

# WEEKLY WEATHER AND CROP BULLETIN

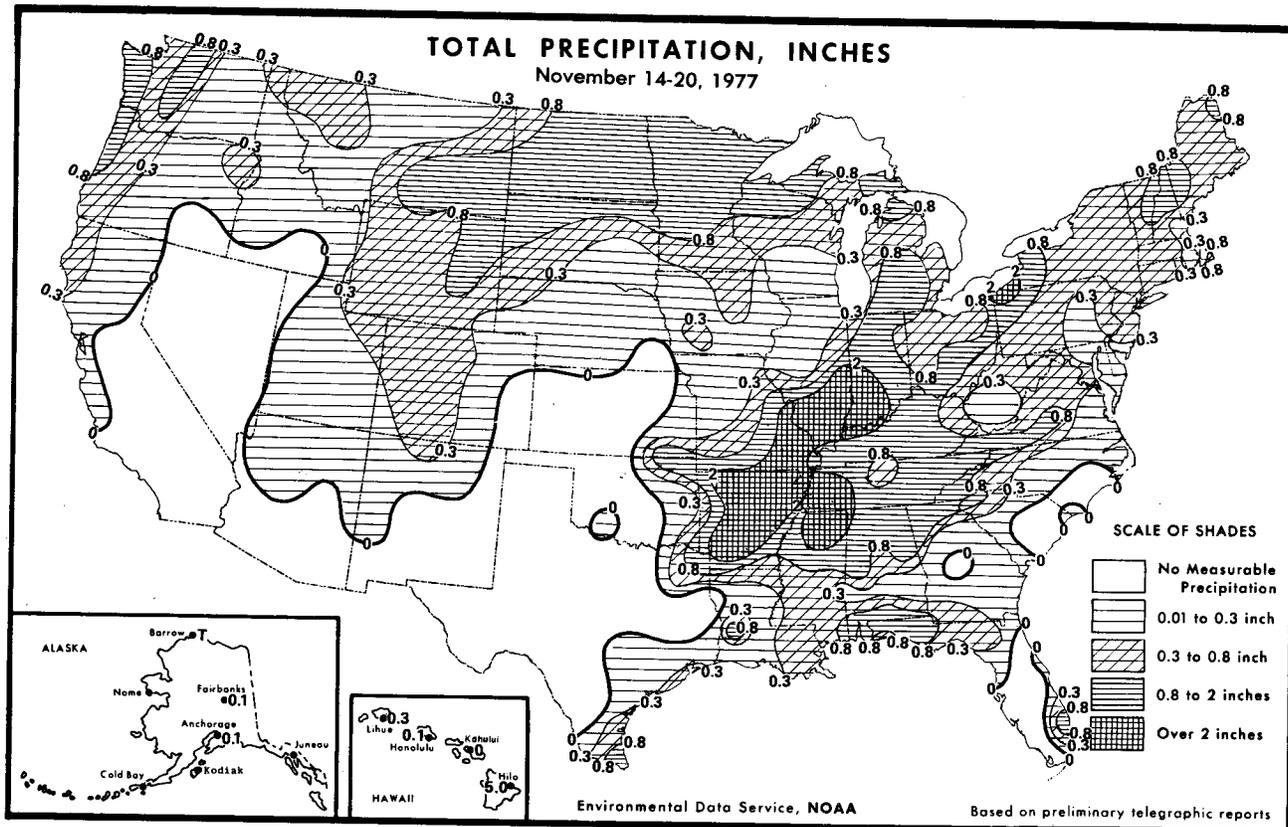
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## National Weather Summary

November 14 - 20

**HIGHLIGHTS:** A succession of two low pressure systems moved into the northwestern U.S. and set the scene for an intense winter storm. Snow fell in Seattle and heavy amounts covered the Cascades, northern Rockies, and northern Plains. A plethora of thunderstorms ahead of cold air rumbled over the middle Mississippi and lower Ohio Valleys.

Average temperatures in the Pacific Northwest and upper half of the Rockies were 5 to 12° colder than normal. Before turning cold, readings were 6 to 10° above normal from the southern Plains to the Great Lakes. Before an influx of warm air entered the Southeast, some sub-freezing temperatures were recorded.

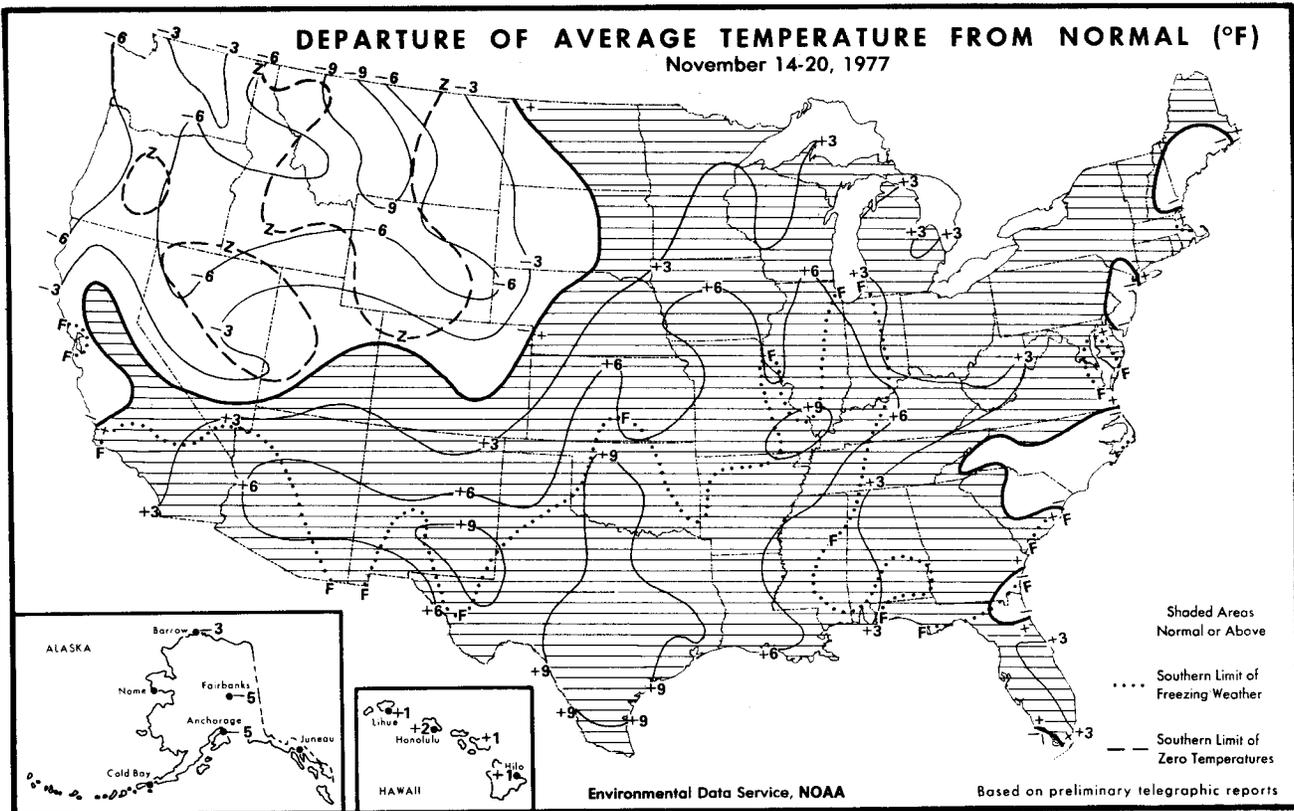
An intense low pressure system heralded strong winds and heavy rain over the northwestern Pacific Coast on Monday. Seven inches of snow blanketed portions of Washington's Cascade Mountains. The

precipitation moved eastward and hit Idaho and western Montana by afternoon. Moisture was light throughout the rest of the country. Snow showers touched the Ohio Valley and northern New England.

It was rather a cold day in the eastern third of the Nation where Raleigh, N.C., set a record low of 20°.

Early morning showers and thunderstorms developed over the Midwest Tuesday while temperatures dropped to freezing and below from northern New England to Florida.

By afternoon thunderstorms led a cold front over the upper Ohio Valley and lower Great Lakes, later reaching from New York State to Missouri. Some rain and snow continued to fall from Washington to northwestern Wyoming. At nightfall hail peppered northeastern Oklahoma and western Arkansas; snow dusted parts of Minnesota; and



more than an inch of rain soaked East St. Louis, Ill.

In California, Thermal and Palm Springs notched record highs of 92°.

Early Wednesday thunderstorms marched along the cold front from Indiana to Arkansas. Rain measurements in Arkansas ranged from 1.21 in. at Little Rock to 5.55 in. at Oden in the west central part of the State. Meantime close to an inch had fallen in Memphis and Indianapolis. More rain along the Atlantic Coast of Florida produced nearly an inch and one-quarter at West Palm Beach. Three inches of snow fell on sections of Minnesota while more snow blanketed eastern Washington. Afternoon precipitation included rain in the lower Great Lakes, Ohio Valley, lower two-thirds of the Mississippi Valley, Florida, and snow in the northern Intermountain Region.

Late evening thunderstorms formed over the South dumping hail on portions of Mississippi and touching off a tornado in the north part of the State. Other rain reached across the Gulf States from Louisiana to Florida and showers dampened an area from New York State to West Virginia.

The northern Plains and upper Mississippi Valley were under the influence of a near stationary low pressure center that triggered snow on Thursday. The eastern third of the Nation was receiving rain-fall; showers moistened an area from the Louisiana Delta to the southern Atlantic Coast.

Early evening storms gathered along a cold front producing high winds, rain, and hail in the northern half of New Jersey and from New York City through western New England.

A cold trough trekked over the Gulf of Alaska and dipped into the northwestern U.S. Around midnight 1 inch had fallen in Seattle and snow was starting over Oregon and the upper half of the Intermountain Region, and edged into northwestern Nebraska.

Moist Canadian air continued spilling into the northwestern U.S. on Thursday. Cold temperatures and heavy snows were the order of the day from Montana to Wyoming and Utah. Western New York State and northwestern Pennsylvania collected some snow as well. Precipitation over the remainder of the Nation included some snow in the Great Lakes region, occasional rain in Nebraska, South Dakota, and Iowa, and thundershowers from the Texas Coast to Florida's Panhandle. More than one inch fell on points in Texas and Louisiana.

Low pressure over the northern Rockies developed into an intense storm. Up to a foot of snow blanketed sections of Montana, Wyoming, Utah before the system moved into Colorado eastward to the upper Plains and Minnesota. No melting was immediate as temperatures dipped below zero in portions of Montana.

Elsewhere light rain dampened the middle Mississippi and lower Ohio Valleys; St. Louis got 0.40 in.

Blowing snow and low temperatures blasted an area from eastern Montana to Minnesota on Sunday. Wind gusts of 60 mph combined with snowfalls of 17 inches in Fargo and 20 inches in northern Minnesota. Readings plunged to -20° at some Montana station.

Ahead of the cold air there were thunderstorms, some locally heavy, over Arkansas, southeastern Missouri, western Kentucky, and southern Indiana. Showers dotted the eastern Texas/Oklahoma border region and northeastern Louisiana. A few showers touched the Mississippi and Ohio Valleys and the Appalachians. Little Rock notched 1.12 in.; Evansville, Ind., had 1.05 in.; and Nashville measured a half inch.

A high temperature of 83° in Abilene, Tex., broke the 1915 record by one degree.

## National Agricultural Summary

November 14-20

**HIGHLIGHTS:** Another snowstorm blanketed parts of the upper west north central States at midweek, halting harvests and laying a protective covering over small grains. Soil moisture rated adequate to surplus over most of the eastern half of the Nation except short in parts of the Southeast; short supplies were the rule in western areas. Harvests advanced rapidly although rains fell through much of the lower Mississippi and Ohio River Valleys. Corn harvest advanced to 87%, a six point increase for the week. Soybean combining advanced rapidly in south central States and nationally reached 84%, a seven point increase in as many days. High plains cotton picking moved quickly after freezing temperatures prepared plants for stripping. Among the eleven southern States cotton harvest reached 82%. Sorghum harvest advanced to 93%.

**SMALL GRAINS:** Winter wheat rated good except dryland stands in the Texas High Plains and Pacific Northwest which needed moisture. Planting in major producing States was almost complete; Texas growers reached 93%, ahead of 1976's 90% but short of the 95% average. Among other regions seeding was 95% complete in the eastern north central States, 70 to 80% in the southeastern States and about 90% in the south central States east of the Mississippi River. Kansas wheat seeding was virtually complete--about on schedule with recent years. Leaf rust became more prevalent in central and south central areas. About 10% of the wheat was pastured, equal the average and double 1976's 5%. Oklahoma's wheat rated good with 95% now up to stand, slightly better than last year and normal. Texas-irrigated wheat fields on the High Plains grew well, but most dryland stands needed moisture. High temperatures combined with recent moisture improved stands. New Mexico-irrigated stands rated good with 80% up to acceptable standards; dryland stands rated fair with only 60% now adequately germinated.

**CORN:** Harvest in the Nation advanced to 87% lagging 1976's 97% but ahead of the 84% average. In the eastern north central States harvest stood at 86%, lagging 1976's 94% but 2 points ahead of normal.

In the western north central States progress also stood at 86%; last year harvest was complete in several States including Minnesota, Iowa, and South Dakota. Average progress was 82%. Iowa's crop rated fair with some corn borer damage. South Dakota farmers harvested some fields free of snow drifts, but in many fields soils were too soft to support equipment.

Harvest was almost complete in the southern States and stood at 96% in Alabama, 94% in Mississippi, 95% in Georgia, and 100% in Texas and North Carolina.

**SOYBEANS:** Wet conditions caused some mold and sprouting in pods, but a return to dry weather limited damage and, nationally, progress reached 84% falling short of 1976's 92% and the 88% average.

In the eastern north central States harvest advanced only 1 point during the week to 93%; in 1976 harvest was complete and an average 97%.

In the western north central States harvest reached 86%, a 4 point increase for the week; last year harvest was 98% in Minnesota; Iowa and Nebraska finished. The average was 94%.

South central States farmers made very good progress harvesting 14% of the crop in one week to reach 82% lagging 1976's 88% but ahead of the 77%

average. Kentucky growers harvested as conditions permitted. Arkansas producers could finish harvesting with one week of good weather.

**COTTON:** Picking in the eleven southern States advanced to 82%, an increase of 8 points from the previous week. Last year's figure was 55% and the average 50%. Most harvesting took place in Oklahoma and Texas; elsewhere harvest was almost complete. The Georgia crop rated poor to fair; frost damaged some of the top crop. Arkansas gins began slowing. Texas growers had good harvesting weather and reached 78%, more than double 1976's 34% and the 33% average. Frost defoliated plants and most fields were ready to harvest. New Mexico harvest reached 70% complete. Arizona growers were scrapping fields and cutting stalks. California growers almost finished picking and began plowing down stalks.

**OTHER CROPS:** Grain sorghum harvest advanced to 93% lagging 1976's 97% but surpassing the 88% average. The Texas harvest was complete ahead of recent years; the Kansas and Nebraska harvests at 90% fell short of last year but exceeded the average.

Sugarcane harvest was underway in Florida, Louisiana, and Texas. Progress almost reached the halfway mark in Louisiana.

Final flue-cured sales were accomplished in Virginia. Growers prepared burley for the markets opening on the 21st. Tennessee growers stripped 78% of their burley.

**FRUITS AND NUTS:** Orchard growers in the Pacific Northwest exercised rodent control measures and pruned trees. Pecan harvest passed the halfway mark in eastern areas ranging from 55% in Georgia to 67% in Mississippi. Texas growers harvested 37%.

In Florida, citrus groves needed rain; growers irrigated and very little leaf curl was evident. Fruit showed good maturity; early fruit was picked. Growers prepared grove heating devices. The Texas citrus harvest gained in volume. California Navel orange picking increased with earlier maturity and color. Tangerine and lemon harvests were seasonally active.

**VEGETABLES:** Florida crops rated good to excellent; harvest activity increased pushing shipments 17% above the previous week. Most crops showed increased movement excepting a steady volume of cucumbers, eggplant, squash, and radishes and decreasing supplies of sweet corn. A warming trend benefited plant growth. Texas growers picked light supplies of a wide variety of crops from southern areas. Frost damage showed in some production areas. Eastern area crops suffered from lack of moisture. California broccoli, cauliflower, and celery harvests were active, but most other harvests were about finished. Lettuce harvest began in the desert.

**PASTURES AND LIVESTOCK:** Pastures in the eastern half of the Nation rated good to excellent except from South Carolina moving southward into Florida pastures rated only fair to poor. Cool dry weather slowed permanent pasture growth, but small grains and temporary winter pastures provided some grazing. In the West grasslands rated only fair; most areas need moisture. Rains improved grazing in some areas, but very little runoff occurred to replenish stock water ponds. Herds were on winter rations in many areas.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Nov. 20, 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	+ 2	.6	-.3	La. Baton Rouge . . .	64	+ 6	.4	-.5	Youngstown . . . .	40	0	1.1	+ .4
Mobile . . . . .	61	+ 3	1.2	+ .4	Lake Charles . . . .	66	+ 6	T	- 1.0	OKLA. Okla. City . .	57	+ 9	0	-.3
Montgomery . . . .	57	+ 3	.2	-.6	New Orleans . . . . .	65	+ 6	.7	-.3	Tulsa . . . . .	57	+ 8	1	-.3
ALASKA. Anchorage .	15	- 5	.1	-.1	Shreveport . . . . .	63	+ 7	T	-.8	OREG. Astoria . . . .	40	- 6	1.6	-.7
Barrow . . . . .	- 4	- 3	T	-.1	MAINE. Caribou . . .	32	+ 1	.6	-.2	Burns . . . . .	28	- 7	T	-.4
Fairbanks . . . . .	- 4	- 5	.1	0	Portland . . . . .	37	+ 1	.5	-.7	Medford . . . . .	38	- 5	.2	-.6
Juneau . . . . .	---	---	---	---	MD. Baltimore . . . .	47	+ 1	.2	-.5	Pendleton . . . . .	34	- 7	.2	-.2
Kodiak . . . . .	---	---	---	---	MASS. Boston . . . .	47	+ 2	.2	-.9	Portland . . . . .	39	- 6	.7	-.6
Nome . . . . .	---	---	---	---	Chatham . . . . .	45	- 2	.8	---	Salem . . . . .	39	- 6	.7	-.8
ARIZ. Flagstaff . . .	42	+ 6	.1	-.2	MICH. Alpena . . . . .	36	+ 2	.5	-.1	PA. Allentown . . . .	42	0	.4	-.4
Phoenix . . . . .	66	+ 7	0	-.1	Detroit . . . . .	39	0	.7	+ .1	Erie . . . . .	42	+ 2	2.2	+ 1.3
Tucson . . . . .	63	+ 5	0	-.1	Flint . . . . .	41	+ 3	.8	+ .2	Harrisburg . . . . .	44	+ 1	.2	-.6
Winslow . . . . .	48	+ 6	0	-.1	Grand Rapids . . . .	40	+ 2	.9	+ .2	Philadelphia . . . .	44	- 2	.5	-.3
Yuma . . . . .	67	+ 4	0	-.1	Houghton Lake . . . .	36	+ 2	.7	+ .1	Pittsburgh . . . . .	43	+ 2	.6	0
ARK. Fort Smith . . .	56	+ 6	.1	-.6	Lansing . . . . .	39	+ 1	.9	+ .3	Scranton . . . . .	41	+ 1	.5	-.2
Little Rock . . . . .	56	+ 6	2.1	+ 1.2	Marquette . . . . .	37	+ 4	.5	-.3	R.I. Providence . . .	44	+ 1	.3	-.8
CALIF. Bakersfield . .	56	+ 1	0	-.2	Muskegon . . . . .	40	+ 1	.8	0	S.C. Charleston . . .	57	+ 1	T	-.6
Eureka . . . . .	46	- 6	.3	- 1.1	S. Ste. Marie . . . .	36	+ 4	1.3	+ .5	Columbia . . . . .	52	- 1	T	-.6
Fresno . . . . .	52	- 1	T	-.3	MINN. Duluth . . . . .	30	+ 3	1.5	+ 1.1	Greenville . . . . .	51	+ 1	.4	-.3
Los Angeles . . . . .	63	+ 1	0	-.5	Internatl Falls . . . .	26	+ 2	1.4	+ 1.1	S.D. Aberdeen . . . .	29	0	.8	+.7
Red Bluff . . . . .	53	0	.2	-.6	Minneapolis . . . . .	35	+ 4	.4	+ .1	Huron . . . . .	34	+ 3	.2	+ .1
San Diego . . . . .	63	+ 3	0	-.3	Rochester . . . . .	36	+ 4	.6	+ .4	Rapid City . . . . .	31	- 3	.7	+ .6
San Francisco . . . .	53	- 2	T	-.5	St. Cloud . . . . .	32	+ 3	.9	-.6	Sioux Falls . . . . .	34	+ 2	.2	0
Stockton . . . . .	53	+ 1	T	-.4	MISS. Jackson . . . .	59	+ 4	.4	-.5	TENN. Chattanooga . .	50	+ 2	.9	-.1
COLO. Denver . . . . .	36	- 2	.1	-.1	Meridian . . . . .	58	+ 4	.2	-.6	Knoxville . . . . .	50	+ 1	1.2	+ .3
Grand Junction . . . .	40	+ 1	.4	+ .3	MO. Columbia . . . . .	50	+ 7	.3	-.1	Memphis . . . . .	57	+ 7	1.7	+ .7
Pueblo . . . . .	40	0	T	-.1	Kansas City . . . . .	48	+ 5	T	-.3	Nashville . . . . .	52	+ 4	.6	-.3
CONN. Bridgeport . . .	48	+ 2	.6	-.3	St. Louis . . . . .	50	+ 6	2.2	+ 1.6	TEX. Abilene . . . . .	61	+ 8	0	-.3
Hartford . . . . .	43	+ 2	.6	-.5	Springfield . . . . .	53	- 8	.5	0	Amarillo . . . . .	50	+ 5	0	-.1
D.C. Washington . . .	49	+ 2	.3	-.4	MONT. Billings . . . .	26	- 9	1.1	+ .9	Austin . . . . .	68	+ 10	T	-.4
FLA. Apalachicola . .	61	+ 1	.1	-.6	Glasgow . . . . .	23	- 5	.1	0	Beaumont . . . . .	69	+ 9	.3	-.7
Daytona Beach . . . .	67	+ 2	T	-.4	Great Falls . . . . .	22	- 12	.2	0	Brownsville . . . . .	75	+ 7	1.6	+ 1.3
Ft. Myers . . . . .	70	+ 1	0	-.3	Havre . . . . .	23	- 6	.1	0	Corpus Christi . . . .	74	+ 10	.4	0
Jacksonville . . . . .	59	- 2	T	-.4	Helena . . . . .	25	- 6	.1	-.1	Dallas . . . . .	---	---	---	---
Key West . . . . .	74	- 1	T	-.6	Kalispell . . . . .	22	- 8	.5	+ .1	Del Rio . . . . .	68	+ 9	0	-.1
Lakeland . . . . .	68	+ 2	0	-.4	Miles City . . . . .	26	- 5	1.0	+ .9	El Paso . . . . .	56	+ 5	0	-.1
Miami . . . . .	75	+ 3	.1	-.4	Missoula . . . . .	26	- 6	.2	0	Fort Worth . . . . .	63	+ 8	T	-.5
Orlando . . . . .	73	+ 7	T	-.3	NEBR. Grand Island . .	42	+ 5	T	-.1	Galveston . . . . .	69	+ 6	.3	-.5
Tallahassee . . . . .	59	+ 1	.6	-.1	Lincoln . . . . .	43	+ 5	T	-.2	Houston . . . . .	68	+ 8	.2	-.7
Tampa . . . . .	68	+ 2	T	-.4	Norfolk . . . . .	38	+ 3	T	-.1	Lubbock . . . . .	56	+ 8	0	-.1
W. Palm Beach . . . .	74	+ 3	1.5	+ 1.1	N. Platte . . . . .	36	+ 1	T	-.1	Midland . . . . .	60	+ 7	0	-.1
GA. Atlanta . . . . .	53	+ 2	.1	-.7	Omaha . . . . .	43	+ 6	T	-.2	San Angelo . . . . .	64	+ 9	0	-.2
Augusta . . . . .	55	+ 2	T	-.5	Valentine . . . . .	33	- 1	T	-.1	San Antonio . . . . .	69	+ 10	0	-.4
Macon . . . . .	56	+ 1	T	-.5	NEV. Ely . . . . .	31	- 2	T	-.1	Victoria . . . . .	72	+ 10	.1	-.4
Savannah . . . . .	58	+ 1	T	-.4	Las Vegas . . . . .	57	+ 4	0	-.1	Waco . . . . .	68	+ 11	T	-.6
HAWAII. Hilo . . . . .	74	+ 1	5.0	+ 1.8	Reno . . . . .	37	- 3	T	-.1	Wichita Falls . . . .	62	+ 10	0	-.3
Honolulu . . . . .	78	+ 2	.1	-.6	Winnemucca . . . . .	31	- 6	T	-.2	UTAH. Blanding . . . .	40	+ 3	.1	0
Kahului . . . . .	76	+ 1	0	-.6	N.H. Concord . . . . .	37	- 1	.3	-.7	Salt Lake City . . . .	37	- 1	.1	-.2
Lihue . . . . .	76	+ 1	.3	- 1.0	N.J. Atlantic City . . .	46	0	.2	-.8	VT. Burlington . . . .	38	+ 1	.5	-.2
IDAHO. Boise . . . . .	33	- 6	T	-.3	Trenton . . . . .	46	0	.6	-.2	VA. Lynchburg . . . .	48	+ 2	.9	+ .3
Lewiston . . . . .	35	- 5	.2	-.1	N.MEX. Albuquerque . .	49	+ 5	0	-.1	Norfolk . . . . .	52	+ 1	T	-.7
Pocatello . . . . .	31	- 4	T	-.3	Roswell . . . . .	57	+ 11	0	-.1	Richmond . . . . .	50	+ 1	.1	-.7
ILL. Cairo . . . . .	56	+ 9	1.5	+ .6	N.Y. Albany . . . . .	42	+ 3	.3	-.4	Roanoke . . . . .	47	+ 1	.6	0
Chicago . . . . .	44	+ 5	.3	-.2	Binghamton . . . . .	38	0	.4	-.4	WASH. Colville . . . .	30	- 4	.1	-.4
Moline . . . . .	43	+ 5	.2	-.2	Buffalo . . . . .	41	+ 2	1.0	+ .1	Omak . . . . .	32	- 2	.2	-.2
Peoria . . . . .	45	+ 6	.1	-.4	New York . . . . .	46	- 1	.6	-.3	Quillayute . . . . .	38	- 6	.9	- 2.4
Rockford . . . . .	40	+ 7	.2	-.3	Rochester . . . . .	42	+ 2	.4	-.3	Seattle-Tacoma . . . .	39	- 5	.6	-.8
Springfield . . . . .	47	+ 6	.2	-.3	Syracuse . . . . .	41	0	.7	-.1	Spokane . . . . .	29	- 6	.1	-.4
IND. Evansville . . . .	52	+ 8	2.7	+ 1.9	N.C. Asheville . . . . .	45	- 1	.8	+ .1	Walla Walla . . . . .	39	- 3	.2	-.3
Ft. Wayne . . . . .	43	+ 3	.6	0	Charlotte . . . . .	51	0	.2	-.4	Yakima . . . . .	33	- 5	.1	-.2
Indianapolis . . . . .	48	+ 7	1.4	+ .6	Greensboro . . . . .	48	0	.2	-.4	W.Va. Beckley . . . .	45	+ 4	.2	-.5
South Bend . . . . .	44	+ 5	1.2	+ .6	Hatteras . . . . .	54	- 2	.1	- 1.0	Charleston . . . . .	47	+ 2	.3	-.4
IOWA. Burlington . . .	45	+ 6	.1	-.3	Raleigh . . . . .	49	- 1	T	-.7	Huntington . . . . .	48	+ 3	.2	-.5
Des Moines . . . . .	43	+ 6	.2	-.2	Wilmington . . . . .	53	- 2	T	-.7	Parkersburg . . . . .	45	+ 1	.7	+ .1
Dubuque . . . . .	40	+ 5	.2	-.4	N.DAK. Bismarck . . . .	28	0	.9	+ .8	WIS. Green Bay . . . .	37	+ 4	.3	-.2
Sioux City . . . . .	40	+ 5	T	-.2	Fargo . . . . .	28	+ 1	1.8	+ 1.7	La Crosse . . . . .	36	+ 2	T	-.4
KANS. Concordia . . . .	46	+ 6	0	-.2	Williston . . . . .	27	0	.6	+ .5	Madison . . . . .	38	+ 4	.1	-.3
Dodge City . . . . .	48	+ 6	0	-.1	OHIO. Akron-Canton . . .	41	+ 1	.8	+ .2	Milwaukee . . . . .	40	+ 4	.2	-.3
Goodland . . . . .	38	0	T	-.1	Cincinnati . . . . .	45	+ 2	1.4	+ .6	WYO. Casper . . . . .	25	- 8	.7	+ .6
Topeka . . . . .	47	+ 5	T	-.3	Cleveland . . . . .	42	+ 1	.8	+ .1	Cheyenne . . . . .	30	- 5	.1	0
Wichita . . . . .	51	+ 7	0	-.3	Columbus . . . . .	42	+ 1	1.0	+ .4	Lander . . . . .	25	- 5	.4	+ .2
KY. Lexington . . . . .	48	+ 4	.8	0	Dayton . . . . .	43	+ 2	.6	0	Sheridan . . . . .	27	- 5	.3	+ .1
Louisville . . . . .	51	+ 7	1.7	+ .9	Toledo . . . . .	40	+ 1	.7	+ .1	P.R. San Juan . . . . .	81	+ 2	.7	-.6

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:** Warm with rain. Temperatures 4° above normal. Rains on 17th.

Fieldwork: 3.5 days suitable. Soil moisture adequate to surplus. Harvest of row crops again slowed by wet fields. Cotton 80% harvested, 69% 1976, 74% average. Corn 96% harvested, 91% 1976, 89% average. Soybeans 68% harvested, 82% 1976, 79% average. Small grains 87% sown, 87% 1976, 89% average. Pecans fair to good, 70% harvested. Pastures adequate.

**ARIZONA:** Mild and dry except weekend, scattered light snow north. Limited moisture reported. Temperatures averaged 2 to 7° above normal.

Cotton harvest full swing. Scrapping, stalk cutting complete many fields. Some gins far behind. Sugarbeets good stands, growing well. Thinning, weeding nearly complete. New and renovated alfalfa fields good progress. Small grains good progress, earlier plantings good stands. Land preparation, planting active. Lettuce harvest increasing volume. Other vegetables all stages, progressing well. Cantaloup, honeydew harvest active, tapering off. Lemons, navels, sweet oranges, grapefruit being picked increasing volume. Harvest early variety tangerines just underway. Weather conditions higher elevations generally mild. Calves, yearling shipments about complete. Some ranchers lower ranges selling stocker cows to relieve range conditions. Substantial rainfall needed for stock water, soil moisture. Many sheep moved to lower valley pastures for lambing. Cattle, calves fair to good.

**ARKANSAS:** Temperature extremes 81 and 25°. Temperatures 2 to 10° above normal. Rainfall totals from 0 to 1.99 in.; most precipitation occurred midweek.

Soil moisture adequate. Fieldwork: 4.4 days suitable. Soybean harvest 79% complete, 88% last year, average 78%. One week good harvesting weather finish up harvest most areas. Cotton scrapping continued as weather allowed; harvest 94% complete, 88% 1976, average 82%. Gin activity rapidly slowing down. Wheat seeding 85% complete, 90% year ago, average 86%. Good growth and stands. Oat planting 91% complete, 94% last year. Pastures average; some overstocked as grass supply diminished. Most cattle herds going into winter good condition.

**CALIFORNIA:** Temperature contrasts and virtually no precipitation.

Little rain, about 0.10 in. or less, along the north coast and northern mountains. Considerable warmth, which pushed average temperatures several degrees above normal, gave way as arctic air invaded northern areas at week's end. Temperatures there dropped much below freezing, some close to zero.

Planting small grains active, moisture improved northern areas. Green chop doing well, alfalfa grazed; some new fields seeded. Rice and dry bean harvest complete. Cotton nearing completion, plow-down active. Navel orange picking gaining momentum with better maturity and color. Tangerine and lemon harvests seasonally active. Date packinghouses operating full capacity. Late apple harvest near completion. Kiwifruit harvest underway. Walnut harvest about done. Packing fig crop past peak. Avocado harvest normal. Grape harvest virtually over. Table grape moving to market from storage. Orchard cleanup, post harvest irrigation, pruning, other seasonal chores active. Brussels sprouts,

sweet corn, sweetpotatoes, cantaloups, and market tomatoes harvest about finished. Broccoli, cauliflower, and celery continue active. Carrots slowed. Lettuce finished central coast, picking up desert. Rains some areas gave relief to rangeland. No runoff to water storage areas despite heavy rains. Cattle, sheep moved winter range in valley. Supplemental feeding, hauling water necessary. Calving, lambing underway.

**COLORADO:** Week began mild; cooling trend north and east midweek. Sharp temperature drop end of week. Mainly dry; snow in mountains and north 18th and 19th. Snow heavy northern mountains up to 12 in., 2 to 6 in. lower elevations. Storm, gusty winds caused blowing drifting snow night of 19th.

**FLORIDA:** Temperatures moderated with average readings near normal. Rainfall sparse across central areas but about 0.50 in. over Panhandle and over 1.00 in. West Palm Beach area.

Soil moisture adequate Panhandle and along east coast, generally short elsewhere. Soybean harvest active but nearing completion. Peanut and hay harvest practically complete. Cotton picking continues. Sugarcane condition good, harvest active. Pecan harvest continues. Small grain seeding active. Early seedings up to good stands. Grazing conditions poor to fair. Cool, dry weather slowing permanent pasture growth. Small grain plantings furnished some grazing. Plantings for winter pastures continue. Cattle condition mostly good. Citrus groves need rain, irrigation being applied. Very little leaf curl. Fruit shows good maturity. Harvesting very active for early fruit. Grove heating devices placed. Vegetable crops mostly good to excellent condition. Harvest continues active. Overall shipments up 17% from previous week. Crops showing increased movement include peppers, tomatoes, lettuce, escarole-endive, snap beans, cabbage, celery, carrots, okra. Steady volume: Cucumbers, eggplant, squash, radishes. Decreasing supplies: Sweet corn. Chinese cabbage harvest light; increasing. Volume further increasing, most crops. Irrigation, spray programs active. Warming trend beneficial to plant growth.

**GEORGIA:** Temperatures below normal, ranging from 2° below in northwest to 6° below in extreme southeast and southwest. Extremes: 15 and 78°. Freezing temperatures all but lower coastal area 14th. Rainfall exceeded 1.00 in. extreme north and averaged about 0.50 in. southwest. Large part of central and southeast had little or no rain.

Soil moisture mostly adequate to excessive except short to adequate southeast and extreme south. Fieldwork restricted north by wet soils, averaged 4 days. Corn harvest 95% complete, last year 91%; still poor. Cotton mostly poor to fair, 67% picked, same as last year; freeze got part of top crop. Soybeans mostly fair to good; 53% combined, last year 55%. Pastures and cattle mostly fair to good. Hogs fair to mostly good. Pecan harvest 55% complete, last year 52%. Small grain seeding very active. Wheat 77% planted. Rye 86%. Other small grains 82%, all within 1% of last year.

**HAWAII:** Weather favorable. Rains light.

Most areas heavily irrigated. Spraying frequent for insect and disease control. Yield losses expected green onion, snap bean, chinese cabbage. Vegetable supplies: Eggplant, cabbages

moderate; other light. Banana and papaya supplies heavy. Pineapple harvesting light. Sugar strike ended; work expected to resume 22d. Pastures fair to good.

IDAHO: Temperatures normal to 4° above normal. Extremes: 66 and -2°. Precipitation above normal north, below normal south.

Farm activities: Repairing farm buildings and equipment. Potato marketing increasing. Livestock generally good condition. Feed supplies adequate with localized short supplies.

ILLINOIS: Temperatures 3 to 9° above normal; warmest south. Precipitation up to 0.25 in. north, over 2.00 in. south.

Corn 90% harvested, 96% 1976, 91% average. Soybeans 95% combined, 100% 1976 and average. Grain sorghum 93% harvested. Winter wheat mostly good. 1978 corn and soybean acreage 40% plowed, 59% 1976, 54% average. Pastures mostly good. Soil moisture adequate to surplus. Fieldwork: 5.0 days suitable.

INDIANA: Warm but cloudy and rains early and late in period. Temperatures 6° above normal. Sunshine 32% of possible. Rainfall 1.80 in. south, 1.00 in. central, 0.60 in. north. Along Ohio River in southwest more than 3.00 in.

Fieldwork averaged 3 days. Topsoil moisture adequate to surplus. Subsoil moisture mostly adequate to surplus. Corn 85% harvested, 1976 90%, average 75%. Soybeans 85% combined, 1976 100%, average 90%. Wheat 95% seeded, 1976 100%. Pastures fair to good.

IOWA: Sharply lower temperatures weekend ended 3 or 4 weeks of unseasonable mildness. Light precipitation at midweek and on weekend.

Topsoil and subsoil moisture adequate to surplus. Fieldwork: 5 days suitable. Corn condition fair, much corn borer damage. Corn harvest 85% complete, complete last year, 81% normal. Soybean harvest 89% complete, 100% last year, 100% normal. Bean mold increasing. Hay and pasture in good shape. Increase in feeder cattle movement. Good hog condition.

KANSAS: Little or no precipitation. Well above normal temperatures ranged from 42° northwest to from 50 to 55° east and south central or from 3° above normal northwest to from 8 to 11° above normal east.

No precipitation, harvest picked up. 1978 wheat crop seeding virtually finished, equal last year, average. Leaf rust buildup central and south central. Wheat pasturing 10%, last year 5%, equal average. Corn harvest 95%, equal last year, average 80%. Harvest of sorghum grain 90%, last year 95%, average 80%. Soybean harvest 75% complete, last year 95%, average 85%. Moisture short west, adequate central, adequate to surplus east. Livestock grazing stubble, volunteer wheat, newly seeded wheat.

KENTUCKY: Temperatures near seasonal normals. Rainfall ranged from 0.25 in. east to 0.75 in. bluegrass to 1.00 in. west and central.

Harvests of corn and soybeans continuing as weather permits. Corn lodging badly. Tobacco stripping active, much being delivered to warehouse floors in preparation market opening 21st. Sufficient quantity ready for first several days sales. Fall seeded grains making good growth and pastures in excellent condition.

LOUISIANA: Temperatures 7 to 11° above normal. Extremes: 30 and 83°. Light rains late week.

Soil moisture short northwest, adequate elsewhere. Main activities: Harvesting cotton, soybeans, sugarcane, fall plowing, seeding small grains and ryegrass. Cotton 93% harvested, 94% last year, 75% average. Soybeans 90% combined, 97% last year, 84% average. Sugarcane 49% harvested, 48% last year, 47% average. Sweetpotato harvest nearly complete. Pecans 67% gathered. Transplanting strawberries active. Oats 83% planted, 96% last year. Wheat 78% planted, 93% last year. Pastures fair. Livestock fair to good.

MARYLAND & DELAWARE: Temperatures 3° below normal. Highs in mid-50's, lows in mid-30's. Western areas slightly cooler. Precipitation averaged 0.50 in.

Soybean harvest again underway after 2 week delay. Fall planted small grains in good condition; recent rains very beneficial.

MICHIGAN: Temperatures 2 to 5° above normal except southeast Lower where normal. Extremes: 22 and 61°. Precipitation widespread, moderate to heavy, ranging 0.30 in. southwest Upper to over 1.00 in. southwest Lower, northwest Upper, and eastern Upper.

Fieldwork: 3.5 days suitable. Fieldwork primarily picking corn, plowing. Soil moisture adequate to surplus. Pastures average or better. Fall plowing on less acreage than last year. Corn 75% picked, 90% 1976, 76% normal. Dry beans 90% combined. Soybeans 80% picked, complete 1976, 95% normal. Sugarbeets and cabbage nearly complete.

MINNESOTA: Temperatures ranged from 1 to 7° above normal. Extremes: 58 and 5°. Precipitation averaged near normal southwest, normal to 1.00 in. above normal central and southeast and 1.00 to 1.69 in. above normal north. Snowfall amounts ranged from a trace in southeast to around 16 in. northwest and north. Most snow with a weekend storm. Snow depths as of late 20th, trace southeast to 21 in. northwest.

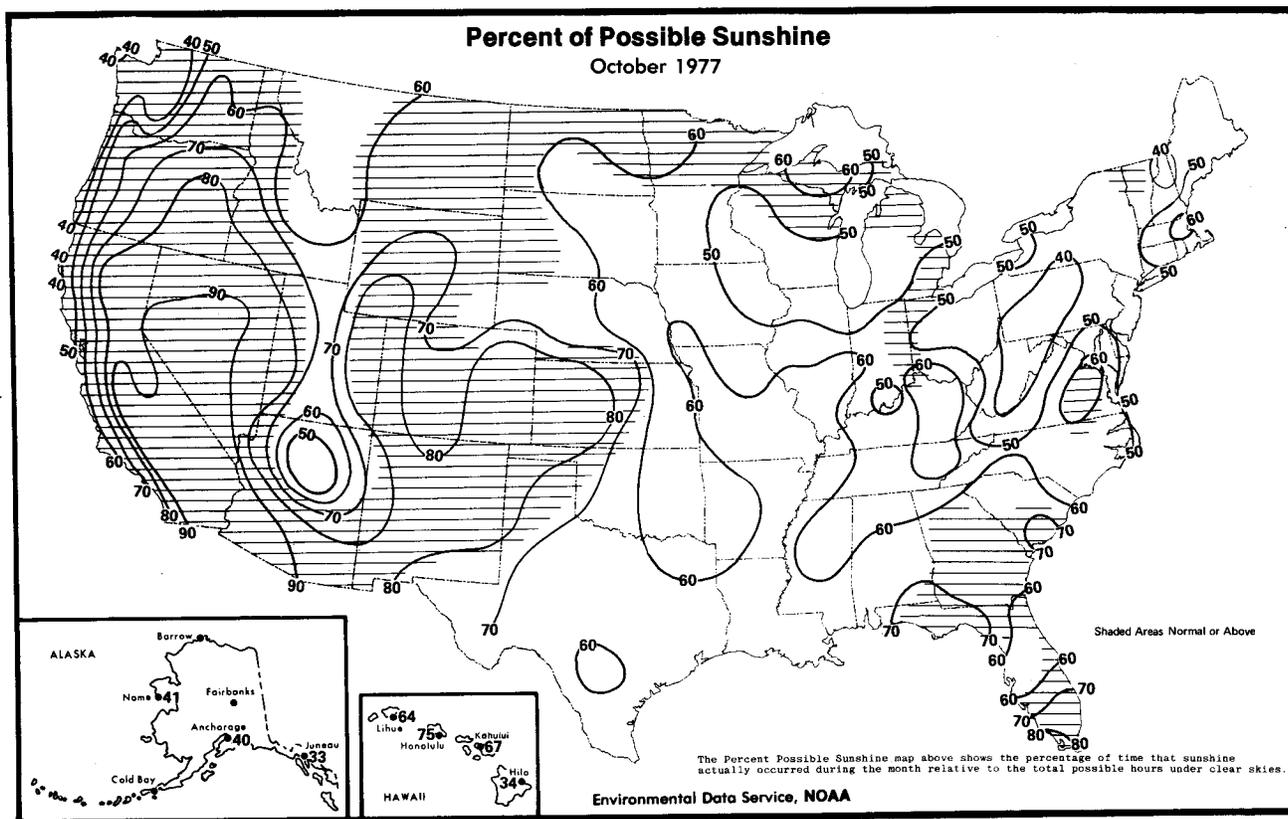
MISSISSIPPI: Temperatures near normal. Extremes: 81 and 23°. Rainfall generally 2.00 in. northeast and north central.

Soil moisture surplus to adequate. Fieldwork: 3.9 days suitable. Soybeans 80% harvested, 86% 1976, 73% average. Cotton 94% harvested, 88% 1976, 77% average. Corn 94% harvested, 95% 1976, 89% average. Sorghum 96% harvested. Pecans 67% harvested, 68% 1976, 53% average. Winter wheat 92% planted, 93% 1976, 88% average. Oats 94% planted, 98% 1976, 93% average. Winter wheat and oats in good condition. Pasture and livestock in good to fair condition.

MISSOURI: Mild, temperatures 8° above normal in west central plains and west Ozarks. Elsewhere temperatures 2 to 6° above normal. Heaviest rainfall east central with 2.00 in. Bootheel had more than 0.50 in. Elsewhere lesser amounts.

Fieldwork: 3.3 days suitable. Soybeans 70% harvested, last year 95%, normal 83%. Corn 73% harvested, last year 95%, normal 79%. Grain sorghum 83% harvested, last year 96%, normal 81%. Cotton 91% harvested, last year 84%, normal 80%. Winter wheat seeding 62% completed, last year 93%. Fall plowing 26% completed, last year 68%. Pasture condition good to excellent. Soil moisture supply adequate to surplus.

MONTANA: First winter storm of season. Mild at first, turning much colder with snow and northerly winds by weekend. Temperature fell to well below 0° on weekend with -30's reported in southwest.



Heaviest snowfall in southeast; 14 in. on ground. Moisture content over 1.00 in.

Moisture prospects southeast improved, supplemental feeding of livestock increasing. Winter range and pasture fair.

**NEBRASKA:** Temperatures near normal to slightly above. Precipitation up to 0.30 in. Panhandle; little or none elsewhere.

Corn harvest 90% complete, 95% year ago, 85% normal. Grain sorghum harvest limited; over 90%, year ago complete, normal 90%. Soybeans over 90% harvested, year ago complete, normal about 95%. Winter wheat good. Soil moisture adequate or better.

**NEVADA:** Unseasonably warm early, extremely cold remainder. Extremes: 79 and -1°. Precipitation light and scattered.

Cotton harvest continues. Grading and marketing potatoes slow. Livestock doing well.

**NEW ENGLAND:** Temperatures near normal with only minor day to day variations except for well above normal readings 17th in advance of cold front. Light snow northern areas. Precipitation otherwise sparse except for amounts of up to 1.00 in. occurring as showers and thundershowers accompanying cold front on 17th.

**NEW JERSEY:** Temperatures slightly below normal averaging 42° north, 44° south and 46° coastal areas. Extremes: 27 and 68°. Rainfall slightly below normal. Averaging 0.62 in. north, 0.78 in. south and 0.55 in. coastal sections.

Some late harvesting of field corn and soybeans progressing, as weather and soil conditions permit. Some crop damage reported because of excessive rain, high winds and freezing temperatures. Most

fall seeding done though weather and soils permitting some late acreage yet to be planted. Some fruit tree and blueberry pruning being done.

**NEW MEXICO:** Dry and warm. Scattered light snow flurries and showers northern mountains 19th and 20th.

Cotton 70% harvested. Grain sorghum 95% harvested. Irrigated winter wheat, good with 80% acceptable stand. Dryland winter wheat, fair with 60% acceptable stand. Winter barley good with 95% acceptable stand. Peanut harvest completed. Mechanical harvesting of pecans underway.

**NEW YORK:** Cold front moved through on 17th, otherwise high pressure was dominant. Temperatures averaged from mid-30's to mid-40's, near normal. Extremes: 7 and 65°. Precipitation ranged from 0.25 to 1.75 in. with 2 to 4 in. snow in north and up to 10 in. west, mainly to lee of Great Lakes.

**NORTH CAROLINA:** Temperature 2° below normal. Precipitation mostly light.

Fieldwork: 4 days suitable. Soil moisture adequate. Conditions: Pastures fair to good and small grains good. Harvested: Soybeans 41%, 1976 47%, average 55%; cotton 78%, 1976 65%, average 71%; sorghum grain 88%, 1976 86%, average 86%. Seeded: Wheat 77%, 1976 72%, average 75%; oats 90%, 1976 81%; barley 90%, 1976 84%; rye 85%, 1976 76%.

**NORTH DAKOTA:** Second blizzard of season hit over weekend. Snowfall ranged from 1 to 14 in. Temperatures were down in single digits.

Farming operations virtually halted for season. Snow fell on unfrozen ground and will provide good protection for fall grains, pastures and hayland.

**OHIO:** Light snow flurries scattered over state 14th, followed by warm air and above normal temperatures 15th through 17th. Showers with locally heavy rainfall 16th through 17th. Rainfall 18th with locally heavy snow squalls across parts of northeast. Windy and mild 19th and 20th with showers 20th.

**OKLAHOMA:** Temperatures near normal Panhandle to 10° above normal elsewhere. Precipitation confined to eastern third. Most totals less than 0.50 in.

Topsoil and subsoil moisture supplies adequate. Wheat good condition; 95% up to stand, 94% 1976 and 91% normal. Oats rated good; 84% up to stand, 90% 1976 and 89% normal. Barley condition good; 81% up to stand, 92% 1976 and normal. Grain sorghum harvest 86% complete, 87% 1976 and 70% normal. Cotton harvest 51% complete, 45% 1976 and 15% normal. Peanut harvest 96% complete, 95% 1976 and 85% normal. Weather near ideal for harvest operations. Small grains and cool season grasses made good growth. Native pastures rated fair to good. Livestock good condition.

**OREGON:** Temperatures 2 to 5° above normal. Cold air mass moved in at week's end. Extremes: 60's, 30's west; 60's, 7° east. Precipitation ranged from 1.52 in. to 4.84 in. along coast, 1.23 to 1.50 in. Willamette Valley, 0.30 to 0.60 in. northeast, 0.10 in. or less elsewhere.

Farm activities limited Willamette Valley because of unfavorable weather conditions. Most fall grain seeding completed. Carrot harvest continuing. Some grain growers in east need more soil moisture before seeding. Onions and potatoes moving from storage. Range and pasture conditions improving with rains. Feed supplies appear adequate.

**PENNSYLVANIA:** Weather unsettled; cool during beginning and end of period, milder during midweek. Precipitation generally 0.25 to 0.50 in. Temperatures extremes 67 and 19°.

Farmers trying to complete corn harvest where weather and soil conditions permit.

**PUERTO RICO:** Island rainfall 1.98 in. or 0.52 in. above normal. Temperatures about 79° on coasts and 73° interior. Extremes: 93 and 57°.

**SOUTH CAROLINA:** Rainfall in west; little or none in coastal portion.

Soil moisture short to adequate. Fieldwork: 5 days suitable. Cotton and soybean harvest active. Small grains fair to good. Pastures fair to good. Tobacco seedbed preparation beginning. Cotton harvest 87%, 74% 1976, 81% average. Soybean harvest 42%, 41% 1976, 52% average. Sorghum harvest 84%, 78% 1976, 74% average. Barley planted 76%, 78% 1976. Oats planted 77%, 69% 1976, 67% average. Rye planted 82%. Wheat planted 71%, 49% 1976, 53% average. Winter grazing planted 92%.

**SOUTH DAKOTA:** Second snowstorm struck over week-end. New snow depths very from trace to 10 in. Greatest moisture fell in north, mostly 0.75 in. to 1.00 in. Strong winds and cold temperatures accompanied snowstorm; -11° was lowest reported. Prior to snowstorm, temperatures mild; 62° highest reported.

Some thawing early week allowing corn harvest in fields not drifted. Ground too soft in places to support equipment.

**TENNESSEE:** Precipitation averaged from 0.50 to 1.50 in. with as much as 3.00 in. west. Temperatures averaged from 3 to 7° above normal.

Soil moisture surplus. Fieldwork: 2.9 days suitable. Soybeans harvested 89%, 87% 1976, 73% normal. Cotton harvested 96%, 77% 1976, 74% normal. Corn harvested 90%, 85% 1976, 84% normal. Burley tobacco stripped 78%, 67% 1976, 75% normal. Fall plowing completed 89%, 85% 1976, 91% normal. Wheat seeded 88%, 85% 1976, 86% normal.

**TEXAS:** Temperatures 5° above normal over western third; 10 to 15° above normal remainder. Rainfall below normal except east; southeast above normal by 0.50 to 1.50 in.

Warm, clear weather provided excellent conditions for harvesting, other field operations, plus boosting growth of winter grasses, small grains where sufficient soil moisture available. Cotton harvesting advanced rapidly; good stripping weather. After last week's freeze, most fields now ready for harvest. Sorghum harvest virtually complete; only few scattered fields remain. Soybean harvest progressing with combines back in fields after being slowed by rain last week. Peanut harvest active; fog, high humidity shortened harvesting day south. Sugarbeet harvest excellent progress High Plains. Sunflower harvest should be rapidly completed after last week's freeze. Wheat seeding progressing. Irrigated wheat fields High Plains making good growth, but most dryland stands need moisture. Warm weather, combined with recent moisture improved stands. Oat stands made good progress where soil moisture adequate. Sorghum harvested 100%, 98% 1976, 97% average. Cotton harvested 78%, 34% 1976, 33% average. Peanuts harvested 91%, 88% 1976, 84% average. Soybeans harvested 86%, 89% 1976, 77% average. Sugarbeets harvested 87%, 70% 1976, 94% average. Pecans harvested 37%, 38% 1976, 27% average. Sunflowers harvested 97%, 83% 1976, 84% average. Wheat planted 93%, 90% 1976, 95% average. Oats planted 93%, 87% 1976, 94% average. Flax planted 40%, 64% 1976, 35% average.

Lower Rio Grande Valley, bell peppers in good supply. Light supplies cucumbers, squash, tomatoes, cabbage, carrots now available. Citrus harvest continues gain in volume. Coastal Bend, cabbage up and progressing well. Land preparation for spring vegetables active. San Antonio-Winter Garden, cabbage harvest continues. Spinach harvest underway. Later spinach requiring irrigation. Carrots making favorable progress. Eagle Pass, spinach harvest underway in few fields. Bell pepper, tomato production reduced by heavy frost two weeks ago. East Texas, sweetpotato harvest complete. Pea harvest complete and production reduced by dry conditions. Non-irrigated vegetables suffering lack of rain. High Plains, carrot harvest active few scattered areas. Pecan harvest active all areas.

Above normal temperatures, recent rainfall boosted cool season grasses, small grains. Last week's cold weather virtually stopped growth summer grasses. More cattle moved to small grain; but due to previous dry weather, many stands not yet ready for grazing. Most native pastures overgrazed; many ranchers feeding supplements, hay to hold livestock condition.

**UTAH:** Dry and relatively mild but spotty snow weekend. Accumulated amounts extremely variable ranging from little or none in most sections to locally heavy accumulations in a few areas. Tem-

peratures well above normal. Averages ranged between 2 and 8° above normal.

Activities: Care and feeding of cattle and sheep on winter rangelands, feedlots and farms. Grading, sorting, and marketing of potatoes, dry onions and apples. Sugarbeet processing continues.

VIRGINIA: Rainfall 0.30 in. Temperatures slightly below normal. Extremes: 75 and 12°.

Corn combining 88%, 80% 1976, 82% usual. Soybean combining 46%, 60% 1976, 66% average; some pod sprouting, discoloration, mold, but cooler, drier conditions checked this. Peanut harvest ending. Wheat 78% seeded, 75% 1976, 81% usual. Pastures, winter grain, grazing crops good to excellent. Topsoil moisture mostly adequate to surplus. Fieldwork: 3.7 days favorable. Final flue tobacco clean-up sales. Burley markets to open 21st.

WASHINGTON: West: Temperatures 1° below to 2° above normal. Precipitation 0.10 in. below Sound area; 0.60 to 0.90 in. above normal elsewhere.

Carrot, cauliflower harvest near completion. Most livestock on supplemental feed. Hay coming in from east.

East: Temperatures 3 to 4° above normal. Precipitation 0.10 to 0.20 in. below normal.

Potato and sugarbeet harvest nearing completion. Some carrots still being harvested. Orchardists occupied with rodent control and pruning activities. Grape pruning also underway. Some cultivating and spraying for aphids on dryland. Germinated winter wheat fair to good. Subsoil moisture short. Most livestock on supplemental feed.

WEST VIRGINIA: Temperatures below normal northwest; normal elsewhere. Extremes: 68 and 14°. Precipitation near normal.

Fieldwork: 4.2 days suitable. Soil moisture adequate. Fall pasture, livestock in good condition. Winter hay supply short to adequate. Fall sown grains good condition.

WISCONSIN: Mild weather prevailed until midweek with temperatures in 40's and 50's. Cool, Canadian air on 17th dropped temperatures to 30's. Brief warmup to 50's south 20th before sharp cold front brought arctic air into state. Precipitation generally light. Snow flurries 17th. Rain 20th south, wet snow 1 to 4 in. northwest changing to rain as temperatures rose. Clearing, late 20th and much colder.

Harvest continues on corn and soybeans where field conditions permit. Corn for grain 80% harvested, 1976 100%, normal 85%. Soybeans 85% harvested, 1976 100%, normal 95%. Fall plowing 45% completed, 1976 45%, normal 65%. Topsoil moisture supplies adequate to surplus.

WYOMING: Temperatures above normal. Precipitation scattered and light. All except Lower Platte drainage had minus departures for precipitation. First major snowstorm of year at end of week.

Ranchers now involved primarily in livestock operations. Cattle being worked, calves weaned, and some stock still being sent to market and moved to winter pasture. Some ranchers feeding winter rations. Winter wheat needs moisture in many areas.

**World Weather and Crop Update**

October Review - November 21 Update

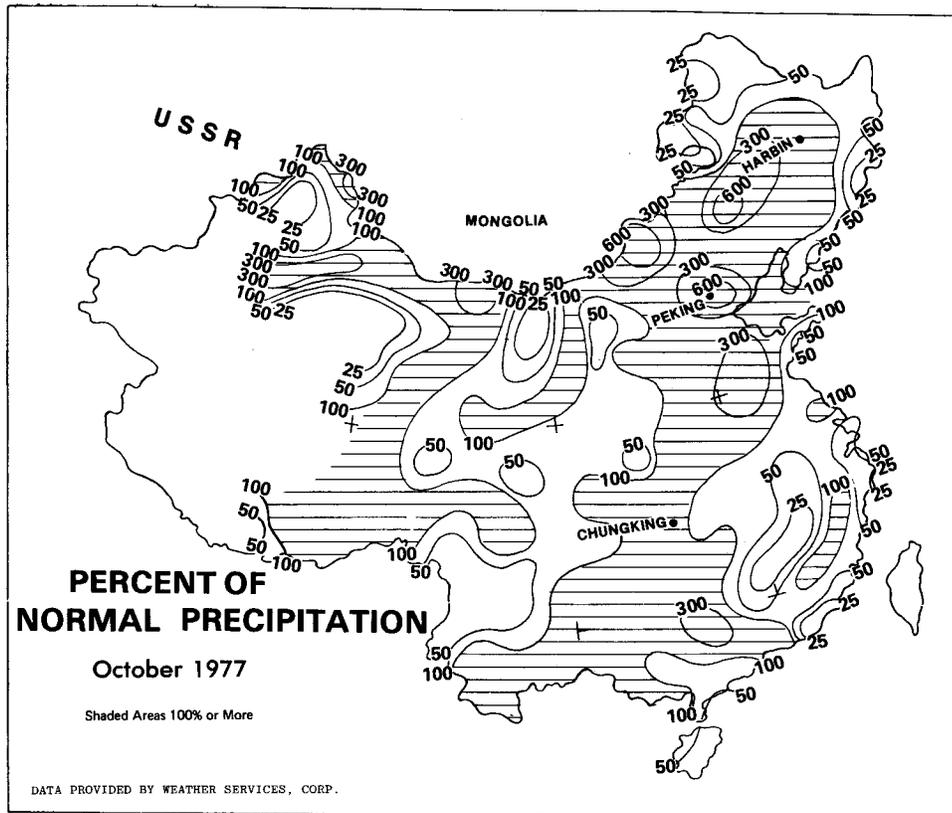
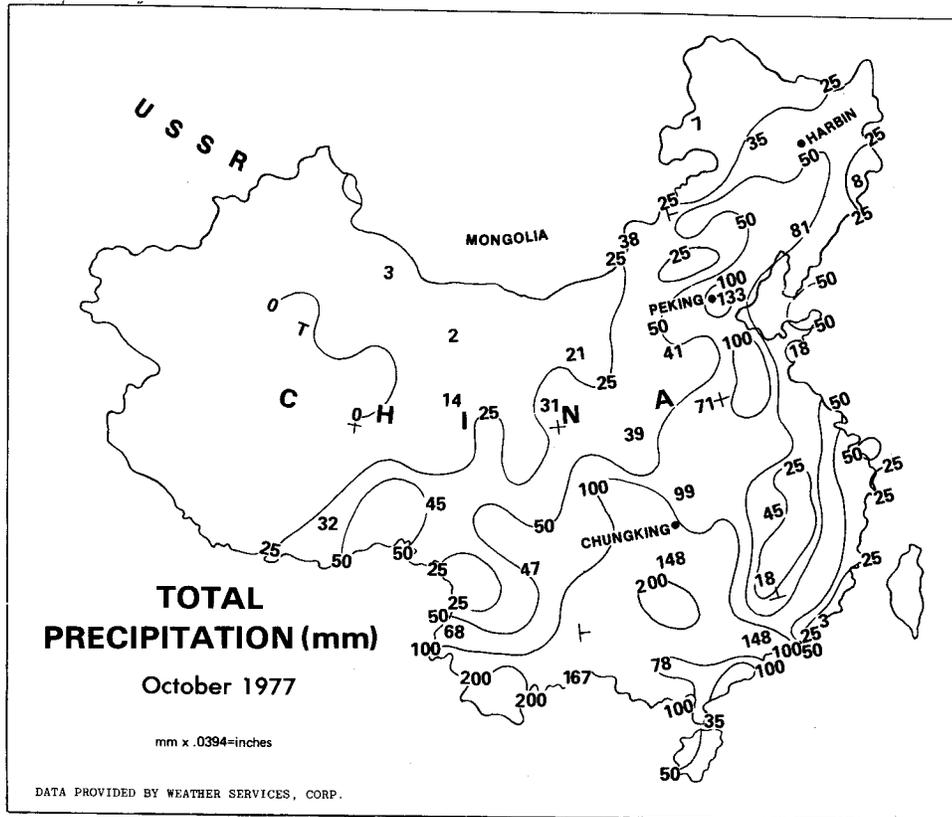
USSR. Following colder than usual temperatures in early October, frost was reported over all the important agricultural areas in European USSR. Then mild weather dominated this part of the Soviet Union through mid-November. Winter grains were off to a good start with vegetative growth (tillering) continuing in the Ukraine, North Caucasus, and Moldavia. Sowing of winter crops was completed on 39.3 million hectares or 90 percent of the planned area by October 17. However, the pace of winter sowing at that time was behind that of 1976, and suggested that the planned area in winter grains may not have been achieved. The area sown may be less than last year. A record harvest of at least 8.5 million metric tons of seed cotton was already delivered to the state.

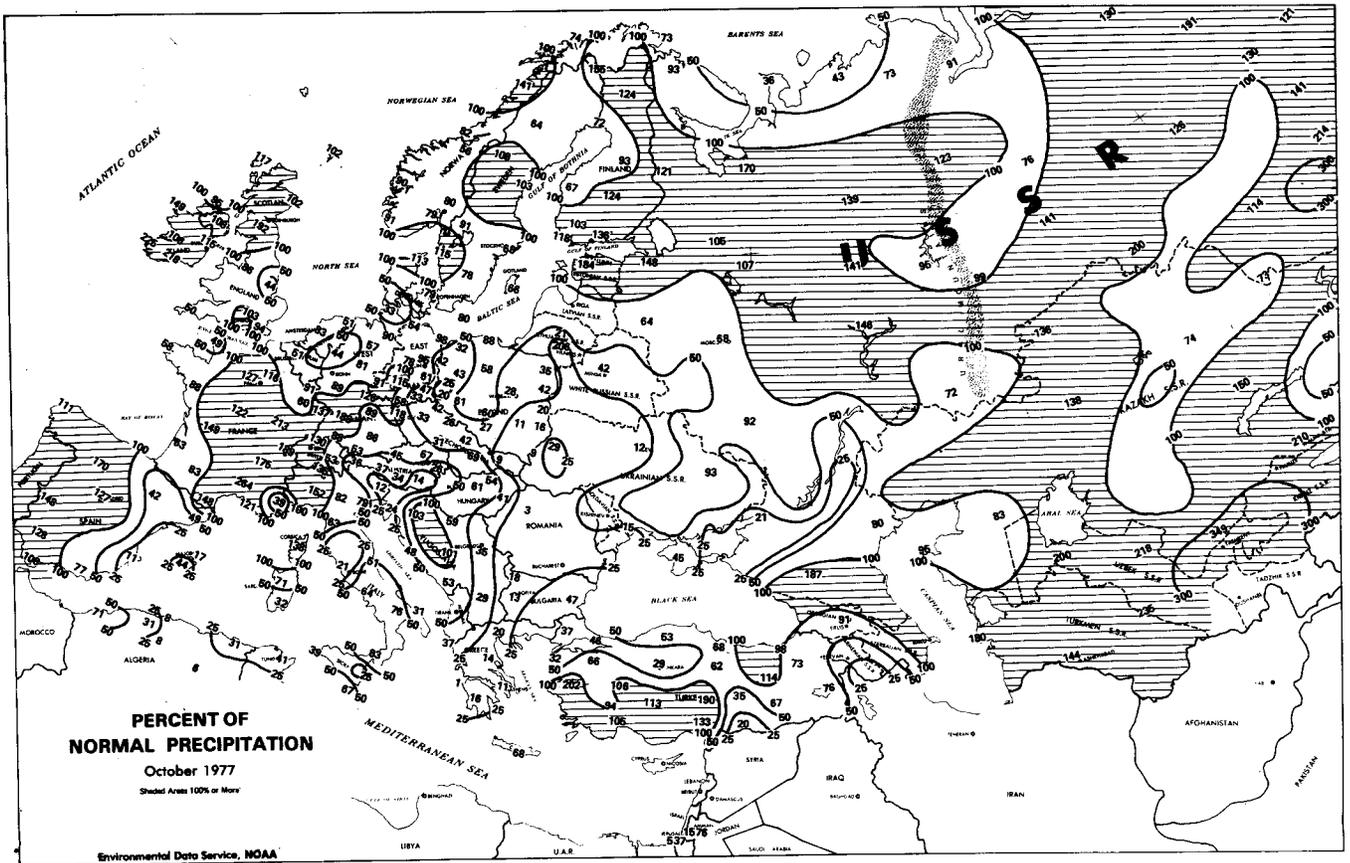
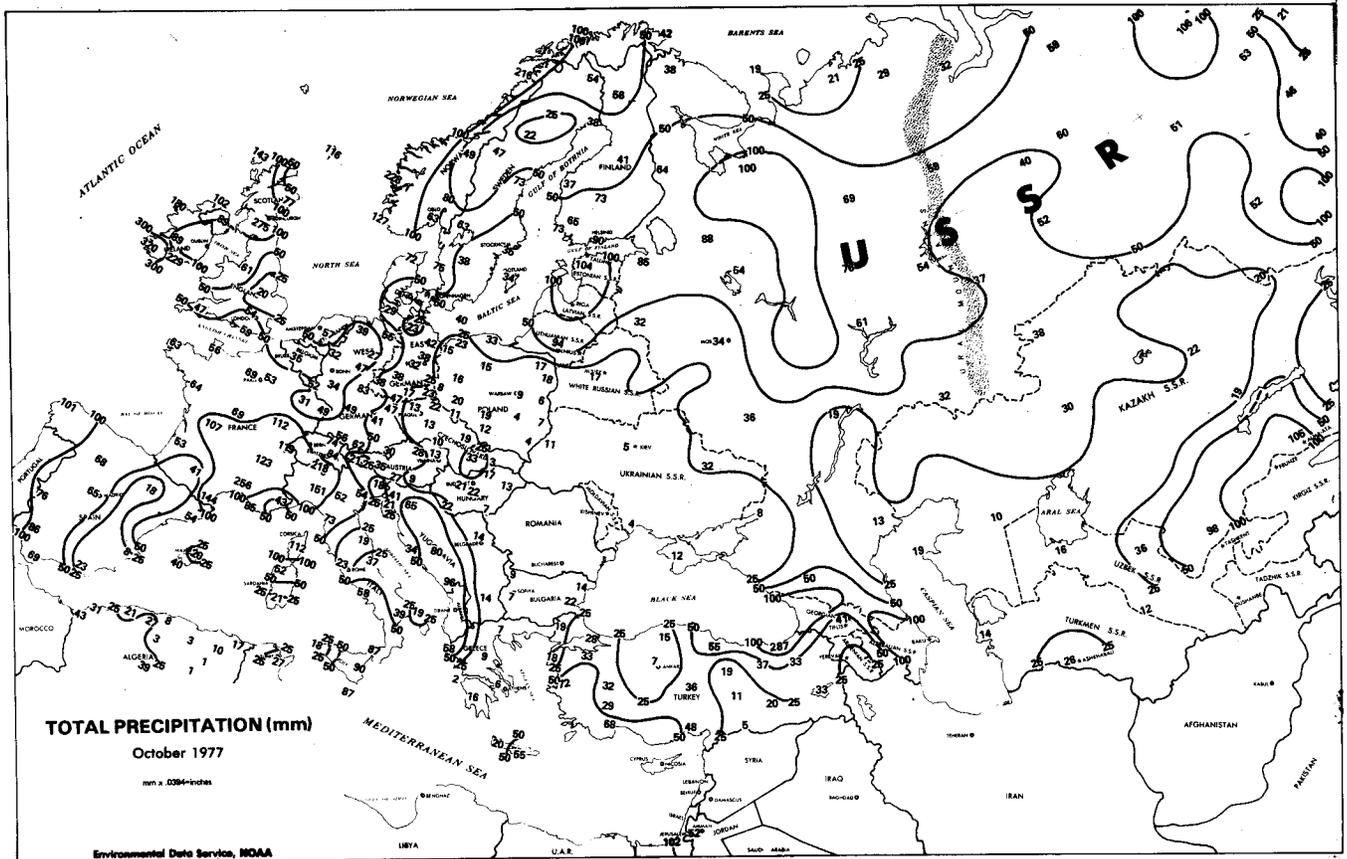
ASIA. The drought affecting most of the important grain areas in Australia continued through October and into mid-November. October precipitation was less than 50 percent of normal in most areas, and prospects for winter grains continued to deteriorate as November rains, thus far, have brought only scattered relief. Soil moisture is very short in most areas, and rain is urgently needed to prevent further deterioration in crops and pastures. In the People's Republic of China, heavy rains in late October and early November relieved the dry conditions and restored soil moisture to some winter grain areas. Despite the drought, the Chinese announced that winter wheat sowing was completed in the main winter wheat belt although watering by hand prior to seeding was necessary in areas without irrigation facilities. Conditions have generally been favorable for the harvest of late crops now underway in South China. Although India's monsoon withdrew by the end of September, heavy precipitation continued through October and into November in the southern third of the peninsula, the northeast, and parts of north central India. With favorable subsoil moisture and replenished reservoirs, the outlook for the sowing of rabi (spring harvested) crops is highly favorable. Heavy rains have buffeted the extreme south and parts of the east coast during November.

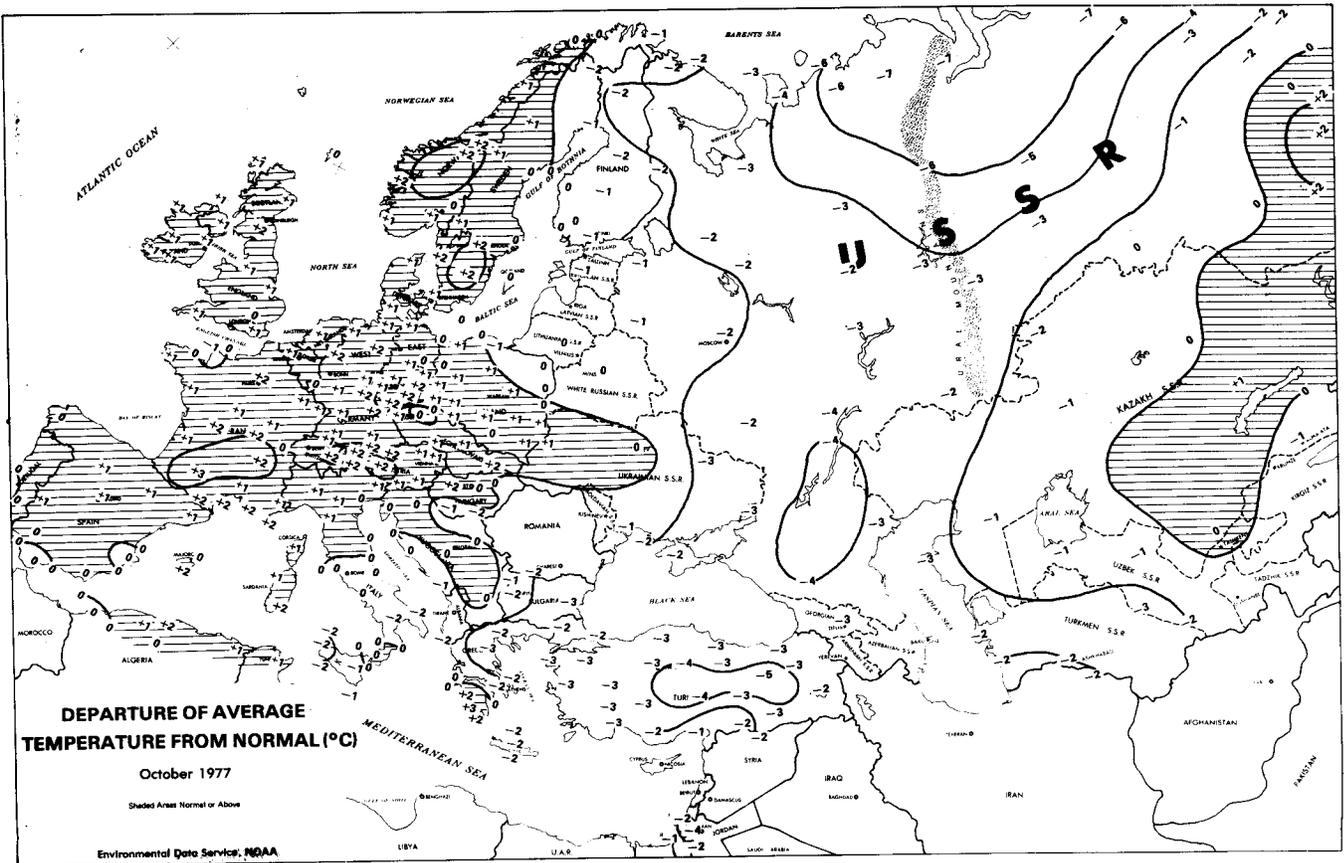
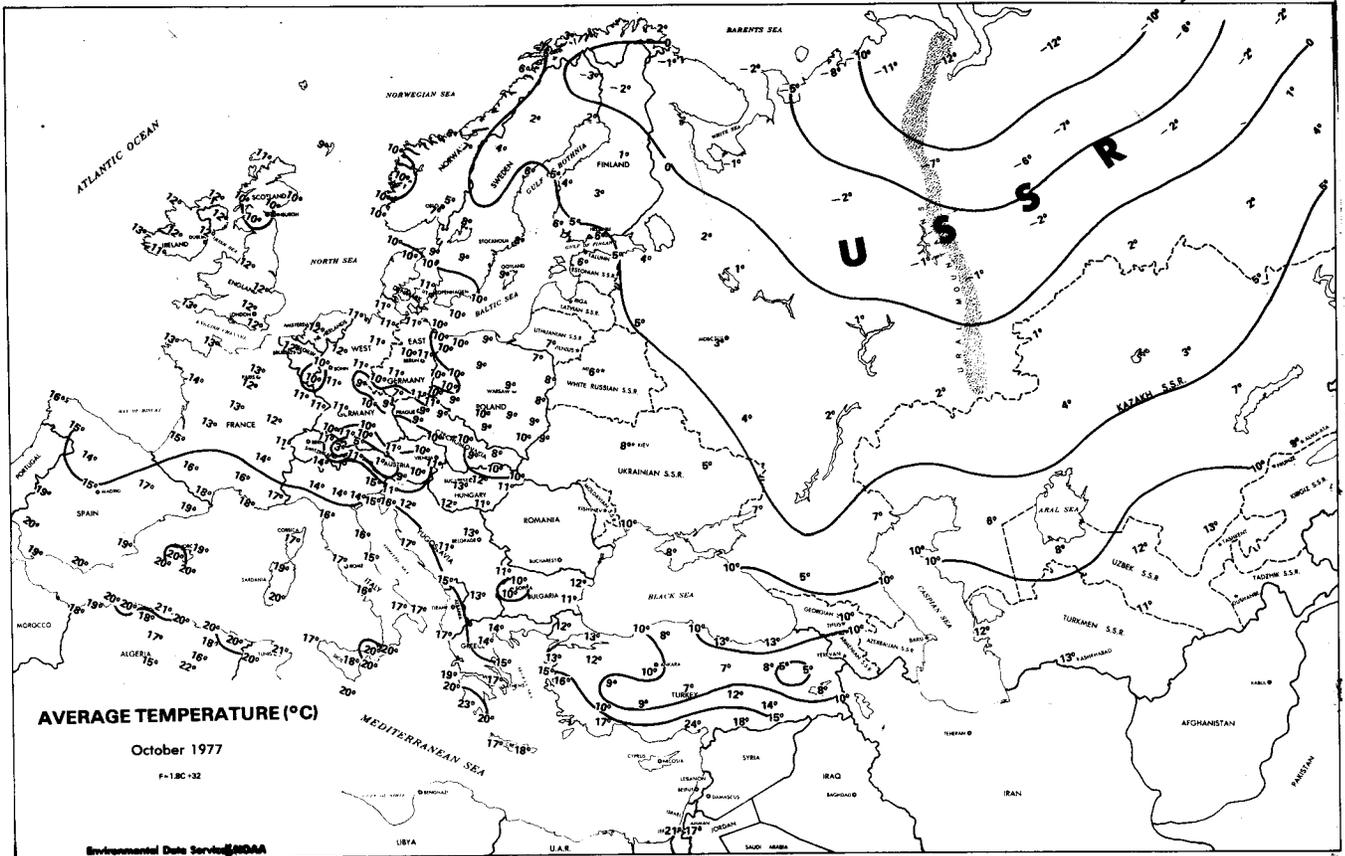
AFRICA. In the main agricultural areas of South Africa, October's above normal precipitation favored early spring sowing and pasture development, but November rains thus far have been deficient. In North Africa, October rainfall was above normal in Morocco helping the sowing of winter grains while restoring pastures. But rainfall was less than 50 percent of normal in Tunisia and Algeria during October, and November rains have fallen mainly along the coastal regions of these countries.

AMERICAS. Generous rains in early October, which broke a six-month drought in the western and southwestern parts of the Argentine grain belt, revived wheat, flaxseed, and pastures while enhancing spring sowing conditions. Subsequent rains greatly improved the outlook for crops in these and other areas, but excessive rains over the northern half of the grain belt may hurt maturing winter grains. Heavy rains and high winds in early October damaged the wheat crop in Rio Grande do Sul, Brazil's most important wheat state. Mild, sunny weather in the Prairie Provinces of Canada in the latter half of October permitted successful completion of the grain harvest which was seriously lagging by the middle of the month.

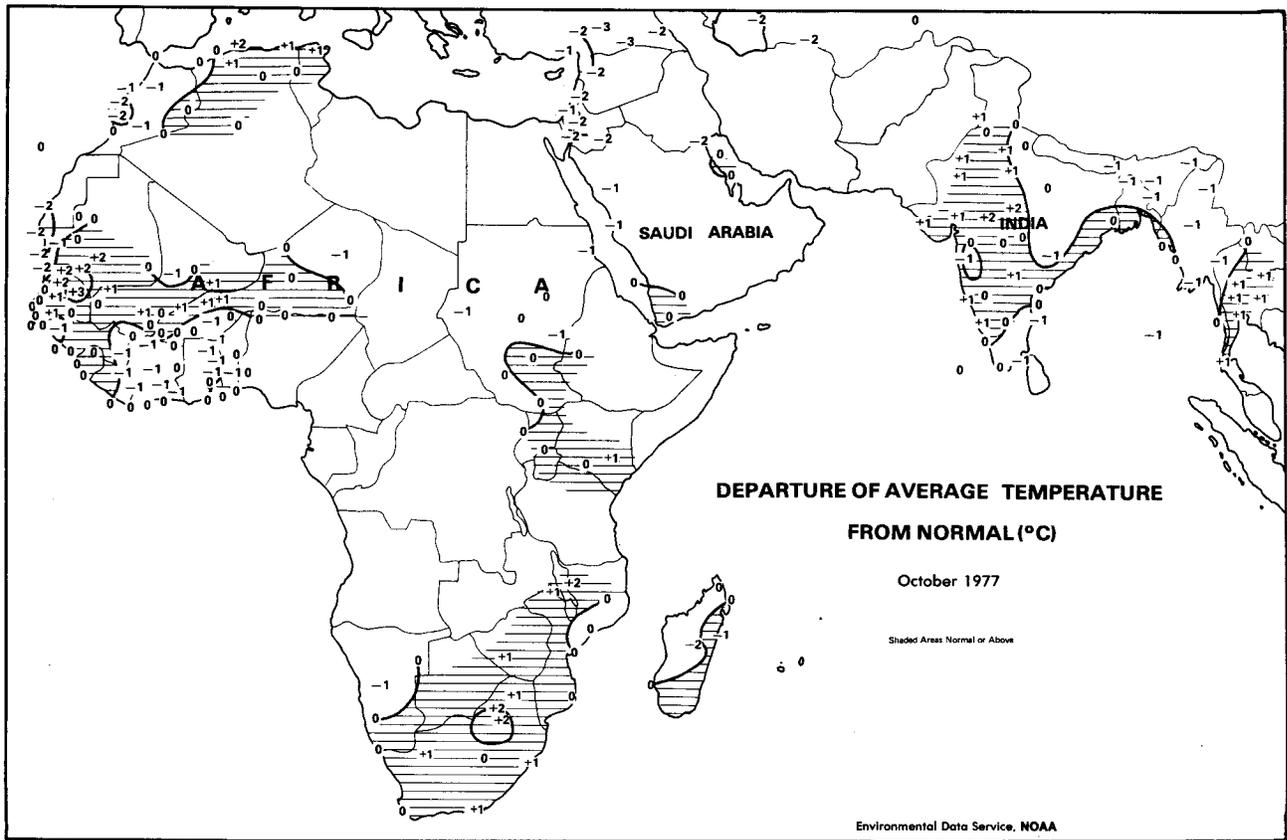
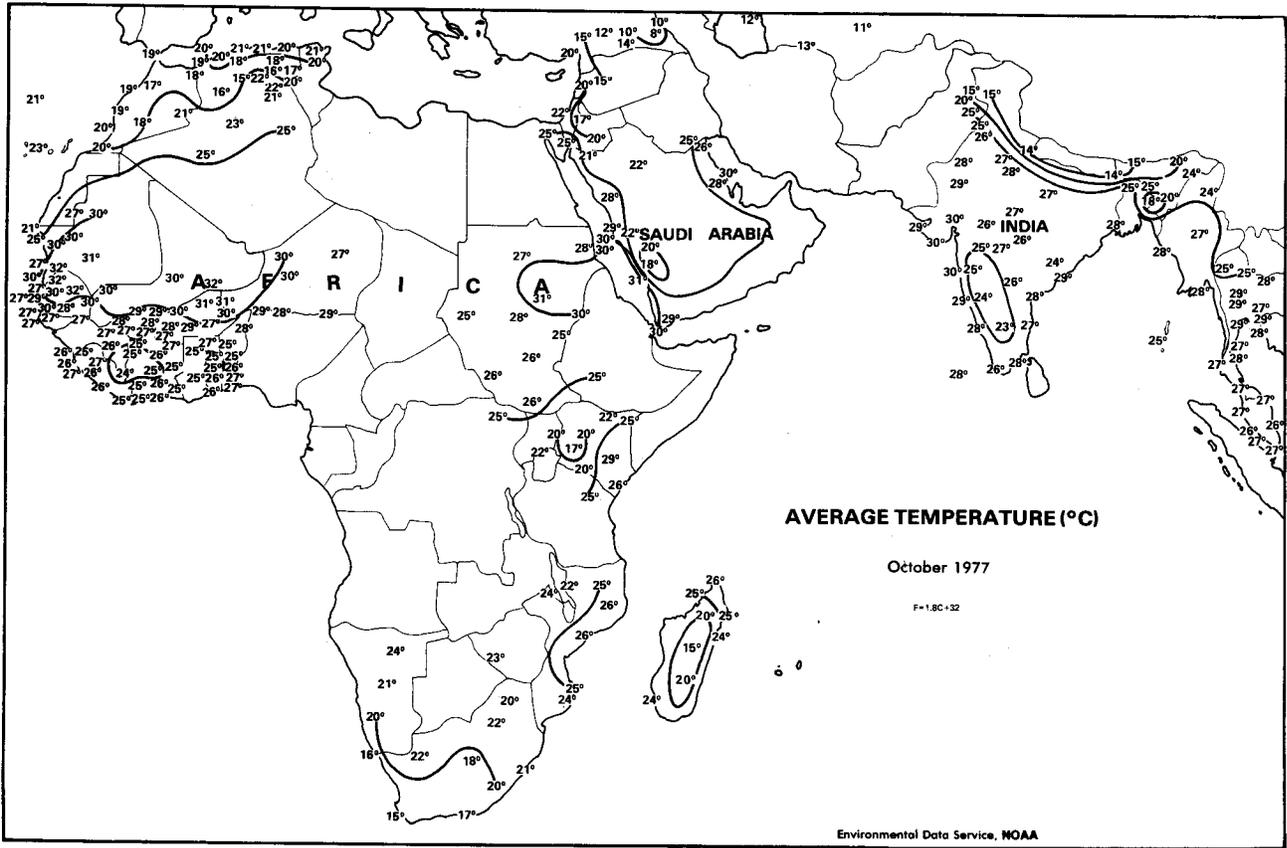
EUROPE. Mild and sunny fall weather over most of western Europe during October provided excellent conditions to finish sowing winter grains and the fall harvest. Storms and heavy rains during the first days of October damaged crops in northern Italy and delayed harvesting which, in turn, is expected to hinder winter grain sowing in some areas. Eastern Europe also was aided by favorable October weather with near ideal conditions for fall harvesting and seeding of winter grains. November weather has been mild, but wet, over the northern half of western and eastern Europe while the southern half has been generally warm and dry through mid-month. October rains in Turkey improved soil moisture for planting winter grains; however, the cotton crop in the Aegean sector was hampered by heavy showers. November rainfall has generally been light in the principal grain areas.

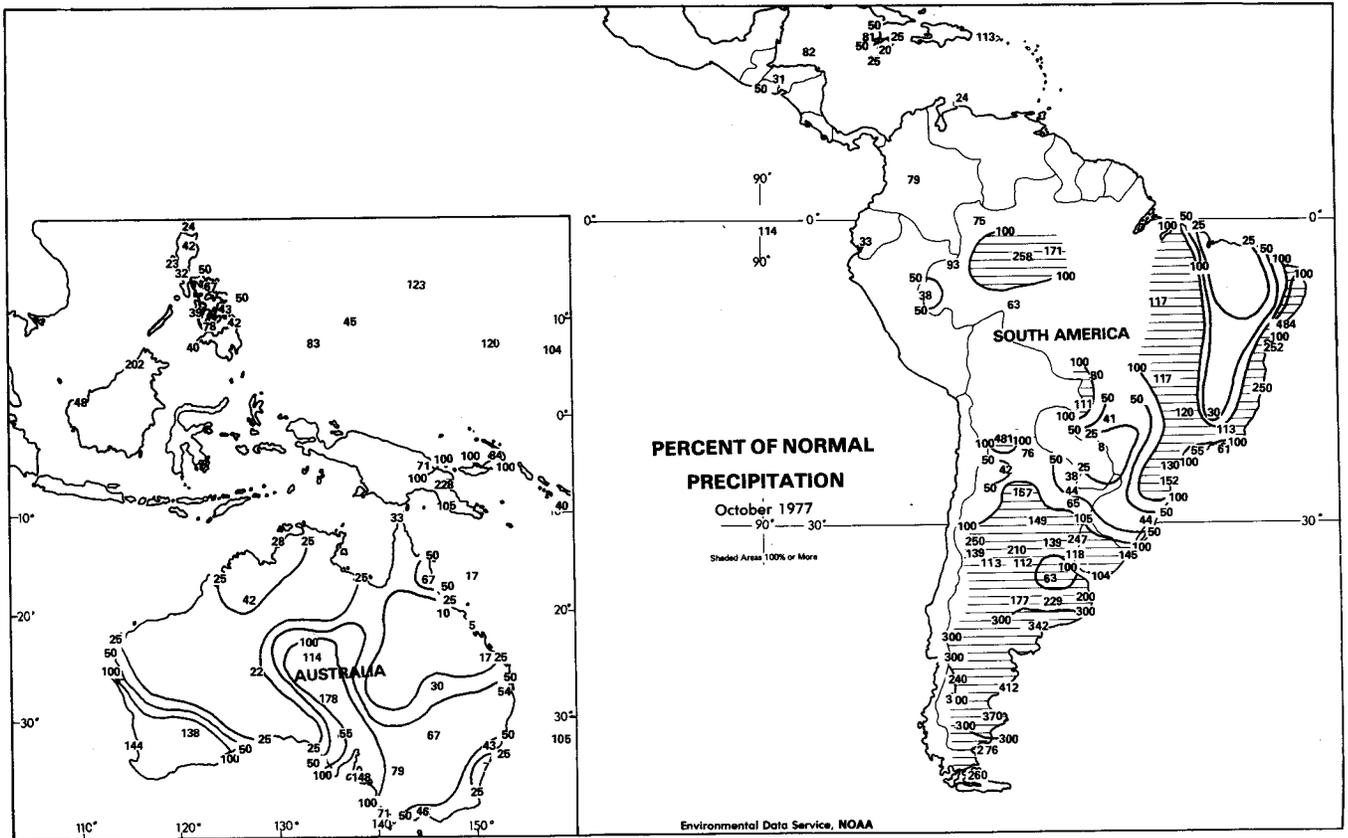
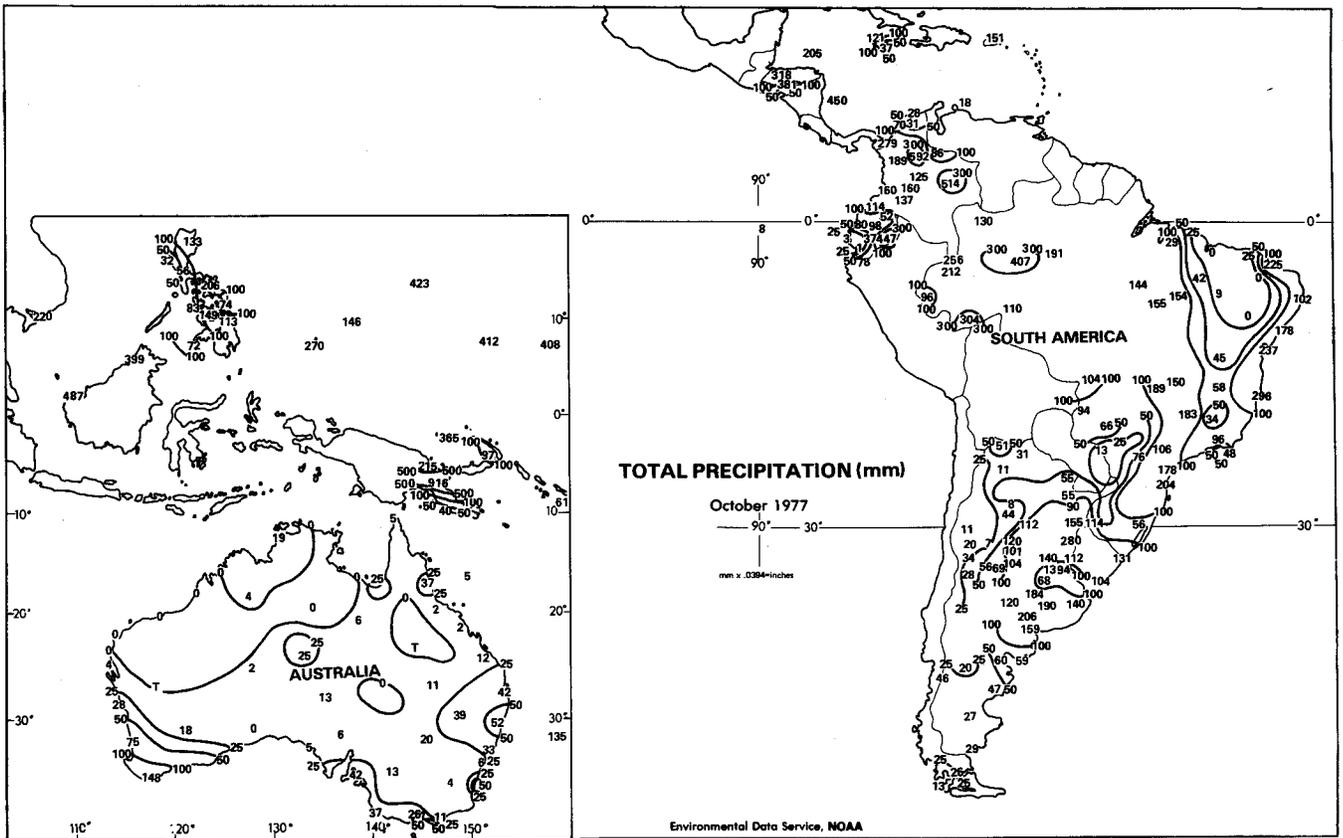


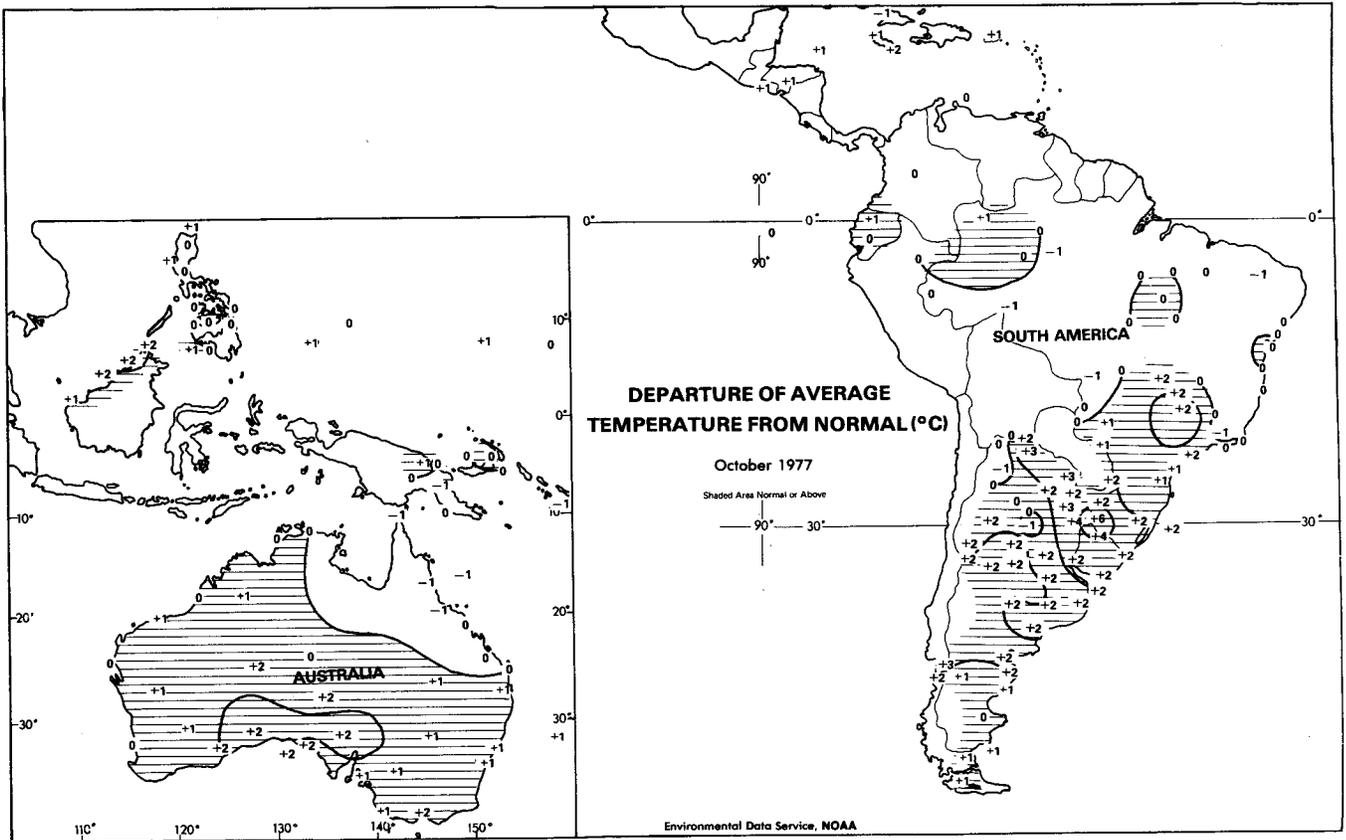
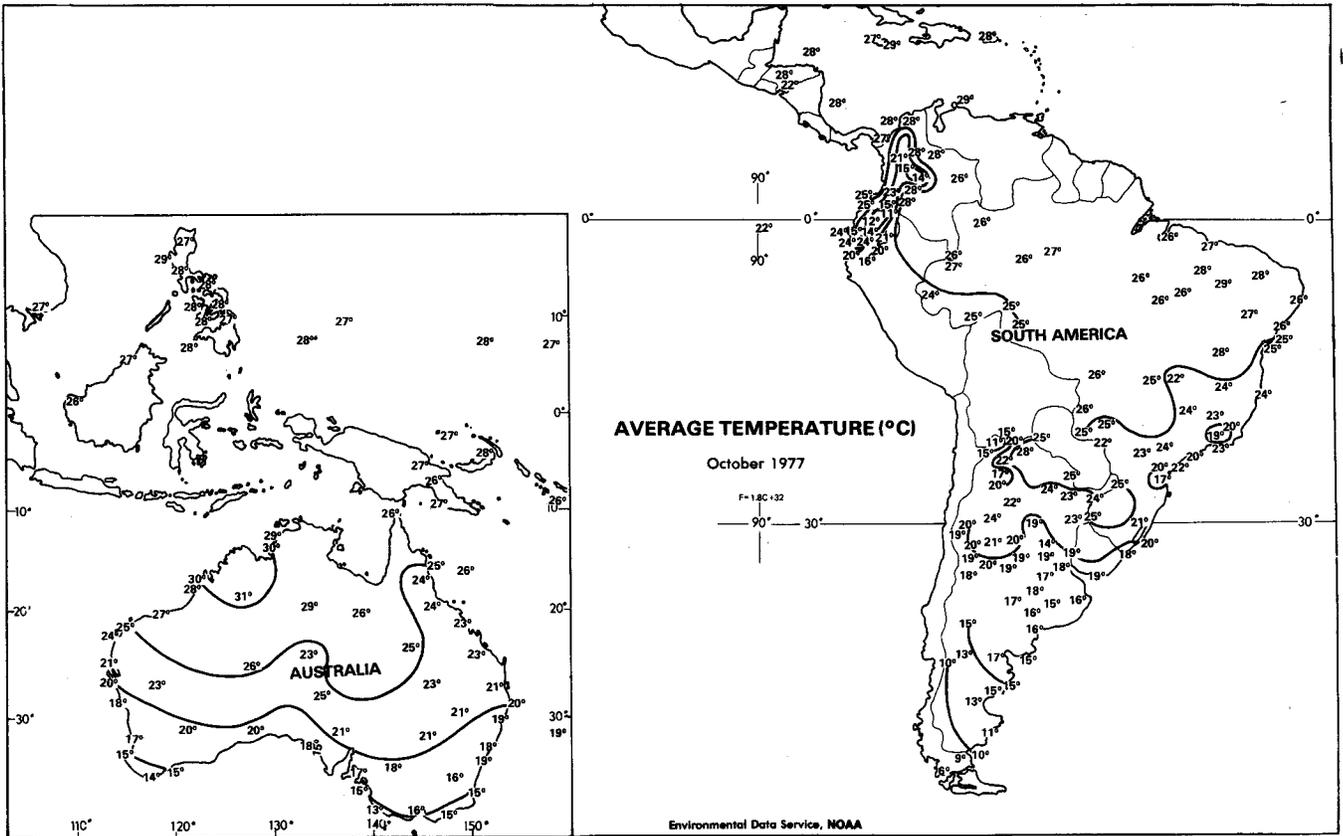


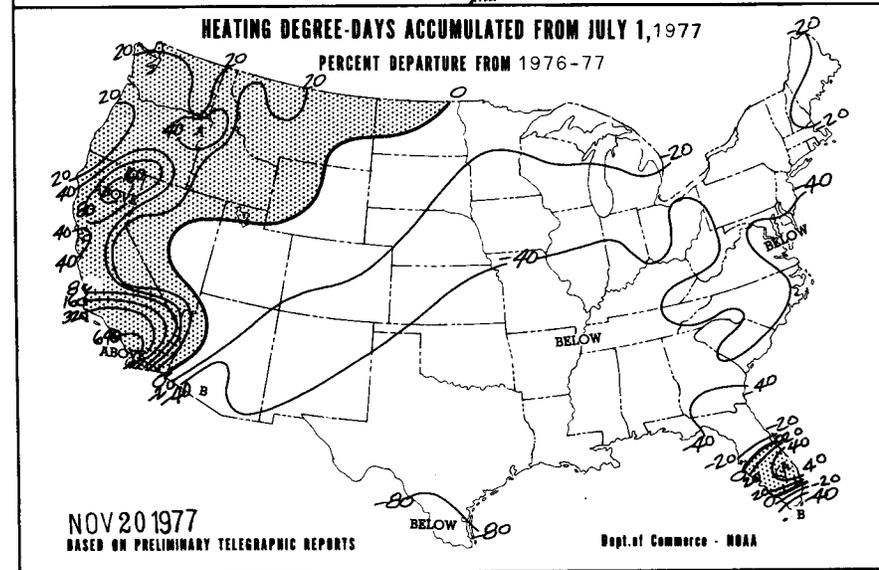
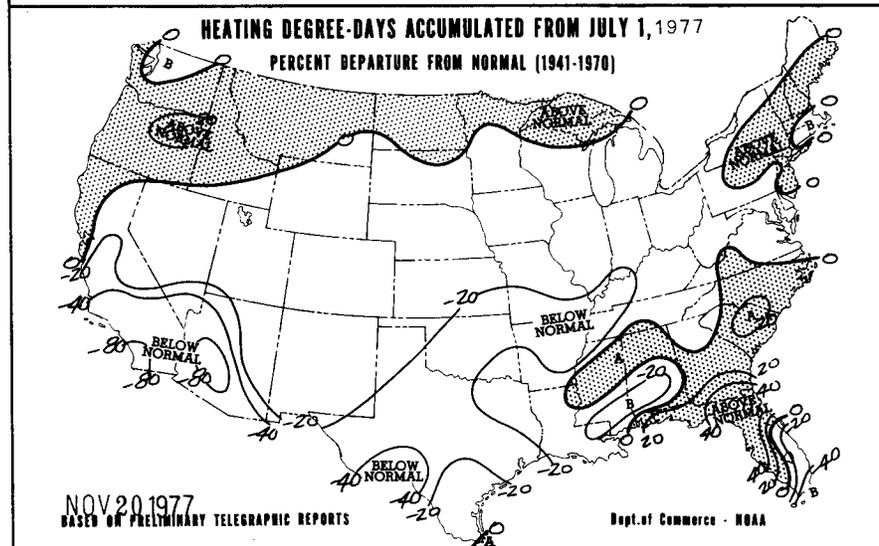
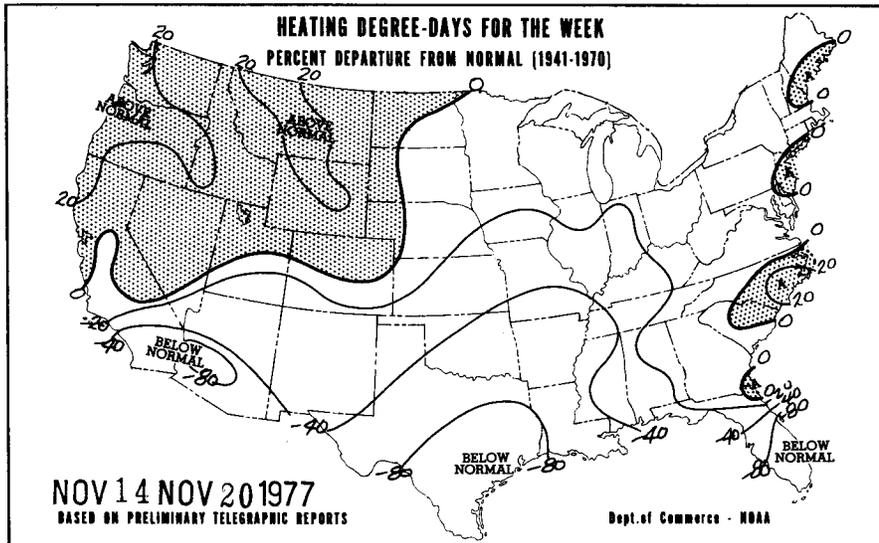












HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING NOV. 13, 1977.

STATES AND STATIONS	WEEKLY			SEASONAL ACCUMULATION +			STATES AND STATIONS	WEEKLY			SEASONAL ACCUMULATION +			STATES AND STATIONS	WEEKLY			SEASONAL ACCUMULATION +		
	TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77	TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77		TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77	TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77		TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77			
ALA. BIRMINGHAM...	10	20	20	20	1	202	MAINE. CARIBOU...	69	24	150	64	405	YOUNGSTOWN...	138	18	704	106	544		
MOBILE...	10	20	20	20	1	202	PORTLAND...	41	27	111	43	271	OKLA. OKLAHOMA CITY...	95	1	263	60	292		
MONTGOMERY...	10	20	20	20	1	202	MD. BALTIMORE...	98	18	298	35	197	TULSA...	95	1	263	60	292		
ARIZ. FLAGSTAFF...	92	34	21	92	34	21	MASS. BOSTON...	90	31	563	35	197	OREG. ASTORIA...	112	11	311	84	388		
PHOENIX...	10	20	20	10	20	20	MICH. ALPENA...	69	22	121	35	197	BURNS...	112	11	311	84	388		
TUCSON...	10	20	20	10	20	20	DETROIT...	121	22	338	35	197	MEFORD...	112	11	311	84	388		
MINSLON...	10	20	20	10	20	20	FLINT...	121	22	338	35	197	PORTLAND...	112	11	311	84	388		
YUMA...	10	20	20	10	20	20	GRAND RAPIDS...	121	22	338	35	197	SALEM...	112	11	311	84	388		
ARK. FORT SMITH...	10	20	20	10	20	20	HOUGHTON LAKE...	121	22	338	35	197	PENDELTON...	112	11	311	84	388		
LITTLE ROCK...	10	20	20	10	20	20	LANSING...	121	22	338	35	197	PORTLAND...	112	11	311	84	388		
CALIF. BAKERSFIELD...	39	1	77	39	1	77	MARQUETTE...	121	22	338	35	197	SCRANTON...	112	11	311	84	388		
EUREKA...	12	12	103	12	12	103	MUSKEGON...	121	22	338	35	197	I. PROVIDENCE...	110	25	669	22	331		
FRESNO...	14	1	103	14	1	103	S. MARIE...	121	22	338	35	197	C. CHARLESTON...	10	10	184	14	149		
LOS ANGELES...	14	1	103	14	1	103	MINN. DULUTH...	19	15	165	51	159	COLUMBIA...	10	10	184	14	149		
RED BLUFF...	14	1	103	14	1	103	INTERNATIONAL FALLS...	19	15	165	51	159	GREENVILLE...	10	10	184	14	149		
SAN DIEGO...	14	1	103	14	1	103	WINNEPESIS...	19	15	165	51	159	S. DAK. ABERDEEN...	14	14	113	0	131		
SAN FRANCISCO...	14	1	103	14	1	103	ROCHESTER...	19	15	165	51	159	HURON...	14	14	113	0	131		
STOCKTON...	14	1	103	14	1	103	ST. CLOUD...	19	15	165	51	159	RAPID CITY...	14	14	113	0	131		
COLO. DENVER...	12	12	250	12	12	250	MISS. JACKSON...	23	23	245	29	271	SIoux FALLS...	14	14	113	0	131		
GRAND JUNCTION...	12	12	250	12	12	250	MERIDIAN...	23	23	245	29	271	TENN. CHATTANOOGA...	11	11	100	10	360		
PUEBLO...	12	12	250	12	12	250	MO. COLUMBIA...	23	23	245	29	271	KNOXVILLE...	11	11	100	10	360		
CONN. BRIDGEPORT...	12	12	250	12	12	250	KANSAS CITY...	23	23	245	29	271	NEWPORT...	11	11	100	10	360		
HARTFORD...	12	12	250	12	12	250	SPRINGFIELD...	23	23	245	29	271	NASHVILLE...	11	11	100	10	360		
DEL. WILMINGTON...	10	14	506	10	14	506	ST. LOUIS...	23	23	245	29	271	TEXAS ABILENE...	11	11	100	10	360		
D.C. WASHINGTON...	74	29	286	74	29	286	MONT. BILLINGS...	23	23	245	29	271	AMARILLO...	11	11	100	10	360		
FLA. APALACHICOLA...	15	15	115	15	15	115	GLASGOW...	23	23	245	29	271	RUSTIN...	11	11	100	10	360		
DAYTONA BEACH...	15	15	115	15	15	115	GREAT FALLS...	23	23	245	29	271	HEARTFORD...	11	11	100	10	360		
FORT MYERS...	15	15	115	15	15	115	HAWES...	23	23	245	29	271	BRONXVILLE...	11	11	100	10	360		
JACKSONVILLE...	15	15	115	15	15	115	HELENA...	23	23	245	29	271	CORPUS CHRISTI...	11	11	100	10	360		
KEY WEST...	15	15	115	15	15	115	HILLSPELL...	23	23	245	29	271	DEL RIO...	11	11	100	10	360		
LAKELAND...	15	15	115	15	15	115	HILLS CITY...	23	23	245	29	271	PASO...	11	11	100	10	360		
MIAMI...	15	15	115	15	15	115	MISSOULA...	23	23	245	29	271	FORT WORTH...	11	11	100	10	360		
ORLANDO...	15	15	115	15	15	115	NEBR. GRAND ISLAND...	64	64	704	61	61	669	GALVESTON...	11	11	100	10	360	
TALLAHASSEE...	15	15	115	15	15	115	LINCOLN...	64	64	704	61	61	669	LUBBOCK...	11	11	100	10	360	
TAMPA...	15	15	115	15	15	115	NORFOLK...	64	64	704	61	61	669	MIDLAND...	11	11	100	10	360	
WEST PALM BEACH...	15	15	115	15	15	115	NORTH PLATTE...	64	64	704	61	61	669	SAN ANGELO...	11	11	100	10	360	
GA. ATLANTA...	20	20	249	20	20	249	ORAMA...	64	64	704	61	61	669	SAN ANTONIO...	11	11	100	10	360	
AUGUSTA...	20	20	249	20	20	249	VALENTINE...	64	64	704	61	61	669	VICTORIA...	11	11	100	10	360	
Macon...	20	20	249	20	20	249	NEV. ELY...	20	20	115	14	177	MACO...	11	11	100	10	360		
Savannah...	20	20	249	20	20	249	LAS VEGAS...	20	20	115	14	177	NICHITA FALLS...	11	11	100	10	360		
IDAHO. BOISE...	20	20	249	20	20	249	RENO...	20	20	115	14	177	UTAH. SALT LAKE CITY...	67	1	615	191	93		
LEHIStON...	20	20	249	20	20	249	MINNEAPOLIS...	20	20	115	14	177	BURLINGTON...	134	43	1083	7	339		
POCATELLO...	20	20	249	20	20	249	N.H. CONCORD...	39	32	1148	115	266	LYNCHBURG...	87	25	452	49	266		
ILL. CAIRO...	11	11	275	11	11	275	N.J. ATLANTIC CITY...	94	23	469	32	343	RICHMOND...	107	20	543	40	330		
CHICAGO...	11	11	275	11	11	275	TRENTON...	94	23	469	32	343	ROANOKE...	107	20	543	40	330		
MOLINE...	11	11	275	11	11	275	N.MEX. ALBUQUERQUE...	117	33	435	12	206	WASH. QUILLAYUTE...	13	1	140	78	186		
PEORIA...	11	11	275	11	11	275	ROSNELL...	117	33	435	12	206	SEATTLE-TACOMA...	13	1	140	78	186		
SPRINGFIELD...	11	11	275	11	11	275	N.Y. ALBANY...	117	33	435	12	206	SPokane...	13	1	140	78	186		
IND. EVANSVILLE...	14	12	416	14	12	416	BINGHAMTON...	117	33	435	12	206	HALLA HALLA...	13	1	140	78	186		
FORT WAYNE...	14	12	416	14	12	416	NEW YORK...	117	33	435	12	206	YAKIMA...	13	1	140	78	186		
INDIANAPOLIS...	14	12	416	14	12	416	ROCHESTER...	117	33	435	12	206	VA. BECKLEY...	13	10	757	30	439		
SOUTH BEND...	14	12	416	14	12	416	SYRACUSE...	117	33	435	12	206	CHARLESTON...	13	10	757	30	439		
IOWA. BURLINGTON...	53	25	639	53	25	639	N.C. ASHEVILLE...	119	23	503	30	240	HUNTINGTON...	13	10	757	30	439		
DES MOINES...	53	25	639	53	25	639	CHARLOTTE...	119	23	503	30	240	PARKERSBURG...	13	10	757	30	439		
DUBUQUE...	53	25	639	53	25	639	GREENSBORO...	119	23	503	30	240	WIS. GREEN BAY...	13	10	757	30	439		
SIoux CITY...	53	25	639	53	25	639	HATTERAS...	119	23	503	30	240	LACROSSE...	13	10	757	30	439		
KANS. CONCORDIA...	54	19	566	54	19	566	RALEIGH...	119	23	503	30	240	MADISON...	13	10	757	30	439		
DODGE CITY...	54	19	566	54	19	566	WILMINGTON...	119	23	503	30	240	MILWAUKEE...	13	10	757	30	439		
GOODLAND...	54	19	566	54	19	566	N.DAK. BISMARCK...	17	17	1304	28	74	CASPER...	13	10	757	30	439		
GOPEKA...	54	19	566	54	19	566	FARGO...	17	17	1304	28	74	CHEYENNE...	13	10	757	30	439		
NICHITA...	54	19	566	54	19	566	HILLISTON...	17	17	1304	28	74	LAMAR...	13	10	757	30	439		
KY. LEXINGTON...	11	18	414	11	18	414	OHIO. AKRON-CANTON...	130	23	745	45	45	469	SHERIDAN...	13	10	757	30	439	
LOUISVILLE...	11	18	414	11	18	414	CINCINNATI...	130	23	745	45	45	469	LA. BATON ROUGE...	5	2	151	2	180	
LA. BATON ROUGE...	5	2	151	5	2	151	CLEVELAND...	130	23	745	45	45	469	LAKE CHARLES...	5	2	151	2	180	
LAKE CHARLES...	5	2	151	5	2	151	COLUMBUS...	130	23	745	45	45	469	NEW ORLEANS...	5	2	151	2	180	
NEW ORLEANS...	5	2	151	5	2	151	DAYTON...	130	23	745	45	45	469	SHREVEPORT...	5	2	151	2	180	
SHREVEPORT...	5	2	151	5	2	151	TOLEDO...	130	23	745	45	45	469							

BASED ON 1941-70 NORMALS.

+ ACCUMULATION FROM JULY 1, 1977.



FIRST CLASS MAIL

COM 210

**HARVESTING PROGRESS**

Percent of acres harvested as of November 20

CORN

	1977	1976	Avg.
Ga	95	91	NA
Ill	90	96	91
Ind	85	90	75
Iowa	85	100	81
Kans	95	95	80
Ky	NA	NA	NA
Mich	75	90	76
Minn	NA	100	NA
Mo	73	95	79
Nebr	90	95	85
N C	100	93	88
Ohio	NA	NA	NA
Pa	NA	NA	NA
S Dak	NA	100	NA
Tex	100	100	100
Wisc	80	100	85
U. S.	87	97	84

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

COTTON

	1977	1976	Avg.
Ala	80	69	74
Ark	94	88	82
Ga	67	67	NA
La	93	94	75
Miss	94	88	77
Mo	91	84	80
N C	78	65	71
Okla	51	45	15
S C	87	74	81
Tenn	96	77	74
Tex	78	34	33
11 Southern States	82	55	50

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

NA Not Available

SOYBEANS

	1977	1976	Avg.
Ala	68	82	79
Ark	79	88	78
Ga	53	55	NA
Ill	95	100	100
Ind	85	100	90
Iowa	89	100	100
Kans	75	95	85
Ky	NA	NA	NA
La	90	97	84
Mich	80	100	95
Minn	100	100	100
Miss	80	86	73
Mo	70	95	83
Nebr	90	100	95
N C	41	47	55
Ohio	100	100	NA
S C	42	41	52
Tenn	89	87	73
U. S.	84	92	88

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

SORGHUM

	1977	1976	Avg.
Colo	NA	NA	NA
Kans	90	95	80
Mo	83	96	81
Nebr	90	100	90
Okla	86	87	70
S Dak	NA	100	100
Tex	100	98	97
7 States	93	97	88

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