Winemucca . . .	50	- 7	.4	+ .2	UTAH, Blanding . . .	50	- 8	0	-.1
Kahului . . .	75	0	T	-.1	N.H. Concord . . .	66	+10	.7	0	Salt Lake City . . .	49	-10	1.7	+1.4
Lihue . . .	75	- 1	.1	-.4	N.J. Atlantic City . . .	66	+ 3	.7	-.8	VT, Burlington . . .	70	+14	0	-.7
IDAHO, Boise . . .	54	- 4	.1	-.2	Trenton . . .	70	+ 7	.3	-.5	VA, Lynchburg . . .	71	+ 5	0	-.8
Lewiston . . .	56	- 3	.5	+ .1	N.MEX, Albuquerque . . .	61	- 5	0	-.1	Norfolk . . .	70	+ 2	0	-.8
Pocatello . . .	48	- 7	1.1	+ .8	Roswell . . .	72	+ 3	0	-.2	Richmond . . .	71	+ 4	.1	-.7
ILL, Cairo . . .	79	+ 9	.5	-.7	N.Y. Albany . . .	69	+10	.4	-.4	Roanoke . . .	72	+ 7	.4	-.4
Chicago . . .	81	+20	.1	-.7	Binghamton . . .	69	+13	.2	-.7	WASH, Colville . . .	52	- 4	.6	+ .2
Moline . . .	75	+13	1.5	+ .6	Buffalo . . .	70	+14	.3	-.4	Omak . . .	57	- 1	T	-.3
Peoria . . .	75	+13	.1	-.7	New York . . .	69	+ 6	.1	-.7	Quillayute . . .	50	- 2	1.1	+ .2
Rockford . . .	76	+16	.2	-.7	Rochester . . .	71	+14	T	-.6	Seattle-Tacoma . . .	57	+ 1	.3	-.1
Springfield . . .	78	+14	.1	-.7	Syracuse . . .	69	+11	.1	-.6	Spokane . . .	52	- 4	.7	+ .3
IND, Evansville . . .	76	+10	T	-1.0	N.C. Asheville . . .	68	+ 4	T	-.8	Walla Walla . . .	58	- 3	.1	-.3
Ft. Wayne . . .	75	+14	0	-.9	Charlotte . . .	74	+ 4	.2	-.4	Yakima . . .	56	- 3	T	-.1
Indianapolis . . .	77	+18	.1	-.6	Greensboro . . .	73	+ 5	.1	-.6	W. Va. Beckley . . .	69	+10	T	-.9
South Bend . . .	77	+18	.1	-.6	Hatteras . . .	70	+ 2	.1	-.6	Charleston . . .	72	+ 7	0	-.8
IOWA, Burlington . . .	74	+11	.6	-.2	Raleigh . . .	72	+ 4	.7	-.1	Huntington . . .	74	+ 9	T	-.9
Des Moines . . .	73	+11	.5	-.5	Wilmington . . .	74	+ 2	T	-.9	Parkersburg . . .	72	+ 7	T	-.8
Dubuque . . .	71	+12	2.1	+1.0	N.DAK, Bismarck . . .	60	+ 5	.4	-.1	WIS, Green Bay . . .	73	+18	1.3	+ .6
Sioux City . . .	68	+ 6	1.2	+ .4	Fargo . . .	68	+12	.6	+ .1	La Crosse . . .	72	+12	1.1	+ .2
KANS, Concordia . . .	68	+ 4	2.4	+1.4	Williston . . .	57	+ 2	2.0	+1.6	Madison . . .	74	+17	.7	-.1
Dodge City . . .	67	+ 2	1.4	+ .6	OHIO, Akron-Canton . . .	72	+12	T	-.9	Milwaukee . . .	68	+13	.4	-.2
Goodland . . .	59	+ 9	2.3	+1.7	Cincinnati . . .	74	+10	.3	-.5	WYO, Casper . . .	51	- 3	.3	-.4
Topeka . . .	71	+ 7	3.5	+2.4	Cleveland . . .	71	+12	T	-.8	Cheyenne . . .	50	- 3	.2	-.4
Wichita . . .	68	+ 1	4.5	+3.7	Columbus . . .	74	+12	0	-.9	Lander . . .	49	- 5	.3	-.3
KY, Lexington . . .	75	+ 9	0	-1.0	Dayton . . .	76	+13	0	-.8	Sheridan . . .	50	- 4	1.2	+ .6
Louisville . . .	76	+10	T	-1.0	Toledo . . .	72	+12	T	-.8	P.R. San Juan . . .	81	+ 2	.6	-1.0

Based on 1941-70 normals

Publication of the Weekly Weather and Crop Bulletin began in 1892 as the Weekly Weather Chronicle. It is now issued under general authority of the Act of January 12, 1895 (44USC 213), 53d Congress, 3d Session. Contents of the Bulletin may be reprinted freely, with proper credit.

Standard copy for the Bulletin is prepared by R.E. Felch, L.M. Denny, and O.W. Byrd,

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Yearly subscription rate: \$5.00 domestic and \$11.25 foreign airmail. Order from the Agricultural Weather Support Service, South Building Mail Unit, Room 1248, USDA, Washington, D.C. 20250. Make checks payable to Department of Commerce, NOAA.

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Warm and dry until 22d. Temperatures 4° above normal. Rainfall ranged from 3.73 in. to none.

Cotton fair to good; planting nearly complete. Corn fair to good, growth slowed by moisture shortage. Peanuts 81% planted, 92% 1976, 94% average. Soybeans 45% planted, 40% 1976, 41% average. Wheat harvest underway; 15% complete, 7% 1976. Harvest Irish potatoes continued, slow pace. Some hay harvested. Pastures poor to fair.

**ALASKA:** Tanana Valley warmer than normal while precipitation little below normal. Matanuska Valley temperatures above normal to slightly below normal. Precipitation below normal. Kenai Peninsula high temperatures slightly below normal while low temperatures slightly above normal. Precipitation ranged from light over north to heavy over south. Kodiak Island high temperatures near normal. Lows lower than normal. Precipitation above normal.

Small grains seeding made good progress. Seedbed preparation and fertilizing active most areas. Oat and barley seeding ranges from 9 to over 5% complete. Soil moisture conditions mostly adequate or better. Livestock mostly good condition.

**ARIZONA:** Cool, dry low humidity. Temperatures 5 to 10° below normal.

Weather and field conditions very good. Cotton good growth, squaring started. Harvest small grains rapidly increasing. Sorghum planting active. Safflower good seedhead development. Sugarbeet harvest full swing. Beets fall harvest good growth. Alfalfa for third cutting well advanced. Lettuce harvest central areas nearing completion. Cantaloups, watermelons good progress. Potato, dry onion harvest full swing. Grapes good growth, fruit early varieties reaching maturity. Picking deciduous fruit Salt River Valley active. Valencia harvest full swing Yuma, Salt River Valley areas; grapefruit harvest increasing. Drought conditions: Rainfall last weekend temporary relief. Limited range feed rapidly being depleted. Cattle, calves fair to good condition due to feeding, water hauling.

**ARKANSAS:** Warm and generally dry. Temperatures ranged from 1 to 7° above normal. Extremes: 92 and 48°. No rainfall.

Precipitation badly needed. Soil moisture short. Fieldwork: 6.5 days suitable. Soybean planting 50% complete, 41% last year, average 32%. Many growers delayed further planting until additional moisture received. Cotton 99% planted, 95% 1976, average 92%. Cultivation, post-emergence herbicide application, spraying accomplished. Acceptable stand reported 89% of acreage. Rice seeding 97% complete, same as year ago. Fertilization, flooding, flushing, weed control continued. Corn fair to good condition; needs moisture. Sorghum fields cultivated and fertilized. Wheat and oats fair to good condition; heads maturing but need rain to fill. Strawberry season over. Tomatoes good condition. Hay fields varied. Pastures providing mostly adequate feed supplies.

**CALIFORNIA:** Cooler than normal with scattered showers. Temperatures below normal. Precipitation mostly north but light amounts south into San Joaquin Valley. Cold and moist air brought freezing

temperatures extreme north interior. Desert region with highs in 80's but into 90's by weekend. Central Valley warmed at weekend, but only into 80's. Crop development slow due to cool weather. Some hay damaged in windrow. Grain harvest beginning slowly. Cotton growth slow, some replanting. Corn, sorghum planting complete. Dry bean planting underway. Sugarbeets, safflower good condition. Almonds sprayed and developing well. Cherry harvest picking up. Grapes progressing well. Valencia harvest picking up. Peach thinning continues; earliest varieties being harvested. Walnuts sizing well. Plum and apricot harvests begin this week. Lettuce in over-supply. Artichokes and asparagus production decreased, while broccoli and cauliflower continues heavy. Strawberries recovering from rain week before. Processing tomatoes continue to develop; water problems evident. Rangelands improved. Grass germinated. Increased stock water; some areas, water hauling. Culling, supplemental feeding, livestock moved summer pastures.

**COLORADO:** First of week dry with few light showers. End of week large amounts of precipitation in mountains and east. Temperatures 5° below normal west and mountains; near normal to 5° above in east.

Winter wheat in good condition; 83% jointed 1977, 81% 1976, 79% average; 22% headed 1977, 22% headed 1976, 19% average. Soil moisture short. Spring seedings: Corn 84% 1977, 93% 1976, 79% average. Sorghum 24% 1977, 22% 1976, 17% average. Alfalfa in good condition; range and pasture in fair condition; livestock in good condition.

**FLORIDA:** Dry, warm with temperatures somewhat below normal due to nighttime lows. Rainfall very sparse.

Soil moisture short to very short. Corn, tobacco, peanuts poor condition where not irrigated. Soybean planting delayed because of dry weather. Small grain harvest active. Peach, nectarine harvest past peak. Sugarcane growth very good. Grazing very poor Panhandle, north due to severely dry conditions. Pastures in south poor to fair. Drought conditions continue, central. Cattle, calf condition generally poor Panhandle, north; mostly good south. Supplemental feeding continues. Citrus groves showing effects of drought. Irrigation all areas, some wells dry, some wilt on young trees. Harvest slowing, labor short all areas. Temperatures warm during day, mild at night over vegetable growing area. Very little to no shower activity. Irrigation heavy as conditions very dry. Overall shipments increased 12%. Supplies sweet corn, okra, tomatoes, watermelons increased; snap beans, cabbage, carrots, chinese cabbage, cucumbers, escarole, eggplant, lettuce, squash, radishes decreased. Celery, peppers, potatoes, held steady. Watermelon crop condition good to excellent; soil moisture low most areas. Fruit quality good to excellent.

**GEORGIA:** Temperatures 1 to 3° above normal; near normal extreme south. Rainfall less than 0.10 in.

Soil moisture very short. Fieldwork: 6 days suitable. Very little planting due to dry soil. Crop conditions critical unless irrigated. Corn condition poor to mostly fair under severe moisture stress. Tobacco condition fair to good; irrigation and application of insecticides very active. Cotton condition mostly fair to good;

1% squaring. Peanut condition mostly fair to good; spraying active. Soybeans mostly fair to good; 29% planted, last year 43%, average 33%. Sorghum 32% planted, last year 39%. Wheat harvest 15% complete. Oat harvest 18% complete. Hay poor to fair condition. Peach condition mostly fair to good; harvest 10% complete, sizing problems. Apples fair to mostly good condition. Watermelons mostly fair to good; application of fungicides active. Pastures poor to fair condition; very little growth. Cattle mostly fair to good, lack of grazing forced some sales. Hogs fair to mostly good.

HAWAII: Weather favorable.

Yields some leafy crops down. Spraying frequent to control insect and disease damage. Vegetable supplies leaf crops short, others adequate. Banana supplies light. Papaya supplies gradual increase expected. Pineapple harvesting more active. Sugar harvesting steady. Pastures fair to good.

IDAHO: Precipitation statewide. Temperatures 5 to 10° above normal.

Fieldwork interrupted by rain. Most crops look good. Sunshine needed. Present crop emerged 1976, 1977: Spring wheat 55%, 90%; barley 50%, 85%; oats 90%, 60%; sugarbeets 65%, 90%. Potatoes planted 1976 65%, 1977 80%. Soil moisture short. Range condition fair to good.

ILLINOIS: Temperatures 7 to 21° above normal. Precipitation very light, some sections none. Heavy thunderstorms northwest.

Corn 98% planted, 95% 1976, 83% average; mostly good. Soybeans 78% planted, 65% 1976, 45% average. Grain sorghum 33% planted. Winter wheat 93% headed, 94% 1976, 86% average; 53% filled, 55% 1976, 44% average; mostly good. Oats 10% headed, 14% 1976, 8% average; mostly good. First crop alfalfa hay 39% cut, 15% 1976, 9% average; mostly good. Pastures mostly good. Soil moisture short. Fieldwork: 6.8 days suitable.

INDIANA: Hot, dry. Few local scattered thunder-showers. Temperatures frequently in 90's and averaged 10° above normal. Soil temperatures high and solar radiation 88% of possible for late May.

Fieldwork: 7 days suitable. Topsoil moisture mostly short to adequate. Subsoil moisture mostly adequate. Pastures fair to mostly good. Corn 90% planted; 1976 95%, average 65%. Corn 60% emerged; 1976 70%; stands good. Soybeans 50% planted; 1976 55%, average 25%. Soybeans 15% emerged. Wheat 75% headed; 1976 80%, average 40%. Wheat 90% in or past boot stage. Wheat condition fair to mostly good. Barley 85% headed; 1976 90%. Rye 80% headed; 1976 90%. Tobacco plants 25% set; 1976 10%, average 5%.

IOWA: Temperatures 9 or 10° above normal with widely scattered showers becoming more general over west on weekend.

Topsoil moisture short. Subsoil moisture short. Fieldwork: 5.9 days suitable. Corn planting complete, same as last year, average 80%; 93% of corn emerged. Soybean planting 86% complete, last year 67%, average 38%; 42% of beans emerged. First cutting alfalfa 13% complete; earliest harvest in 10 years. Corn, soybeans, oats, and clover hay good. Alfalfa mostly good to excellent. Wheat and pastures mostly good to fair. Livestock in good condition.

KANSAS: Heavy rains; 2.00 to 4.00 in. common, 5.00 to 7.00 in. some areas east. Temperatures averaged

63° northwest, 70 to 72° east and south central, 2° above normal southwest, 6° above normal northeast.

General rains promoted excellent growth in wheat. All crop jointed, 85% headed, 80% last year, average 70%. No wheat turning yet. Hail some areas, damage minimal. Heavy rains caused replanting some corn; 85% planted, last year 80%, average 75%. Sorghum 25% planted, 1976 15%, average 15%. Soybeans 20% planted, last year 10%, average 15%. Cattle doing well on excellent pastures. Other activities seedbed preparation, cutting alfalfa hay.

KENTUCKY: Temperatures 5 to 10° above normal. Few areas of significant rains, mostly on weekend and mainly over south and west.

Very favorable for outside farmwork. Farmers planting corn and soybeans, setting tobacco and putting up hay. Soil moisture short. Topsoil drying very fast. Corn planting 82% complete, 90% last year, 74% average. Most up to good stands, early plantings excellent. Soybean seeding slowed by dry topsoil but progress 33%, 21% last year and 22% average. Hay making ahead usual schedule, first cutting alfalfa 73% cut and baled in excellent condition. Tobacco setting active but watering necessary; about 18% burley and 24% dark in ground, slightly ahead year ago. Plants generally adequate. Abundance of strawberries, ripening past, picking active. Peach crop, most farms complete failure.

LOUISIANA: Temperatures near to 3° above normal. Extremes: 56 and 92°.

Soil moisture short to adequate. Fieldwork: 6.0 days suitable. Main activities: Planting, cultivation, application of fertilizers and pesticides, and haying. Percent of crop up to stand: corn 97%, rice 91%, cotton 79%; all good condition. Soybeans 61% planted, 32% last year 27% average. Sorghum 64% planted, 63% last year, 44% average. Sweetpotato transplanting 53% complete, 39% last year, 47% average. Sugarcane condition much improved. Oat and wheat harvest beginning. Irish potato and peach harvest underway. Pasture and cattle condition good.

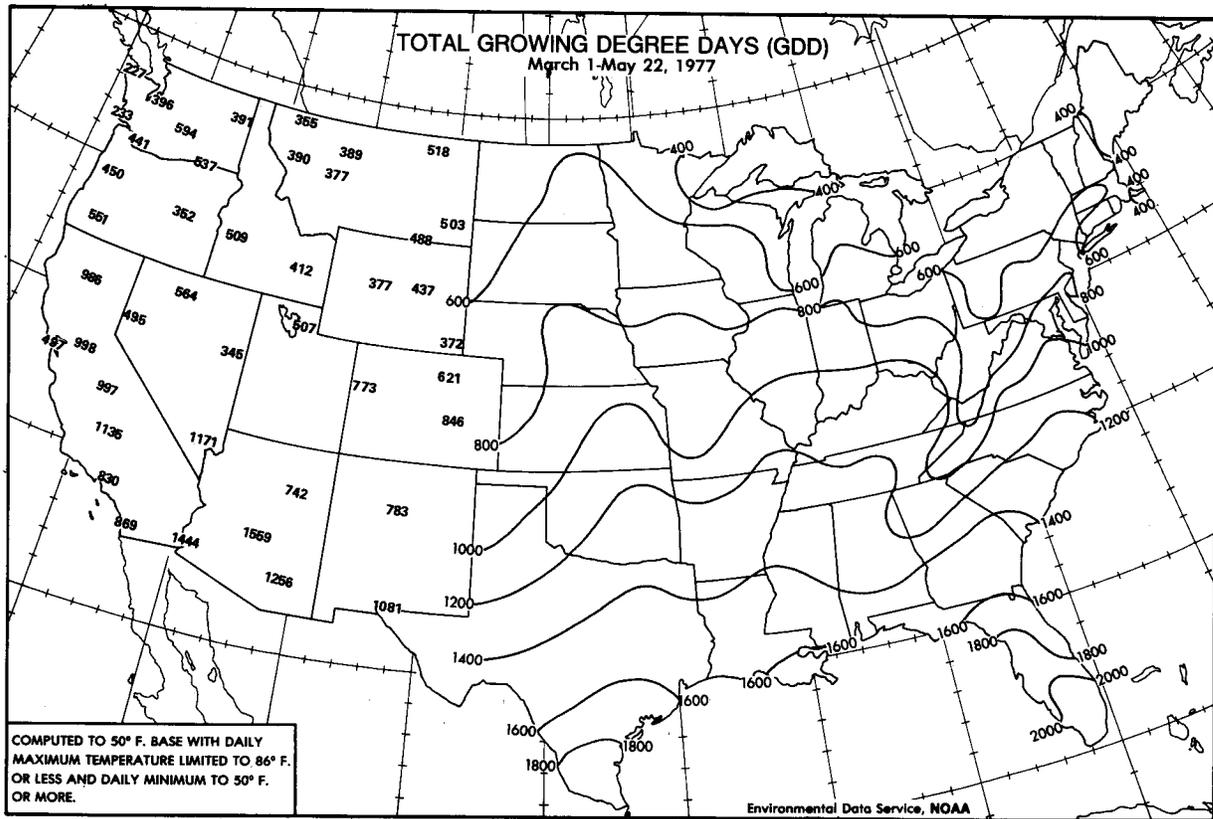
MARYLAND AND DELAWARE: Temperatures 3 to 5° above normal. Highs in 80's; lows in mid-50's. Precipitation very light, averaging 0.15 in.

Soil moisture supplies short. Pastures supplying average amounts of feed. Corn 90% planted, equal to 1976, 68% average; stands good. Soybeans 20% planted, equal to 1976, 11% average; dry conditions delaying planting. First cutting alfalfa 50%. Clover and clover mixtures 20%. Vegetable planting active; some growers irrigating. Tobacco transplanting and marketing 1976 crop active. Fruit growers spraying, applying weed killer, and starting thinning operations.

MICHIGAN: Temperatures 14 to 19° above normal. Highs in 80's and 90's. Precipitation spotty averaging over 1.00 in. upper to zero central lower.

Soil moisture short. Fieldwork: 6 days suitable. Pasture feed supplies short. Acreage plowed: 95%, 80% last year, normal 75%. Corn 90% planted, 55% last year, 50% normal. Winter wheat 5% headed. Oats planted 98%, 95% last year, 90% normal. Potatoes 80% planted, 60% last year, 55% normal. Soybeans 45% planted, 10% 1976 and normal. Replanting damaged sugarbeets. Haying started south. Asparagus 60% harvested, 25% last year and normal. Vegetable planting continues at rapid pace.

MINNESOTA: Temperatures 12° above normal. Extremes: 94 and 37°. Precipitation near 1.00 in. across north, 1.50 in. south.



Rains slowed fieldwork, but greatly improved crop prospects in north. Most row crop planting nearing completion. All small grain seeded; most emerged. Corn growth good to excellent in south. Some cutworm damage to corn, sunflowers. Winter wheat, rye heading most areas; far ahead of normal. Alfalfa hay cutting underway in south. Percent planted: Corn 95%, 1976 96%, normal 78%; soybeans 79%, 1976 75%, normal 47%; flax 84%, 1976 81%, normal 59%; potatoes 64%, 1976 84%, normal 49%; sunflowers 82%, 1976 81%.

**MISSISSIPPI:** Temperatures 3° above normal Delta and central, 3° subnormal elsewhere. Extremes: 45 and 92°.

Soil moisture short. Fieldwork: 6.2 days suitable. Soybeans 52% planted, 37% 1976, 23% average; 26% up to stand, 14% 1976. Cotton 98% planted, 94% 1976, 83% average; 85% up to stand, 62% 1976, 57% average. Rice 99% planted, 93% 1976, 80% average; 82% up to stand, 69% 1976. Corn 95% planted, 92% 1976, 75% average; 83% up to stand, 81% 1976. Winter wheat 39% ripe, 32% 1976; 2% harvested, 3% 1976, 7% average. Oats 52% ripe, 37% 1976; 4% harvested, 6% 1976, 11% average. Sorghums 52% planted, 52% 1976, 35% average. Sweetpotatoes 68% planted, 47% 1976, 41% average. Peanuts 90% planted, 86% 1976. Crops in good to fair condition.

**MISSOURI:** Temperatures 5 to 8° above normal. Precipitation heavy at Kansas City and Nevada with 3.50 and 5.00 in. respectively. Elsewhere precipitation between 0 and 0.50 in.

Fieldwork: 5.5 days suitable. Corn: 97% planted, 85% 1976, 71% normal. Soybeans: 60% planted, 34% 1976, 29% normal. Grain sorghum: 64% planted, 35% 1976, 34% normal. First cutting alfalfa hay 41% harvested. Cotton planting 99%

complete; 84% normal. Winter wheat: 96% headed, 95% 1976, 75% normal. Wheat turning color 18%. Soil moisture short.

**MONTANA:** Week began cool and wet, ended warm and showery. Precipitation much above normal except southeast and spotty areas in west. Amounts well over 1.00 in. common, with new snow in mountains. Light freezing early week. Warm and showery by weekend with maximums in 70's. Temperatures averaged 3 to 6° below normal.

Topsoil moisture adequate but subsoil moisture short. Irrigation water supplies short. Spring grain seeding done. Corn 70%, potatoes 50%, dry beans 70% seeded. Condition and growth winter wheat, spring wheat, oats, barley fair to good. About 20% winter wheat in boot--5% last year, normal less than 5%. Range grass growth slow. About 30% cattle and 25% sheep on supplemental feed. Stock water short many areas. About 45% cattle and 50% sheep moved to summer pastures.

**NEBRASKA:** Temperatures 2 to 9° above normal. Rainfall mostly 0.50 to 2.00 in.

Fieldwork limited by showers. Good conditions for seed germination. Topsoil moisture adequate. Subsoil moisture supply short to adequate. Winter wheat mostly fair condition; 40% headed. Corn planting over 90% completed, same as 1976, 80% average. Grain sorghum planting 55% complete compared to 40% 1976 and normal 30%. Soybeans over 40% planted compared to 40% 1976 and normal 25%. Pasture and range feed supplies mostly adequate.

**NEVADA:** Above normal rainfall and below normal temperatures. Most rain and coolest temperatures north and central. Temperatures 6 to 8° below normal north and central; 2° below extreme south. Extremes: 93 and 23°.

Irrigation underway all areas. Ranges slow in developing. Movement livestock to summer ranges also slow.

**NEW ENGLAND:** Cool with near or slightly below freezing temperatures; warming trend continued throughout week and reached climax 22d when temperatures of 90° common. Precipitation generally less than 0.25 in.

Season up to 10 days ahead of normal. All crops appear to be doing well although the hay crop and pastures may be short if more moisture is not received. Potato planting in Aroostook County, Maine to become general week of 22d.

**NEW JERSEY:** Dry, no significant rain. Temperatures 4 to 9° above normal. Extremes: 40 and 94°. Soil moisture in percent of field capacity 71% north, 54% central and 41% south. Soil temperature: 67° north and central and 69° south.

Soil moisture short. High temperatures and dry soil slowing growth of early crops. Sweetpotatoes being planted. Spinach, strawberries and lettuce moving to market. Asparagus past peak while cabbage volume still low. Apple prospects looking better but peaches variable. Field corn planting well advanced, soybean planting active.

**NEW MEXICO:** Dry with only a few light to moderate showers northeast.

Dryland wheat, fair. Irrigated wheat, durum wheat, alfalfa, lettuce, onions, fair to good. Cotton and corn seeding approaching completion with good stands. Grain sorghum planting continued; 60% complete. High winds reduced soil moisture delaying planting of some dryland fields. Ranges, livestock fair to good.

**NEW YORK:** Very warm and dry. Temperatures 4 to 13° above normal. Few isolated heavy showers northeast; little or no rainfall elsewhere.

Excellent planting conditions. Corn 60% in, 25% 1976. Early corn up. Oat planting 90% complete. Wheat condition good. Light rainfall slowing hay and pasture growth. Most onions, fresh market sweet corn up. Early cabbage, lettuce, and snap beans up. Celery transplanting underway. Upstate potato planting 85% complete. Hudson Valley apple set variable. Pears in light bloom Finger Lakes area.

**NORTH CAROLINA:** Warm, dry. Temperatures slightly above normal. Few scattered thunderstorms midweek.

Fieldwork: 5.9 days suitable. Soil moisture short. Farm activities: Planting field crops, transplanting tobacco and cutting hay. Crop conditions: cotton, corn, Irish potatoes, and peaches mostly fair to good; wheat, oats, barley, tobacco in fields fair; and pasture poor to mostly fair. Planting: Corn 98% completed, 1976 95%, average 90%; cotton 98%, 1976 97%, average 94%; peanuts 93%, 1976 81%, average 79%; soybeans 58%, 1976 40%, average 36%; sorghum grain 63%, 1976 47%. Flue-cured tobacco transplanting 94% complete, 1976 85%, average 82%; burley 36%, 1976 47%. Sweetpotatoes 60% transplanted, 1976 46%.

**NORTH DAKOTA:** Warm and dry. Drought remained unbroken especially central and south central. Some beneficial rains fell in extreme north and west. Temperatures 5 to 15° above normal. Extremes: 37 and 94°.

Small grain seeding nearing completion. Flax planting 75% complete. Row crop planting making progress. Hard red spring wheat 99% complete, last year 96%, average 74%. New pasture growth generally

poor. Supplemental feeding required by about half of cattle.

**OHIO:** Spotty rainfall, locally heavy rains north. Temperatures above normal.

Moisture needed for good seed germination. Condition of crops deteriorated somewhat but still considered fair to mostly good. Planting completed: Corn 90%, 95% 1976, 70% normal; soybeans 65% same as last year, 40% average; potatoes 85%, 95% 1976, 75% normal. Alfalfa hay harvesting more than 10%, 10% 1976, 5% normal; clover-timothy 10%, less than 5% last year and normal. Some alfalfa cut rather than sprayed for weevil. Winter wheat 40% headed, stalks somewhat short, 50% headed 1976, 35% normal. Corn planted acres 45% emerged. Sugarbeet condition mostly good. Soil moisture short. Fieldwork: nearly 7 days favorable.

**OKLAHOMA:** Temperatures 3° above normal northeast to 4° below normal west. Substantial precipitation with some areas having extremely heavy rains. North central had 6.09 in. while panhandle had 1.94 in.

Topsoil and subsoil moisture adequate. Wheat good condition, 45% soft dough to ripe, average 58% and 46% in 1976. Barley and oats good condition, both crops approximately 40% soft dough to ripe stage, behind 1976 rate of development. Corn 64% up-to-stand, average 45%, 1976 43%; fair to good condition. Sorghum 26% seeded, 32% average, 39% 1976. Cotton prospects good, 20% seeded, average 31%, 1976 21%. Peanuts 23% seeded, 19% average, 1976 17%; outlook good. Soybean outlook good to excellent; 28% seeded compared with 18% 1976, and 20% average. Alfalfa hay 60% first cutting complete, 76% average, 60% 1976; good condition. Pasture, range, cattle good to excellent condition.

**OREGON:** Cool and wet west of Cascades. Precipitation 1.00 in. on coast; 0.75 in. Willamette Valley; 0.33 in. southwest valley; 0.10 in. southeast and 0.75 in. northeast. Temperatures 3 to 8° below normal. Extremes: west low 70's to mid-30's; east low 80's to low 20's.

Fall and spring grains mostly fair to good condition west, poor to good east. Most spring seeding completed. Some haying. Vegetables in good shape; onions up and look good. Potatoes emerging east, planting continues central and south. Prune and peach sets appear heavy. Filberts on schedule; crop size uncertain. Strawberries starting to set. Cattle and calves in fair to good condition. Feed supplies barely adequate. Ranges and pastures helped by recent rain; too little, too late.

**PENNSYLVANIA:** Sunny, warm, humid. Temperature 8 to 12° above normal. Extremes: 92 and 44°. Showers and thunderstorm 18th produced only slight rain.

Fieldwork: 6 days suitable. Moisture short. Activities included plowing, spraying, fertilizing, making hay and filling silos, planting oats, corn, potatoes, tomatoes and soybeans. Plowing 92%, last year 95%. Planting: Soybeans 33%; oats virtually planted; potatoes 81%, last year 80%; corn 69%, last year 72%. Barley 21% boot, 51% headed, same as 1976. Wheat 47% boot, 17% headed; last year 24% headed. Hay condition good to fair. Harvesting asparagus and early strawberries.

**PUERTO RICO:** Island rainfall 0.85 in. or 0.80 in. below normal. Temperatures about 81° on coasts and 74° interior. Extremes: 95 and 55°.

Severe to extreme drought over most of Island except for some zones north and interior where moderate to heavy rainshowers relieved drought.

Crops and new plantings affected seriously by drought. Pastures almost dry and cattle losing weight. Good weather for tobacco drying. Fertilization and cultivation of coffee farms active.

**SOUTH CAROLINA:** Temperatures above normal; reading in 90's most of week. Rainfall well below normal; scattered thundershowers locally heavy at times, mostly over weekend.

Corn, cotton, watermelon planting virtually complete; tobacco transplanting complete. Soybean planting delayed due to lack of rain. Small grains in fair condition; pastures poor to fair condition. Corn plants showing serious dry weather burn many areas. Activities: Applying herbicides; spraying, harvesting early peaches; harvesting cucumbers, snap beans. Cotton planted: 98% 1977, 96% 1976, 94% average. Soybeans planted: 27% 1977, 28% 1976, 30% average. Sorghum planted: 30% 1977, 31% 1976, 25% average. Peanuts planted: 86% 1977, 90% 1976, 88% average.

**SOUTH DAKOTA:** Precipitation moderate to heavy; 1.00 to 3.00 in. common. Thunderstorms accompanied by hail and high winds caused scattered damage. Temperatures near normal west, 4 to 10° above normal central and east. Extremes: 31 and 92°.

Topsoil moisture adequate, except short in extreme northwest. Planting row crops continues at one of the fastest paces on record. Percent planted: Corn 81%, 1976 79%, normal 66%; soybeans 86%, 1976 62%, normal 34%; sorghum 22%, 1976 23%, normal 17%; flaxseed 83%, 1976 91%, normal 68%. Small grain growth and development rapid. Percent in boot stage or beyond; rye 75%, 1976 74%, normal 37%, winter wheat 67%, 1976 67%, normal 30%; spring wheat 8%, 1976 4%, normal 0%; oats 16%, 1976 6%, normal 0%; barley 13%, 1976 6%, normal 0%. Pastures and ranges made slow progress. Poor pastures in north central and northwest forcing above normal cattle sales. Alfalfa harvest started but delayed by rain.

**TENNESSEE:** Temperatures 4 to 8° above normal. Precipitation less than 0.25 in.

Soil moisture mostly short. Pasture conditions mostly fair. Plowing over 93% complete. Corn planted 90% complete, 88% last year, 77% normal. Cotton planted 95% complete, 93% last year, 87% normal. Soybeans planted 60% complete, 40% last year, 30% normal. Wheat headed 96%, 97% normal. Wheat turned 65%, 53% previous year, 30% normal. Oats headed 93%, 90% normal. Oats turned 45%, 40% last year, 23% normal. Barley headed 96%, 95% normal. Barley turned 55%, 77% last year, 47% normal. Alfalfa hay first cutting 85% complete, 75% last year, 65% normal. Tobacco transplanted 80% complete, 53% last year, 72% normal.

**TEXAS:** Cotton planting progressed rapidly in areas not hit by hail and heavy rains. Some High Plains and northern Low Plains areas received considerable hail and rain damage, replanting necessary. South Texas, cotton squaring. Corn made good growth and is tasseling as far north as southern Blacklands. Sorghum planting dropped slightly behind schedule as thunderstorms slowed progress. Some fields in high and low plains required replanting due to rain and hail damage. Cross-Timbers farmers cultivating. Coastal Bend, a few fields stunted and yellowing due to excess rain. Wheat reached soft dough stage northern High Plains; turning color in southern Low Plains. Harvest active south Texas, and will begin in Cross-Timbers and East Texas in about a week. Rice fields fertilized. Early planted fields approaching panicle differentiation. Cotton planted:

59% 1977, 68% 1976, 69% average. Corn planted: 98% 1977, 99% 1976, 97% average. Sorghum planted: 74% 1977, 77% 1976, 75% average. Peanuts planted: 26% 1977, 27% 1976, 33% average. Rice planted: 100% 1977, 99% 1976, 98% average. Soybeans planted: 19% 1977, 24% 1976, 31% average. Wheat harvested: 0% 1977, 1% 1976, 5% average. Oats harvested: 5% 1977, 3% 1976, 11% average. Flax harvested: 25% 1977, 13% 1976, 67% average.

Harvest bell peppers, cantaloups, tomatoes, watermelon, cabbage, squash, onions, citrus, cucumbers. Rain slowed harvest some areas; other areas need rain. Peach harvest active in south, central, east. Pecan growers spraying for casebearer control.

Pastures and ranges average to excellent. Pastures continue to improve High and Low Plains, Edwards Plateau and south central due to recent rains. Pastures other areas good shape but need moisture. Livestock good to excellent condition; calving season near completion.

**UTAH:** Rain and snow principally north and west. Accumulated moisture moderate to heavy except light southeast. Temperatures 4 to 13° below normal.

Winter wheat condition fair. Fruit crop conditions fair to good. Potatoes 75% planted; field, sweet corn, snap beans 85% planted. Soil moisture condition improved. Range and pasture feed conditions poor, improvement expected. Range lambing 75% complete. Cattle and sheep movement to spring ranges 85% and 95% completed respectively.

**VIRGINIA:** Temperatures above normal. Extremes: 94 and 36°. Isolated showers brought less than 0.10 in. rain.

Topsoil moisture short. Fieldwork: 6.0 days suitable. Hay harvest and planting corn, tobacco, and soybeans main activities. Corn 89% planted, 80% in 1976, 77% average. Soybeans 27% seeded, 25% 1976, 19% average. Peanuts 80% planted, 70% 1976, 64% average. Small grain ensilage harvest and spraying underway. Flue-cured tobacco 62% transplanted, 61% in 1976, 34% average. Fire-cured 34% transplanted, 32% in 1976. Burley 19% transplanted, 26% in 1976. Sun-cured 31% transplanted, 49% 1976. Pasture and hay fair condition. Vegetables and potatoes being irrigated. Livestock good condition.

**WASHINGTON:** West: Temperatures 3° below normal. Precipitation 0.20 to 0.40 in. above normal.

Intermittent showers good for growth of peas, corn, pasture but delayed some fieldwork. Peas 45 to 75% seeded. Early sweet, silage corn up. Pastures excellent.

East: Temperatures 5 to 7° below normal. Precipitation 0.20 in. below normal to 0.20 in. above normal.

With additional irrigation water available, farmers planting oats, corn, forage crops and stringing more hops. First cutting alfalfa underway. Fruit thinning and sprinkler installation. Fall seeded grains on summer fallow fair to good. Crops on recrop ground improved. Spring grain on recrop in distress. Rangeland critical at low elevations. Cattle moved to high pastures.

**WEST VIRGINIA:** Temperatures 4 to 9° above normal. Extremes: 92 and 31°. Light showers midweek across north. Precipitation well below normal.

Fieldwork: 5.4 days suitable. Farm activities: Planting corn and harvesting hay. Soil moisture short. Planting progress: Spring oats 96%, potatoes 95% and corn 75%. Emerged: Spring oats

84%, potatoes 81%, tobacco 93% and corn 46%. Wheat 24% pre-jointed, 48% jointing and 28% heading. Condition of growing crops mostly fair. Hay and pasture short from freeze damage and dry weather. Earlier than normal reports of pink eye in cattle. Alfalfa weevil in northern Panhandle.

WISCONSIN: Temperatures 14° above normal. Very warm and humid with highs in 80's and low 90's. Scattered showers and thunderstorms each day.

Corn 90% planted, 1976 75%, normal 55%. Warm, humid, showery weather resulting in rapid growth for early corn. Late corn needs moisture for germination and weed control where rainfall light. Soybeans 40% planted, 1976 30%, normal 20%. Early beans emerged. Oats look good where moisture received and no heavy herbicide residue damage. Winter wheat heading out southeast. Hay harvest underway 2 to 3 weeks earlier than normal.

Alfalfa growth very good where moisture received in May; some lodged by storms. Pasture condition below normal, not enough rainfall for regrowth after grazing. Tobacco plants growing fast. Irrigated vegetable crops look very good. Potato planting done central area, well along northeast. Fruit trees variable, depending on extent of frost damage. Soil moisture short.

WYOMING: Temperatures below normal. Precipitation above normal.

Mixed rain and snow improved moisture conditions. Topsoil moisture adequate. Range and pasture conditions mostly good; need more moisture, many stockmen hauling water. Stock water supplies short to adequate. Small grain planting finishing. Corn 65% planted, 21% emerged. Potatoes 42% planted. Sugarbeets 72% emerged. Dry bean planting should start next week.

## World Weather and Crop Update

USSR. Spring planting continued under generally good conditions. By May 16, two-thirds of the sowing plan for all spring crops was completed. Moderate-to-heavy showers fell over much of the western part of European USSR as excessive rainfall was recorded in scattered places. Precipitation was spotty elsewhere. Excellent rains fell in the eastern Ukraine, but only light showers occurred in the southern Ukraine and in parts of the Central and Central Black Soil regions. In the Volga Valley, light-to-moderate showers fell in the upper and lower regions, however, Central Volga, which was in need of a good rain, was dry. Moderate showers fell in the southern Urals, an important spring wheat region which suffered from a moisture shortage. Spring planting was in full swing in the main agricultural areas of western and eastern Siberia and northern Kazakhstan; rain is needed throughout these regions to get the crops--mainly spring wheat--off to a good start.

ASIA. Weather in the People's Republic of China was characterized by heavy rainfall--excessive in places--in the rice growing areas south of the Yangtze River. Parts of Kwangtung Province which had suffered from drought received up to six inches of rain. However, rainfall was light over the major regions producing winter wheat, coarse grains, and soybeans to the north of the Yangtze. Crops in northern and northeastern China have been threatened by drought since the beginning of spring. India was seasonally hot with temperatures in the 90's and low 100's. Locally heavy showers fell in Uttar Pradesh in the North and in the rice growing areas to the extreme South. Only light scattered showers developed elsewhere. Planting of winter grains progressed in Australia under favorable conditions. Showers fell mainly along the coast; some scattered showers penetrated the grain areas in New South Wales and southwestern Australia.

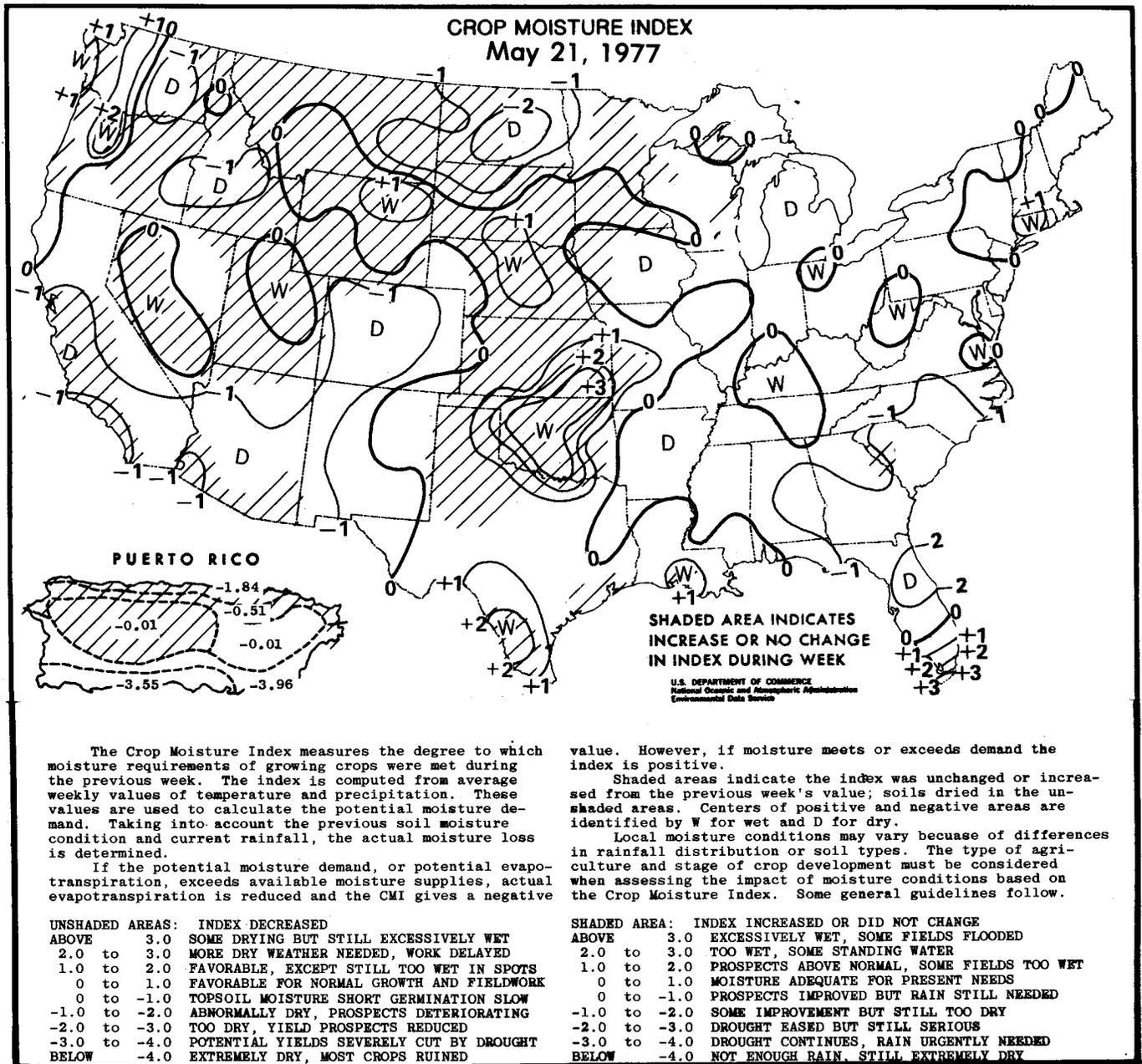
AFRICA. Significant rains dampened the wheat growing areas in Algeria and Tunisia, but precipitation was generally light in Morocco where rainfall has been below normal for nearly four months. Excellent harvest weather prevailed in South Africa during the reporting period.

SOUTH AMERICA. An early, light frost and high winds hit the coffee growing state of Parana in Brazil.

The effects on the coffee trees was not readily known, however, preliminary indications are that trees sustained only light damage. Light-to-moderate showers were generated by the cold front in Parana. Elsewhere in Brazil, scattered showers fell along the coastal areas and in the Central East region. Dry, cool weather in Argentina provided favorable conditions for harvesting and planting winter grains.

EUROPE. The cool, damp weather that has adversely affected part of western Europe for the past two months eased somewhat in some countries--United Kingdom, Denmark, and Benelux in particular--but heavy showers were widespread over northern France. Heavy rains also fell along the Mediterranean coast in France and northeastern Spain. Light-to-moderate showers also moistened central Spain, but it was dry in the south where rainfall was needed. Northern Italy continued to receive excessive precipitation while the southern areas suffered from a moisture shortage. Crop conditions continued generally favorable throughout eastern Europe as most of this region received some rain during the reporting period. Precipitation was light, however, in Bulgaria where soil moisture was well below normal and a good soaking rain was needed. Light-to-moderate showers fell in northern Greece, but the southern portion of this drought-stricken country was dry. Scattered light rains fell in Turkey, mainly along the northern coastal areas.

NORTH AMERICA. Timely rains continued to improve the outlook for spring wheat in the northern Great Plains of the United States and the adjacent Prairie Provinces of Canada. Despite substantial rains since early May, however, sub-soil moisture in these areas was well below normal. Heavy rains also fell in the heart of the hard winter wheat belt where crop prospects were vastly improved in recent weeks. Although the western Corn Belt received substantial rains, additional moisture was needed in parts of the eastern Corn Belt, especially Ohio. Timely rains covered the wheat regions in the Pacific Northwest, but there has been no improvement in the California drought. Recent scattered showers had little effect on the dryness that is threatening crops and pastures in the southeastern United States.





**FIRST CLASS MAIL**

**Planting Progress**

as of May 22

**SORGHUM**

	1977	1976	Avg.
Colo.	24	22	17
Kans.	25	15	15
Mo.	64	35	34
Nebr.	55	40	30
Okla.	26	39	32
S. D.	22	23	17
Tex.	74	77	75
7 States	50	45	42

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

**SOYBEANS**

	1977	1976	Avg.
Ala.	45	40	41
Ark.	50	41	32
Ga.	29	43	33
Ill.	78	65	45
Ind.	50	55	25
Iowa	86	67	38
Kans.	20	10	15
Ky.	33	21	22
La.	61	32	27
Mich.	45	10	10
Minn.	79	75	47
Miss.	52	37	23
Mo.	60	34	29
Nebr.	40	40	25
N. C.	58	40	36
Ohio	65	65	40
S. C.	27	28	30
Tenn.	60	40	30
U. S.	62	50	34

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

**CORN**

	1977	1976	Avg.
Ga.	100	100	NA
Ill.	98	95	83
Ind.	90	95	65
Iowa	100	100	80
Kans.	85	80	75
Ky.	82	90	74
Mich.	90	55	50
Minn.	95	96	78
Mo.	97	85	71
Nebr.	90	90	80
N. C.	98	95	90
Ohio	90	95	70
Pa.	69	72	NA
S. D.	87	79	66
Tex.	98	99	97
Wis.	90	75	55
U. S.	93	91	75

These 16 States produced 92%  
 of the 1976 U. S. corn crop.

**COTTON**

	1977	1976	Avg.
Ala.	99	100	NA
Ark.	99	95	92
Ga.	100	100	NA
La.	99	84	72
Miss.	98	94	83
Mo.	99	100	84
N. C.	98	97	94
Okla.	20	21	31
S. C.	98	96	94
Tenn.	95	93	87
Tex.	59	68	69
11 States	74	77	73

These 11 States produced 67%  
 of the 1976 U. S. cotton crop.

NA - Not Available.

