

WEEKLY WEATHER AND CROP BULLETIN

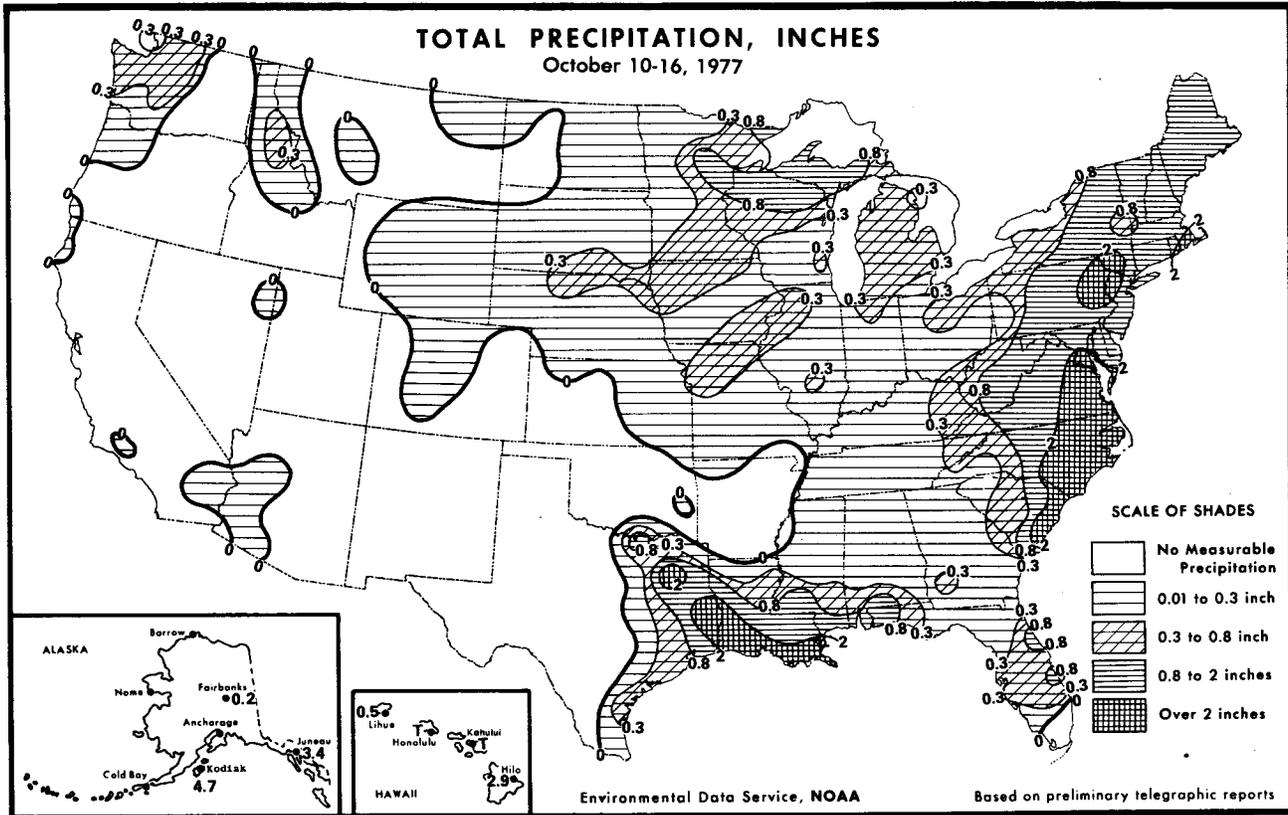
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National Weather Summary

October 10-16

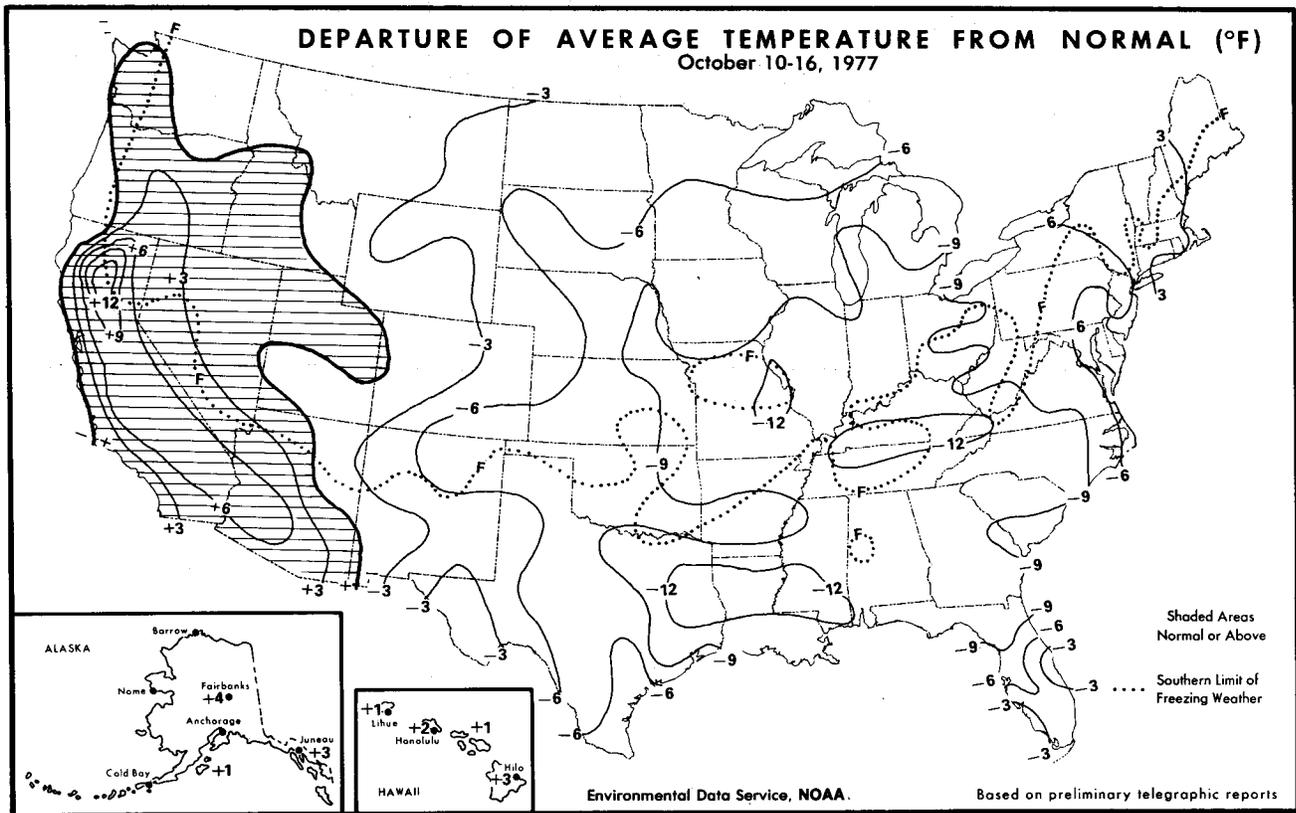
HIGHLIGHTS: Little or no precipitation fell on most of the Nation except the western Great Lakes, south central Gulf Coast, and the East from the Carolinas to Maine. Rainfall measured between 1 and 3 inches in several of these sections, and there was snowfall in the mountainous regions of Pennsylvania and Virginia.

Temperatures were unseasonably chilly for this time of year over most of the country. Readings dipped to freezing as far south as southwestern Texas and ranged 10 to 13° below normal in many portions from the center of the U. S. eastward to the Atlantic Coast. Much of the Intermountain Region westward to the Pacific Coast was warmer than normal including some areas of northern California soaring 12° higher than expected.

Cold, moist air blustered southeastward from the northern Rockies on Monday bringing rain and

some snow from the central Plains to Minnesota. Sheridan, Wyo., reported more than 8 inches of snow, the heaviest accumulation this early in the season since 1908. Showers also dotted an area from east central Texas across Louisiana; Lake Charles, La., measured more than 1 inch. Flooding subsided in south central Arizona after the previous week's rain.

Showers were scattered over the Great Lakes on Tuesday morning, and a few snow flurries salted northern Michigan. Light rain continued from the lower Mississippi Valley through the Atlantic Coast and from Florida through New Jersey. Meanwhile, a large mass of cold air was moving southward giving Dixie a taste of winter before some of the States to the northeast. Lake Charles received more rain upping the total to nearly 3 inches while Mobile got more than 1 inch and Cocoa Beach, Fla., saw an inch and one-half.



Cold temperatures for the day included 20° at Goodland, Kans., and 9° at Laramie, Wyo.

A strong high pressure system over the western two-thirds of the Nation brought frosty temperatures to the Midwest and southward on Wednesday. Readings in the 30's and below were common from Nebraska to Texas. Showers, some heavy, fell along the South Atlantic Coast and in northern Florida; Myrtle Beach, S.C., was soaked by more than 1 inch of rain. Light rain dampened northern New England and the lower Great Lakes. Western Washington also had light rain after a weak frontal system edged into the Pacific Northwest.

High pressure on Thursday meant fair skies for most of the country except the middle Atlantic Coast States where it rained. More than 2 inches covered Cape Hatteras before moving northward.

This same high pressure also delivered record cold temperatures; 17 cities broke or tied readings from Michigan to Texas to Florida. Shreveport, La., 34°, and Mobile, Ala., 41°, marked their chilliest temperatures ever for this early in autumn.

A low pressure system off the North Carolina coast sent high winds and locally heavy rain inland on Friday. The rain worked its way up the coast to New England by the end of the day. More than 1 inch of rain covered New Bern, N.C., and Richmond, Va. The coastal areas of Delaware and New Jersey experienced some erosion. Most of the remainder of the Nation enjoyed clear weather excepting a few showers in Nebraska, South Dakota, and Wisconsin.

The high temperature for the day was 104° at Palm Springs. However, 25 stations reported

record-breaking or tying readings--mostly in the Southeast. Huntsville, Ala., notched 34° while Key West, Fla., had its coolest temperature ever this early in fall, 67°.

The intense storm which pounded the northern Atlantic Coast Friday began to lose its grip early Saturday. Precipitation was rather light most of the day; showers and an occasional thunderstorm traveled the boundary of cool air as it moved eastward over the Appalachians. Another front broke over the Pacific Northwest triggering showers along the Washington and Oregon coasts.

Temperatures once again were cool in many sections. Apalachicola, Fla., established a record for the day of 39°, a 14° plunge from the 1961 low mark. The mercury also dropped to new readings in New Orleans, Columbia, S.C., and Raleigh, N.C., as well as six other Florida cities.

Chilly, wet weather accompanied a cold front that pushed to the East Coast from Virginia to New England. Some higher elevations and colder reporting points had snow. Bradford and Phillipsburg in north central Pennsylvania were whitened. Rain from the Ohio Valley to the Atlantic Coast measured from one-half to one inch. A few showers dotted the Oregon/California border and there were isolated thunderstorms in the desert sections of southeastern California and southwestern Arizona.

Temperature extremes included record highs at Grand Junction, Colo., 80°, and Casper, Wyo., 78°. Balancing the scales were record readings of 51° at Tampa, 31° at Oklahoma City, and Detroit's 27°.

National Agricultural Summary

October 10 - 16

HIGHLIGHTS: Fall crop harvesting methodically continued, but picked up slightly as cooler than normal and freezing, damp weather covered a large portion of the Nation east of the Rocky mountains. Southern row crop harvest was helped by the cool open weather while many northern States began to dry out in various degrees. Corn, sorghum, and cotton harvest neared the 50% mark and were all ahead of average. Soybeans lagged at 33% completion compared with a 47% average. Winter wheat seeding at 80% nearly caught up with the 84% average. The frosty weather helped defoliate cotton and soybeans, but may have hurt some vegetables in northeastern States. Areas of Texas and the west slope through central California still needed moisture to insure crops in 1978.

SMALL GRAINS: Winter wheat seeding for the 1978 crop made good progress and was 80% complete, very close to last year's 83% and the 84% average for this date. Cool, generally open weather was the key to many farmers finishing their winter wheat seeding.

Kansas and Nebraska 1978 winter wheat crops were 90% planted by week's end, about equal to normal. Oklahoma's 85% progress was ahead of normal while Texas at 72% complete was just behind. The lack of moisture in Texas has delayed some wheat seeding, although many areas are now being finished up in dry soils. Missouri, Ohio, Indiana, and Illinois were among the north central States where damp weather continued to delay wheat seedings which were well behind average. Fall plowing made further progress and was completed in various localities to the south of the north central States.

CORN: Corn harvest generally continued at a slow pace where possible in north central States while southern areas enjoyed mild, cool weather and progressed ahead of normal.

In the east north central States harvest reached 33% compared with 28% last year and the 24% average. This compared with 21% a week ago; fields were drying out.

In the west north central States, harvest reached 44% by week's end compared with 55% last year and a 31% average. Fields remained wet and muddy in many portions of these States.

Across the South harvest moved well reaching 83% completion in Georgia and North Carolina compared with the 64% average, and reached 77% completion in the south central States compared with a 59% average.

SOYBEANS: The Nation's soybean harvest reached 33% completion compared with 60% last year and a 47% average for this date. Corn harvest was again taking priority although the freezing conditions across the northern two-thirds of the Nation will enhance the drying conditions for soybeans.

East north central States were 46% complete compared with 64% average and west north central States were 37% complete compared with 57% average.

South central States reached 23% completion compared with 24% last year and the 22% average. Leaf shedding was well along in southern areas.

COTTON: Cotton picking was 42% complete in the eleven southern States, still over twice the 17% of a year ago and nearly twice the 22% average. Light frosts helped defoliate plants in northern areas of the Cotton Belt. Condition of the crop

appeared good in most areas. Early yields in Arkansas have been excellent on the first picking. Cotton harvest is in full swing in California; Mississippi had 52% of its acreage picked while Arkansas reached 59% completion. Texas had 38% of its acreage picked while bolls were 87% open in Oklahoma.

OTHER CROPS: Grain sorghum harvest proceeded at a slow pace reaching only 56% completion compared with last week's 49%, last year's 62%, and ahead of the average of 50%. The Texas harvest was well along with 86% of the acreage out. Yields were down on the High and Low Plains of Texas reflecting short moisture supplies since late summer. Sorghum harvest lagged in Kansas at 35% completion in favor of corn and soybean harvest. The same situation existed in Nebraska where only 45% of the acres were out compared with 50% normal for this date.

Rice harvest was in full swing in California, nearly complete in Louisiana, and 82% complete in Mississippi. Harvest lagged in Arkansas because the remaining acreage was down.

Peanuts ranged from 28% threshed in Virginia to 53% in Texas and over 70% in Georgia and North Carolina. The crop is fair to good.

Kentucky tobacco stripped at 11% was most advanced since 1958; an additional 49% is ready for stripping.

VEGETABLES: Florida vegetable harvest was increasing. Crops rated very good and plantings continued. Gadsden County tomatoes were good to excellent and Palmetto-Ruskin area tomatoes were fair to good. The Texas Lower Rio Grande Valley vegetable growth was good. Fall vegetables needed rain in east, central, and north Texas; lettuce was coming off fields in the High Plains. In California the broccoli, cauliflower, and celery harvests were heavy. Sweetpotato and fall potato harvests were in full swing. Some vegetable losses were expected in northeast United States from the continued damp, cold weather.

FRUITS AND NUTS: Most Florida citrus was in excellent condition with cool temperatures helping to color the fruit. Grapefruit harvest was active. Early citrus harvest continued in Texas. Pecans were beginning to fall in Florida, and Georgia pecans were mostly fair to good with 7% of the crop harvested. Pecans were fair in Alabama and many areas were harvesting pecans in Texas. In California the desert grapefruit crop was beginning and desert lemon yields were good. The California almond and walnut harvest continued. Cranberries were about 75% harvested in the New England States. Apple harvest was 80% to virtually complete for some varieties throughout the Great Lakes Region.

PASTURE AND LIVESTOCK: Pasture and feed supplies were good to excellent in much of the North Atlantic and north central States. Conditions were stable at fair to good throughout most South Atlantic and south central States. However, Texas culling of herds continued and supplemental feeding was necessary. Similar conditions existed in California while other western States showed slight improvement in livestock condition and range feed supplies.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Oct. 16, 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 . . .	53	-11	T	.6	La. Baton Rouge . . .	59	-11	.8	+	.2	Youngstown . . .	46	-8	.1	-.5
Mobile . . .	58	-12	1.1	+.5	Lake Charles . . .	61	-10	2.9	+	2.1	OKLA. Okla. City . . .	56	-8	0	-.6
Montgomery . . .	58	-9	T	.5	New Orleans . . .	61	-10	2.1	+	1.6	Tulsa . . .	55	-9	T	-.8
ALASKA. Anchorage . . .	---	---	---	---	Shreveport . . .	57	-12	.2	-	.4	OREG. Astoria . . .	53	0	.2	-1.3
Barrow . . .	---	---	---	---	MAINE. Caribou . . .	43	-2	1.1	+	.4	Burns . . .	52	+3	0	-.2
Fairbanks . . .	32	+4	.2	0	Portland . . .	47	-3	1.5	+	.8	Medford . . .	51	-3	0	-.4
Juneau . . .	46	+3	3.4	+1.6	MD. Baltimore . . .	53	-5	1.7	+	1.1	Pendleton . . .	52	-2	0	-.2
Kodiak . . .	42	+1	4.7	+3.3	MASS. Boston . . .	54	-2	1.5	+	.9	Portland . . .	56	+1	T	-.7
Nome . . .	---	---	---	---	Chatham . . .	52	-2	2.2	---	---	Salem . . .	52	-2	T	-.8
ARIZ. Flagstaff . . .	51	+3	0	-.3	MICH. Alpena . . .	43	-6	.3	-	.1	PA. Allentown . . .	51	-4	2.1	+1.5
Phoenix . . .	82	+8	0	-.1	Detroit . . .	43	-11	.1	-	.5	Erie . . .	46	-7	.7	0
Tucson . . .	76	+5	0	-.1	Flint . . .	44	-8	.6	+	.1	Harrisburg . . .	51	-6	1.7	+1.1
Winslow . . .	57	-2	0	-.1	Grand Rapids . . .	44	-9	.4	-	.2	Philadelphia . . .	52	-6	1.2	+.6
Yuma . . .	82	+5	0	-.1	Houghton Lake . . .	41	-8	.5	-	.1	Pittsburgh . . .	46	-8	.2	-.4
ARK. Fort Smith . . .	55	-10	T	-.8	Lansing . . .	44	-9	.4	-	.1	Scranton . . .	46	-8	2.5	+1.9
Little Rock . . .	57	-7	T	.6	Marquette . . .	45	-5	1.1	+	.6	R.I. Providence . . .	50	-5	2.6	+1.9
CALIF. Bakersfield . . .	76	+8	0	-.1	Muskegon . . .	43	-10	.5	-	.1	S.C. Charleston . . .	59	-8	2.2	+1.5
Eureka . . .	53	-2	T	.7	S. Ste. Marie . . .	42	-6	.4	-	.2	Columbia . . .	55	-10	.6	0
Fresno . . .	72	+7	0	-.1	MINN. Duluth . . .	43	-4	.6	+	.1	Greenville . . .	54	-9	T	-.7
Los Angeles . . .	71	+2	0	0	Internat Falls . . .	42	-4	.1	-	.3	S.D. Aberdeen . . .	45	-5	.1	-.2
Red Bluff . . .	78	+12	0	-.2	Minneapolis . . .	44	-8	.5	+	.1	Huron . . .	46	-5	.2	-.2
San Diego . . .	69	+2	0	-.1	Rochester . . .	43	-8	.6	+	.2	Rapid City . . .	46	-6	.1	-.1
San Francisco . . .	62	0	0	-.2	St. Cloud . . .	43	-7	.3	-	.1	Sioux Falls . . .	45	-7	.2	-.2
Stockton . . .	72	+7	0	-.1	MISS. Jackson . . .	54	-13	.3	-	.1	TENN. Chattanooga . . .	52	-10	T	-.6
COLO. Denver . . .	52	-1	T	.3	Meridian . . .	57	-9	.1	-	.4	Knoxville . . .	51	-11	.3	-.3
Grand Junction . . .	56	0	0	-.2	MO. Columbia . . .	49	-11	.2	-	.6	Memphis . . .	55	-9	T	-.6
Pueblo . . .	50	-6	T	.2	Kansas City . . .	49	-11	.4	-	.4	Nashville . . .	50	-12	T	-.4
CONN. Bridgeport . . .	55	-3	.8	+.2	St. Louis . . .	49	-12	.1	-	.5	TEX. Abilene . . .	59	-8	0	-.6
Hartford . . .	50	-4	1.3	+.7	Springfield . . .	51	-10	T	-.8	Amarillo . . .	55	-6	0	-.5	
D.C. Washington . . .	55	-6	2.1	+1.5	MONT. Billings . . .	49	-2	0	-	.2	Austin . . .	65	-6	T	-.7
FLA. Apalachicola . . .	61	-11	T	.6	Glasgow . . .	45	-3	T	-.1	Beaumont . . .	63	-8	1.1	+.3	
Daytona Beach . . .	68	-6	1.3	-.1	Great Falls . . .	49	-1	T	-.1	Brownsville . . .	72	-5	.1	-.7	
Ft. Myers . . .	75	-2	T	1.1	Havre . . .	48	0	0	-	.1	Corpus Christi . . .	70	-5	.6	-.1
Jacksonville . . .	61	-11	.3	-.8	Helena . . .	47	0	T	-.1	Dallas . . .	---	---	---	---	
Key West . . .	77	-3	T	1.3	Kalispell . . .	42	-2	T	-.3	Del Rio . . .	68	-4	0	-.5	
Lakeland . . .	70	-5	.4	.3	Miles City . . .	48	-3	T	-.1	El Paso . . .	61	-4	0	-.2	
Miami . . .	75	-3	T	2.0	Missoula . . .	45	0	T	-.2	Fort Worth . . .	58	-11	T	-.6	
Orlando . . .	72	-3	.1	.9	NEBR. Grand Island . . .	48	-7	.1	-	.2	Galveston . . .	67	-7	.6	0
Tallahassee . . .	59	-11	.2	-.5	Lincoln . . .	46	-11	.1	-	.3	Houston . . .	61	-11	.6	-.3
Tampa . . .	70	-6	.4	.2	Norfolk . . .	47	-7	.2	-	.1	Lubbock . . .	58	-4	0	-.5
W. Palm Beach . . .	73	-5	0	2.2	N. Platte . . .	48	-5	.1	-	.1	Midland . . .	61	-6	0	-.4
GA. Atlanta . . .	54	-10	.1	.4	Omaha . . .	48	-8	.3	-	.1	San Angelo . . .	61	-7	0	-.5
Augusta . . .	56	-9	.3	-.2	Valentine . . .	46	-6	.3	+	.1	San Antonio . . .	65	-7	0	-.7
Macon . . .	57	-10	T	.5	NEV. Ely . . .	49	+2	0	-	.1	Victoria . . .	67	-6	.3	-.6
Savannah . . .	59	-9	.3	-.4	Las Vegas . . .	73	+4	0	-	.1	Waco . . .	62	-8	.2	-.4
HAWAII. Hilo . . .	78	+3	2.9	+.5	Reno . . .	55	+4	0	-	.1	Wichita Falls . . .	58	-9	0	-.6
Honolulu . . .	81	+2	T	-.3	Winneucca . . .	51	+2	0	-	.1	UTAH. Blanding . . .	53	0	0	-.4
Kahului . . .	78	+1	T	-.2	N.H. Concord . . .	45	-5	1.0	+	.4	Salt Lake City . . .	55	+1	0	-.3
Lihue . . .	78	+1	.5	-.3	N.J. Atlantic City . . .	53	-5	1.5	+	.7	VT. Burlington . . .	45	-5	.9	+.3
IDAHO. Boise . . .	55	+2	0	-.2	Trenton . . .	51	-7	1.0	+	.4	VA. Lynchburg . . .	51	-8	1.8	+1.2
Lewiston . . .	53	0	T	.2	N.MEX. Albuquerque . . .	56	-4	0	-	.2	Norfolk . . .	57	-6	2.7	+2.0
Pocatello . . .	49	-1	T	-.1	Roswell . . .	59	-3	0	-	.3	Richmond . . .	52	-8	2.7	+2.1
ILL. Cairo . . .	52	-11	T	.6	N.Y. Albany . . .	48	-4	.5	-	.1	Roanoke . . .	50	-9	1.1	+.3
Chicago . . .	48	-9	.2	-.4	Binghamton . . .	45	-6	1.9	+	1.2	WASH. Colville . . .	46	-2	0	-.3
Moline . . .	47	-9	.5	-.1	Buffalo . . .	46	-7	.8	+	.2	Omak . . .	48	-1	0	-.2
Peoria . . .	47	-10	.1	-.5	New York . . .	53	-6	1.4	+	.8	Quillayute . . .	50	-1	.8	-1.8
Rockford . . .	45	-9	.3	-.4	Rochester . . .	47	-6	1.3	+	.3	Seattle-Tacoma . . .	54	+1	.3	-.5
Springfield . . .	49	-9	.1	-.6	Syracuse . . .	48	-6	1.1	+	.4	Spokane . . .	48	-1	T	-.3
IND. Evansville . . .	49	-11	.1	-.5	N.C. Asheville . . .	49	-9	.2	-	.6	Walla Walla . . .	55	-1	T	-.3
Ft. Wayne . . .	46	-9	.1	-.5	Charlotte . . .	52	-11	.7	+	.1	Yakima . . .	51	0	T	-.1
Indianapolis . . .	48	-9	.1	-.5	Greensboro . . .	49	-11	.9	+	.2	W.Va. Beckley . . .	44	-10	.8	+.2
South Bend . . .	46	-9	.5	-.2	Hatteras . . .	62	-4	3.4	+	2.3	Charleston . . .	49	-9	.9	+.3
IOWA. Burlington . . .	48	-9	.5	-.2	Raleigh . . .	50	-11	2.0	+	1.4	Huntington . . .	50	-8	.5	+.1
Des Moines . . .	48	-8	.2	-.3	Wilmington . . .	57	-9	3.2	+	2.5	Parkersburg . . .	48	-10	.4	-.1
Dubuque . . .	45	-8	.3	-.3	N.DAK. Bismarck . . .	45	-4	T	-.2	WIS. Green Bay . . .	43	-8	.2	-.2	
Sioux City . . .	46	-9	.3	-.1	Fargo . . .	45	-4	.1	-	.2	La Crosse . . .	46	-8	.2	-.3
KANS. Concordia . . .	50	-9	.1	-.3	Williston . . .	45	-3	T	-.1	Madison . . .	44	-7	.1	-.4	
Dodge City . . .	53	-7	0	-.4	OHIO. Akron-Canton . . .	45	-10	.3	-	.2	Milwaukee . . .	45	-8	.3	-.1
Goodland . . .	49	-5	0	-.2	Cincinnati . . .	45	-13	.2	-	.2	WYO. Casper . . .	48	-1	.2	0
Topeka . . .	50	-9	.1	-.5	Cleveland . . .	48	-7	.4	-	.2	Cheyenne . . .	46	-3	T	-.2
Wichita . . .	53	-8	T	-.6	Columbus . . .	47	-8	.1	-	.3	Lander . . .	46	-3	.2	-.1
KY. Lexington . . .	49	-10	.3	-.1	Dayton . . .	47	-10	.1	-	.3	Sheridan . . .	46	-3	.1	-.1
Louisville . . .	49	-10	.1	-.4	Toledo . . .	44	-10	.1	-	.4	P.R. San Juan . . .	82	+1	.4	-.9

Based on 1941-70 normals

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State Summaries of Weather and Agriculture

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

ALABAMA: A cool dry week. Temperatures averaged 10° below normal. Fieldwork: 4.9 days suitable. Soil moisture adequate.

Major activities included harvesting corn, cotton, soybeans and peanuts and seeding small grains. Cotton 33% harvested, 8% 1976, 19% average. Corn 78% harvested, 61% 1976, 53% average. Soybeans 14% harvested, 16% 1976, 21% average. Peanuts 52% combined, 82% 1976, 92% average. Pastures adequate. Pecans fair.

ARIZONA: Temperatures averaged above normal. No precipitation.

Cotton harvest increasing except southeast. Some southeast fields total losses, flood. Sorghum harvest active, nearing completion. Corn harvest standstill southeast. Sugarbeet harvest expected shortly southeast, conditions permitting. Beets, spring harvest good stand. Alfalfa hay swathing seasonally slow, some cutting underway. Planting, renovation winding down. Seedbed preparation underway small grains. Lettuce harvest stopped southeast, wet, muddy fields. Some lettuce south central, southeast completely washed out, flood. Lettuce, other mixed vegetables good progress central, west. Cantaloup harvest active Salt River Valley, western areas nearing maturity. Lemon, limited grapefruit harvest continued. Conditions improved lower, mid-elevation ranges. Some browse growing, more soil moisture needed. Cattle, calves lower ranges marked improvement, cattle higher mountain ranges very good condition.

ARKANSAS: Highest normal 68°, lowest normal 61°. Highest mean 61°, lowest mean 50°. Extremes: 82 and 28°. Record breaking low 37 and 32° October 13th at Little Rock and Fort Smith. Means 7 to 13° below normal. Most precipitation 0.42 in., least zero.

Soil moisture short in 17% counties, adequate 79%, surplus 4%. Soybean harvest 18% complete, 17% last year, average 18.8%. Yields sporadic. Late varieties maturing fast. Leaf drop increased due to frost. Condition good. Cotton harvest was 59% complete, 32% 1976, average 22.8%. Frost stopped regrowth of foliage promoting harvest. Yields excellent ranging a bale and one-half to three-fourths a bale on the first picking. Rice harvest slowed because of rice down. Harvest 89% complete, average 85%. Yields reduced because of blanking and lodging. Crop in fair condition. Corn harvest 82%, 96% 1976. Yields average. Sorghum harvest 88% complete, 90% 1976. Wheat planting 32% complete, 33% in 1976. Seeded behind soybeans. Oat planting 42% complete. The apple harvest continued. Frost damage to bermuda grass pastures. Hay supplies adequate. Hay harvest complete.

CALIFORNIA: The return of the thermal trough through the Central Valley and the large high off the Pacific Coast brought a dry week to the entire State. Temperatures averaged above normal in all areas with departures of as much as 7° in many areas.

Land preparation small grains, plantings increased. Field corn harvested grain, silage, sugarbeets dug. Soybeans windrowed. Rice harvest full swing. Dry beans cut, windrowed, thrashed. Milo harvested. Cotton harvest full swing, ginning active. California grapefruit end summer crop, beginning desert crop. Desert lemon yields

good. Some citrus mealy bug infestations. Navel oranges coloring well. Avocados were harvested. Avocados brown mite populations reported. Fair volume figs moved from Fresno area. Raisin grape varieties 95% boxed. Table grapes, wine varieties over 60% complete. Persimmon and pomegranate harvests increased. Almond and walnut crop harvesting continued. Broccoli, cauliflower, celery harvest heavy. Desert cantaloup, honeydew increasing. Lettuce beginning San Joaquin Valley. Market tomato, processing tomato declining. Sweetpotato, Fall potato full swing. Seed germinated by early rains show stress. Moisture needed to keep new grass growing. Hauling water, supplemental feeding necessary. Sheep moved to alfalfa stubble. Calving continues, most areas.

COLORADO: Two cold fronts during week. First one Monday, produced scattered show northern mountains and eastern foothills. Second front, Friday produced no precipitation. Sunny days, clear nights prevailed. Colder air resulted from fronts. Hard freeze over eastern portions of State. Temperatures in Platte River and Arkansas River basins 2 to 9° below normal. Elsewhere, 3 to 6° below normal.

Winter wheat seeding completed for 1977 season. Corn grain harvest 55% 1977, 28% 1976, 23% average. Alfalfa 4th cutting 51%. Sorghum 91% ripe; 20% harvested 1977, 12% 1976, 15% average. Soil moisture short to very short. Range and pasture poor west slope, fair elsewhere. Livestock good condition.

FLORIDA: A week of record low temperatures was set off by strong cold front covering the State at midweek and reaching the Florida Straights by Friday. Temperatures near normal early week but well below normal thereafter, especially north, central sections. Temperatures reached into the 30's parts of Panhandle and 40's in central area. Precipitation occurred ahead of the cold front with the most rain recorded in the north and central portions. Amounts ranged from none in parts of the south to over 2.00 in. at Melbourne. Soil moisture mostly adequate Panhandle, south, mostly short in north.

Peanut harvest active, soybean harvest increasing. Hay harvest active but declining some areas. Small grains being planted, up and growing in Panhandle. Sugarcane good condition. Pecans beginning to fall. Crop prospects very good. Pasture conditions remain fair to good, although soil moisture short northern counties. Some pastures overgrazed. Pest problems decreased. Cattle condition mostly good. Most citrus excellent condition. Few light showers, rain needed. Cool temperatures helped fruit color. Grapefruit harvest active, picking of other early fruit increasing. Vegetable harvest increasing. Crops very good condition. Plantings continue. Sweet corn harvest active, quality generally good. Pepper, cucumber, radish harvest gaining. Pole bean harvest full swing, quality excellent. Harvest increasing eggplant, squash, Gadsden County tomatoes, quality mostly good to excellent. Tomato harvest Palmetto-Ruskin area increasing, quality mostly fair to good. Most other vegetables in pre-harvest stage making good progress.

GEORGIA: Temperatures 4 or 5° below normal south, 7° below north. Temperatures mid-50's north.

Near 50° mountains, to low 60's central, and upper 60's southeast. Rainfall less than 0.25 in. south, around 0.50 in. central, and 2.00 to 4.00 in. northern quarter. 15th sunny and warmer. A cold front swept the State night of 15th and Sunday with scattered light rain under 0.10 in. north and central.

Soil moisture short to mostly adequate. Fieldwork: five days suitable. Peanuts mostly fair to good, 82% dug, 71% threshed; last year, 94% dug, 89% threshed; average 96% dug, 91% threshed. Corn rated poor, 81% harvested, 75% last year, 53% average. Cotton mostly poor to fair, 80% open, 74% last year; 27% harvested, last year 8%, average 23%. Soybeans rated fair to good, down from last week, 6% harvested, 4% last year, 7% average. Pastures mostly fair to good, unchanged. Cattle mostly fair to good, hogs fair to mostly good. Apples rated fair to good, 92% harvested, 94% last year. Pecans mostly fair to good, 7% harvested, 4% last year. Wheat seeding 29% complete, rye 37%, other small grains 35%. Last year, wheat 21%, rye 38%, other small grains 39%.

HAWAII: Weather favorable. Beneficial rains second half of week Kauai, Hawaii. Showers light and scattered other islands.

Heavy irrigation continuing some sections. Water level irrigation reservoirs low on Oahu. Spraying for insects, diseases frequent. Vegetable supplies--Chinese cabbage, bell pepper up. Tomatoes increasing. Others decreasing or light. Banana supplies heavy. Papaya supplies heavy, harvesting active. Pineapple harvest light. Sugar harvest steady. Some mills Maui expected to stop annual grinding October end. Pastures fair to good.

IDAHO: Temperatures 1 to 5° below normal. Daily highs 50's and 60's early in week and 60's and 70's by weekend. Precipitation limited to few areas north and southeast. Maximum 0.11 in. at Grangeville.

Fall harvest and field work rapid progress. Harvest of potatoes 80% complete compared to 75% in 1976. Dry bean combining virtually complete, 90% in 1976. Third cutting alfalfa 95% complete, same as last year. Barley planting 95% complete, 70% in 1976.

ILLINOIS: Temperatures: 9 to 12° below normal, cool period fourth straight week. Precipitation: 0.33 to 0.50 in. northern third, 0.10 in. elsewhere.

Corn 43% harvested, 29% 1976, 30% average. Soybeans 53% combined, 91% 1976, 76% average. Grain sorghum 55% harvested. Winter wheat 45% seeded, 72% last year, 71% average. Pastures mostly good. Soil moisture 58% adequate, 42% surplus. Fieldwork: 4.0 days suitable.

INDIANA: Cool week, temperatures averaged 10° below normal and declined to middle and high 20's in north and central on 17th. Precipitation 0.10 to 0.20 in.

Drying rates only fair because of temperatures, cloudiness, and light showers. Fieldwork: 4.0 days suitable. Topsoil and subsoil moisture mostly adequate to surplus. Pastures fair to good. Corn 30% harvested, 1976 25%, average 20%. Soybeans 35% combined, 1976 75%, average 50%. Wheatland 70% plowed, 1976 90%, average 85%. Wheat 30% seeded, 1976 65%, average 65%. Barley 65% seeded. Rye 45% seeded. Apples 85% picked, average 75%.

IOWA: A very cool week with subnormal precipitation. Temperatures averaged 8 to 10° subnormal with minima below freezing on one or more dates over most of the State.

Harvest continues slow because of wet field conditions. During the week; topsoil 1% short, 61% adequate, 38% surplus; subsoil 23% short, 67% adequate, 10% surplus. Fieldwork: 4 days suitable. Harvest well under varied all districts. Corn harvest 42% complete, 51% last year, 22% average. Corn borers and ear droppage are continuing problem. Soybeans 47% harvested, 99% last year, 59% average. Yields varied in both corn and soybeans. Winter wheat seeding 72% complete compared to 89% a year ago. Fall plowing slowed because of wet conditions. Livestock good to excellent with activity in feeder cattle increasing.

KANSAS: Temperatures averaged from 50° northwest to 54° southeast and south central or from 4° below normal northwest to 6 to 8° below normal elsewhere. Precipitation confined eastern 1/3, generally less than 0.25 in.

Freeze Kansas past week, should promote accelerated pace harvesting row crops. Wheat seeding 90%, last year, average 85%. Grasshoppers large numbers, reseeding small amount. Barley seedings 80%, equal last year, average. All corn mature, harvested 70%, last year 40%, average 35%. Sorghum 85% mature, last year 95%, average 60%. Harvesting sorghums lagging, 35% harvested, last year 45%, average 23%. Soybeans harvested 15%, last year 45%, average 35%. Sugarbeet, dry bean, sunflower harvesting underway. Pastures, ranges deteriorated slightly because freeze. Livestock grazing sudan, volunteer wheat, corn, milo stubble fields. Supplementary feeds ample quantities.

KENTUCKY: Temperatures averaged 5 to 7° below normal through the week. Precipitation generally less than 0.50 in. statewide. Fieldwork: 4.5 days suitable.

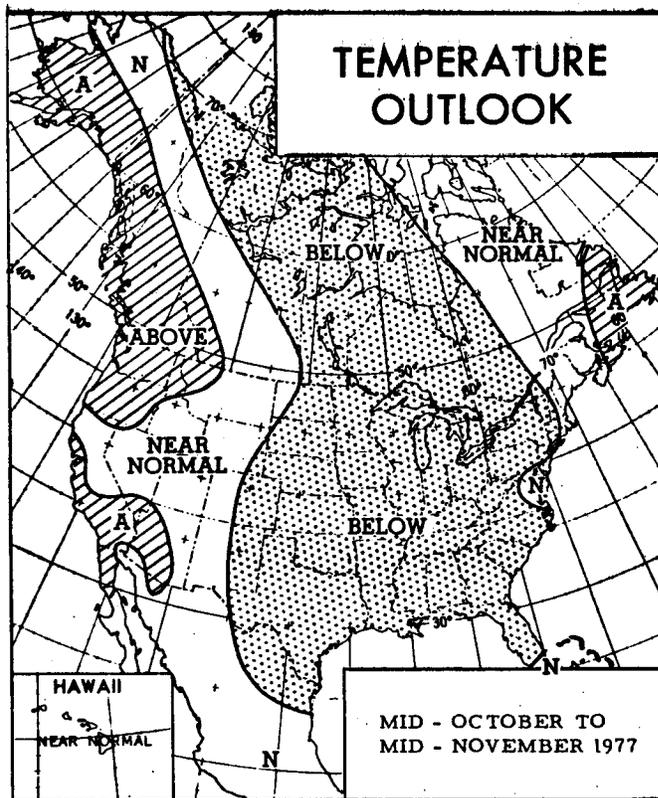
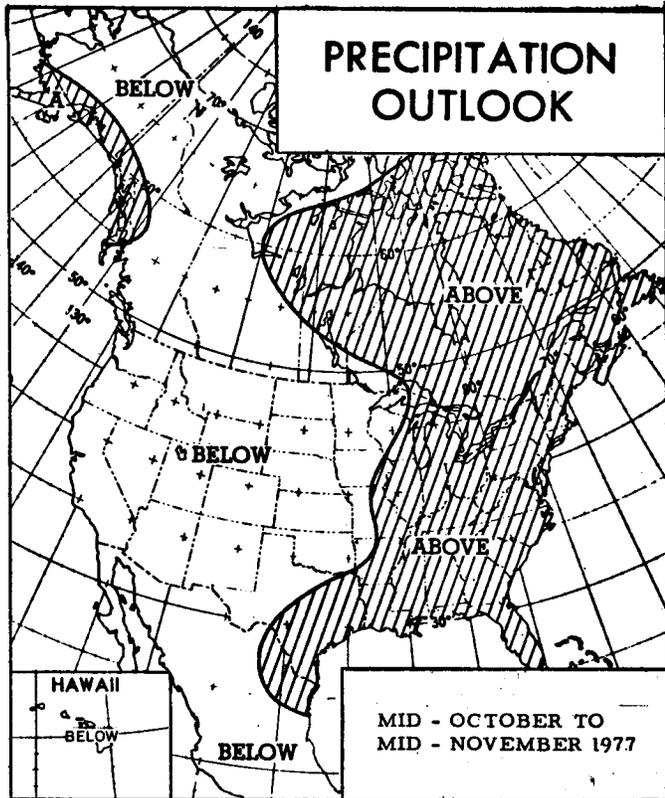
Wet soils limited harvest activities, especially in west Kentucky. Soil moisture reported 69% adequate, and 30% excessive. Corn picking, combining soybeans, tobacco curing and stripping, seeding small grains and cutting late hays were common activities. Corn for grain harvest at 54% is ahead of last year's 40% and average of 38%. Boggy fields and lodged stalks still making harvest difficult. Soybean combining gaining momentum--26% cut compared with 29% last year and 30% average. Early frost has cut some late double cropped beans. Tobacco stripped at 11%, most advanced since 1958. Last year 10% stripped and average at this date only 5%. An additional 49% ready for stripping. 77% of dark-fired tobacco still being fired. Wheat seeding 33% complete, 35% last year and 52% average.

LOUISIANA: Temperatures 8 to 11° below normal. Extremes: 33 and 82°. Widespread rain 10th.

Soil moisture short north, adequate elsewhere. Main activities: Harvesting cotton and soybeans, seeding small grains and winter pastures, and caring for livestock. Cotton fair to good; 87% open, 91% last year, 78% average; 43% harvested, 33% last year, 22% average. Soybeans fair to good; 84% turning color or past; 38% harvested, 49% last year, 38% average. Rice harvest near complete. Corn 93% harvested same as year ago. Sorghum 93% harvested, 88% last year. Sugarcane good; harvest becoming active; 57% planted, near complete last year. Sweetpotatoes fair; 72% harvested, 79% last year. Wheat 21% seeded, 49% last year. Oats 22% seeded, 59% last year. Pecans fair to good. Hay fair to good. Pastures and livestock fair to good.

MARYLAND & DELAWARE: Temperatures averaged 5° below normal. Highs mid 60's, lows 40's except western Maryland highs 50's, lows 30's. Precipitation

Average Monthly Weather Outlook



tation widespread 1.00 to 3.00 in. Weekend cool, rain Sunday evening.

Soil moisture adequate. Pasture conditions vary throughout both States. Corn for grain 80% harvested, 55% 1976, 58% average. Soybeans 90% shed leaves. Harvesting 20%, 15% 1976 and average. Tobacco growers stripping crop, seeding cover crops and preparing plantbeds. Fall apple harvest should end this week. Seeding of small grains continues.

MICHIGAN: Temperatures averaged below normal: Range 10° below southeast and west central Lower to 4° below northern Lower; 4 to 6° below across Upper. Extremes: 21° west Upper, 67° south central Lower. Precipitation range 0.25 in. southeast Lower to near 1.00 in. western Lower; in Upper 0.30 in. east to over 1.00 in. near Marquette.

Fieldwork: 3.5 days suitable. Activity: Clipping dry beans, picking and chopping corn, digging sugarbeets and potatoes, chopping hay and seeding wheat. Soil moisture: Adequate to surplus. Pastures: 98% rated average or above. Corn harvested for grain 10%, 25% 1976, 15% normal, 70% for silage. Dry beans little advance over previous week. Soybeans 10% picked, 46% 1976, 32% normal. Hay 3d cut 70% cut. Wheat 45% planted, 90% 1976. Potatoes 70% dug, 79% 1976, 78% normal. Sugarbeets almost 10% dug, 22% 1976 and normal. Apples picked: McIntosh virtually complete; Red Delicious and Johathans over 90%, others 80%. Cabbage 85% picked. Carrots and celery picking normal.

MINNESOTA: Temperatures averaged near normal to 4 to 8° below normal south. Extremes: 79 and 20°. Precipitation totaled less than 0.25 in. west half

and 0.25 in. to 0.60 in. east half and locally to about 1.40 in. extreme northeast. Precipitation averaged 0.10 to 0.35 in. below normal west half and near normal east half except locally to 0.85 in. above normal to extreme northeast.

Harvesting resumed after rain delays, remains very slow in east central from wet fields. Wet spots elsewhere make harvesting difficult. Soybeans drying slowly. Farmers concentrating on corn picking. Percent harvested: Corn 50%, 1976 75%, normal 40%; soybeans 43%, 1976 98%, normal 75%; flax 89%, 1976 99%, normal 98%; sugarbeets 70%, 1976 79%, normal 71%; potatoes 89%, 1976 95%, normal 89%; sunflowers 65%, 1976 88%, normal 65%.

MISSISSIPPI: Temperatures 6 to 12° subnormal. Extremes: 28 and 87°. Greatest 24-hour rainfall 4.02 in. at Winona.

Soil moisture adequate to surplus. Fieldwork: 3.8 days suitable. Soybeans 89% shedding, 92% 1976; 60% mature, 57% 1976, 42% average; 27% harvested, 24% 1976, 20% average. Cotton 52% harvested, 24% 1976, 25% average. Rice 82% harvested, 85% 1976, 72% average. Corn 77% harvested, 66% 1976, 51% average. Sorghums 82% harvested, 85% 1976, 69% average. Peanuts 92% harvested, 84% 1976, 79% average. Pecans 12% harvested, 4% 1976. Hay crops 91% harvested, 93% 1976, 91% average. Sweetpotatoes 63% harvested, 71% 1976, 65% average. Winter wheat 44% planted, 59% 1976. Oats 41% planted, 58% 1976. Soybeans and cotton in fair to good condition. Pecans in fair condition. Pastures in good to fair condition.

MISSOURI: Below normal temperatures during week. Coldest temperatures in north, averaged 8° below normal. Frost several mornings during week.

Rainfall heavy northeast prairie, averaging over 1.00 in. West central Missouri had 0.75 in. Bootheel and northwest with 0.60 in. Rainfall spotty in Ozarks averaging 0.30 in.

Fieldwork: 2.9 days suitable. Corn 51% harvested, last year 62%, normal 41%. Soybeans 85% mature, last year 87%, normal 72%. Soybeans 20% harvested, last year 52%, normal 43%. Grain sorghum 59% harvested, last year 59%, normal 46%. Cotton 47% harvested, last year 18%, normal 34%. Winter wheat seeding 23% completed, last year 44%. Fall plowing 13% completed, last year 25%. Pasture condition good to excellent. Soil moisture adequate to surplus.

MONTANA: Dry week with temperatures averaging from 1° above to 3° below normal. Cool at first, becoming seasonally warm by week's end. Highs in the 70's common by end of the period.

Warmer weather good for late harvesting activities. About 30% sugarbeets dug, last year 55%--normal 40%. Potato harvest 65% done, last year 75%. Dry bean combining 70% done--last year 100%. Topsoil moisture adequate. Subsoil moisture short to adequate. Winter wheat mostly good condition. About 70% cattle and calves, 80% all sheep moved from summer pastures. Last year 60% all livestock moved. Earlier movement due summer drought. Livestock condition generally good but fair some localities.

NEBRASKA: Temperatures averaged 5 to 10° below normal. Heavy frost statewide October 11. Precipitation below 0.25 in. Panhandle and northern portions. None elsewhere.

Corn harvest 40% complete, 40% year ago, 30% normal. Sorghum grain harvest 45% complete, 70% year ago, near 50% normal. Soybean harvest near 40% complete, 75% year ago, 60% normal. Most winter wheat seeding completed. Wheat in good to excellent condition. Soil moisture adequate or better 85% of State.

NEVADA: Warm, dry Indian summer continues. Temperatures averaged above normal statewide. Extremes: 94 and 11°. No precipitation occurred.

Alfalfa seed harvest completed. Ideal weather for potato harvest, winter grain seeding. Livestock coming off high elevation summer ranges.

NEW ENGLAND: Week began and ended with rainy, windy weather. General rain amounts in excess of 1.00 in. occurred Sunday and Friday with exception of Monday. Scattered showers reported through area during the rest of the week. Temperatures were near or above normal as the week began but by midweek coastal gales brought cold temperatures in from north and northeast resulting in temperatures of about 10° below normal during the last of week.

Aroostook, Maine potato growers had 2 to 3 good days of harvest and have about 85% of the crop harvested. Main acreage remaining for harvest is in central Aroostook. Much silage corn remains to be cut in northern New England as wet fields prevent harvest. Cranberries about 75% harvested and dry-pick is being delayed by wet weather.

NEW JERSEY: Another cold wet week with temperatures averaging 6° below normal. Extremes: 32° at Newton and Neshanic station 11th and 71° at Pemberton and Atlantic City 16th. Weekly rainfall averaged 1.39 in. north, 1.40 in. central and 1.19 in. south. Heaviest 24 hour total: 1.50 in. at Flemington and Toms River 14th. Estimated soil moisture, in percent of field capacity, past week

averaged: 100% in all sections. Snow mixed with rain sighted in Newton and Neshanic station on 16th.

Temperatures quite cool accompanied by frequent rainfall has slowed development and harvest of several fall crops. Three-fourths of an inch of hail reportedly fell in south Jersey on the evening of the 16th. The extent of crop damage is not available at the time of this publication. Fall harvest continues to decline for most vegetables though lettuce and cabbage harvest has been active. White potato and apple harvest over 80% complete. Sweetpotato digging continues active. Harvest of cranberries and sweetpotatoes about 3/4 complete. Harvest of field corn and soybeans has been halted by rainfall and wet soil. Planting of wheat is expected to resume as soil conditions permit. Early planted cover crops making good growth.

NEW MEXICO: A dry week with near cloudless skies. (1.76 in. at Animas fell previous week.) A sharp front brought freezing temperatures to mountains and most northern sections Tuesday and Wednesday.

Frost occurred in the northern areas during the first part of last week. All crops in good condition. Cotton harvest continuing with 10% harvested. Alfalfa harvest continuing with the fifth cutting 75% completed in the southern areas. Cleanup operations following the frost are in progress in the north with the fourth cutting of alfalfa underway in those areas. Grain sorghum harvest is 40% completed. Corn for silage and grain harvest is continuing. Winter wheat seeding is 90% completed with the irrigated crop making acceptable stands but the dryland fields are hindered by short soil moisture. Fall lettuce harvest in progress in the Mesilla Valley. Ranges, fair to good. Livestock good.

NEW YORK: Rainfall ranged from 0.50 to 2.50 in., most areas above normal. Adirondacks had 1.00 to 6.00 in. of snow on 15th. Temperatures averaged 2 to 5° below normal. Extremes: 20° at Newcomb, 69° at Rochester.

Continued wet field conditions. Corn silage 40% complete, 65% 1976. Grain corn 10% harvested. No dry haying, some green chopping. Dry beans declining, losses expected. Sweet corn and snap bean harvests complete. Potato, vegetable harvesting operations at standstill. Abandonment of some potato and vegetable fields a certainty because of wet weather.

NORTH CAROLINA: Temperatures near normal beginning and end of week and 10 to 20° below normal midweek. Precipitation: 4.00 to 5.00 in. on coast, 2.00 in. in eastern Piedmont and Coastal Plains, less than 1.00 in. in mountain.

Fieldwork: 3.5 days suitable. Soil moisture: Adequate. Condition: Soybeans, cotton and pastures fair; peanuts fair to good. Harvested: Corn for grain 85%, 1976 76%, average 73%; peanuts dug 82%, 1976 64%, average 71%; peanuts threshed 72%, 1976 47%, average 55%; apples 78%, 1976 82%, average 78%; sweetpotatoes 71%, 1976 62%, average 61%; sorghum grain 72%, 1976 64%; cotton 25%, 1976 11%, average 15%; soybeans 6%, 1976 5%. Planted: Wheat 28%, 1976 21%, average 29%.

NORTH DAKOTA: Precipitation last week generally below tenth of an inch all divisions. This is below normal for this time of year and is a relief of the previous 3 weeks of above normal moisture. Temperatures over northern, central and east central divisions averaged near normal while west central and southern division temperatures from 3 to 5° below normal. Extremes: 78 and 17°.

With drier weather farmers are hoping to wind up harvest. By October 11, 3% of the hard red spring wheat and 6% of the durum remained to be harvested with sprouting a problem. Harvest of late season crops major activity currently. Quantities left to be harvested on October 11 were potatoes, 13%; sugarbeets, 62%; flax, 24%; sunflowers, 77%.

OHIO: Precipitation light, greatest 0.50 in. Marietta, least 0.50 in. Dayton. Temperatures below normal, record low 26° Toledo 13th, highest 71° Chesapeake. Killing frost night of the 16th.

Harvest activity slowed by wet fields north section of State. Fieldwork: Over 4 days favorable. Harvest completed: Corn 25%, 25% 1976, 20% normal; Soybeans 50%, 60% 1976, 55% normal; sugarbeets 10%, 20% 1976 and average, sugar content fair; popcorn 30%, 40% 1976, 30% average; potatoes 80%, 90% 1976, 85% average. Apple harvest 80%, slightly ahead of average. Grapes 90%, ahead of average. Tobacco stripping underway. Fall sown grains fair, 25% emerged. Wheat 60% seeded, 70% last year and normal. Soil moisture mostly adequate, surplus northern counties. Pasture condition good to excellent. Limited use of crop residue by livestock.

OKLAHOMA: Temperatures ranged from 7 to 10° below normal southeast, 2° above normal Panhandle. Little precipitation across State.

Topsoil moisture supplies short except northeast and east central. Subsoil moisture supplies generally adequate. Wheat rated fair to good; 59% up-to-stand, 40% 1976 and 47% normal. Wheat seeding now 85% complete; 83% 1976 and normal. Oats rated fair to good; 31% up-to-stand, 32% 1976 and normal. Barley fair condition, 28% up-to-stand, 26% 1976 and 32% normal. Corn harvest entering windup phase; 77% complete, 63% 1976 and 59% normal. Sorghum good condition with 85% mature, 85% 1976 and 91% normal. Sorghum harvest 22% complete, 36% 1976 and 27% normal. Cotton rated good, 87% has open bolls, 60% 1976 and 54% normal. Peanuts good condition with harvest 22% complete, 24% 1976 and normal. Soybeans rated good with harvest 16% complete, 6% 1976 and 13% normal. Native pastures and ranges declining, now rated fair to good. Livestock holding up well, still rated good.

OREGON: A few light showers were reported in western Oregon and over the northeast. Measurable amounts were less than 0.10 in. in most areas. Astoria was the wet spot with 0.25 in. of rainfall. Temperatures averaged near seasonal norms. Extremes: High 70's, mid 30's west; mid 70's, low 20's east.

Fall seeding and land preparation continued as weather was ideal all areas. Early sown wheat and barley emerging. Some hay and silage remain for harvest. Red clover seed harvest continues. Vegetable harvests continue. Potato harvest at varying stages of completion. Onions moving into storage. Pear harvest nearing completion, apples continue. Filbert harvest continues, walnuts approaching. Cattle are generally in good shape, pastures and ranges are greening from rains, feed situation is adequate at present.

PENNSYLVANIA: Cool week, wet east and central. Temperatures 4 to 10° below normal. Extremes: 67 and 24°. Weekly precipitation over 3.00 in. northeast to under 0.10 in. parts of west. Snow central and north mountains Sunday night with up to 10 inches higher elevations.

Fieldwork: 4 days suitable. Soil moisture half adequate, half surplus. Activities: Cutting corn silage; picking corn, apples; digging potatoes;

making hay; fall plowing; planting wheat and barley; cutting firewood. Potatoes 83% dug, same as 1976. Corn silage harvest 81%, 73% in 1976. Grain corn 17% harvested, 68% mature and safe from frost; in 1976 8% harvested and 57% mature. Fall plowing 91%, last year 83%. Wheat 78% sown, 64% last year. Barley 93% sown, 85% last year. Alfalfa hay 93% third cut, 60% fourth cut, quality fair. Feed from pasture above average for this date.

PUERTO RICO: Island average rainfall 2.33 in. or 0.50 in. above normal. Highest weekly total 8.96 in. at Fajardo. Highest 24 hour total 7.57 in. Temperatures averaged about 80° on coasts and 75° interior. Mean station temperatures ranged from 82 to 71°. Extremes: 96 and 62°.

SOUTH CAROLINA: Warmer than usual weather changed to below normal with temperatures dipping into 30's Friday, Saturday. Scattered frost in higher elevations of west. Highest temperature 81° at Charleston, Columbia Sunday with lowest temperature 32° at Walhalla Saturday. Heavier than usual rainfall central portion, sub-normal near mountains, south coast. Greatest 24-hour amount 1.08 in. at Florence Wednesday.

Soil moisture was adequate. Rainfall improved soybean crops, pastures, vegetables, emergence of winter grains. Tobacco marketing continued strong, most producers completing sales. Cotton in poor condition. Harvesting continued ahead of normal, picking, defoliation delayed due to rain, wind. About 40% now harvested. Corn harvest nearing completion. Farmers some areas can't sell their harvested corn because of excess aflatoxin. Soybeans in fair condition. Yields of early maturing varieties improved with rains. Fields maturing rapidly, responding to rainfall. Approximately 2% of acreage harvested. Pastures still furnish adequate grazing because of rains. Hay harvest 85% completed. Winter grazing, disking and planting continued. Emergence, stands good. Pecan harvesting is getting underway. Apple harvest is practically complete. Soybeans harvested: 2% 1977. Corn harvested: 95% 1977, 91% 1976, 81% average. Cotton harvested: 40% 1977, 19% 1976, 26% average.

SOUTH DAKOTA: Temperatures mostly 3 to 10° below normal. Extremes: 21 and 81°. Topsoil moisture adequate. Precipitation amounts less than 0.50 in. Season's first snow early week.

Wet fields slowing harvest. Progress much behind normal. Corn borer causing ear droppage. Potato and alfalfa seed harvests are underway. Corn harvested 23%, 1976 77%, normal 43%. Grain sorghum harvested 23%, 1976 87%, normal 57%. Soybeans harvested 35%, 1976 94%, normal 65%. Sunflowers 24% harvested.

TENNESSEE: Temperatures below normal. Precipitation light. Cattle condition good. Scattered light frost. Soil moisture adequate.

Farmers harvesting crops with excessive moisture. Soybeans mature 65% 1977, 45% 1976, 45% normal. Soybeans harvested 13% 1977, 13% 1976, 11% normal. Cotton bolls open 94% 1977, 55% 1976, 65% normal. Cotton harvested 52% 1977, 10% 1976, 25% normal. Corn mature 98% 1977, 94% 1976, 94% normal. Corn harvested 52% 1977, 41% 1976, 41% normal. Burley tobacco stripped 40% 1977, 35% 1976, 25% normal. Lespedeza hay harvested 93% 1977, 94% 1976, 95% normal. Fall plowing completed 77% 1977, 72% 1976, 77% normal. Wheat seeded 55% 1977, 50% 1976, 53% normal. Oats seeded 80% 1977, 77% 1976, 73% normal. Barley seeded 78% 1977, 72% 1976, 78% normal.

TEXAS: Rain eastern half State Monday. Cold front moved through Tuesday, precipitation mainly east, south Texas. Fair skies rest week over State. Temperatures 1 to 5° below normal Panhandle, north, far west Texas, 7 to 9° below normal Blacklands, east Texas, coastal sections. Rain-fall half inch below normal western third, three-fourths to 1.00 in. below normal central, eastern third.

Harvest cotton, corn, sorghum, soybeans continues ahead schedule as harvesting weather excellent during week. Yield prospects bright, cotton, soybeans. Wheat, oat seeding on schedule but many stands poor and rain needed for germination and growth. Replanting necessary many areas to establish stands. Cotton harvest continues rapid pace; light frost high Low Plains help defoliate stands. Sorghum yields high Low Plains reflect short moisture conditions since late summer. Corn harvest ahead schedule. Farmers disappointed with yields as they complete final stages harvest. Peanut harvest on schedule. Dry weather lowered yield potential. Aflatoxin showing up more than usual. Wheat seeding showing moderate progress behind last year. Farmers across State had to dry plant large part crop many dryland stands spotty or not emerged, except where recent showers occurred. Some irrigated stands making satisfactory growth. High plains stockers shipped in anticipation available grazing. Sunflower harvest rapid, progress well ahead schedule. Sorghum harvested 86% 1977, 77% 1976, 75% average. Corn harvested 97% 1977, 70% 1976, 77% average. Cotton harvested 38% 1977, 14% 1976, 21% average. Peanuts harvested 53% 1977, 52% 1976, 53% average. Soybeans harvested 28% 1977, 26% 1976, 9% average. Pecans harvested 2% 1977, 1% average. Sugarbeets harvested 19% 1977, 43% average. Wheat planted 72% 1977, 74% 1976, 80% average. Oats planted 63% 1977, 61% 1976, 74% average. Commercial vegetables: Lower Rio Grande Valley, vegetable growth good cooler weather prevails. Early citrus harvest continues. Upper Coast, greens, turnips, cabbage good growth. San Antonio-Winter Garden, cabbage, carrots progressing well. Laredo, fall vegetables planted. Honeydew harvest continues. Eagle Pass, cabbage, broccoli, cauliflower developing well. Cucumbers, bell peppers being harvested. East Texas, fall vegetables doing well need rain. North Texas, fall vegetables need rain. High Plains, harvest carrots, peppers virtually complete. Lettuce coming off fields. Pumpkins being moved. Trans-Pecos, lettuce growth good. Red chili harvest beginning. Central Texas, fall vegetable gardens need rain. Pecans splitting shucks throughout State; many areas harvesting. Range and livestock: Heavy culling herds continues; ranchers adjust to declining range pasture. Livestock condition holding up, but supplemental feeding is necessary. Wheat, oats little, no grazing except irrigated stands where moisture adequate to establish stands. Final cuttings hay baled east Texas.

UTAH: Fair and mild weather throughout the period. No precipitation reported. Average temperatures a few degrees cooler than last week. Averages ranged from 6° below normal to 3° above.

Winter wheat planting 92% completed. Soil moisture short in all but northern counties, where it was fair. Other crop harvest progress: Potatoes 74%, corn for silage 97%, corn for grain 43%, and sugarbeets 12%. Cattle and sheep movement from summer ranges continued--sheep 85% moved, cattle 78%. Most areas of State had felt serious frost by October 15th, but crops harvested early enough that little damage resulted.

VIRGINIA: Rainfall average 2.00 in. Temperatures 6° below normal. Extremes: 77 and 29°.

Topsoil moisture 33% short, 62% adequate, 5% surplus. Corn combining 71%, 42% 1976, 43% average. Soybean combining 6%, 12% 1976, equal to usual. Peanuts: Digging 48%, 44% 1976, 57% average; combining 28%, 20% 1976, 36% usual. Tobacco harvest virtually complete. Pastures fair, forage requirements 36% to dairy cattle, 82% to beef, 72% to sheep. Apples 69% picked, 79% 1976, equal to average. Small grains seeded: Wheat 24%, 32% 1976, 28% average; barley 56%, 52% 1976; winter oats 56%, 54% 1976. Fieldwork: 4.0 days suitable. Western snow and rains everywhere hampered activities at end of week.

WASHINGTON: West: Temperatures averaged 1° above normal southern portion to 5° above normal in the north. Light precipitation was about one-fifth of normal.

Most major harvest activity over. Sweet corn, cauliflower, squash, pumpkins, potatoes, and corn silage still being harvested some localities. Cranberry growers pruning and tying canes. Farmers are fertilizing, applying lime, and planting winter cover crops. Fall pasture in good condition.

East: Temperatures 1° below normal eastern portions, 4° below in central portion of State. Light precipitation--about 0.30 in. below normal.

Majority of apple harvest completed--some Winesap and Rome Beauty apples remain. Grape harvest essentially completed. Digging potatoes, baling hay, plowing and fertilizing were major activities. Sugarbeet harvest--held up by sugar plant worker strike--will begin October 17-21, about 3 weeks later than normal. Bulk of fall grain has been planted. Operators in some drier areas are holding off till spring--late seedings germinating slowly. Spraying to control aphids on wheat and limit spread of wheat virus. Additional moisture needed for good dryland crops next year.

WEST VIRGINIA: Temperatures below normal. Precipitation below normal northeast, near normal elsewhere. Snow higher elevations end of period. Soil moisture 21% surplus, 65% adequate, 14% short.

Fieldwork: 3.7 days suitable. Mostly haying, cutting, chopping corn, planting small grains. Hay: 2d cutting, virtually complete, ahead 1976 and average; 3d cutting 82%, 88% 1976, 82% average, wet hay hampering baling and barning operations; 75 to 80% of normal. Corn harvest 50%, 22% 1976, 38% average. Remaining crop 65% good, 35% fair. Potatoes 88% dug, 98% 1976, 93% average. Wet conditions hampering harvest. Tobacco harvest virtually complete in line with 1976 and average. Wheat sown 59%, 40% 1976, 48% average. Barley sown 62%, 56% 1976, 69% average. Pasture conditions, slight improvement, no frost damage reported.

WISCONSIN: Temperatures averaged 5° subnormal. First hard frost of season statewide 13th with low temperatures in 20's. Highs varied from 30's to 60's, warmest 14th. Strong cold front 10th produced widespread precipitation with heaviest rains up to 1.00 in. north and west, less than 0.50 in. elsewhere. First snowfall extreme northwest 10th, Minong reported 3.00 in. Sunny and warming temperatures after 11th, but cooler weekend.

Harvesting of corn and soybeans increased as weather and field conditions improved. Corn for grain 25% harvested, 1976 35%, normal 17%. Yields very good. Hard frost, sunshine, and winds helping to lower moisture content of corn. Silo filling finishing where too wet previously. Soy-

(cont. on page 19)

World Weather and Crop Update

September Review - October 17 Update

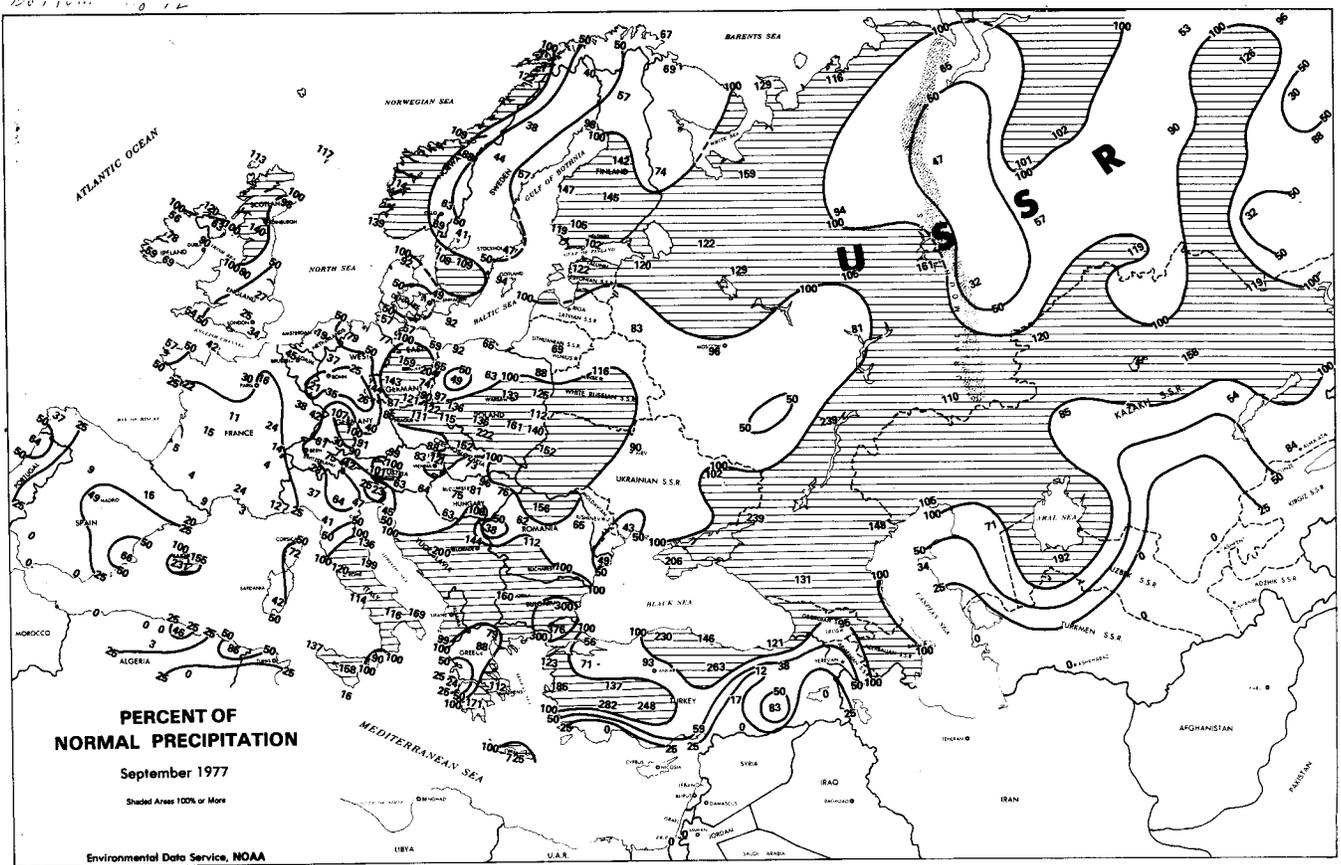
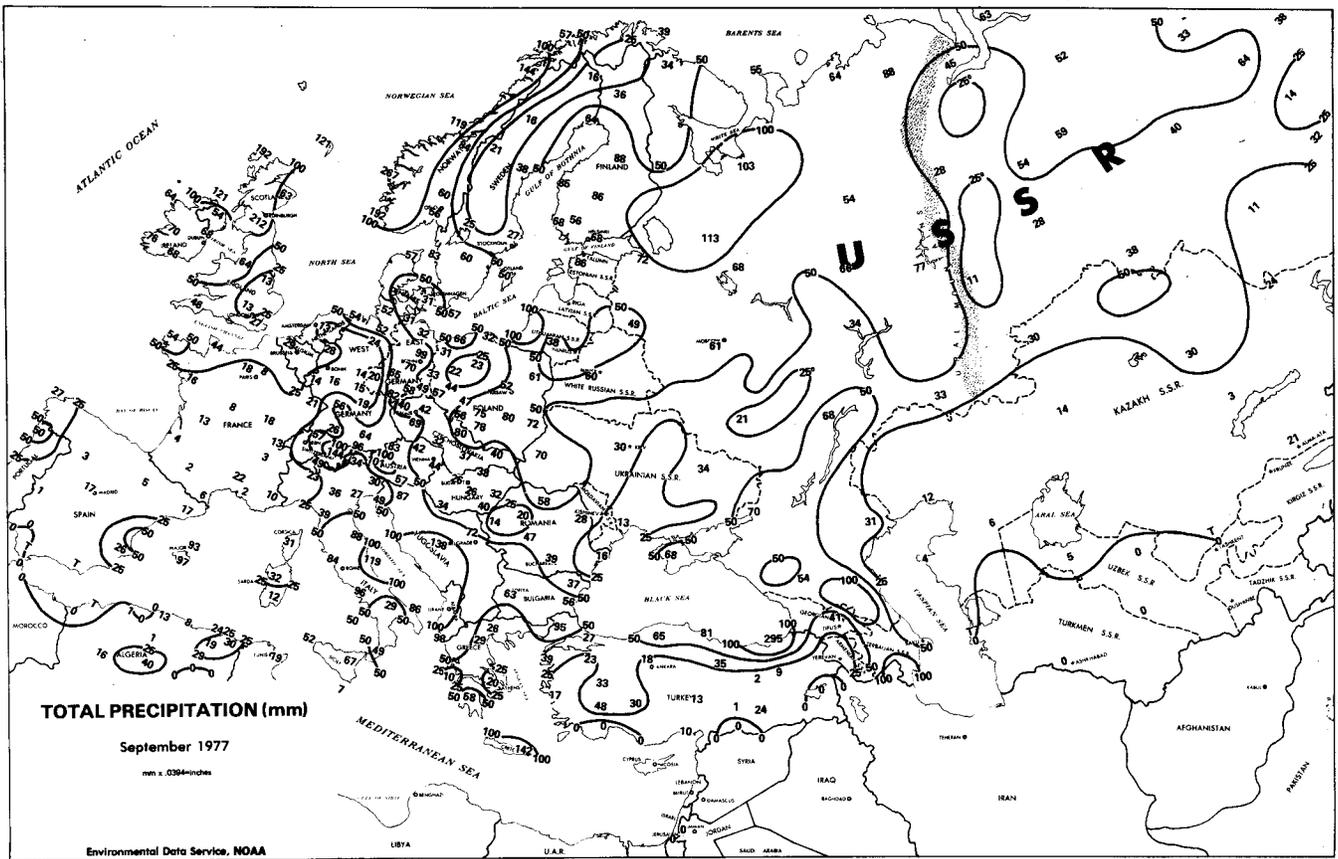
USSR. September was abnormally cool and damp over most of the agricultural areas in the USSR. Despite less than favorable weather, harvest activities, although slowed in some areas, proceeded at a more rapid pace than in recent years, excepting 1975 which was a drought year. Dry, warm weather in the first part of October in western Siberia and northern Kazakhstan permitted completion of the grain harvest in these important spring wheat regions. Harvesting of row crops in moving into final stages over most of European USSR aided by dry weather in mid-October. Excellent weather continued to prevail for the cotton harvest in central Asia, and a record crop is a strong possibility this year. Sowing of winter grains was virtually completed. Colder-than-usual temperatures prevailed in early October; frost was reported over all of the important agricultural areas in European USSR. Winter grains have stopped vegetation in the northern areas with stands generally well-developed. By mid-October, winter grains were still growing in Latvia, Lithuania, Belorussia, Ukraine, Moldavia, Lower Volga Valley, southern Urals, and the North Caucasus. Moisture conditions were adequate in most parts of the USSR for this time of year, and the condition of winter grains were generally favorable almost everywhere.

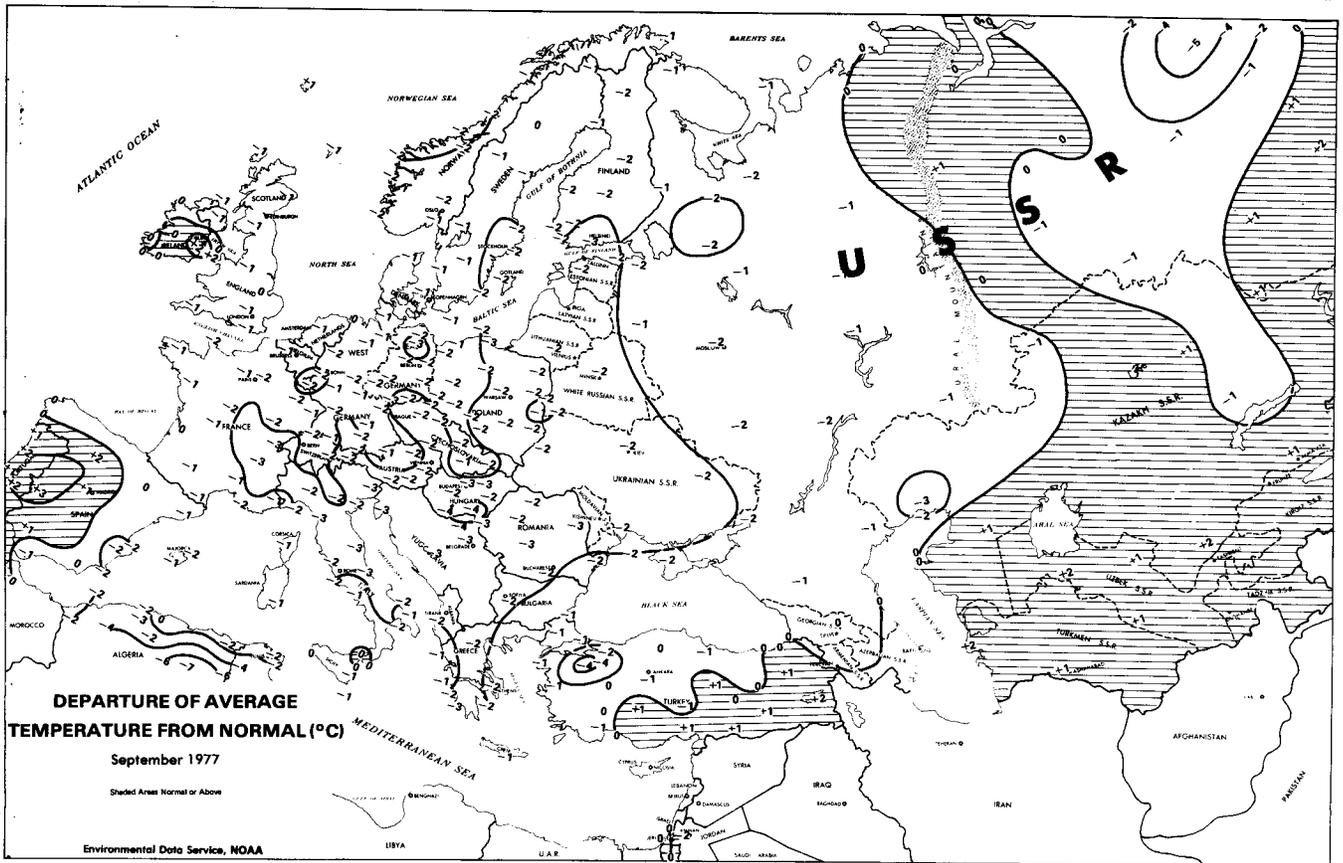
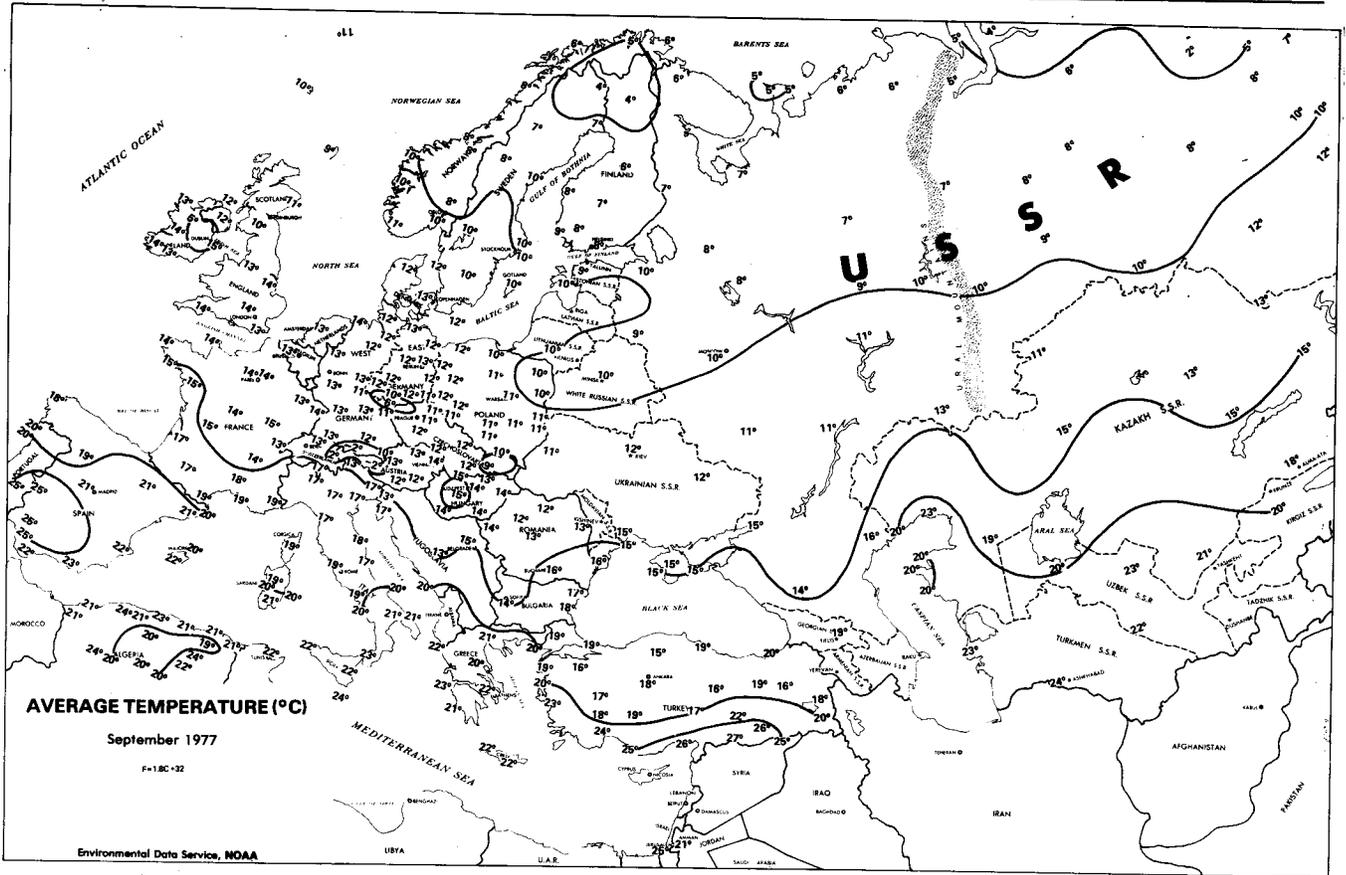
ASIA. In the People's Republic of China, September rainfall was well below normal over North China, including the northeastern provinces. Harvesting of coarse grains, vegetables, and industrial crops proceeded rapidly under favorable conditions in these regions; however, surface moisture was short in some nonirrigated areas and may pose problems for the winter grains sowing. Moisture supplies were generally adequate for late maturing crops south of the Yangtze River although rainfall in September and early October was below normal in some central provinces. India's monsoon continued active into September, but had withdrawn over much of the country by the end of the month. Post monsoonal activity, however, has continued strong into mid-October with heavy rains over the southern third of the peninsula. Overall behavior of this year's monsoon compared favorably with the excellent 1975 monsoon which resulted in a record food grain crop. Cumulative precipitation from June 1 to September 28 was normal or above in weather zones which account for about 90 percent of the total fall harvest of food grains. Furthermore, precipitation was timely and evenly distributed this year. In Australia, many parts of the major grain areas were experiencing serious or severe rainfall deficiencies by mid-October. July-September rainfall throughout southern Australia, which encompassed the major grain areas, was generally well below average resulting in widespread drought or near-drought conditions. Early October rains helped the situation locally, but soil moisture was short in most areas, and more rain was urgently needed to prevent further deterioration in crops and pastures.

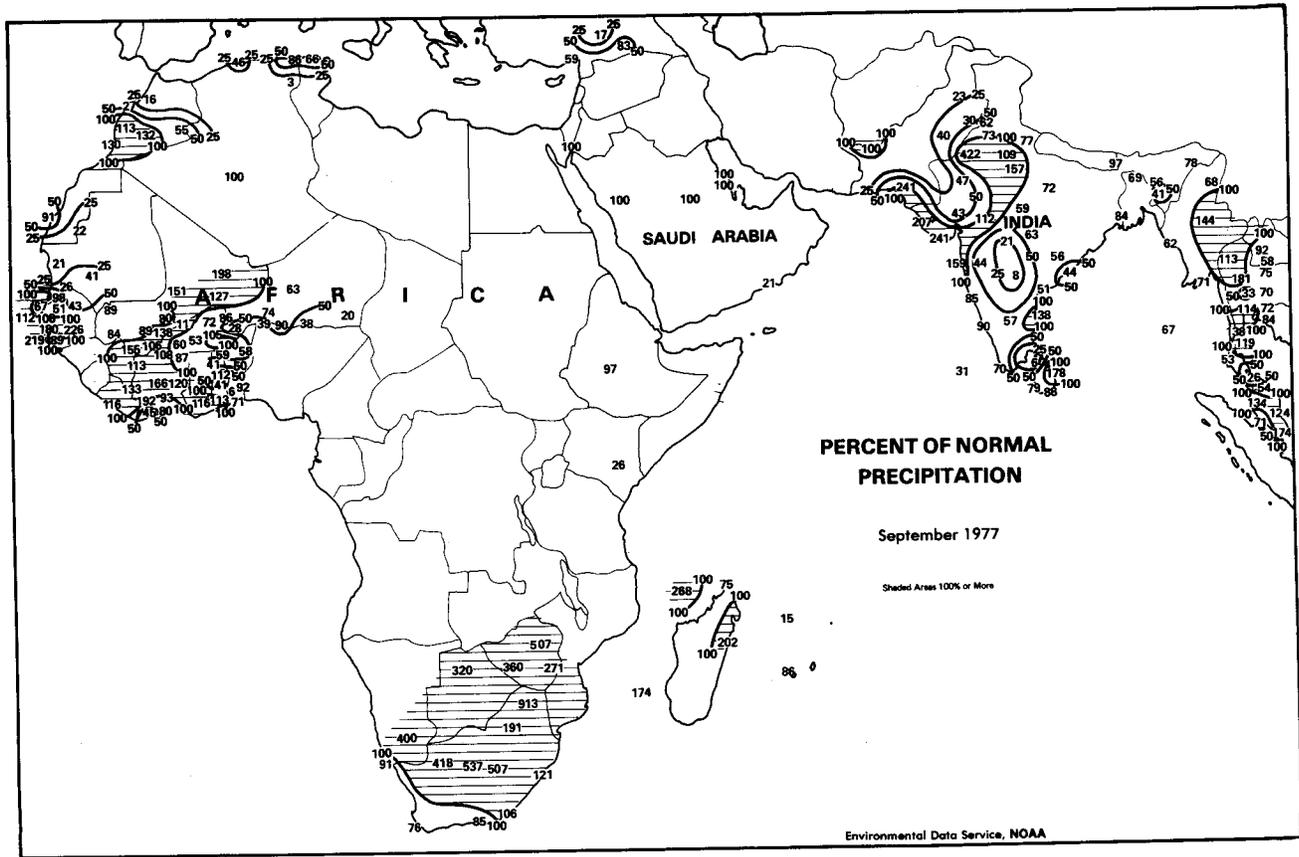
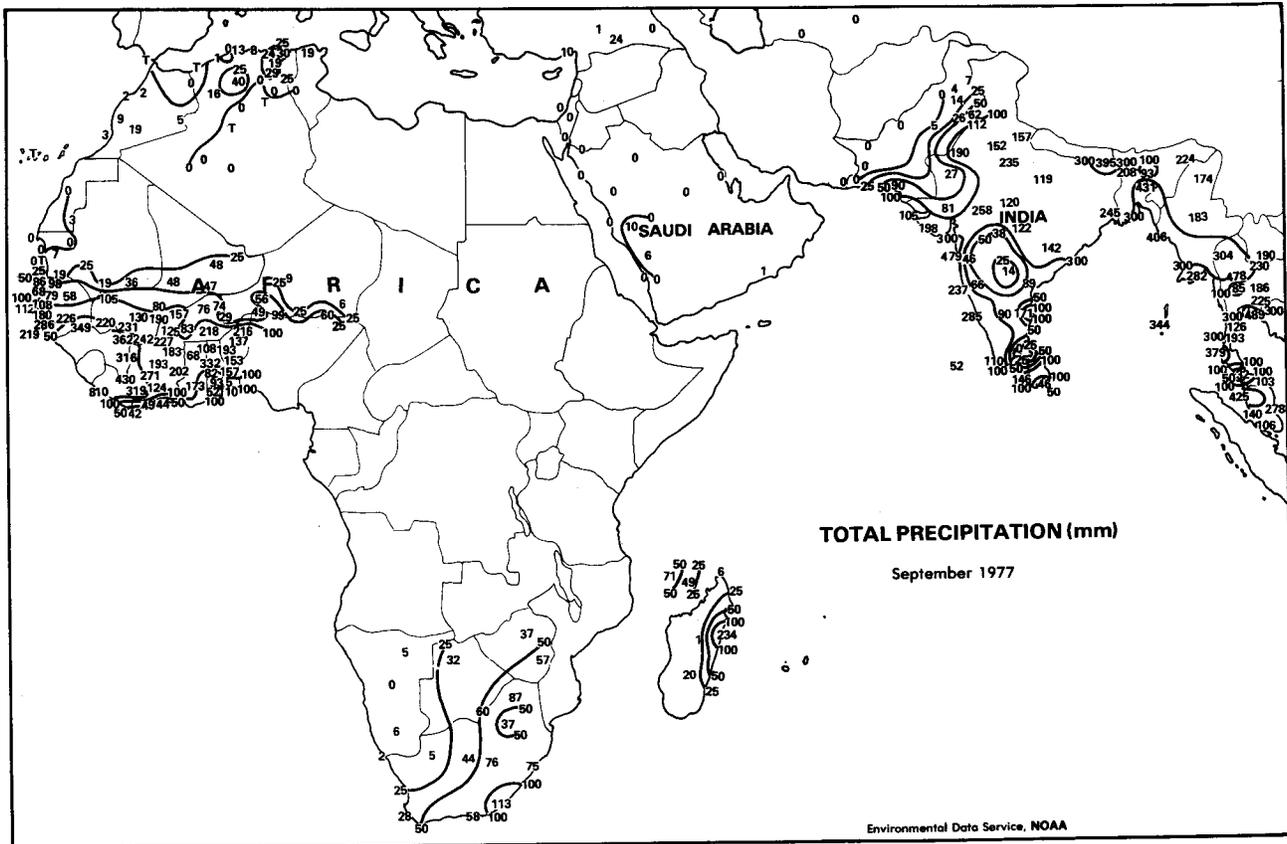
AFRICA. September precipitation was well below normal in North Africa--Morocco, Algeria and Tunisia--but October rains (heaviest recordings in Morocco) have improved conditions for fall planting while helping to revive pastures and rangeland. Unusually abundant September rains throughout the main agricultural areas of South Africa have helped early-sown crops and pastures. But drought continued to affect the western and northern areas of the Sahel, especially in the agricultural areas of Mauritania and Cape Verde Islands. Northern Senegal and those areas in Mali adjacent to Mauritania also have been affected by drought. Crops and livestock production also have suffered in parts of Niger, Chad, Sudan, Gambia, and Guinea Bissau from insufficient rainfall during the present monsoon season that is nearing an end.

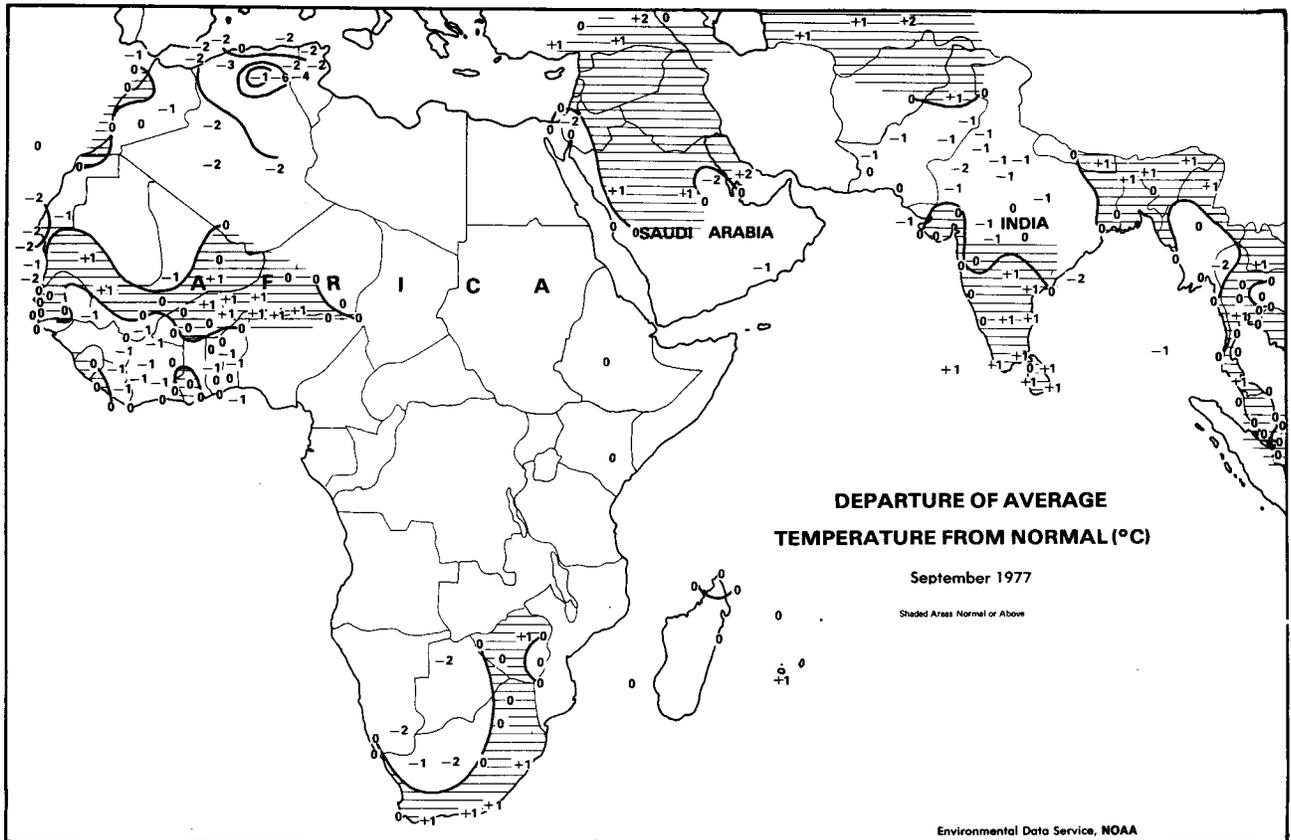
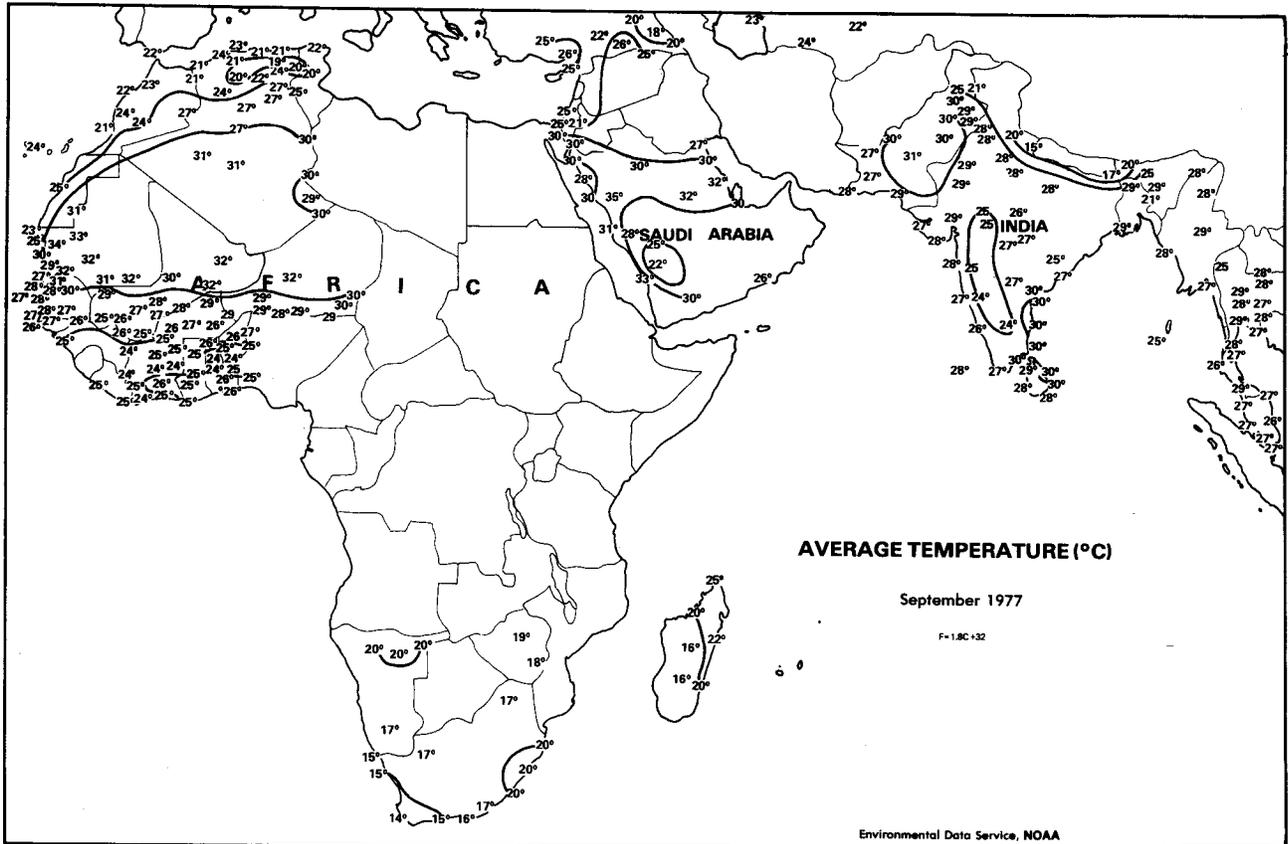
EUROPE. Temperatures were below normal over most of western Europe during September, but fortunately precipitation also was below normal, a welcome asset for harvesting and field preparation for fall sowing. Fairly heavy rains hampered field activities in early October, but some improvement was noted by mid-month as mild weather prevailed over most of the subcontinent. Soil moisture continued to be low in southern Spain despite early October rains which improved pastures and conditions for fall planting. Heavy rains during October brought floods to northern Italy, hindering harvest operations and fall planting. September rainfall was above normal only in East Germany, Poland and Bulgaria, but moisture reserves were generally adequate for fall planting throughout this region. Mild weather at mid-October permitted sowing of winter crops and harvest activities. Precipitation was below normal over northern Greece in September; parts of the central agricultural region in Turkey needed moisture for winter grain development.

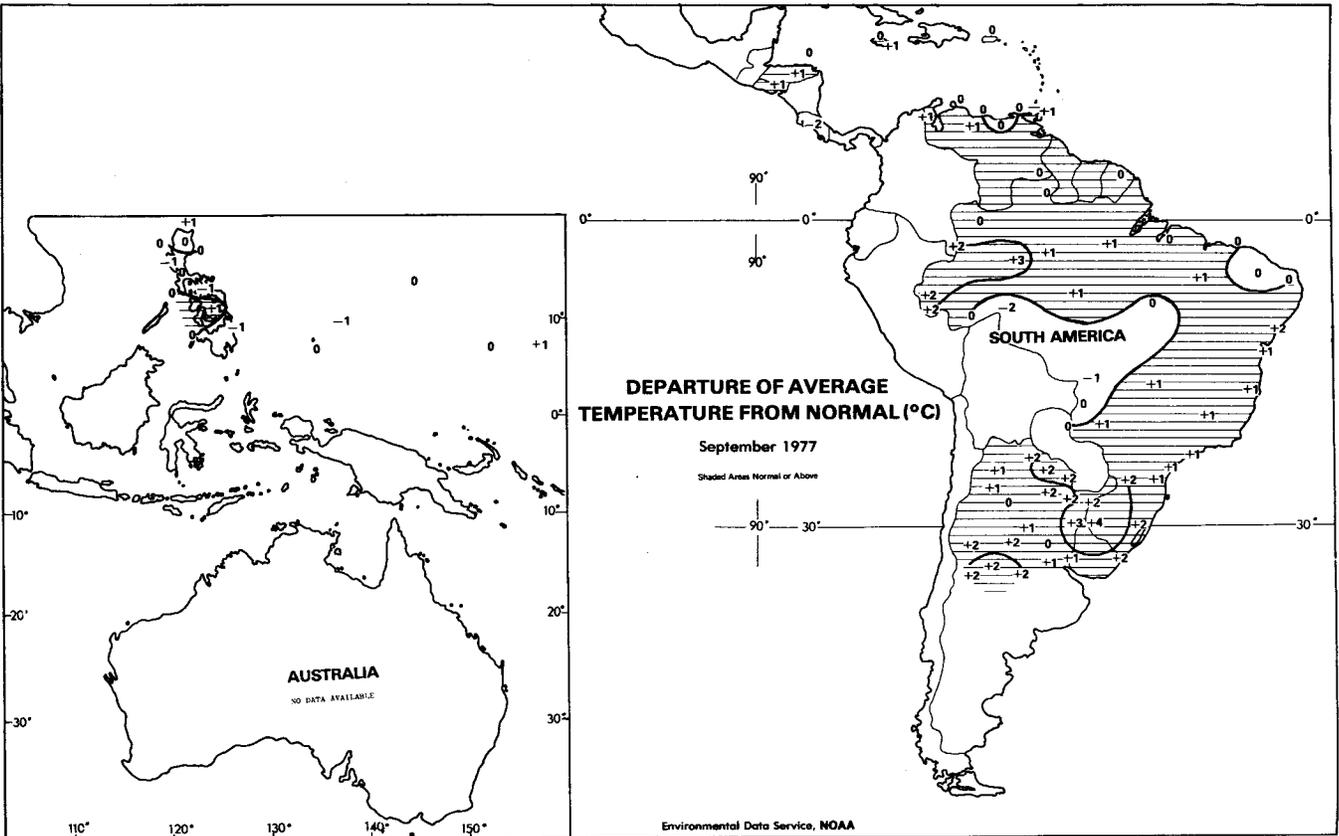
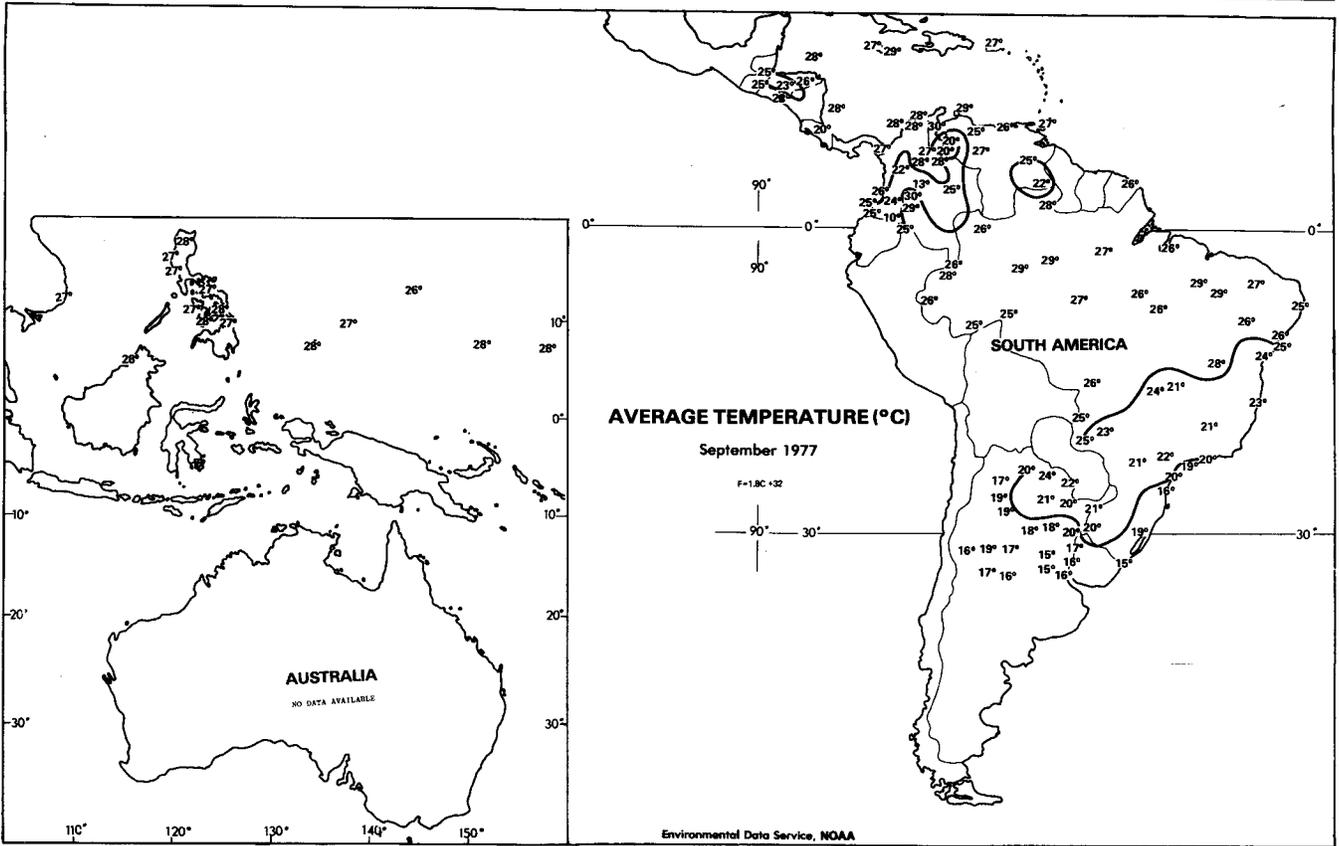
AMERICAS. Generous rains in early October broke a six-month drought in the western and southwestern parts of the Argentine grain belt and should help revive wheat and flaxseed crops and pastures in those areas. Conditions for sowing spring crops in these areas as well as other parts of the grain belt also have been greatly enhanced by the timely rains. September precipitation was above normal over northeastern Brazil, but somewhat deficient in Rio Grande do Sul, Brazil's most important wheat producing state. Mid-October rains should help spring sown crops as well as the maturing wheat crop in that State. But in the Canadian Prairie Provinces, the harvest of grains and oilseed crops has been stymied by cold, damp weather during the past six weeks. Although most crops have been mowed, a substantial portion remained to be combined.



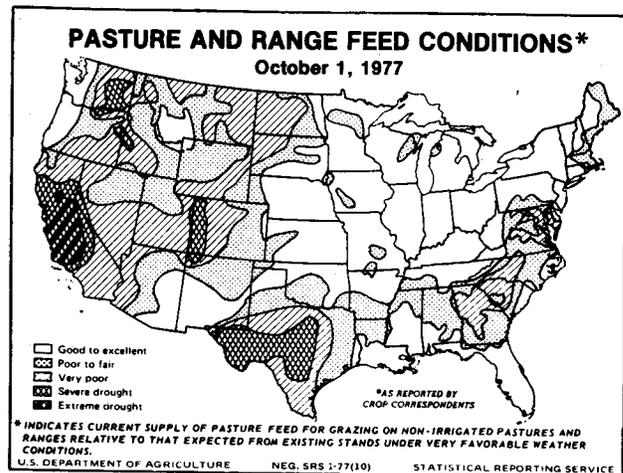
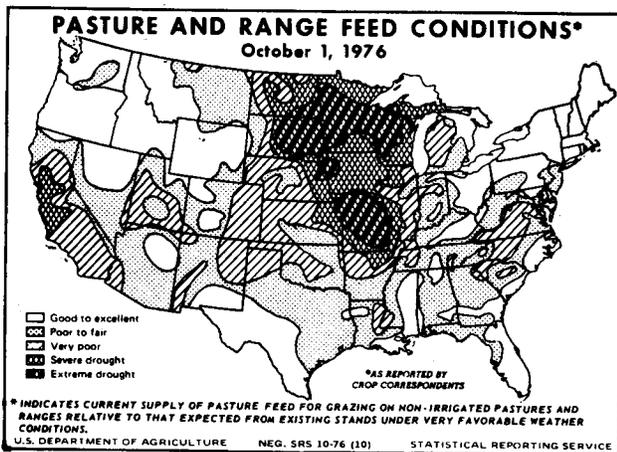
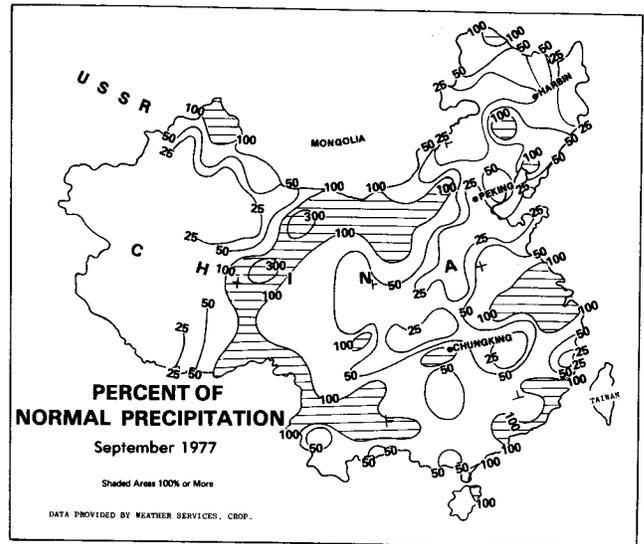
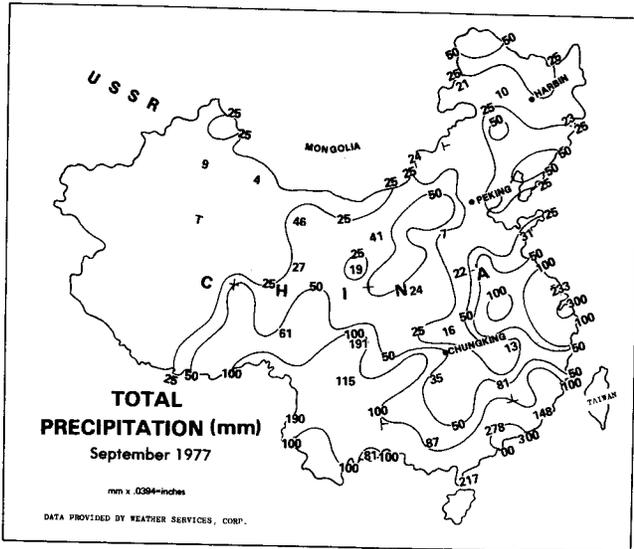


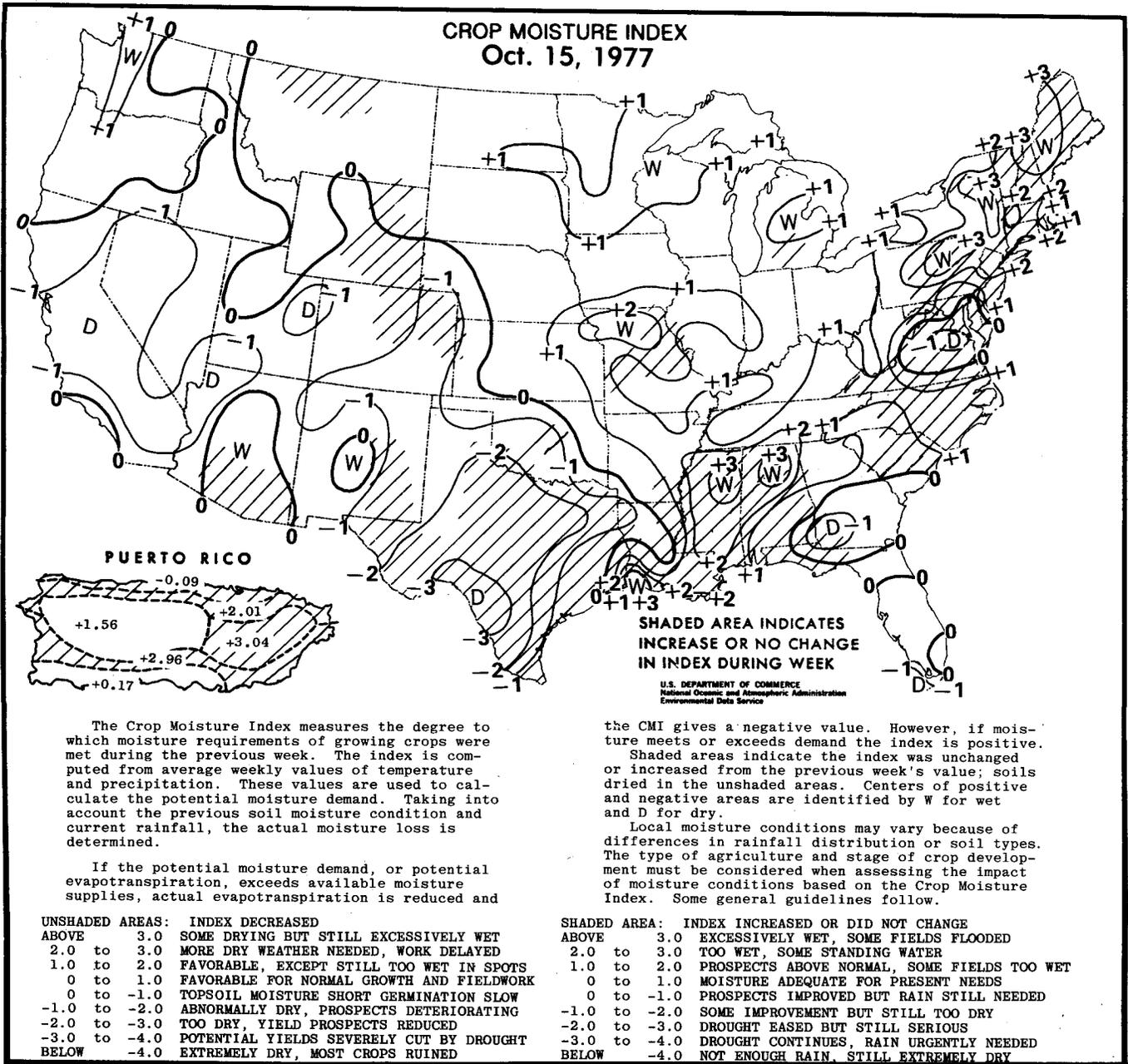






China Precipitation





The Crop Moisture Index measures the degree to which moisture requirements of growing crops were met during the previous week. The index is computed from average weekly values of temperature and precipitation. These values are used to calculate the potential moisture demand. Taking into account the previous soil moisture condition and current rainfall, the actual moisture loss is determined.

If the potential moisture demand, or potential evapotranspiration, exceeds available moisture supplies, actual evapotranspiration is reduced and

the CMI gives a negative value. However, if moisture meets or exceeds demand the index is positive.

Shaded areas indicate the index was unchanged or increased from the previous week's value; soils dried in the unshaded areas. Centers of positive and negative areas are identified by W for wet and D for dry.

Local moisture conditions may vary because of differences in rainfall distribution or soil types. The type of agriculture and stage of crop development must be considered when assessing the impact of moisture conditions based on the Crop Moisture Index. Some general guidelines follow.

(cont. from page 10)

beans 16% combined, 1976 40%, normal 20%. More concentration on corn harvest but soybean harvesting should accelerate after the hard frost. Fall plowing 17% done, 1976 15%, normal 25%. Plentiful moisture for plowing but emphasis on crop harvest. Fall pastures best in 5 years. Some late hay being cut after frost. Moisture good for fall growth of winter grains. Curing weather better in October for tobacco. Potato growers trying to complete harvest. Cranberry harvest continuing, apple picking nearing end. Topsoil moisture 2% short, 54% adequate, 44% surplus. Wettest northwest.

WYOMING: Temperatures all below normal. Upper Platte drainage reported lowest temperature of 9°, Lower Platte drainage had highest temperature of 80°. Precipitation generally below normal. Little Missouri and Tongue drainage had the greatest amount with 0.84 in.

Topsoil moisture supplies: Very short 11%; short 39%; adequate 50%. Winter wheat fair to good. Potatoes 87% harvested, some frost damage in southeast. Sugarbeets 48% dug. Average sugar content 17.0%. Dry beans 97% combined. Grain corn harvest 44% completed. Yearlings 42% marketed. Calves 33% marketed. Marketing lambs 39% completed.



FIRST CLASS MAIL

HARVESTING PROGRESS

Percent of acres harvested as of October 15

CORN				SORGHUM			
	1977	1976	Avg.		1977	1976	Avg.
Ga	81	75	53	Colo	20	12	15
Ill	43	29	30	Kans	35	45	25
Ind	30	25	20	Mo	59	59	46
Iowa	42	51	22	Nebr	45	70	50
Kans	70	40	35	Okla	22	36	27
Ky	54	40	38	S Dak	23	87	57
Mich	10	25	15	Tex	86	77	75
Minn	50	75	40				
Mo	51	62	41	7 States	56	62	50
Nebr	40	40	30				
N C	85	76	73				
Ohio	25	25	20				
Pa	17	8	NA				
S Dak	23	77	43				
Tex	97	70	77				
Wisc	25	35	17				
U. S.	43	45	31				

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

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

SOYBEANS			
	1977	1976	Avg.
Ala	14	16	21
Ark	18	17	19
Ga	6	4	7
Ill	53	91	76
Ind	35	75	50
Iowa	47	99	59
Kans	15	45	35
Ky	26	29	30
La	38	49	38
Mich	10	46	32
Minn	43	98	75
Miss	27	24	20
Mo	20	52	43
Nebr	40	75	60
N C	6	5	NA
Ohio	50	60	55
S C	2	NA	NA
Tenn	13	13	11
U. S.	33	60	47

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

COTTON

	1977	1976	Avg.
Ala	33	8	19
Ark	59	22	23
Ga	27	8	23
La	43	33	22
Miss	52	24	25
Mo	47	18	34
N C	25	11	NA
Okla	0	0	0
S C	40	19	26
Tenn	52	10	25
Tex	38	14	21
11 Southern States	42	17	22

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

SEEDING

Percent of acres planted as of October 15

WINTER WHEAT

	1977	1976	Avg.
Colo	100	98	97
Ill	45	72	71
Ind	30	65	65
Kans	90	85	85
Mo	23	44	NA
Mont	100	100	100
Nebr	NA	100	NA
Ohio	60	70	70
Okla	85	83	83
Tex	72	74	80
U. S.	80	83	84

These 10 States produced 74% of the 1977 U. S. winter wheat crop.

NA - Data not available.