

# WEEKLY WEATHER AND CROP BULLETIN

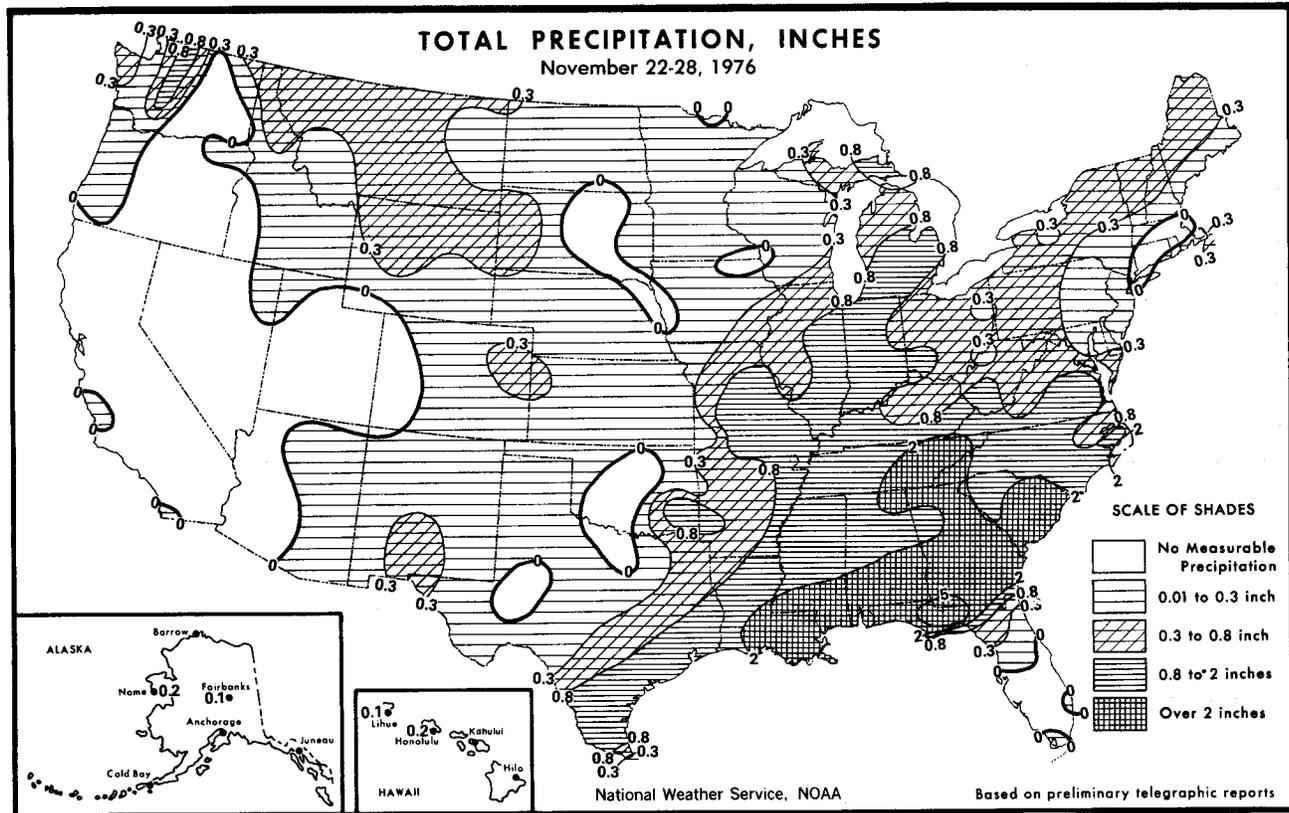
U.S. DEPARTMENT OF COMMERCE  
National Weather Service, NOAA

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service

Volume 63, No. 48

Washington, D.C.

Nov. 30, 1976



## National Weather Summary For the Week of November 22-28

**HIGHLIGHTS:** Virtually the entire Nation averaged unseasonably cold temperatures during the week, especially areas from the Great Plains eastward, where the mercury plummeted as low as 11° below normal in places. Accompanied by frigid air, vigorous winds, and snow, a winter storm came to life at midweek in northwestern U.S. Capturing weather headlines, the storm intensified throughout the remainder of the week. At the end of the week, the system split, encompassing a large section of the Nation with winterlike conditions.

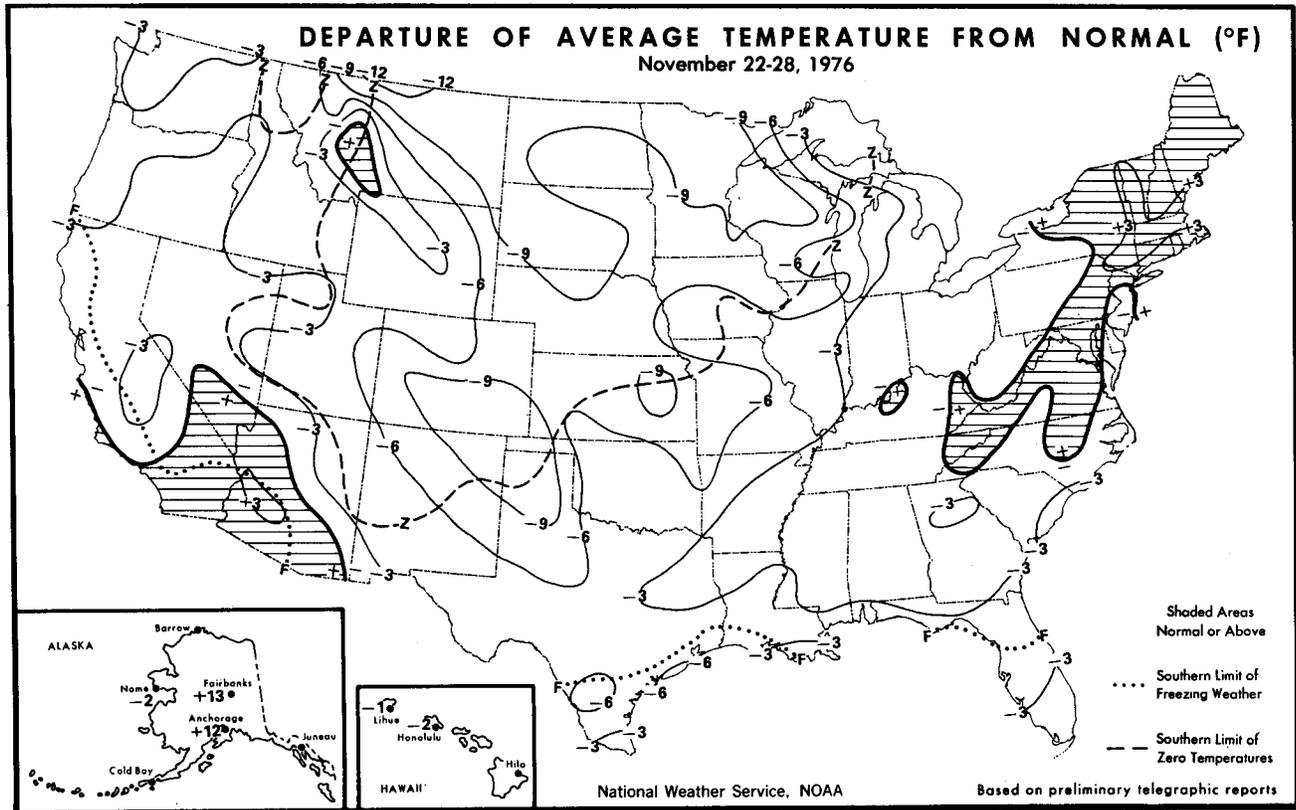
As winterlike weather stalked portions of the eastern U.S. on Monday, snow swirled across the lower Ohio Valley and Great Lakes region throughout the day. In portions of the upper Ohio Valley and eastern Great Lakes area snow accumulated to measurable depths. In Michigan, for example, about 10 inches piled up in Sault Saint Marie, and Marquette looked out on 5 inches of snow.

Cleveland, Ohio and Erie, Pa. each measured 3 inches.

Unseasonably cold morning air gripped areas from the Plains eastward. Early afternoon temperatures halted in the teens throughout North Dakota and northern Minnesota, and warmed only into the 20's and 30's from the central Plains through the upper and middle Mississippi Valley into the Great Lakes region and northern half of the Atlantic Coast States.

Faced with the threat of locally heavy snow squalls, forecasters posted travelers advisories for northeastern Ohio. Nighttime snow continued to fall lightly over most of Michigan, the upper Ohio Valley, and lower Great Lakes region into the central and northern Appalachians.

Tuesday brought little change in the Nation's weather. Ranked as the No. 1 weather event, snow showers continued from the upper Mississippi Valley through the Great Lakes region and western



portions of the northern Atlantic Coast States. Heaviest snowfall streamed into the higher altitudes along the eastern shores of Lakes Erie and Ontario. Light to moderate snow developed across much of Missouri.

Scarce was the word for nighttime precipitation across the Nation. A little snow whirled across southwestern Iowa and Kentucky, and some rain and drizzle dampened south central Texas. End-of-day temperatures turned unseasonably cool over the eastern third of the Nation, moderating in the Great Plains.

Wednesday morning's new record low temperature of 16° at Richmond, Va. testified to the unseasonably cold weather still clutching the Southeast. Late morning temperatures remained below freezing across the Great Lakes region, through the upper Ohio Valley and into the northern Atlantic Coast States. Meantime unseasonably warm readings favored the Plains and portions of the Rockies.

The harbinger of a developing winter storm in the northern Rockies, scattered morning precipitation appeared across northern Idaho and western Montana. Amid widespread storm warnings the upper Midwest braced for a winter blast. For varying times, forecasters posted storm watches for North Dakota, South Dakota, southern Minnesota, and the northwestern half of Wisconsin and upper Michigan. Weekend travelers kept a wary eye on the complex storm system as it intensified over northwestern U.S.

On Thursday the wintry blast showed no sign of letting up. As it continued to churn in the northern Rockies, weather advisories came out of the northern and central Rockies into the northwest Great Lakes region. Snow accumulations of 1 to 2 inches were common throughout the area.

Eastern U.S. wasn't without its share of

winterlike conditions. In the upper Mississippi Valley a low pressure system implanted snow and cold weather across the upper sections of the Mississippi Valley and Great Lakes region.

As it sank deeper into the central Rockies, the winter storm produced locally heavy accumulations of snow on Friday morning across the northern and central Rockies and central Plains. In certain areas, gusty winds accompanied the snow, and in eastern Colorado, produced blizzard conditions. As the storm tightened its grip on the central High Plains, near blizzard conditions sharply cut visibility to almost zero in western Kansas.

As the weekend approached, the vigorous frontal system delivered snow, wind, and cold temperatures to a wide area of the country. Snow swept across the southern Rockies into Kansas and upper Michigan.

Saturday marked a turning point in the storm's activity. As the storm split apart, one area of snow shifted northeastward to the middle Mississippi Valley and western Great Lakes region. The other near-stationary area hovered over the southern Rockies and southwestern Plains.

In partnership with the snow, clear bitterly cold air swept into the country. Subzero readings were common from the northern and central Rockies into the upper Mississippi Valley.

With the weather week about to end, chinook winds took the edge off winter over the central third of Montana. Elsewhere in the State, however, temperatures remained well below freezing.

Moving into the Southeast on Sunday, the frontal system glazed the Deep South with freezing rain. Cold or very cold weather dominated most of the Nation from the lower Great Lakes region to the Gulf and west across the Mississippi Valley to the Pacific Coast.

## National Agricultural Summary

For the Week of November 22-28

**HIGHLIGHTS:** Even though virtually the entire Nation experienced subnormal temperatures, U. S. farmers took advantage of the dry conditions and made good harvesting progress. Harvest of corn was just about complete by week's end with 99% combined, equal to the pace a year ago. Soybeans were 97% harvested, well ahead of 1975 when 90% of the crop was cut by this time of year. Cotton growers recorded excellent progress with 76% of the acreage picked, 13 points ahead of last year. Germination problems continued to plague winter wheat because of the short topsoil and subsoil moisture supplies in much of the growing area. Precipitation in a portion of the southeastern United States temporarily improved the moisture situation, but more is needed for germination of small grains and growth of winter pastures.

**SMALL GRAINS:** Winter wheat seeding reached the windup stages in some of the smaller wheat areas. Spotted, thin stands were caused by poor soil moisture conditions in parts of the major wheat producing States. Winter wheat condition in Indiana, Missouri, and Nebraska was mostly fair, while the Illinois crop was in fair to good shape. Montana reported poor to fair winter wheat condition in the primary growing area, fair elsewhere. Wind damage has been light.

Oklahoma's acreage made some growth during warmer days early in the week. Cool, wet conditions slowed the Texas crop development, though irrigation equipment was used where available on northern High Plains. Seeding oats, barley, and rye in the southeastern area advanced as farmers cleared the land of fall crops.

**CORN:** U. S. corn growers were almost ready to turn their attention elsewhere with 99% of the acreage harvested. In the western North Central States, harvest was virtually complete compared with 100% a year ago and the 97% average. The eastern North Central farmers hit the 98% mark, just 1 point behind a year ago, but 4 points ahead of average.

Harvest advanced reasonably well in the South Central States with 97% complete and South Atlantic Region, which moved to 93% complete. Both surpassed last year's progress and the average. Texas farmers wrapped up the corn harvest a week ahead of average. Yields in almost all areas were excellent. Tennessee corn was 92% combined, equal to 1975's rate and a few points above average. Excellent yields were common. Some of Tennessee's high moisture fields remained unharvested in middle and eastern areas.

**COTTON:** Cotton harvest in the 11 major producing States advanced to 76% picked, well ahead of last year when 63% was harvested and the 59% average. Progress in only Missouri, South Carolina, and Arkansas lagged the pace of a year ago. Stripping in Oklahoma was 60% complete, far ahead of the 15% in 1975 and the 30% average. Light yields in Oklahoma rated only fair to poor. Stripping advanced rapidly on the Texas Plains and Trans-Pecos areas until the end of the week. Progress in those areas jumped 22 points to 56% complete, well ahead of last year and average.

The Mississippi acreage was 95% picked, considerably more than the 72% harvested a year ago and the 84% average. Cotton harvest reached 97% complete in Louisiana, 92% in Arkansas, and 79% in Alabama. Harvest of the western crop was in full volume in Arizona, but snow halted progress

in New Mexico at 70% complete. In Nevada's Pahrump Valley and the California desert, cotton harvest advanced rapidly.

**SOYBEANS:** The Nation's 1976 soybean crop was 97% combined by the end of the week, compared with 90% last year and 85% average. The entire North Central area was considered harvested with each State reporting either a 99 or 100% completion rate. The South Central States, at 94% combined, outdistanced 89% in 1975 and the 80% average. Heavy rains in Alabama slowed progress, but at 85%, harvest remained ahead of last year and normal. The South Atlantic Region was 67% harvested, equal to the rate of a year ago, but slightly ahead of the 65% average. Soybeans in North Carolina and Florida were combined at a rapid pace; while other States in the area lagged progress of a year ago.

**OTHER CROPS:** Grain sorghum in Texas was 99% combined with only a few unharvested fields in the Panhandle. The Oklahoma crop was 95% harvested, compared with 90% in 1975 and the 75% average. Kansas sorghum growers completed harvest, equal to the progress a year ago.

The quality and price of Kentucky's burley tobacco was up from opening day last year. Dry weather caused poor ordering of tobacco in Kentucky and Tennessee and continued to delay stripping. Plant beds for the 1977 crop were being prepared in most growing areas.

With only a few fields to wrap-up, peanut harvest in Oklahoma was nearly complete. Rains again delayed harvest of the Texas crop. Quality continued to deteriorate but yield losses were expected to be minimal.

**FRUITS AND NUTS:** The Florida citrus crop remained unchanged from a week ago with continued irrigation in most areas. No damage from cold weather was reported and harvest was active. In California, harvest of avacados, dates, desert grapefruit, and other citrus fruits progressed. Citrus fruit harvest in Arizona continued, but grapefruit harvest was limited. Citrus activity was at a standstill in Texas due to wet, cold weather. No freeze damage was recorded through November 28th.

Pecan harvest increased in New Mexico. Georgia's pecan crop was in poor to mostly fair condition with 58% harvested, behind last year's 67%. The Mississippi crop was 70% gathered, equal to the 1975 harvesting rate, but ahead of the 66% average.

**VEGETABLES:** Foul weather hindered much of the Texas vegetable crops. Total shipments from Florida were down 8% from the previous week. Tomato production was near the fall peak. Cool weather damage to tender crops was mostly light to moderate. In California, broccoli and cauliflower harvests were active statewide, with attention focused on lettuce in the southern areas.

**PASTURE AND LIVESTOCK:** Pastures in the western two-thirds of the Nation changed little from a week ago. Some precipitation in certain South Central and mid-Atlantic States may improve conditions slightly. Grazing from most major winter wheat areas was still minimal. Supplemental feeding remained a necessity. Cattle and calves were in good condition nationwide. However, closer culling was indicated for some areas due to poor grazing and heavy feeding requirements.

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., November 28, 1976

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 . . .	49	0	.9	-.1	La. Baton Rouge . . .	53	-3	2.5	+1.5	Youngstown . . .	34	-2	.3	-.4
Mobile . . .	51	-5	3.3	+2.3	Lake Charles . . .	54	-4	1.5	+4	OKLA. Okla. City . . .	41	-5	T	-.3
Montgomery . . .	50	-2	3.5	+2.3	New Orleans . . .	55	-3	2.4	+1.3	Tulsa . . .	42	-4	T	-.4
ALASKA. Anchorage . . .	30	+12	1.0	+7	Shreveport . . .	51	-2	.7	-.2	OREG. Astoria . . .	42	-3	.1	-2.3
Barrow . . .	---	---	---	---	MAINE. Caribou . . .	27	0	.4	-.4	Burns . . .	32	-1	0	-.4
Fairbanks . . .	10	+13	.1	0	Portland . . .	38	+3	.1	-.1	Bedford . . .	36	-5	T	-.8
Juneau . . .	---	---	---	---	MD. Baltimore . . .	44	+1	.2	-.6	Pendleton . . .	35	-4	T	-.4
Kodiak . . .	---	---	---	---	MASS. Boston . . .	38	+3	0	-1.1	Portland . . .	40	-3	T	-1.4
Nome . . .	9	-2	.2	0	Chatham . . .	41	-	.4	---	Salem . . .	39	-4	T	-1.5
ARIZ. Flagstaff . . .	33	-1	.1	-.3	MICH. Alpena . . .	30	-1	.6	0	PA. Allentown . . .	39	+1	.1	-.8
Phoenix . . .	60	+3	0	-.1	Detroit . . .	35	-1	.7	+2	Erie . . .	36	0	.6	-.2
Tucson . . .	57	+1	.1	0	Flint . . .	33	-1	1.2	+7	Harrisburg . . .	41	+1	.1	-.7
Winslow . . .	35	-4	.3	+2	Grand Rapids . . .	31	-4	1.3	+7	Philadelphia . . .	40	-2	T	-.8
Yuma . . .	61	+1	0	-.7	Houghton Lake . . .	36	-4	.4	-.2	Pittsburgh . . .	35	-2	.6	0
ARK. Fort Smith . . .	41	-6	T	-.7	Lansing . . .	32	-2	.9	+5	Scranton . . .	40	+3	.1	-.6
Little Rock . . .	47	-1	.4	-.2	Marquette . . .	28	-2	.7	0	R.I. Providence . . .	40	+1	T	-1.1
CALIF. Bakersfield . . .	50	-3	T	-.6	Muskegon . . .	32	-3	.7	0	S.C. Charleston . . .	51	-3	2.8	+2.3
Eureka . . .	49	-2	T	-1.5	S. Ste. Marie . . .	26	-2	1.0	+2	Columbia . . .	49	-2	2.2	+1.6
Fresno . . .	46	-4	T	-.4	MINN. Duluth . . .	13	-10	.1	-.3	Greenville . . .	46	-2	1.4	+6
Los Angeles . . .	61	0	0	-.6	Internatl Falls . . .	9	-10	T	-.3	S.D. Aberdeen . . .	18	-7	T	-.1
Red Bluff . . .	61	0	0	-.8	Minneapolis . . .	21	-6	.1	-.2	Huron . . .	17	-10	T	-.1
San Diego . . .	51	+2	.1	-.3	Rochester . . .	18	-9	.1	-.1	Rapid City . . .	21	-11	.5	+4
San Francisco . . .	61	-1	0	-.7	St. Cloud . . .	15	-10	.1	-.1	Sioux Falls . . .	20	-8	.1	+1.3
Stockton . . .	49	-1	T	-.5	MISS. Jackson . . .	50	-3	1.2	+2	TENN. Chattanooga . . .	45	-1	2.3	+1.3
COLO. Denver . . .	31	-5	.3	+2	Meridian . . .	32	-8	.9	+5	Knoxville . . .	46	0	2.9	+2.0
Grand Junction . . .	28	-8	0	-.1	MO. Columbia . . .	31	-8	.2	-.1	Memphis . . .	47	-1	1.3	+3.3
Pueblo . . .	26	-11	.2	+1	Kansas City . . .	36	-5	.7	+1	Nashville . . .	45	-2	1.7	+3
CONN. Bridgeport . . .	43	+1	T	-.9	St. Louis . . .	36	-6	.2	-.3	TEX. Abilene . . .	33	-10	.1	0
Hartford . . .	41	+4	T	-1.1	Springfield . . .	28	-4	.5	+4	Amarillo . . .	52	-4	.5	+3
D.C. Washington . . .	45	+1	.3	-.4	MONT. Billings . . .	14	-10	.2	+1	Beaumont . . .	54	-4	1.4	+3
FLA. Apalachicola . . .	54	-5	.4	-.3	Glasgow . . .	31	0	.6	+4	Brownsville . . .	64	-2	.3	0
Daytona Beach . . .	59	-4	0	-.4	Great Falls . . .	13	-12	.4	+3	Corpus Christi . . .	58	-4	1.0	+6
Ft. Myers . . .	64	-3	0	-.2	Havre . . .	29	+1	.3	+2	Dallas . . .	---	---	---	---
Jacksonville . . .	54	-5	.2	-.2	Helena . . .	23	-5	.4	0	Del Rio . . .	52	-4	.1	0
Key West . . .	73	-1	.2	-.3	Kalispell . . .	19	-9	.1	0	El Paso . . .	44	-4	.5	+4
Lakeland . . .	61	-4	0	-.4	Miles City . . .	24	-5	.1	-.2	Fort Worth . . .	49	-4	T	-.4
Miami . . .	70	-1	T	-.4	Missoula . . .	26	-8	.1	0	Galveston . . .	55	-6	1.3	+5
Orlando . . .	60	-4	T	-.3	NEBR. Grand Island . . .	27	-7	T	-.2	Houston . . .	53	-5	.9	-.1
Tallahassee . . .	54	-2	5.6	+4.8	Lincoln . . .	25	-7	T	-.1	Lubbock . . .	39	-7	.2	+1
Tampa . . .	60	-5	0	-.4	Norfolk . . .	25	-7	.1	0	Midland . . .	45	-5	T	-.1
W. Palm Beach . . .	68	-1	.1	-.3	N. Platte . . .	28	-5	T	-.2	San Angelo . . .	47	-5	T	-.1
GA. Atlanta . . .	45	-3	1.9	+1.0	Omaha . . .	20	-10	.1	0	San Antonio . . .	52	-5	.5	+1
Augusta . . .	49	-2	2.0	+1.4	Valentine . . .	20	-10	.1	0	Victoria . . .	55	-5	.3	-.2
Macon . . .	50	-2	2.4	+1.7	NEV. Ely . . .	28	-3	T	-.2	Waco . . .	51	-3	.2	-.3
Savannah . . .	52	-2	4.0	+3.5	Las Vegas . . .	51	+1	0	-.1	Wichita Falls . . .	45	-4	0	-.3
HAWAII. Hilo . . .	---	---	---	---	Reno . . .	35	-2	0	-.2	UTAH. Blanding . . .	31	-4	0	-.2
Honolulu . . .	74	-2	.2	-.6	Winnemucca . . .	32	-2	T	-.3	Salt Lake City . . .	34	-2	T	-.3
Kahului . . .	---	---	---	---	N.H. Concord . . .	35	+1	.1	-.9	VT. Burlington . . .	36	+4	.3	-.3
Lihue . . .	73	-1	.1	-1.3	N.J. Atlantic City . . .	42	0	.2	-.8	VA. Lynchburg . . .	43	-1	.9	+2
IDAHO. Boise . . .	37	-4	0	-.4	Trenton . . .	41	-1	T	-.8	Norfolk . . .	48	0	.8	0
Lewiston . . .	37	-1	T	-.3	N.MEX. Albuquerque . . .	35	-6	.2	+1	Richmond . . .	45	0	.7	+1
Pocatello . . .	28	-4	T	-.3	Roswell . . .	38	+6	.1	0	Roanoke . . .	43	0	.7	+1
ILL. Cairo . . .	41	-3	1.1	+1	N.Y. Albany . . .	38	+3	T	-.7	WASH. Colville . . .	28	-3	.2	-.3
Chicago . . .	30	-6	.5	0	Binghamton . . .	33	-1	.2	-.5	Oak . . .	29	-3	0	-.4
Moline . . .	28	-7	.6	+2	Buffalo . . .	35	-1	.7	-.2	Quillayute . . .	39	-4	.5	-2.8
Peoria . . .	30	-5	.8	+4	New York . . .	43	0	.1	-.5	Seattle-Tacoma . . .	42	-1	.1	-1.3
Rockford . . .	26	-7	.4	-.1	Rochester . . .	38	+2	.1	-.5	Spokane . . .	29	-4	.1	-.5
Springfield . . .	34	-4	.5	0	Syracuse . . .	39	+2	.3	-.5	Walla Walla . . .	37	-3	T	-.5
IND. Evansville . . .	38	-3	1.1	+3	N.C. Asheville . . .	44	+1	1.0	+3	Yakima . . .	32	-4	T	-.3
Ft. Wayne . . .	35	-1	.6	0	Charlotte . . .	44	-1	1.3	+7	W.Va. Beckley . . .	38	0	.4	-.3
Indianapolis . . .	36	-1	.8	+1	Greensboro . . .	51	-2	2.1	+1.0	Charleston . . .	41	-1	.8	+1
South Bend . . .	34	-1	1.8	+1.2	Hatteras . . .	50	+3	.8	+1	Huntington . . .	43	+1	.6	-.1
IOWA. Burlington . . .	30	-5	.4	0	Raleigh . . .	50	-3	.9	+2	Parkersburg . . .	40	-1	.2	-.4
Des Moines . . .	28	-5	.1	-.2	Wilmington . . .	19	-5	.1	0	WIS. Green Bay . . .	20	-9	.1	-.3
Dubuque . . .	24	-7	.3	-.3	N.DAK. Bismarck . . .	15	-8	.2	+1	La Crosse . . .	23	-7	T	-.3
Sioux City . . .	24	-7	T	-.2	Fargo . . .	12	-11	.3	+2	Madison . . .	25	-5	.1	-.3
KANS. Concordia . . .	29	-8	.1	0	Williston . . .	35	-2	.3	-.3	Milwaukee . . .	27	-5	.6	+1
Dodge City . . .	33	-6	.2	+1	OHIO Akron-Canton . . .	38	-2	.8	+1	WYO. Casper . . .	28	-2	.1	0
Goodland . . .	27	-8	.3	+2	Cincinnati . . .	35	-3	.3	-.3	Cheyenne . . .	26	-6	.1	0
Topeka . . .	30	-6	T	-.3	Cleveland . . .	38	-2	.6	0	Lander . . .	23	-5	.3	+1
Wichita . . .	33	-8	.1	-.1	Columbus . . .	36	-2	.6	0	Sheridan . . .	26	-4	.6	+4
KY. Lexington . . .	40	-1	.4	-.4	Dayton . . .	37	-1	.8	+2	P.R. San Juan . . .	81	+3	1.0	-.3
Louisville . . .	42	+1	.7	-.1	Toledo . . .	33	-2	.4	-.2					

Based on 1941-70 Normals

Publication of the Weekly Weather and Crop Bulletin began in 1872 as the Weekly Weather Chronicle. It is now issued under general authority of the Act of January 12, 1895 (44USC 213), 53 Cong., 3d Session. Contents of the Bulletin may be reprinted freely, with proper credit.

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

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

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Record low temperatures but average only 1° below normal. Heavy rains occurred 25th and 26th.

Fieldwork: 4 days suitable. Soil moisture adequate. Major activities: Harvesting cotton, soybeans, corn, seeding small grains, and care and feeding livestock. Cotton harvest 79% complete, 65% 1975, 82% average. Soybean harvest 85% complete, 82% 1975, 84% average. Corn harvest 92% complete, 83% 1975, 90% average. Seeding small grains nearly complete. Pastures seasonally short to adequate. Livestock fair to good.

**ARIZONA:** Cold front with snow in high country, scattered rain showers southeast deserts. Near record low minimum temperatures. Measured 6.00 in. snow east Mogollon Rim, 8.00 to 12.00 in. White Mountains.

Cotton harvest full volume. Land preparation, planting small grains active. Harvest late sorghum grain continued. Sugarbeet harvest near completion. Late cutting alfalfa active. Lettuce harvest complete Cochise County, full volume central, west. Mixed vegetables good progress. Melon harvest complete. Picking lemons, navels, early tangerines continued. Grapefruit harvest limited. Range forage, water supplies improved. Cattle, calves good condition. Lambing complete.

**ARKANSAS:** Temperatures from 0 to 6° below normal. Extremes: 78 and 14°. Rainfall general, but very light.

Fieldwork: 5.0 days available. Soil moisture mostly adequate. Soybean harvest 93% complete, 94% 1975, 75% 1974. Cotton harvest 92% complete, 95% 1975, 73% 1974. Wheat 96% seeded, same as 1975. Oats 99% planted. Pastures short.

**CALIFORNIA:** Weak disturbance brought very light precipitation to the upper Sacramento Valley early in the week. Otherwise dry conditions prevailed throughout the State. Temperatures in the Central Valleys averaged near normal while over the remainder of the State temperatures averaged slightly above normal.

Foggy weather slowed harvest cotton, milo, Sacramento, San Joaquin Valleys. Cotton harvest full swing desert, mostly done San Joaquin Valley. Planting small grain active, spraying, irrigation, fertilizing, and pruning continue. Harvest of avocados, dates, desert grapefruit, lemons, limes, navel oranges, tangerines continues. Most active crops broccoli and cauliflower statewide and lettuce in south areas. Rangeland, Valley, areas, show improvement due to damp, foggy mornings. Mountain regions show signs of stress. Rain needed in upper elevations. Cattle receiving supplemental feed. Moving cattle to lower elevations. Stock water supplies remain below normal. Calving, lambing continue.

**COLORADO:** Clear, dry weather with above normal temperatures prevailed over State through 25th. Afternoon temperatures reaching upper 60's eastern plains, 50's western valleys, and 40's mountain valleys. Temperatures dropped 26th as an Arctic cold front moved across the State. Front brought 4.00 to 8.00 in. snow mountains 1.00 to 3.00 in. eastern plains and San Luis Valley.

**FLORIDA:** Cold weather prevailed until the 25th followed by warming trend over weekend. Temperatures

averaged 6 to 10° below normal. Frost, freezing temperatures occurred north, central during first half of week. Rainfall light central, south, generally less than 0.50 in. Heavy rainfall Panhandle produced totals of 2.00 to 5.00 in.

Soil moisture adequate most areas, short some central localities and along east coast. Heavy rains parts of northwest and Panhandle with possibility of flooding in low lying areas. Sugar-cane harvest full swing. Soybean, cotton harvest, seeding small grains about complete. Early planted grains up to good stands. Quality of grazing varies considerably, overall condition very poor to good. Frosts central areas continue to reduce pasture quality. Supplemental feeding in areas where needed. Cattle, calves mostly good condition except for few areas indicating poor to good condition. Citrus grove condition excellent, irrigation continues most areas. No cold damage, harvest active. Tomato production near fall peak. Shipments increased 22% from previous week. Quality, size generally good. Overall vegetable shipments down 8%. Cool weather damage to tender crops mostly light to moderate.

**GEORGIA:** Temperatures averaged 2 to 6° below normal. Rainfall averaged less than 0.10 in. northeast to over 0.50 in. extreme south. Rain 27th and 28th with 2.00 to 4.00 in. over State.

Soil moisture adequate. Fieldwork: 5 days suitable. Heavy weekend rains will hamper farming activities. Cotton mostly fair to good, 99% open, 76% harvested, last year 75%. Soybean condition fair to mostly good, 69% combined, last week 72%. Corn condition fair to mostly good, 94% harvested, last year 90%. Pecan condition poor to mostly fair, 58% harvested, 67% last year. Condition of pastures fair to good. Cattle fair to mostly good. Hogs good. Wheat 85% planted, last year 80%. Rye 91% planted, last year 90%. Other small grains 89% planted, last year 90%.

**HAWAII:** Weather variable. Growing conditions good all islands except Maui. Strong winds and heavy isolated rains damaged some vine crops and tomato plantings.

Vegetable supplies, some leafy crops continue to be light. Head cabbage production heavy. Others adequate. Banana supplies heavy. Papaya supplies moderate. Pineapple harvesting light. Sugar harvesting slowing. Pastures windward good, leeward poor to fair.

**IDAHO:** Average weekly temperature 2 to 4° above normal. Extremes: 60 and 8°. Precipitation maximum 0.40 in. Most stations below normal 0.15 to 0.25 in. for November.

Very little field activity. Preparation of fields, equipment repair for spring planting main activities. Poor prices holding up marketing. Cattle good shape. Feed adequate, long grazing season. Fall calving 50% complete.

**ILLINOIS:** Temperatures were 3 to 7° below normal. Below normal 10th straight week. Precipitation: Less than 0.33 in. northwest; more than 1.00 in. some southern areas. Snow most areas.

Soil moisture mostly short. Winter wheat remains mostly fair to good. Main farmwork: Fall plowing and fertilizer application as weather permitted.

INDIANA: Cold. Temperatures dipped to 2° north, 7° south. Precipitation broke dry spell, 0.30 in. in central, 1.00 to 1.30 in. in north and south. Air and soil temperatures much below normal.

Fieldwork: 6 days suitable. Topsoil and subsoil moisture mostly short to adequate. Corn 95% harvested, 1975 97%, average 80%. Sorghum grain 90% harvested. Tobacco 25% stripped. Wheat stands fair. Land for 1977 seeded crops 50% plowed, 1975 30%. Pastures mostly poor to fair.

IOWA: Seasonal to mild temperatures dropped sharply the 26th to average 4 to 8° subnormal for the week. Dry weather continued except over southeastern Iowa where 1.00 to 4.00 in. of snow fell.

KANSAS: Unseasonably mild temperatures 60's and low 70's midweek dropped sharply to sub-zero over northwest by weekend. Resulted in temperatures averaging 4 to 8° below normal. Precipitation averaged 0.10 in. in form of snow northwest and showers southeast.

Row crop harvest virtually complete. Corn 100% harvested, same as last year, 85% average. Sorghum 100% harvested, same as last year, 85% average. Soybeans 100% harvested, same as last year, 90% average. Wheat top cover short many areas. Moisture needed. Topsoil and subsoil moisture supplies generally short.

KENTUCKY: Temperatures below normal early week, above normal last of week. Precipitation ranged 0.50 to 1.00 in. mostly on Friday.

Corn and soybean harvest practically completed. Winter grain and pastures mostly fair condition. Growth slowed by dry soils and cold temperatures. Tobacco stripping hindered by dry conditions. Burley tobacco markets opened November 22. Average price first 4 days \$115.07, up \$9.07 comparable period last year. Quality of offerings improved from 1975.

LOUISIANA: Temperatures normal to 4° below. Extremes: 80 and 16°.

Soil moisture generally adequate. Fieldwork: 4.5 days suitable. Cotton harvest 97%, 84% last year, 79% average. Soybean harvest 99%, 95% year earlier, 85% average. Sugarcane harvest 57%, 64% year ago, sucrose and purity above normal. Oats 99% planted, 96% last year. Wheat 96% planted, same year ago. Pastures poor to fair. Cattle fair.

MARYLAND & DELAWARE: Temperatures averaged 4 to 5° below normal. Highs, low 50's; lows, upper 20's. Precipitation very light, mostly less than 0.10 in. Weekend warm, rain on Sunday.

Soybean harvest in full swing. Farmers doing fall plowing and late planting of small grains and cover crops. Many farmers hunting during the week.

MICHIGAN: Temperatures were 1 to 4° below normal over Lower Peninsula. Temperatures in the Upper Peninsula were 2 to 9° below normal. Precipitation over the Lower Peninsula varied from 1.50 in. in the extreme southwest to 0.50 in. in the northeast falling mainly as rain in the southern Lower Peninsula and snow in northern Lower Peninsula. In the Upper Peninsula, precipitation fell mainly as snow with amounts varying between 0.20 and 1.10 in.

Final harvesting of corn and some fall plowing, as weather permitted, were the main farm activities.

MINNESOTA: A cold week. Temperatures averaged 8° below normal. Extremes: 56 and -23°. Precipitation averaged 0.17 in. below normal. New snow fall totals: Traces extreme north and extreme southeast to 2.00 to 4.00 in. west.

Soil moisture supplies remain very short in most areas as subzero temperatures froze ground late last week.

MISSISSIPPI: Temperatures near normal in Upper Delta, subnormal elsewhere. Extremes: 16 and 76°.

Soil moisture mostly adequate. Fieldwork: 5.0 days suitable. Cotton 95% harvested, 72% 1975, 84% average. Soybeans 94% harvested, 83% 1975, 80% average. Corn 96% harvested, 95% 1975, 92% average. Pecans 70% harvested, 70% 1975, 66% average. Winter wheat 95% planted, 93% 1975. Oats 98% planted, 95% 1975. Pastures, livestock, winter wheat, and oats in fair condition.

MISSOURI: Temperatures ranged from 1 to 4° below normal except in Bootheel where the average was 1° above normal. Precipitation ranged from 0.10 in. in Northwest Prairie to 0.80 in. in Bootheel.

Farming activities: Fieldwork: 5.3 days suitable. Cotton harvested, 91% 1976; 96% 1975; 84% normal. Fall plowing for spring planted crops 72% complete. Winter wheat condition: 30% poor, 62% fair, 8% good. Pasture condition: 78% poor, 22% fair. Livestock condition: 9% poor, 75% fair, 16% good. Soil moisture supply: 91% short, 9% adequate.

MONTANA: Week began warm and dry. Major change brought snow and below 0 temperatures by end of week. Temperatures averaged near normal central division, about 5 to 10° below normal western and eastern divisions. Precipitation well above normal except western division valleys. Heaviest amounts between 0.50 and 1.50 in. in the mountains, central and south central divisions.

Winter wheat condition poor to fair north central, the main growing area--fair elsewhere. Wind damage to winter wheat light. Soil moisture short. Nearly 20% cattle and 25% sheep receiving supplemental feed. Winter ranges and pastures fair to good. Stock water short to adequate.

NEBRASKA: Precipitation general but light. Snow heaviest in west. Temperatures 8° below normal.

Fall harvest nearly complete. Topsoil and subsoil moisture supplies short throughout State. Winter wheat condition mostly fair. Moisture needed. Corn harvest nearly complete, normal 90%, 1975 100%. Stalk fields are providing good grazing.

NEVADA: Mild weather came to abrupt end. Temperatures plunged from a little above normal to much below normal. Extremes: 77 and 10°. No significant precipitation fell during week.

Cotton harvest well along Pahrump Valley. Livestock good condition.

NEW ENGLAND: Temperatures variable throughout week. Cold early week, warming to well above normal late week. Little or no precipitation was recorded in southern and central New England during week. Far northern mountain areas received precipitation amounting up to 0.50 in. snow.

NEW JERSEY: Temperatures 1 to 3° below normal, averaging 37° north, 40° south and 42° coastal areas. Extremes: 20 and 65°. Precipitation continues below normal, averaging 0.19 in. north, 0.36 in. south and 0.64 in. coastal sections. Trace of snowfall reported from many localities on 25th and early on 29th in Sussex County.

Scattered field corn and soybean harvest continues. Limited supplies of greens and hardy vegetables available.

**NEW MEXICO:** Winter storm moved into State Friday night bringing snows to most areas. Heaviest amounts were recorded over central highlands. Temperatures dropped sharply Saturday night. Mean temperatures were about 7° below normal.

Soil moisture mostly short in north, adequate south. Snow stopped field activities. Cotton 70% harvested. Winter wheat mostly fair. Grain sorghum and corn harvest virtually complete. Onions good. Pecan harvest activity increased.

**NEW YORK:** Cool temperatures 22d through 25th, lows in the 20's. Warming trend 26th and 27th. Extremes: 4 and 67°. Total precipitation ranged from trace at New York to 0.75 in. at Buffalo, except on Tug Hill Plateau with up to 33.00 in. of snow.

**NORTH CAROLINA:** Temperatures averaged near normal. Precipitation below but near normal.

Fieldwork: 5.2 days suitable. Soil moisture 15% short, 85% adequate. Corn for grain 95% combined, 1975 95%, average 90%. Soybeans 64% harvested, 1975 61% average 65%. Cotton 85% picked, 1975 83%, average 82%. Sorghum grain 90% harvested, 1975 91%. Wheat 83% planted, 1975 84%, average 82%. Oats 89% planted. Barley 89% planted. Rye 84% planted. Pastures 10% poor, 55% fair, 35% good. Small grain conditions average fair to good.

**NORTH DAKOTA:** Temperatures ranged 4° below normal to normal. Extremes: 55 to -16°. Precipitation ranged 1.18 in. above normal to 0.14 in. below normal. Some snow received, mostly melting as it fell. Weekend bitterly cold over entire State. Pastures and ranges continue open but very poor condition.

**OHIO:** Temperatures averaged below normal. Heavy snow east of Cleveland, 18.00 in. parts of Ashtabula County. Showers over entire state 26th, 0.67 in. northwest to trace southeast.

Corn harvest winding up. Few fields left to be combined. Livestock in fair condition.

**OKLAHOMA:** Temperatures averaged from 2 to 5° below normal. Precipitation mostly light and ranged from traces up to 0.96 in. Weekend very cold, with measurable precipitation confined to Panhandle and southwest. Occurred as very dry snow of 1.00 to 2.00 in.

Harvest of late season crops made good progress before high winds and sharp cold curtailed activity at end of week. Light amounts of moisture did not ease dry topsoil conditions, now short in 60% of counties. Corn and peanut harvest is now complete except for occasional windup fields. Grain sorghum acreage is 95% combined, compared 90% year ago, average 75%. Soybean combining 85% complete, ahead of relatively early harvest of year ago of near 80%. Cotton stripping nearly 60% complete, far ahead 15% year ago, 30% average. Yields only fair to poor. Wheat needs moisture but made some growth during warmer days early in the week. Some Panhandle acreage being watered. Ranges providing limited grazing. Wheat fields will have no effective carrying capacity without moisture and warmer temperatures. Herds being culled quite sharply.

**OREGON:** Dry weather persisted although some minor shower activity occurred, mainly at end of week. Temperatures were generally near normal west of the

Cascades and continued above normal over east. Extremes: Mid 60's, high 20's west; low 60's, mid teens east.

Fall seeding activity very light, just about completed. All grass, grain crops are looking good. Some spraying done. Walnut picking has been completed. Livestock continue to be in excellent condition. Cattle movement is about normal. Range and pastures remain in fair condition and feed supplies are good.

**PENNSYLVANIA:** Cold and dry except for snow flurries north and west. Fair and dry through Thursday; unsettled conditions and warmer thereafter until Monday when much colder again. Temperatures in the teens to 30's first half of week and 30 to 60° during the weekend. Extremes: 16 and 64°. Mildest week since beginning of November with temperatures averaging 1 to 3° below normal in the north, west, and extreme southeast: 1 to 4° above normal in the central and lower Susquehanna Valley. Precipitation last half as rain, freezing rain, sleet and snow with accumulations of 0.20 to 0.60 in. with new snow and traces south and central to 4.00 to 8.00 in. north central and northwest. Corn harvest and normal winter chores.

**PUERTO RICO:** Island average rainfall 0.24 in. Highest weekly total 1.28 in. at San Lorenzo. Temperatures averaged about 79° on coasts and 74° interior divisions. Extremes: 95 and 52°. Good weather for sugarcane ripening. Preparations coming harvest underway. Coffee harvest continued. Field operations proper to end of harvest active. Tobacco developing well. Pastures good condition. Planting, fertilizing and cultivating main activities. Food crops good growth.

**SOUTH CAROLINA:** Cool temperatures early week, warmer late week. Extremes: 17 and 68°. Rainfall above normal most areas, heaviest in southern region. Most rain fell late week.

Harvest, planting activities continued. Weather early week generally favorable. Producers preparing tobacco beds for 1977 crop. Cotton harvested; 84%, 1976; 89%, 1975; 87% average. Soybeans harvested; 59%, 1976; 61%, 1975; 61% average. Sorghum harvested; 86%, 1976; 84%, 1975; 81%, average. Oats planted; 80%, 1976; N/A, 1975; 76%, average. Wheat planted; 74%, 1976; 70%, 1975; 65% average. Barley planted; 84%, 1976. Rye planted; 87%, 1976.

**SOUTH DAKOTA:** Very cold, Arctic air moved into State end of week bringing variable amounts of precipitation. Temperature extremes: 68 and -18°. Precipitation in east and north generally less than 0.10 in. South and southwest received up to 0.40 in. Drought areas received little relief. Moisture deficits range to 14.00 in. below normal since January 1.

Farm activity slow. Livestock feeding main activity. Some repairs being made. Farmers going to sales.

**TENNESSEE:** High pressure caused northerly winds, below normal temperatures and good drying conditions at the outset. During weekend rain, sleet, freezing rain and snow fell over the State followed by frigid conditions. Temperatures averaged in the low and mid 40's which is normal to slightly below. Precipitation averaged less than 2.00 in. west but over 3.00 in. at many places in the east. Amounts are still much below seasonal normals at most places.

Harvest of corn, cotton and soybeans is nearing completion throughout the State. Harvest

progress is a few days ahead of both last year and normal progress. Principal activities: Harvesting, plowing, seeding wheat, stripping tobacco and caring for livestock. Pastures are dormant and supplemental feeding being done. Fieldwork: 5.1 days suitable. Soil moisture: 52% adequate, 42% short, 6% surplus. Some corn fields still high in moisture in middle and east Tennessee. Corn 92% last year, 89% average. Yields excellent. Cotton 87% harvested, 83% last year and average. Soybeans 93% harvested, 89% last year, 82% average. Dry weather has helped soybean harvest but a few late planted fields remain. Burley tobacco 75% stripped, 82% last year and 90% average. Dry weather has delayed stripping considerably. Wheat 91% seeded, 90% last year, 92% average.

TEXAS: Arctic cold front brought very cold air Friday and up to 4.00 in. Snow on South Plains. Temperatures 5 to 9° below normal except south where near normal. Rainfall below normal north, west; near normal far south; above normal along Coastal Plains and southeast.

Cotton harvest made good progress until end of week. Wheat seeding presently 93% complete, well behind 99% average. Cool, wet slowed crop development, limited grazing. Irrigation widespread on northern High Plains. Dryland fields need moisture. Oats slowed by cool. Grazing limited most areas. Flax seeding 16% complete, well behind 62% average. Wet conditions delay planting south; reduce planted acreage. Cotton stripping advanced rapidly on Plains. In Trans-Pecos, but weekend snowstorms will delay progress this week. Harvesting 56% complete, well ahead of 40% average. Sorghum combining nearly complete, only few fields north, in Panhandle left. Harvest now 99% complete, should conclude as soon as weather permits. Corn harvest completed, one week ahead of average date. Yields almost all areas excellent. Peanut harvest again delayed by rain. Quality continues to deteriorate, but yield losses minimal. Soybean harvest slowed in east by rain but progress rapid wherever weather permitted. Harvest currently 94%. Well ahead of 82% average. Sourgarcane harvest slowed by wet fields.

Lower Rio Grande Valley: Wet weather delayed progress most crops but some cabbage harvested. Citrus activity standstill. No freeze damage yet. Possible Monday night. Coastal Bend: Cucumber harvest shipments behind schedule because wet weather. Eagle Pass: Spinach harvest started. Pepper harvest delayed wet weather. Broccoli, cauliflower good progress. Harvest start soon. Laredo: Cabbage harvest started. Carrots excellent progress. San Antonio-Winter Garden: Weather delayed harvest. Carrots, cabbage, spinach steady progress. East Texas: Collards, turnips, mustard greens satisfactory growth some harvest underway. Trans-Pecos: Harvest green chilies, onions, tomatoes complete.

Frost, cool limits range growth. Supplemental feeding continues northern two-thirds dry continues northern High Plains. Limited dryland wheat grazing. Cattle remain good. Screwworms still active south. Loco weeds increasing in Trans-Pecos.

UTAH: Cold front of severe intensity moved across much of State over weekend. Accumulations of moisture very light but temperatures dropped to much below normal. Averages for week, however, ranged from near normal to 6° above.

Doing routine chores, caring for livestock,

enjoying the holiday were major on farm activities. Sugarbeet processing full swing at Garland. Sorting, grading and marketing of dry onions, potatoes, and apples from storage. Turkey processing nearing final stages.

VIRGINIA: Temperature varied greatly and averaged about 6° below normal. Extremes: 74 and 14°. One to three in. of snow in southwest section on 20th. Precipitation averaged less than 0.10 in. for the week but averaged 1.00 in. for the weekend.

Fieldwork: 5.0 days suitable. Topsoil moisture: 12% short, 86% adequate, 2% surplus. Pasture 84% of normal. Winter grains and grazing crops 78% of normal. Wheat 84% seeded. Corn 87% combined, 92% 1975, 86% average. Soybean harvest 76% complete, 86% 1975, 75% average. Fall plowing, fertilizing and liming active.

WASHINGTON: West: Temperatures averaged near normal Puget Sound area to 1° above normal elsewhere. Precipitation averaged from 2.40 in. subnormal West Olympic/Coastal area to 0.30 in. subnormal Northeast Olympics. Carrot digging 60% complete. Potatoes finished. Pruning and tying raspberry canes. Pastures short; cattle coming off. Dairy cows on full winter feed. Alfalfa hay shipped in some areas; local supplies adequate in others.

East: Temperatures averaged 2° below normal northeast; 1° subnormal elsewhere. Precipitation averaged 0.40 in. below normal Palouse/Blue Mountains; 0.30 in. subnormal elsewhere. Recent cold weather good preparation for winter wheat. Fruit growers winterizing equipment, pruning trees, controlling rodent population, taking out or replacing old trees. Corn harvest continues. Planting mint, pruning grapes underway. Some sugarbeets remain. Wheat growing regions still without moisture. Dry blowing winds are a problem. Slight reseeding. Fall grains emerging spotty. Some cattle still on ranges with little snow.

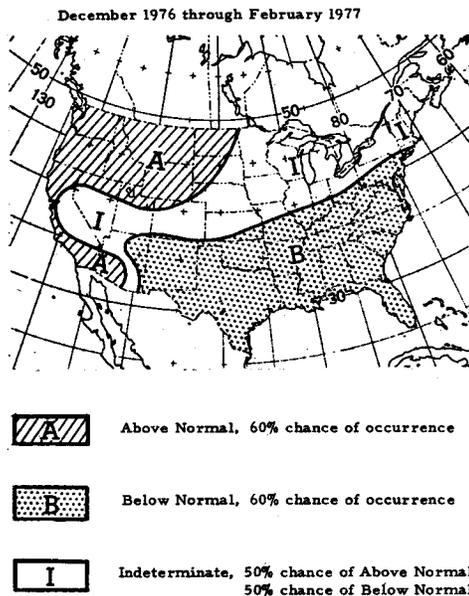
WEST VIRGINIA: Temperatures remained below normal for week, except 26th and 27th, well above normal. Precipitation below normal, some snow 21st and 22d. Fieldwork: 4.0 days suitable. Soil moisture short in the northern Panhandle, adequate to surplus elsewhere. Activities limited to cating for livestock and general chores.

WISCONSIN: Monday through Wednesday partly cloudy with areas of light snow. Thursday warm south but stayed cool with 1.00 to 2.00 in. snow in north. Friday mostly cloudy and cooler. Morning lows and daytime highs were same and ranged from near 30° north to 50° southeast. Friday night 6.00 in. snow from Beloit to Pewaukee to northern Milwaukee. Less snow north and rain changed to snow south. Cold wave moved in Saturday and Sunday. Bitter cold with scattered flurries. Lows from 5° above at Milwaukee to -16° at Park Falls. Highs -4° at Eagle River to 15° at Racine. Heavy snow squalls near Lake Superior but none moved south.

WYOMING: Temperatures averaged above seasonal except northeast. Precipitation below normal, except eastern localities where from 1.00 to 11.00 in. of new snow fell. Snow brought added moisture northeast. Rest of State dry.

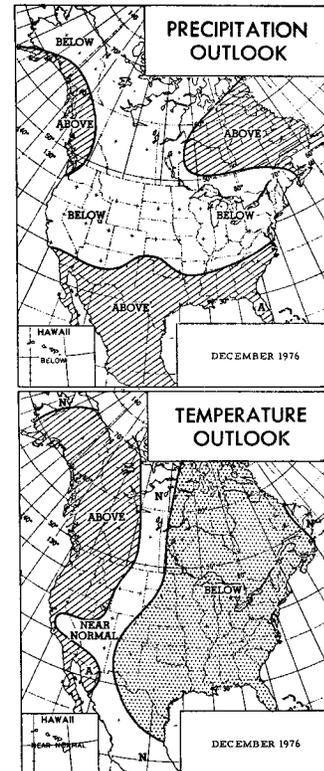
Supplemental feeding increasing. Feed supplies good. Livestock good condition. Moisture still needed to improve range and winter wheat condition.

## Outlook for Average Winter Temperatures



The two categories Above and Below are to be compared to the long-term average or "normal" temperatures of the years 1941-70. Each category has a natural climatic frequency or probability of 50%. Each carries a 60% probability of occurring where forecast (shaded area), based on the verification scores of seventeen years of experimental seasonal predictions. NOAA National Weather Service Long Range Prediction Group November 29, 1976

## Average Monthly Weather Outlook



## World Weather and Crop Update

**HIGHLIGHTS:** Relatively mild, clear weather continued to assist Western Europe farmers complete harvests and save much needed winter feed. Heavy rains created numerous problems in southeastern Europe. Two to four inches of moisture fell across portions of Switzerland, Austria, Italy, Greece, and Turkey. India continued to receive some moisture, particularly in the key southern States. Australia received only token rainfall in the important wheat growing areas. Moderate to heavy rains occurred in southern Brazil and northern Argentina during November 18-21, delaying completion of winter wheat harvest but assisting most row crops.

**EUROPE:** A more typical weather pattern of several clear days between storm systems generally improved the agricultural situation in Europe. Moisture associated with a frontal passage on November 20-21 was generally light, less than one-half inch in most places. However, the cooler air served to trigger heavy rains over parts of Italy, Switzerland, Austria, Hungary, Turkey, and Greece. Totals of 2 to 4 inches were common. Southern France, Spain, and Portugal experienced generally dry conditions through the period.

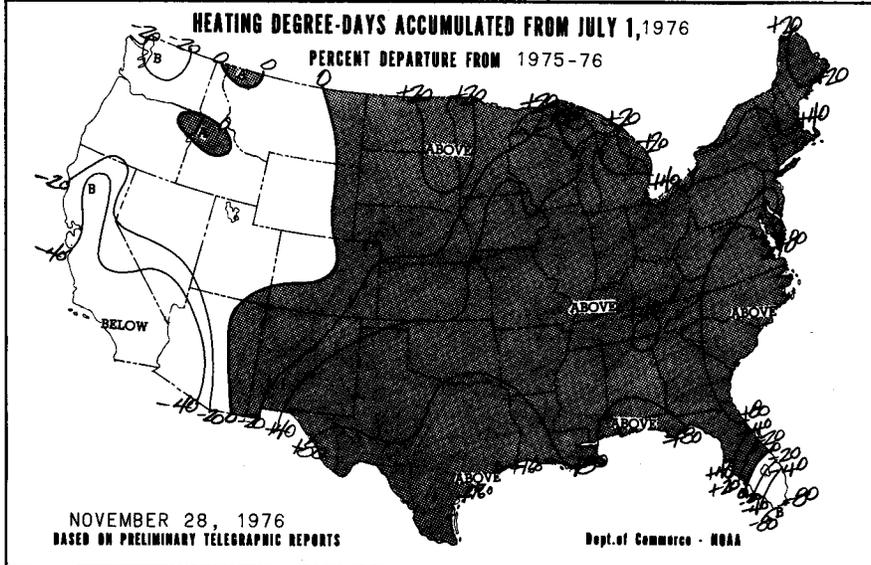
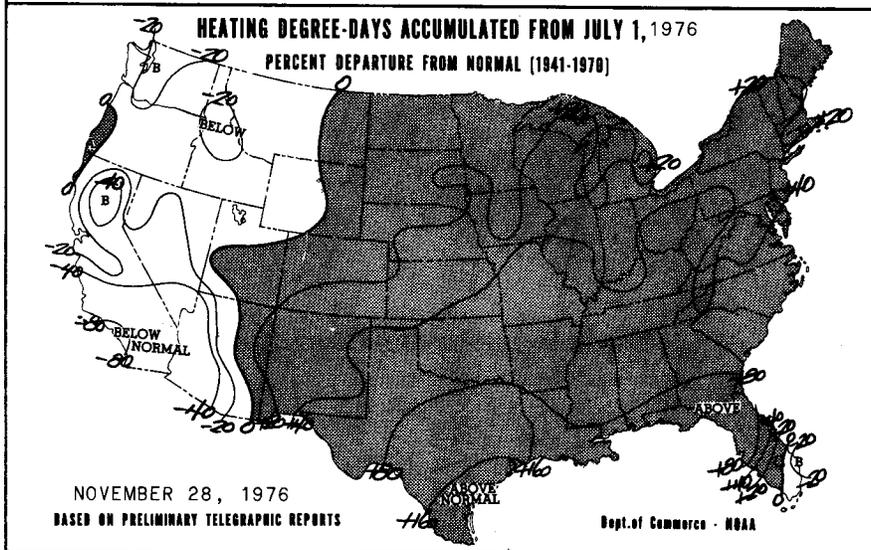
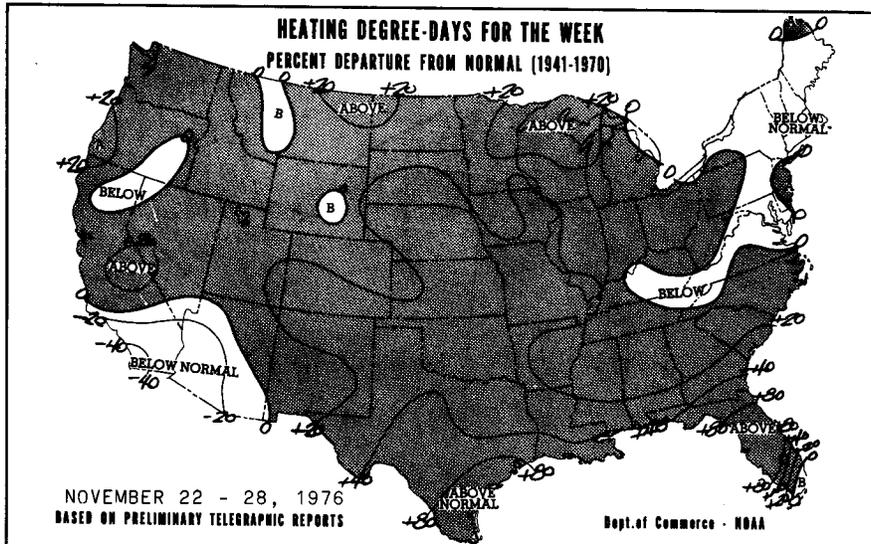
**USSR:** The winter wheat region west of the Urals received good moisture the past 2 weeks. A high pressure system over the New Lands and a strong low over the Mediterranean provided a stable supply of moisture. Cooler air to the north triggered moisture over the area. Daytime temperatures ranged generally above freezing, dropping below freezing during the night. In general, snow cover

is not as far south as expected for this time of year, but moderate temperatures have prevented any crop damage.

**THE AMERICAS:** A series of low pressure cells dumped moderate to heavy rainfall over the important agricultural areas of southern Brazil and northern Argentina from November 18-21, but skies have been generally clear since that time. Moisture may have delayed the harvest of winter wheat in Rio Grande do Sul, but assisted row crops. No significant moisture fell in the drought areas of the northeast.

**AFRICA:** Two major storms in mid-to late November produced strong winds and some heavy rains in South Africa. Liberia received more than 10 inches in the Monrovia area during the first 10 days of November for a yearly total to date of more than 230 inches. When the annual total exceeds 200 inches the economy suffers in direct proportion due to problems in transportation, marketing, etc.

**ASIA:** Shower activity persisted along the southeast coastal States of Orissa, Andhra Pradesh, and Tamil Nadu in India, providing good moisture for planting of winter crops. A low pressure system over the Arabian Sea pushed some moisture well up into the northwestern States of India during November 22-23. Some moisture also reached into the central States. The Thai rice crop progressed satisfactorily in all regions under favorable weather. Planting was near completion in the south and harvesting will begin shortly in the central region.



HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING NOV. 28, 1976.

STATES AND STATIONS	WEEKLY		SEASONAL ACCUMULATION +			STATES AND STATIONS	WEEKLY		SEASONAL ACCUMULATION +			STATES AND STATIONS	WEEKLY		SEASONAL ACCUMULATION +		
	TOTAL	DEPARTURE*	TOTAL	DEPARTURE*	DEPARTURE FROM 1975-76		TOTAL	DEPARTURE*	TOTAL	DEPARTURE*	DEPARTURE FROM 1975-76		TOTAL	DEPARTURE*	TOTAL	DEPARTURE*	DEPARTURE FROM 1975-76
ALA. BIRMINGHAM.....	114	10	770	251	274	MAINE CARIBOU.....	27	2	2431	274	388	YOUNGSTOWN.....	214	9	1734	488	597
MOBILE.....	10	1	570	161	203	PORTLAND.....	27	2	1837	254	288	OKLA. OKLAHOMA CITY.....	65	2	904	291	313
MONTGOMERY.....	10	1	570	161	203	MD. BALTIMORE.....	157	6	1073	204	481	TULSA.....	27	2	927	427	421
ARIZ. FLAGSTAFF.....	1532	227	100	16	16	MASS. BOSTON.....	144	26	1115	162	420	OREG. ASTORIA.....	24	2	1171	225	271
PHOENIX.....	1532	227	100	16	16	MICH. ALPENA.....	24	2	1083	21	47	BURNS.....	24	2	1101	225	271
TUCSON.....	1532	227	100	16	16	DETROIT.....	24	2	1083	21	47	PENDLETON.....	24	2	1033	225	271
YUMA.....	1532	227	100	16	16	GRAND RAPIDS.....	24	2	1083	21	47	PORTLAND.....	24	2	1101	225	271
ARK. FORT SMITH.....	1532	227	100	16	16	HOUGHTON LAKE.....	24	2	1083	21	47	SALEM.....	24	2	1101	225	271
LITTLE ROCK.....	1532	227	100	16	16	LANSING.....	24	2	1083	21	47	PA. ALLENTOWN.....	24	2	1340	487	487
CALIF. BAKERSFIELD.....	97	11	172	145	184	MARQUETTE.....	24	2	1083	21	47	ERIE.....	24	2	1150	225	271
EUREKA.....	97	11	172	145	184	MUSKOGEE.....	24	2	1083	21	47	HARRISBURG.....	24	2	1114	225	271
FRESNO.....	97	11	172	145	184	S. STE. MARIE.....	24	2	1083	21	47	PHILADELPHIA.....	24	2	1114	225	271
LOS ANGELES.....	97	11	172	145	184	MINN. DULUTH.....	24	2	2478	324	366	PITTSBURGH.....	24	2	1710	300	300
REAR BLUFF.....	97	11	172	145	184	INTERNATL FALLS.....	24	2	2478	324	366	SCRANTON.....	24	2	1423	266	266
SAN DIEGO.....	97	11	172	145	184	MINNEAPOLIS.....	24	2	2478	324	366	R. I. PROVIDENCE.....	174	9	1422	346	494
SAN FRANCISCO.....	97	11	172	145	184	ROCHESTER.....	24	2	2478	324	366	S. C. CHARLESTON.....	18	18	563	231	302
STOCKTON.....	97	11	172	145	184	ST. CLOUD.....	24	2	2478	324	366	COLUMBIA.....	18	18	754	254	254
COLO. DENVER.....	135	23	3	3	3	MISS. JACKSON.....	105	17	666	288	312	GREENVILLE.....	11	11	894	259	259
GRAND JUNCTION.....	135	23	3	3	3	MERIDIAN.....	17	17	739	312	264	S. DAK. ABERDEEN.....	27	4	1895	14	408
PUEBLO.....	135	23	3	3	3	MO. COLUMBIA.....	1347	452	441	452	441	HURON.....	27	4	1970	22	22
CONN. BRIDGEPORT.....	1072	224	404	444	444	KANSAS CITY.....	1301	410	402	410	402	RAPID CITY.....	27	4	1970	22	22
HARTFORD.....	1072	224	404	444	444	ST. LOUIS.....	1243	410	410	410	410	SOUX FALLS.....	27	4	1970	22	22
DEL. WILMINGTON.....	1083	243	445	478	478	SPRINGFIELD.....	1185	354	299	354	299	TENN. CHATTANOOGA.....	27	4	1895	22	22
D.C. WASHINGTON.....	917	226	478	478	478	MONT. BILLINGS.....	263	153	39	153	39	KNOXVILLE.....	27	4	1895	22	22
FLA. APALACHICOLA.....	407	235	218	218	218	GLASGOW.....	263	153	39	153	39	MEMPHIS.....	27	4	1895	22	22
DAVTONA BEACH.....	407	235	218	218	218	GREAT FALLS.....	263	153	39	153	39	NASHVILLE.....	27	4	1895	22	22
FORT MYERS.....	407	235	218	218	218	HAVRE.....	263	153	39	153	39	TEXAS. ABILENE.....	27	4	1895	22	22
JACKSONVILLE.....	407	235	218	218	218	HELENA.....	263	153	39	153	39	AMARILLO.....	27	4	1895	22	22
KEY WEST.....	407	235	218	218	218	KALISPELL.....	263	153	39	153	39	AUSTIN.....	27	4	1895	22	22
LAKELAND.....	407	235	218	218	218	MILES CITY.....	263	153	39	153	39	BEAUMONT.....	27	4	1895	22	22
MIAMI.....	407	235	218	218	218	MISSOULA.....	263	153	39	153	39	BROWNSVILLE.....	27	4	1895	22	22
ORLANDO.....	407	235	218	218	218	NEBR. GRAND ISLAND.....	263	153	39	153	39	CORPUS CHRISTI.....	27	4	1895	22	22
TALLAHASSEE.....	407	235	218	218	218	LINCOLN.....	263	153	39	153	39	DEL RIO.....	27	4	1895	22	22
TAMPA.....	407	235	218	218	218	NORFOLK.....	263	153	39	153	39	DEL PASO.....	27	4	1895	22	22
WEST PALM BEACH.....	407	235	218	218	218	NORTH PLATE.....	263	153	39	153	39	FORT WORTH.....	27	4	1895	22	22
GA. ATLANTA.....	85	321	379	379	379	OHAMA.....	263	153	39	153	39	GALVESTON.....	27	4	1895	22	22
AUGUSTA.....	85	321	379	379	379	VALENTINE.....	263	153	39	153	39	HOUSTON.....	27	4	1895	22	22
Macon.....	85	321	379	379	379	NEV. ELV.....	263	153	39	153	39	LUBBOCK.....	27	4	1895	22	22
SAVANNAH.....	85	321	379	379	379	LAS VEGAS.....	263	153	39	153	39	MIDLAND.....	27	4	1895	22	22
IDAHO. BOISE.....	1213	58	8	8	8	RENO.....	263	153	39	153	39	SAN ANGELO.....	27	4	1895	22	22
LEWISTON.....	101	301	226	226	226	MINNEAPOLIS.....	263	153	39	153	39	SAN ANTONIO.....	27	4	1895	22	22
POCATELLO.....	1474	98	166	166	166	N. H. CONCORD.....	210	12	1907	401	304	VICTORIA.....	27	4	1895	22	22
ILL. CAIRO.....	1060	413	455	455	455	N. J. ATLANTIC CITY.....	164	1	1220	378	370	WACO.....	27	4	1895	22	22
CHICAGO.....	1488	398	543	543	543	TRENTON.....	173	12	1143	316	511	WICHITA FALLS.....	27	4	1895	22	22
MOLINE.....	1488	398	543	543	543	N. MEX. ALBUQUERQUE.....	206	34	1040	226	115	UTAH. SALT LAKE CITY.....	215	7	1101	157	116
PEORIA.....	1488	398	543	543	543	ROSMEL.....	176	24	84	182	295	VT. BURLINGTON.....	201	31	1912	345	550
ROCKFORD.....	1488	398	543	543	543	N. Y. ALBANY.....	24	23	1659	334	547	VA. LYNCHBURG.....	201	31	1070	286	413
SPRINGFIELD.....	1488	398	543	543	543	BINGHAMTON.....	24	23	1659	334	547	NORFOLK.....	201	31	791	407	407
IND. EVANSVILLE.....	1131	366	486	486	486	BUFFALO.....	24	23	1659	334	547	RICHMOND.....	201	31	988	451	451
FORT WAYNE.....	1131	366	486	486	486	NEW YORK.....	24	23	1659	334	547	ROANOKE.....	201	31	1191	309	360
INDIANAPOLIS.....	1131	366	486	486	486	ROCHESTER.....	24	23	1659	334	547	WASH. QUILLAYUTE.....	26	26	1575	107	139
SOUTH BEND.....	1131	366	486	486	486	SYRACUSE.....	24	23	1659	334	547	SEATTLE-TACOMA.....	26	26	936	14	14
IOWA. BURLINGTON.....	1581	459	575	575	575	N. C. ASHEVILLE.....	153	1	1172	315	379	SPOKANE.....	26	26	1466	14	14
DES MOINES.....	1581	459	575	575	575	CHARLOTTE.....	153	1	859	437	511	HALLA HALLA.....	26	26	1310	14	14
BUBUQUE.....	1581	459	575	575	575	GREENSBORO.....	153	1	1040	451	511	YAKIMA.....	26	26	1310	14	14
SIoux CITY.....	1581	459	575	575	575	HATTERAS.....	153	1	565	329	329	VA. BECKLEY.....	26	26	1466	14	14
KANS. CONCORDIA.....	1309	312	283	312	312	RALEIGH.....	153	1	944	468	468	CHARLESTON.....	26	26	1466	14	14
BODGE CITY.....	1309	312	283	312	312	WILMINGTON.....	153	1	581	346	346	HUNTINGTON.....	26	26	1466	14	14
GOODLAND.....	1309	312	283	312	312	N. DAK. BISHARCK.....	31	31	1996	88	167	PARKERSBURG.....	26	26	1466	14	14
TOPEKA.....	1309	312	283	312	312	FARGO.....	31	31	2180	416	416	WIS. GREEN BAY.....	311	205	2053	407	488
NICHITA.....	1309	312	283	312	312	HILLISTON.....	31	31	2090	93	73	LACROSSE.....	311	205	1801	14	14
LEXINGTON.....	176	464	440	464	464	OHIO. AKRON-CANTON.....	211	9	1684	494	650	MADISON.....	311	205	1801	14	14
LOUISVILLE.....	176	464	440	464	464	CINCINNATI.....	211	9	1397	474	474	HILLAUKEE.....	311	205	1801	14	14
LA. BATON ROUGE.....	79	192	192	192	192	CLEVELAND.....	211	9	1586	433	433	WYO. CASPER.....	239	148	1484	22	22
LAKE CHARLES.....	79	192	192	192	192	COLUMBUS.....	211	9	1586	433	433	CHEYENNE.....	239	148	1484	22	22
NEW ORLEANS.....	79	192	192	192	192	DAYTON.....	211	9	1586	433	433	LANDER.....	239	148	1484	22	22
SHREVEPORT.....	79	192	192	192	192	TOLEDO.....	211	9	1697	471	486	SHERIDAN.....	239	148	1484	22	22

\* BASED ON 1941-70 NORMALS.

+ ACCUMULATION FROM JULY 1, 1976.



**FIRST CLASS MAIL**

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**HARVESTING PROGRESS**

Percent of Acreage Harvested  
 As of November 28

corn			
	1976	1975	Avg.
Ga.	94	90	1/
Ill.	99	1/	1/
Ind.	95	97	80
Iowa	100	100	1/
Kans.	100	100	85
Ky.	100	1/	1/
Mich.	100	1/	1/
Minn.	100	1/	1/
Mo.	99	1/	1/
Nebr.	100	100	90
N. C.	95	95	90
Ohio	100	1/	1/
S. Dak.	100	1/	1/
Wisc.	99	1/	1/
U. S.	99	99	89

These 14 States produced 89% of the Nation's corn in 1975.

soybeans			
	1976	1975	Avg.
Ala.	85	82	84
Ark.	93	94	1/
Ga.	69	72	1/
Ill.	100	100	100
Ind.	99	1/	1/
Iowa	100	1/	1/
Kans.	100	100	90
Ky.	100	1/	1/
La.	99	95	85
Mich.	99	1/	1/
Minn.	100	1/	1/
Miss.	94	83	80
Mo.	99	99	1/
Nebr.	100	100	100
N. C.	64	61	65
Ohio	100	1/	1/
S. C.	59	61	61
Tenn.	93	89	82
U. S.	97	90	85

These 18 States produced 96% of the Nation's soybeans in 1975.

cotton			
	1976	1975	Avg.
Ala.	79	65	82
Ark.	92	95	73
Ga.	76	73	1/
La.	97	84	79
Miss.	95	72	84
Mo.	91	96	84
N. C.	85	83	82
Okla.	60	15	30
S. C.	84	89	87
Tenn. 2/	87	83	83
Tex.	56	48	40
11-States	76	63	59

These 11 States produced 68% of the Nation's cotton in 1975.

1/Data not available.

2/Tennessee cotton for Nov. 21 should be 80, 72, and 70.

