

# WEEKLY WEATHER AND CROP BULLETIN

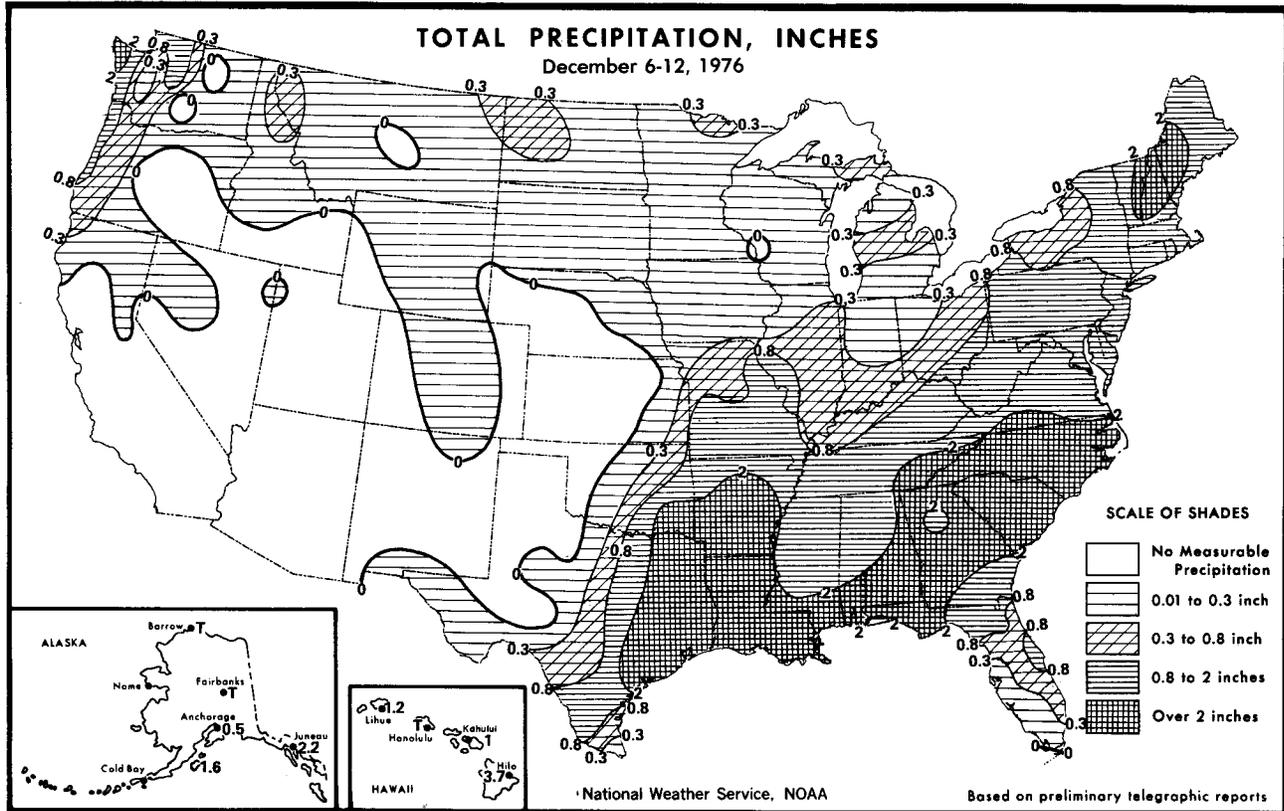
U.S. DEPARTMENT OF COMMERCE  
National Weather Service, NOAA

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service

Volume 63, No. 50

Washington, D.C.

Dec. 14, 1976



## National Weather Summary

For the week of December 6-12

**HIGHLIGHTS:** With readings to  $-20^{\circ}$ , Minnesota and North Dakota vied for the coldest-State-in-the-Nation title. In the total picture, weekly temperatures averaged below normal in most of the eastern two-thirds of the country and along western coastal regions. Though a rapidly moving warm front boosted weekly readings along the Atlantic Coast, relief was only temporary as a cold surge raced southeastward through the Midwest. A series of slow moving frontal systems focused most of the week's precipitation on much of the Southeast and extreme Northeast. Locally heavy rains drenched southeastern Texas. Clear skies and seasonable temperatures favored the southern two-thirds of the Rockies and Intermountain region.

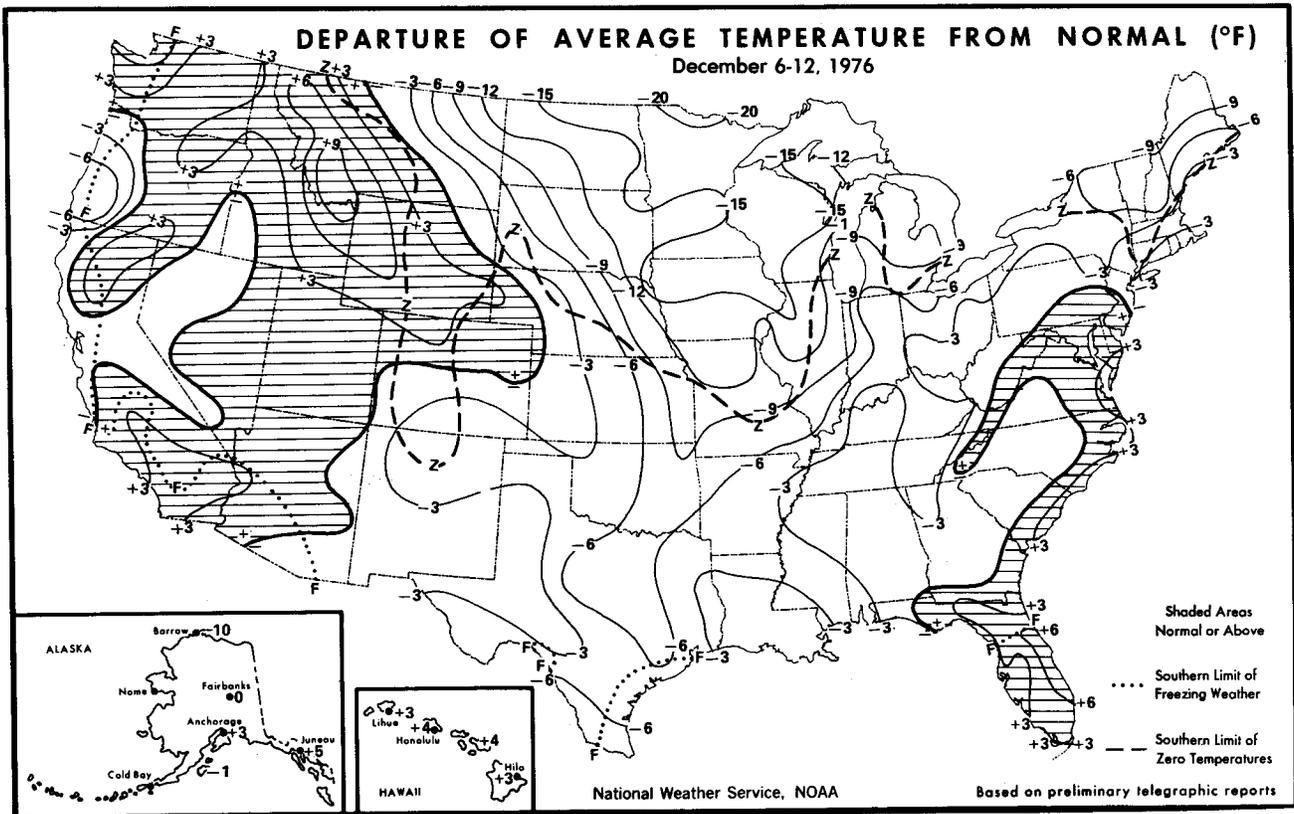
A wide area of the country was on the receiving end of a cold front that produced a variety of adverse weather conditions on Monday.

East of the Mississippi River heavy precipitation prompted a number of weather advisories and warnings.

Throughout the day, snow, freezing rain, and sleet slid into areas from Missouri into Minnesota. Light snow whirled across northwestern Texas and portions of Oklahoma. Precipitation over the southeastern quarter of the Nation included a few thundershowers in eastern regions of Texas, Kentucky, and Tennessee. Locally heavy rains in southeastern Texas drenched Moulton with 4 inches of rain in just a day's time.

Evening snow mixed with rain showered across the middle Mississippi Valley into the Great Lakes region. At the end of the day northern and central Illinois reported the heaviest afternoon accumulation of snow. In a 6-hour period Springfield collected 3 inches and Chicago and Peoria each accumulated 2 inches.

On Tuesday intense cold settled over the



Midwest, stretching from the upper Great Lakes area into the middle Mississippi Valley and central Plains. Subzero readings touched northern areas of Missouri and Illinois.

Forecasters tracked a southbound precipitation system. Heaviest a.m. showers zeroed in on the Carolinas through central Virginia into eastern Pennsylvania. The culprit: a complex frontal system that triggered rain and snow from the Appalachians into the Ohio Valley.

Central sections of the Plains and Rockies weren't without their share of wintry conditions. A cold arctic air mass gave rise to snow across parts of Iowa, Minnesota, and Missouri and held afternoon temperatures in the single digit figures across the Plains and upper Midwest. The Nation's cold spot: International Falls, Minn. with a maximum of only  $-2^{\circ}$ .

The Nation's weather seemed to level off at midweek, as a result of slow moving frontal systems. Cold and generally cloudy summed up conditions east of the Rockies with the only significant area of clear skies ranging from the southern Plains into the lower Mississippi Valley.

A trough of low pressure brought snow to the middle Atlantic States and southern Appalachians. By midday up to 4 inches had piled up in portions of Virginia and 3 to 5 inches blanketed southern Delaware.

Meantime a deepening storm center set its sights on the northern Plains. As the storm moved eastward, forecasters issued a storm watch for Minnesota and central and northern Wisconsin and braced residents of northwestern and northcentral U.S. for an onslaught of snow, wind, and colder temperatures.

Cold, snowy weather persisted on Thursday across much of northern U.S. as the complex storm system churned through the area. All day long

light snow fell from the northern Rockies into the northern Great Lakes region. Bitter cold temperatures accompanied the snow across northern U.S. Daytime readings hovered near zero along the Canadian border from Montana into upper Michigan.

Not surprisingly, snow continued as Michigan's top news story. A few of the reasons: 28 inches of snow in Houghton, 18 inches in Sault Saint Marie, and 15 inches in Marquette.

North Dakota's mercury skidded well below zero on Friday, making it the coldest State in the Nation. A reading of  $-22^{\circ}$  put Williston roughly  $25^{\circ}$  below its seasonal level. Northern Maine (Caribou,  $-15^{\circ}$ ) and northeastern New York (Messena,  $-13^{\circ}$ ) provided stiff competition.

On the heels of two days of blustery cold, warmer weather made a comeback in eastern U.S., as a warm front raced northward along the Atlantic Coast. Afternoon temperatures soared into the '50's, compared with readings in the teens and 20's just the day before. Relief was to be short-lived, however, as another cold surge cut a path across the Midwest.

As it moved into the southern Plains and middle and lower Mississippi Valley on Saturday, the colder air produced pockets of freezing rain and drizzle.

To the west, vigorous winds rattled eastern slopes of the Montana Rockies. During the day Livingston clocked gusts to 86 mph and peak winds to 55 mph rocked Great Falls.

A stagnating frontal system ended the week on a rainy note for most of the southeastern third of the Nation, where a curtain of fog darkened areas from southern Alabama to South Carolina.

In contrast, a high pressure system dominating the western States produced mostly clear skies across the southern two-thirds of the Rockies, Intermountain region, and Pacific Coast States.

## National Agricultural Summary

For the week of December 6-12

**HIGHLIGHTS:** Little relief from the dominant cold, dry conditions was experienced last week. Nationwide the harvests of corn, soybeans, and sorghum were relatively complete. Cotton harvest picked up slightly reaching 84% completion. The winter wheat crop was becoming vulnerable to deterioration because of the cold, dry conditions in most areas. The cold weather was also affecting some vegetables in areas of Texas and California. Pasture conditions remained fair to poor throughout the Midwest, the High Plains of Texas, and most of the West. The Gulf Coast and South Atlantic States received the most widespread moisture with much of the area receiving over 2 inches.

**SMALL GRAINS:** The Nation's winter wheat crop remained in fair condition this past week, although some deterioration was experienced because of the continued below normal temperatures and lack of moisture throughout most wheat areas. The lack of snow cover also became a critical factor over the Plains and Midwest, where adequate snow cover would give some protection against the sustained low temperatures.

The Kansas winter wheat crop experienced further deterioration the past week because of cold, dry weather. Very little wheat was being pastured because of the limited top growth. Nebraska's winter wheat crop also remained moisture-short. The topsoil and subsoil moisture shortages in Oklahoma continued the past week, with winter wheat condition declining, but still in fair shape. Wheat growth was slowed by the recent freeze in Texas with grazing still limited. Texas northern High Plains fields were still short of moisture. Arkansas wheat was in good condition. Montana winter wheat condition remained mostly poor to fair in the major producing areas. Soil moisture remained short. Snow cover improved the winter wheat outlook in northeast Wyoming. Wheat remained in fair condition in New Mexico and continued good in Colorado. Winter grains received some drought-relieving moisture in Washington, although much more is needed. In Oregon, winter grains looked good, except for dry winter wheat east of the Cascades which was in only fair condition. Wheat growth was short in many areas of Ohio and Illinois.

**CORN:** A few acres of corn remained to be harvested in the States along the Gulf Coast and the southern Atlantic Coast. Harvest was around 97% complete in those areas. Corn stubble continued to be grazed in north-central areas of the United States, especially where snow cover was light and feed in demand.

**COTTON:** Cotton picking made some progress the past week reaching about 84% complete. This was about the same level as this time a year ago, and 10 points above the average of 74% complete by this date. The cotton harvest in Texas moved well ahead of normal with 73% complete. Strip-ping was very active in the High and Low Plains with gins in those areas running well behind. Wet conditions in north and central areas continued to delay harvest. Harvest was very near completion in Mississippi and Arkansas. The Okla-

homa cotton crop was also mostly in at 92% compared with a low 50% complete at this time a year ago. Cotton picking moved along in California, although field-stored cotton was moving to gins slowly.

**OTHER CROPS:** Soybean harvest was being wrapped up in Mississippi, Arkansas, Oklahoma, and Florida while progress was made in North Carolina, 84% complete, South Carolina and Georgia, 81% complete.

Texans were actively digging sugarbeets the past week. The beets were in very good condition despite the recent snowstorms. The fall sugarbeet harvest was completed in Arizona. Sugarcane harvest continued very active in Florida and Louisiana.

In Virginia there was much activity in grading and marketing tobacco. In Tennessee and Kentucky tobacco was moving through the markets with burley sales volume increasing in Kentucky. Growers in South Carolina and Florida continued to prepare seedbeds for next year.

**FRUITS AND NUTS:** Citrus trees remained in excellent condition in Florida, suffering no damage from last week's cold weather. Harvest was still slow because of late fruit maturity. The Texas citrus harvest continued to be delayed by wet conditions. In California date picking continued although heavy culling was prevalent. The California navel orange harvest was up with the sugar-acid ratio and color improving. The tangerine harvest continued.

The pecans in Georgia were mostly fair with 77% of the crop harvested. The pecan harvest was nearly over in Alabama with a fair crop reported.

**VEGETABLES:** Overall vegetable shipments in Florida increased 15 percent the past week. Cabbage volume alone advanced 73 percent. The volume leader, tomatoes, nearing their peak fall movement, increased 17 percent. Cool, damp weather lowered packout on several crops. However, the volume outlook was mostly steady. The Texas leafy vegetable harvest continued very active. However remaining bell pepper and tomato fields in the lower Rio Grande Valley and cucumber and squash fields in the Coastal Bend were damaged by frost. Early yields on carrots were very good. In California frosty weather was beginning to affect all but the cold, hardy vegetables. Potatoes were moving well. Greenhouse vegetable production kept up with market demand. Winter vegetable harvest was active in Arizona the past week.

**PASTURE AND LIVESTOCK:** Grassland conditions remain as last week, fair to poor throughout most of United States. Some exceptions were noted with conditions good on some pastures in the southeast and in some western areas. Throughout most livestock areas supplemental feeding continued at a normal to above normal rate. Generally cattle remain in fair to good condition, but in California some cattle were reported showing signs of stress. Stock water supplies reached critical levels in some areas.

Temperature and Precipitation Data for the Week Ending Midnight, 1st., December 12, 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 . . .	45	-1	1.7	+ .5	La. Baton Rouge . . .	53	-1	2.9	+1.7	Youngstown . . .	27	-3	.8	+ .2
Mobile . . .	50	-4	2.1	+ .8	Lake Charles . . .	54	-1	2.9	+1.6	OKLA. Okla. City . . .	36	-5	.1	- .2
Montgomery . . .	47	-2	2.8	+1.7	New Orleans . . .	55	-1	2.3	+1.1	Tulsa . . .	33	-8	.4	0
ALASKA. Anchorage . . .	17	+3	.5	+ .2	Shreveport . . .	47	-3	2.7	+1.8	OREG. Astoria . . .	46	+2	.9	-1.5
Barrow . . .	-21	-10	T	- .1	MAINE. Caribou . . .	7	-11	.9	+ .2	Burns . . .	31	+2	T	- .4
Fairbanks . . .	-9	0	T	- .1	Portland . . .	25	-3	1.2	+ .2	Medford . . .	33	-6	.3	- .5
Juneau . . .	34	+5	2.2	+1.1	MD. Baltimore . . .	38	+1	1.5	+ .7	Pendleton . . .	42	+5	T	- .4
Kodiak . . .	29	-1	1.6	+ .5	MASS. Boston . . .	33	-2	1.2	+ .2	Portland . . .	41	-1	.3	-1.1
Nome . . .	33	+2	0	- .5	Chatham . . .	34	---	1.6	---	Salem . . .	39	-3	.4	-1.1
ARIZ. Flagstaff . . .	33	+2	0	- .5	MICH. Alpena . . .	15	-10	.3	- .2	PA. Allentown . . .	33	+1	1.7	+ .9
Phoenix . . .	54	+1	0	- .2	Detroit . . .	23	-7	.2	- .3	Erie . . .	28	-3	.8	+ .1
Tucson . . .	51	-2	0	- .2	Flint . . .	19	-10	.3	- .1	Harrisburg . . .	36	+2	1.5	+ .8
Winslow . . .	35	0	0	- .1	Grand Rapids . . .	21	-8	.2	- .3	Philadelphia . . .	37	0	1.0	+ .2
Yuma . . .	58	+1	0	- .1	Houghton Lake . . .	15	-10	.2	- .3	Pittsburgh . . .	30	-2	1.0	+ .4
ARK. Fort Smith . . .	37	-6	1.5	+ .8	Lansing . . .	19	-10	.3	- .2	Scranton . . .	27	-4	1.1	+ .5
Little Rock . . .	39	+4	2.1	+1.2	Marquette . . .	13	-12	.3	- .2	R.I. Providence . . .	29	-4	1.6	+ .6
CALIF. Bakersfield . . .	52	+3	0	- .1	Muskegon . . .	23	-7	.4	+ .2	S.C. Charleston . . .	54	+4	2.7	+2.0
Eureka . . .	48	-1	.3	-1.2	S. Ste. Marie . . .	11	-11	.8	+ .2	Columbia . . .	45	-2	4.8	+4.0
Fresno . . .	47	0	0	- .4	MINN. Duluth . . .	0	-17	1	+ .3	Greenville . . .	42	-1	3.2	+2.3
Los Angeles . . .	61	+2	0	- .5	Internatl Falls . . .	-9	-20	.3	+ .1	S.D. Aberdeen . . .	4	-15	.1	0
Red Bluff . . .	53	+6	T	- .8	Minneapolis . . .	9	-12	1	- .1	Huron . . .	6	-12	T	0
San Diego . . .	61	+4	0	- .4	Rochester . . .	4	-17	T	- .2	Rapid City . . .	24	-4	T	- .2
San Francisco . . .	50	-1	T	- .8	St. Cloud . . .	3	-15	T	- .2	Sioux Falls . . .	7	-15	T	- .2
Stockton . . .	47	0	T	- .6	MISS. Jackson . . .	47	-3	1.3	+ .2	TENN. Chattanooga . . .	38	-4	2.4	+1.2
COLO. Denver . . .	37	+3	0	0	Meridian . . .	45	+4	1.7	+ .4	Knoxville . . .	38	-4	2.2	+1.2
Grand Junction . . .	31	0	0	- .1	MO. Columbia . . .	22	-12	.4	0	Memphis . . .	43	-1	1.0	- .1
Pueblo . . .	31	-3	1	0	Kansas City . . .	23	-11	.6	+ .2	Nashville . . .	39	-2	1.1	+ .1
CONN. Bridgeport . . .	32	-4	1.4	+ .6	St. Louis . . .	25	-11	1.0	+ .5	TEX. Abilene . . .	41	-7	T	- .2
Hartford . . .	28	-2	1.9	+ .7	Springfield . . .	30	-7	.9	+ .3	Amarillo . . .	37	-3	T	- .1
D.C. Washington . . .	40	+1	1.4	+ .9	MONT. Billings . . .	32	+3	T	- .2	Austin . . .	48	-5	1.5	+ .9
FLA. Apalachicola . . .	56	0	2.0	+1.2	Glasgow . . .	12	-8	1	0	Beaumont . . .	52	-3	2.8	+1.6
Daytona Beach . . .	66	+6	1.0	+ .6	Great Falls . . .	32	+4	T	- .1	Brownsville . . .	57	-7	.2	- .1
Ft. Myers . . .	68	+3	T	- .3	Havre . . .	20	-1	1	0	Corpus Christi . . .	55	-5	.8	+ .4
Jacksonville . . .	57	+1	.8	+ .2	Helena . . .	34	+9	T	- .1	Dallas . . .	---	---	---	---
Key West . . .	74	+2	T	- .4	Kalispell . . .	32	+7	.3	0	Del Rio . . .	49	-4	.5	+ .4
Lakeland . . .	65	+2	.4	- .1	Miles City . . .	21	-3	.2	+ .1	El Paso . . .	43	-2	.2	+ .1
Miami . . .	73	+4	T	- .4	Missoula . . .	31	+5	1	- .1	Fort Worth . . .	43	-6	1.2	+ .8
Orlando . . .	66	+4	.5	+ .1	NEBR. Grand Island . . .	23	-6	T	- .1	Galveston . . .	53	-5	2.9	+2.1
Tallahassee . . .	57	+3	2.0	+1.0	Lincoln . . .	18	-11	T	- .2	Houston . . .	50	-6	2.8	+1.9
Tampa . . .	65	+3	2	- .3	Norfolk . . .	16	-10	T	- .1	Lubbock . . .	40	-2	T	- .1
W. Palm Beach . . .	73	+6	.4	- .1	N. Platte . . .	27	-1	T	- .1	Midland . . .	44	-3	T	- .1
GA. Atlanta . . .	41	-3	1.8	+ .9	Omaha . . .	16	-12	1	- .1	San Angelo . . .	46	-3	T	- .1
Augusta . . .	46	-1	4.0	+3.2	Valentine . . .	22	-4	T	- .1	San Antonio . . .	51	-3	.6	+ .2
Macon . . .	48	-1	2.5	+1.5	NEV. Ely . . .	28	+1	0	- .2	Victoria . . .	53	-4	2.2	+1.7
Savannah . . .	53	+2	1.9	+1.2	Las Vegas . . .	46	0	0	- .1	Waco . . .	44	-7	1.9	+1.4
HAWAII. Hilo . . .	75	+3	3.7	- .2	Reno . . .	32	-2	T	- .2	Wichita Falls . . .	39	-6	1	- .2
Honolulu . . .	78	+4	T	- .8	Winneucca . . .	30	-2	T	- .2	UTAH. Blanding . . .	33	+2	0	- .3
Kahului . . .	77	+4	1	- .5	N.H. Concord . . .	20	-7	1.2	+ .4	Salt Lake City . . .	34	+2	T	- .4
Lihue . . .	76	+3	1.2	- .2	N.J. Atlantic City . . .	36	0	1.5	+ .6	VT. Burlington . . .	18	-7	1.2	+ .7
IDAHO. Boise . . .	31	-2	T	- .4	Trenton . . .	37	+1	1.1	+ .3	VA. Lynchburg . . .	38	-1	1.9	+1.2
Lewiston . . .	39	+3	.2	- .1	N.MEX. Albuquerque . . .	33	-4	0	- .1	Norfolk . . .	47	+4	1.6	+ .9
Pocatello . . .	32	+4	T	- .2	Roswell . . .	38	-2	0	- .1	Richmond . . .	41	+1	1.6	+ .8
ILL. Cairo . . .	34	-6	.4	- .5	N.Y. Albany . . .	24	-4	.9	+ .2	Roanoke . . .	37	-1	2.0	+1.3
Chicago . . .	19	-11	.3	- .2	Binghamton . . .	24	-3	.9	+ .3	WASH. Colville . . .	29	0	1.1	- .4
Moline . . .	14	-15	.2	- .2	Buffalo . . .	25	-5	.8	+ .1	Omak . . .	30	+2	0	- .4
Peoria . . .	16	-14	.3	- .1	New York . . .	36	-1	1.3	+ .4	Quillayute . . .	47	+6	3.0	- .5
Rockford . . .	13	-14	1	- .3	Rochester . . .	27	-3	.6	0	Seattle-Tacoma . . .	47	+6	.2	-1.1
Springfield . . .	20	-12	.6	+ .2	Syracuse . . .	25	-5	.7	0	Spokane . . .	32	+2	.2	- .3
IND. Evansville . . .	34	-3	.3	- .5	N.C. Asheville . . .	40	+1	2.3	+1.5	Walla Walla . . .	43	+5	.2	- .2
Ft. Wayne . . .	26	-4	.2	- .3	Charlotte . . .	41	-2	3.7	+2.9	Yakima . . .	34	+1	T	- .2
Indianapolis . . .	26	-6	.2	- .4	Greensboro . . .	39	-2	2.4	+1.7	W.Va. Beckley . . .	34	0	1.5	+ .8
South Bend . . .	25	-5	.2	- .4	Hatteras . . .	51	+2	4.6	+3.5	Charleston . . .	35	-2	1.3	+ .6
IOWA. Burlington . . .	19	-11	1	- .3	Raleigh . . .	41	-1	2.8	+2.1	Huntington . . .	36	-1	1.4	+ .7
Des Moines . . .	14	-13	T	- .3	Wilmingon . . .	52	+4	2.9	+2.1	Parkersburg . . .	35	-1	1.0	+ .4
Dubuque . . .	10	-15	1	- .3	N.DAK. Bismarck . . .	7	-11	.3	+ .2	WIS. Green Bay . . .	7	-16	.2	- .1
Sioux City . . .	9	-17	1	- .1	Fargo . . .	1	-15	T	- .1	La Crosse . . .	8	-16	T	- .3
KANS. Concordia . . .	27	-5	T	- .2	Williston . . .	5	-13	.4	+ .3	Madison . . .	10	-14	1	- .3
Dodge City . . .	34	-1	0	- .1	OHIO. Akron-Canton . . .	29	-2	.7	+ .2	Milwaukee . . .	15	-11	1	- .3
Goodland . . .	31	0	T	- .1	Cincinnati . . .	32	-3	.3	- .3	WYO. Casper . . .	30	+3	.2	+ .1
Topeka . . .	25	-9	1	- .3	Cleveland . . .	28	-4	.5	- .1	Cheyenne . . .	32	+2	T	- .1
Wichita . . .	31	-5	0	- .3	Columbus . . .	29	-3	.5	- .1	Lander . . .	30	+6	T	- .1
KY. Lexington . . .	34	-3	1.0	+ .2	Dayton . . .	31	-1	.3	- .2	Sheridan . . .	28	+1	T	- .2
Louisville . . .	36	-1	.4	- .4	Toledo . . .	23	-7	.2	- .3	P.R. San Juan . . .	79	+2	.5	- .6

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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## 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:** Cold and cloudy on Monday and Tuesday, clear Wednesday with a return to cloudy but warmer as weekend rain moved in. Below normal temperatures during first part of week averaged with warmer temperatures last few days gave week just slightly colder than normal. Rain fell over State throughout weekend with moderate to heavy amounts reported. Some stations in south Alabama received over 3 in. while north and central Alabama reported one to two in.

Cold, wet fields limited fieldwork to 3.3 days. Soil moisture adequate. Major activities: routine farm chores, feeding livestock and poultry, some harvesting of crops. Cotton harvest 90% complete; 90% in 1975; 93% average. Corn harvest 97%; soybean harvest 94%; sorghum harvest 95%. Pecans fair condition; harvest winding down. Small grains fair to good; late fields showing slow growth. Pastures short. Livestock fair to good.

**ARIZONA:** No precipitation, temperatures within 2° normal.

Cotton picking, scrapping full swing. Land preparation, planting small grains increasing. Harvest late sorghum active, winding down. Sugarbeets central, western areas good growth. Fall beet harvest completed. Alfalfa haying activity stopped. Lettuce harvest continued full swing Yuma, declining central. Mixed winter vegetable harvest active. Lemons, navels, sweet oranges, tangerines, limited grapefruit picked. Recent rains beneficial but substantial rainfall needed. Higher elevation ranges generally good. High Plains central, northeastern poor to fair. Cattle, calves, sheep, lambs mostly fair to good.

**ARKANSAS:** Below normal temperatures with rain early and late in week. Temperature extremes: 11 to 64°. Rainfall less than 1 in. north to over 2 in. south.

Limited amount cotton and soybeans to be harvested. Wheat, oats, good condition. Pastures short. Weekend rain limited fieldwork.

**CALIFORNIA:** Weak cold front moving rapidly through State brought small amounts of precipitation to few stations in northern half of State. Largest amounts recorded in extreme northern portion of State. High pressure dominated weather of State during remainder of week. Temperatures averaged from near normal to 6° above normal along coast and few mountain locations.

Small grains experiencing moisture stress. Cotton picking continues. Field-stored cotton moving gins slowly. Corn, milo harvests winding up. Alfalfa being sheared off. Extensive preparations next year's crops. Clean-up operations continue. Irrigating as water supply permits. Vineyard pruning, spraying. Frost central valley, no damage reported. Avocado harvest active. Date picking continues, heavy culling. Irrigating figs Fresno area. Grapefruit movement fair; exports down. Fair demand lemons. Navel orange harvest up. Sugar-acid ratio, color improving. Tangerine harvest continues with reduced demand. Frosty weather beginning to affect all but the cold, hardy vegetables. Broccoli, cauliflower, and cabbages standing up well. Lettuce harvesting hindered by morning frosts. Potatoes doing well. Northern California movement below last year. Tomatoes affected by frost varying degrees. Greenhouse production supplying market. Range

conditions continue decline. New growth being stressed, grass growth nonexistent. Soil moisture supplies depleted. Stock water available, some hauling most ponds, reservoirs extremely low. Cattle showing stress. Supplemental feeding increased. Livestock good-fair condition.

**COLORADO:** Second week of December characterized by sunny, mild days, interspersed with brief shots of colder air and snow flurries as weak fronts moved through. Any snow that accumulated was light. Even mountain locations had three in. at most. Temperatures at lower elevations ranged near to a little below normal east of the Divide. Western slope areas were a little above normal.

**FLORIDA:** Cold front beginning early week brought rains, a little more than 1.00 in. west, south; 0.25 to 0.75 in. central. Temperatures mild early week, cooler midweek, warmer weekend. Temperatures below freezing north morning of 16th. with patchy frost extending to central area.

Soil moisture adequate most central and southern areas, excessive along upper east coast, extreme northern counties and eastern half of Panhandle. Cotton, soybean harvest nearing completion. Sugarcane harvest active. Cool temperatures limited growth of grasses, temporary pastures. Small grain pastures beginning to afford some grazing. Supplemental feeding rather heavy. Cattle and calves good condition. Citrus trees excellent condition. No damage from last week's cold weather. Rain sufficient to halt irrigation but more needed. Many processors not yet operating because of late maturity. Cabbage volume advanced 73 percent. Volume leader tomatoes, nearing peak fall movement, increased 17 percent. Other crops showing increased movement were celery, escarole-endsive, green peppers, radishes, steady supplies snap beans, carrots, sweet corn, cucumbers, eggplant, lettuce. Squash shipments declined. Cool, damp weather lowering packout several crops. Volume outlook mostly steady. Strawberry harvest light Dade county, mostly local use.

**GEORGIA:** Temperatures 3 to 6° below normal. Averages mid-30's mountains and mid-40's central to low 50's extreme south. Rainfall amounts ranged from 1.00 to more than 2.00 in. north and east to around .75 in. southwest. Heaviest rainfall 2.45 in. near Lafayette northwest Georgia. Rain occurred mainly midweek.

Soil moisture extremely variable, mostly adequate. Two days suitable for fieldwork. Cold weather and wet fields still hampering farming activities. Cotton mostly fair to good, 85% harvested, 100% open. Soybean condition mostly fair to good, 81% combined. Corn condition fair to mostly good, 96% harvested. Pecan condition poor to mostly fair, 77% harvested. Pasture condition fair to good. Cold weather slowing growth small grains. Most permanent pasture dormant. Livestock fair to mostly good. Wheat 90% planted, rye 93% planted and other small grain 92% planted.

**HAWAII:** Weather getting cool and wetter. Some heavy rains windward area Hawaii, Kauai, Oahu. No serious crop damage.

Water supply to irrigate sugarcane crop leeward Kauai continues to be low. Vegetable supplies adequate. Banana supplies heavy. Papaya supplies

moderate to heavy. Pineapple supplies moderate to heavy. Pineapple harvesting light. Sugar harvesting slow. Pastures: leeward poor, windward good. Rains beneficial.

IDAHO: Temperatures above normal, precipitation below normal. Maximums ranged from 39 degrees at Moscow to 60 at Burley. Minimums ranged from zero at Fairfield to 25 at Lewiston. Precipitation ranged from 0.02 to 0.62 in. less than normal.

Some plowing and fertilizing as open weather continues. Other activities include repairing machinery, planning next year's activities, bookkeeping, tending livestock. Supplemental feeding near normal. Feed supply adequate.

ILLINOIS: Temperatures 11 to 16° below normal. Cool period 12th straight week. Coldest north. Precipitation: less than 0.33 in. many areas near 1.00 in. extreme southwest.

Soil moisture mostly short. Winter wheat and other small grains remain mostly fair to good, short fall growth reported in some areas. Livestock doing well most areas. Main farmwork: caring for livestock, chores.

INDIANA: Temperatures averaged 6° below normal. Daily highs averaged in low 30's north, high 30's south. Daily lows in teens north, middle 20's south. Precipitation of 0.10 to 0.40 in. Few inches of snow in north at midweek.

Fieldwork minimal. Finishing harvest on few remaining scattered fields as conditions permit. Frozen soils have prevented tilling. Major activities: hauling grain to elevators, caring for livestock, chopping stalks, spreading lime and fertilizer, equipment maintenance and routine chores. Tobacco stripping continues slow because of dry conditions.

IOWA: Very cold week with light precipitation. Temperatures averaged 10 to 15° subnormal with numerous record daily lows as minima to minus 21° F recorded the 8th at Cherokee. Snow cover across the State during early week receded to about northern half of Iowa with 2 to 4 in. cover by weekend. Early week snowfalls totaled 0.1 in. or less water equivalent.

KANSAS: Cold and dry weather continued with precipitation limited to east portion generally less than 0.25 in. Temperatures averaged from 26° in the east central to 34° in the southwest or from 1 to 2° below normal west and 3 to 5° below normal in central and east.

Cold, dry weather continues to deteriorate the wheat crop. Because of limited top growth, little wheat being pastured. Grazing reported as 5%, compares with 10% last year, 15% average.

KENTUCKY: Average temperatures near seasonal normal, in mid-30's. Cold midweek readings dropped into teens, then brief warm spell with highs in 50's. Precipitation averaged about 0.25 in. central, 0.50 in. west, and 1.50 in. east.

Farm work limited to wrap-up grain harvest, bulking down, stripping and delivering tobacco to market, plus winter livestock chores. Burley sales volume increasing, prices weakening slightly. Winter grain and pasture growth short.

LOUISIANA: Temperatures near normal. Extremes: 70 and 23°. Rain most areas December 6, 11, and 12. Greatest 1 day rainfall, 2.51 in. at Monroe.

Sugarcane harvest continued active. Pastures poor to fair. Cattle fair.

MARYLAND & DELAWARE: Temperatures averaged 5 to 6° below normal. Highs in 50's, lows in teens. Precipitation was moderate with most stations reporting over 1 in. Weekend fair and cool with light rain Saturday and Sunday evening. Farmers doing winter chores. Livestock in good condition, some still on pasture.

MICHIGAN: Temperatures continued cold during the week ranging from 7 to 10° below normal. Numerous new daily low temperature records were established. Lowest reported temperature was 29° below zero at Stambaugh on Tuesday morning. Precipitation, generally restricted to flurries and showers, was uniform over State except for Lake Shore stations. Precipitation averaged 0.25 in. over Lower Peninsula and 0.40 in. over Upper. Snowfall continues unusually heavy thus far this year. Sault Ste. Marie reports a total seasonal snowfall of 56.2 in. to date. Snow depth over Upper and northern Lower Peninsula ranged from 15 to 27 in.

Farm activities restricted to farm chores and feeding of livestock. Shipping of fruit and vegetables out of storage continued.

MINNESOTA: Very cold week with scattered light snows, heaviest north third. Temperatures averaged 15 to 20° below normal. Extremes: 35 above and 32 below zero. Precipitation: 0.10 in. above normal extreme north with 0.30 in. average, remainder of State traces to 0.10 in., 0.15 in. to 0.25 in. below normal. New snow: 2 in. or more north third to 1 in. or less south two-thirds. Snow depth: 4 in. or more northeast third, 1 to 3 in. elsewhere.

Fields with corn stalks or stubble retaining some snow cover, but a few plowed fields experiencing wind erosion.

MISSISSIPPI: Temperatures 6° subnormal. Extremes: 15 and 68°. Greatest 24-hour rainfall 1.80 in. at Hattiesburg on the 7th.

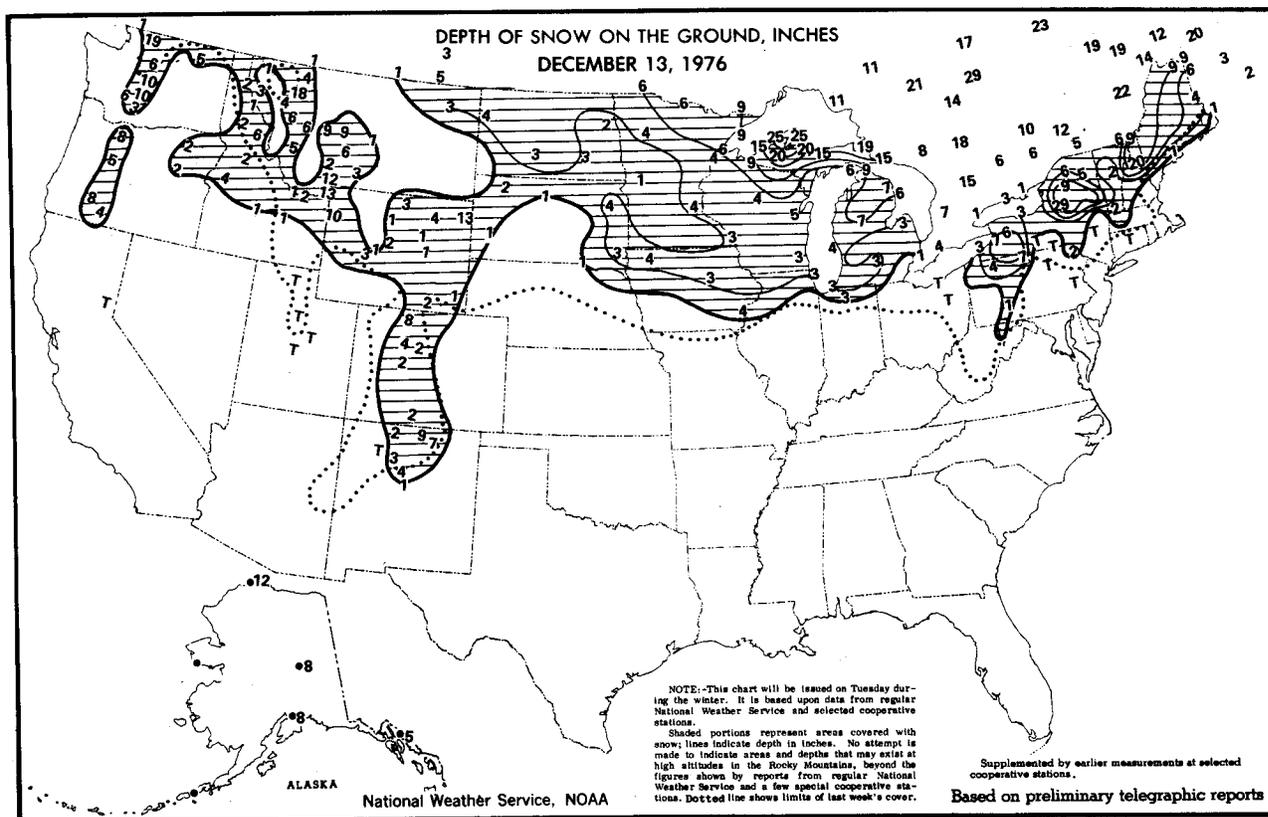
Soil moisture adequate to surplus. Fieldwork: 2.6 days suitable. Cotton 98% harvested, 85% 1975, 93% average. Soybeans 98% harvested, 92% 1975, 91% average. Corn 98% harvested, 98% 1975, 96% average. Pecans 92% harvested, 86% 1975, 85% average. Winter wheat, oats, and pastures in poor to fair condition. Livestock in mostly fair condition. Hay and roughage supplies and feed grain supplies short to adequate.

MISSOURI: Cold air continues to dominate the weather as temperatures ranged 8 to 12° below normal across the State except for the Bootheel where temperatures were only a few degrees below normal. Precipitation ranged from a few hundredths in the northern sections to 1/2 to 1 in. through much of southern Missouri. Heaviest amounts fell in east central Missouri. Precipitation was mostly in the form of rain changing to snow.

Farming activities include general livestock care and management, while farmers are still faced with critical stock water supplies and low sub-soil moisture.

MONTANA: Mostly dry, warm week except northeast and southeast divisions cold during the period. Temperatures averaged 3 to 8° below normal northeast and southeast to 3 to 9° above elsewhere. Precipitation above normal northeast and southeast to well below normal remainder of State. Frequent strong, gusty winds along the east slopes of the Rockies.

Winter wheat condition remains unchanged, mostly poor to fair main growing areas. Soil moisture continues short. Winter ranges and pastures fair to good.



**NEBRASKA:** East 10 to 15° below normal. Panhandle 4° above normal. Precipitation as snow confined to north central and northeast. Heaviest 5 in., 0.10 to 0.20 in. common.

**NEVADA:** Weak storm midweek brought light amounts precipitation north and central. Dry, cool weather remainder. Temperatures normal to few degrees below. Extremes: 66° to 3° below zero.

Cotton harvest nearing windup stage Pahrump Valley. Caring and feeding livestock main ranch activity.

**NEW ENGLAND:** Temperatures variable throughout week. Warm early week, cold middle week and warming end of week. Precipitation of 2 to 4 in. falling as rain, south and central New England and snow and freezing rain over parts of western and northern New England early Tuesday morning.

**NEW JERSEY:** Temperatures 2° below normal in Coastal sections and 5° below elsewhere, averaging 30° north, 34° south and 38° Coastal areas. Extremes: 8° at Charlottburg and Newton and 58° at Cape May Court House. Precipitation 0.80 in. above normal averaging 1.63 in. north, 1.37 in. south and 1.57 in. Coastal sections. Heaviest 24-hour total 1.43 in. at Charlottburg. One and one-half in. snow fell in Cape May, 1 in. in Atlantic County early on 9th. Snow squalls were reported in Middlesex and Somerset.

Farmers doing winter chores and caring for livestock.

**NEW MEXICO:** Week mostly dry with only scattered light snows northern sections. Warmest at mid-week with local cooling last half. Temperatures for week averaged 4° colder than normal except near normal Eastern Plains.

Soil moisture mostly adequate. Cotton, pecan harvest advanced slowly. Cotton 80% completed, pecan activity increasing. Winter small grains fair condition, grazing moderate. Ranges, livestock fair to good.

**NEW YORK:** Average temperatures ranged from 10° below normal at New York City to 8° below normal in St. Lawrence Valley. Extreme of -20° at Newcomb. Statewide precipitation ranged from 1/4 in. to 1-1/4 in. Greatest snow depth 29 in. Boonville.

**NORTH CAROLINA:** Temperatures averaged below normal. Precipitation above normal with 1.00 to 3.00 in. common statewide.

Fieldwork: 2.2 days suitable. Soil moisture 5% short, 60% adequate, 35% surplus. Corn 97% harvested, 1975 97%, average 93%. Soybeans 84% combined, 1975 84%, average 84%. Cotton 91% picked, 1975 95%, average 89%. Sorghum 98% harvested, 1975 98%. Wheat 95% seeded, 1975 95%, average 90%. Oats, barley, rye 95% planted. Pastures 20% poor, 50% fair and 30% good. Small grain conditions average mostly fair to good.

**NORTH DAKOTA:** Temperatures ranged 10° below normal to 15° below normal. Extremes: 40° to -28°. Precipitation ranged 0.28 in. above normal to 0.11 in. below normal. Most of State above normal precipitation except central and north central. Weekend weather cloudy with snow showers and warmer temperatures.

Pastures and ranges very poor condition, providing limited feed.

**OHIO:** Rain over State 6th changing to snow across northern section of State 7th with 3.00 to 4.00 in. of accumulation. Rain across southern part of

State 10th and 11th with near or above normal temperatures.

Wheat growth short many areas.

**OKLAHOMA:** Temperatures averaged from 4 to 7° below normal. Precipitation ranged from traces in Panhandle and west central to 1.53 in. east central. Weekend cold to mild with rain eastern half of State.

Topsoil and subsoil moisture short. Wheat condition continued decline, rated fair. Grazing limited throughout State. Sorghum rated fair to good, harvest virtually complete. Cotton rated poor to fair. Cotton harvest 92% complete, last year 50% complete. Soybeans rated good, 94% harvested, same as last year. Pastures and ranges fair condition. Livestock rated fair to good.

**OREGON:** First significant rain in nearly a month occurred over western Oregon. From 0.75 to 1.00 in. of rain fell along the coast and about 0.40 in. in the Willamette Valley. East of the Cascades light precipitation was reported. Temperatures around the State were 2 to 5° above normal. Extremes: mid-60's, mid-20's west; mid-50's, low teens east.

Farm activity remained light. In the Willamette Valley grains are being sprayed for ryegrass and orchards are being pruned. Fall grains continue to look good. Clover is fair. East of the Cascades the moisture-short winter wheat crop is reported fair at best. Rain is needed soon. Pastures are still in fair to good condition in most areas but need moisture. Feeding remains heavy in some areas. Feed supplies continue good. Livestock condition is good.

**PENNSYLVANIA:** Moderate to heavy rain Monday. Remainder of week generally dry except for a few light showers and snow flurries. Weekly total precipitation 1.70 in. east central to 0.30 in. Northwest Plateau. Snow cover confined to mountain areas. Snow accumulation a trace to 4 in. Cool beginning of week to very cold mid-week with milder weekend. Weekly temperatures 4 to 6° below normal to 2 to 3° above normal southeast. Extremes: 58° to -4°.

Caring for livestock, deer hunting, and normal winter chores.

**PUERTO RICO:** Island average rainfall 1.16 in. or 0.12 in. above normal. Highest weekly total 5.13 in. at Luquillo Mountains followed by 3.66 in. at Humacao. Highest 24 hour total 2.06 in. at Humacao. Temperatures averaged about 77 degrees on coasts and 72 degrees interior divisions. Extremes: 91 and 54°.

Good maturing sugarcane. Continuation of rains would decrease sucrose content some areas. Coffee harvest nearly completed. Cleaning and cultivating started. Good development of tobacco. Hail caused some damage to plantations at Orocovis. Pastures good condition. Planting and fertilizing underway. Good growth food crops. Pigeon peas harvest started.

**SOUTH CAROLINA:** Temperatures below normal for week, well below normal early week, above normal late week. Rainfall above normal all areas; most rain on 6th, 7th, 11th. Central region received over 4 in. during week.

Soybean, cotton harvest continued as weather permitted. Small grains seeding neared completion. Small grains, pastures hurt by cold. Other activities: pruning peach trees, grape vines; preparing tobacco beds; taking soil samples, general maintenance.

**SOUTH DAKOTA:** Cold weather continues for third week. Nighttime lows below zero much of week, warmer during weekend. Extremes: -29 and 57°. Snow early week amounted to 1 to 2 in., water equivalent mostly less than 0.20 in.

Farm activity slow. Moving feed supplies and caring for livestock main activities.

**TENNESSEE:** Temperatures averaged about 3° below normal in the west and east and about 1° above normal mid-State. Precipitation averaged near 1/2 in. in the west to near 2 in. in the east.

Practically all crops have been harvested. Principal activities for the week include completion of fall harvest, plowing, stripping tobacco and caring for livestock. Pastures are in poor condition. Tobacco auctions are progressing very smoothly.

**TEXAS:** Two cold fronts this week kept temperatures below normal and brought heavy rains to eastern 1/3. Temperatures 2 to 4° below normal. Normal range from near 40° over Panhandle to upper 50's along coast. Little or no precipitation northwest, where normally 1/4 in. received. However, 2/3 in. totals common eastern 1/3. Normal central, southwest received 1/4 to 1/2 in. which is normal.

Farmers Plains busy stripping, farmers southern go Christmas shopping while fields remained waterlogged. Cotton harvest 73%, well ahead of 64% average. Stripping active the High Low Plains. Gins these areas continue to run behind. Harvest of few fields north, central will resume when fields dry. Peanut harvest delayed by rain. Freeze hurt peanuts that were plowed up. Sugarbeet digging continued active. Beets suffered very little from recent snowstorms. Wheat slowed by freeze. Grazing limited. Fields on northern High Plains still short of moisture. In southern 1/2 of State, most fields waterlogged; grazing delayed to prevent damage. Warm, dry needed. Planting 97% complete. Oats hurt by freeze, particularly east many fields severely damaged and are providing almost no grazing. Warm needed in all areas. Flax planting at standstill, as rain blanketed southcentral. Planting currently 33%, unchanged from last week, 55 points behind average. In Lower Rio Grande Valley many remaining bell pepper, tomato fields damaged by frost. Light harvest cabbage continues as conditions permit. Lettuce harvest underway. Onion transplanting active. Citrus harvest slowed by wet conditions. All remaining Coastal Bend cucumber, squash fields heavily damaged by freezing temperatures. Cabbage harvest active Laredo area. Carrot digging begun, early yields very good. In San Antonio-Winter Garden vegetables some damage from freezing temperatures. Harvest cabbage, cattots, spinach continues. Onions planted as fields dry. Cauliflower soon ready for harvest. Spinach harvest continues Eagle Pass. On the High Plains land preparation active for spring planting. Freeze slowed ranges. Excess moisture southern 1/2 limited small grain growth. Winter weeds plentiful. Some oat fields east badly damaged by cold. Northern High Plains remain dry; grazing short. Supplemental feeding common. Cattle east, north-fair, good other areas.

**UTAH:** Few isolated showers later part of week. Accumulated amounts of moisture generally very light in valleys. Average temperatures quite variable ranging 4° below normal to 6° above. Soil moisture deficit continues very serious most dryland wheat and winter range area.

Major activities: processing of sugarbeets,

care and feeding of cattle and sheep on winter ranges, valley farms, and feedlots, and sorting, grading and marketing of dry onions, potatoes and apples for storage. Mild and open conditions this winter have farmers concerned as to water supplies next spring.

**VIRGINIA:** Temperatures varied greatly day to day, averaging several degrees below normal. Snow of 3 in. to 4 in. fell in the west with lighter amounts other sections. Precipitation averaged 1.50 in. for the week.

Fieldwork: 1.9 days suitable. Topsoil moisture: 61% adequate, 2% short, 37% surplus. Most common activities: feeding and caring for livestock, machinery repair, home butchering, grading and marketing tobacco, winter chores, paperwork. Pastures rated at 81% of normal. Late planted grains not faring as well as those planted early. Small amount of corn still in the field. Winter grain and grazing crops rated at 61% of normal.

**WASHINGTON:** West: Temperatures averaged near normal east Cascade foothills to 5° above normal west Olympic/Coastal area. Precipitation averaged from 1.60 in. below normal Coastal area to 0.20 in. above normal northeast Olympic/San Juans. Caning raspberries, blueberries continues. Also, early forcing rhubarb. Christmas tree harvest 80% complete. Long distance shipments diminished. Remaining trees to go local. Final stages of holly harvest. Northern cattle on full feed; some southern cattle still on range.

East: Temperatures averaged from near normal Palouse/Blue Mountain to 1° above normal elsewhere. Precipitation averaged 0.30 in. sub-normal. Fall plowing, leveling, draining being

done. Pruning orchards. Trees hardened. Roots susceptible to damage from cold dry soil and no snow cover. Hay moving out. Sugarbeets, potatoes to processors. Winter grains get relief from drought but need much more rain. Some cattle still on range.

**WEST VIRGINIA:** Temperatures below normal northern and western sections, normal elsewhere. Precipitation above normal entire State with heaviest amount in northcentral.

Fieldwork: 3.5 days suitable. Soil moisture remains mostly adequate. Fall sown grains in good condition. Hay feeding has increased sharply. Livestock generally good condition. Farm activities: repairing machinery, building construction and care of livestock.

**WISCONSIN:** Temperatures continued very cold with below zero morning readings until mid-week when brief moderation occurred. Highs reached the middle 30's on 9th and 10th, but well below zero morning of 11th. Slight warmup to upper 20's on 12th before dropping to sub-zero readings statewide early 13th. Precipitation light for week. Only significant snowfall 1.00 to 2.00 in. extreme north 9th.

**WYOMING:** Scattered light snow showers. Precipitation averaged from trace to less than 0.25 in. Mean temperatures mostly mid-20's. Departures from 6.7° below normal to 6.4° above. Soil moisture still short. Precipitation mostly in north and northeastern areas. Moisture still needed to improve winter wheat conditions although snow has improved outlook in northeast. Most livestock on winter range, normal supplemental feeding. Feed supplies short in some areas, mostly adequate statewide.

## World Weather and Crop Update

**HIGHLIGHTS.** Winter wheat combining advanced under favorable weather into Southern Hemisphere. Bitter cold and extensive snow cover ranged across the Canadian Prairies, Asiatic USSR, and Manchuria. Moderate temperatures and little snow kept pastures open to livestock in most of Europe.

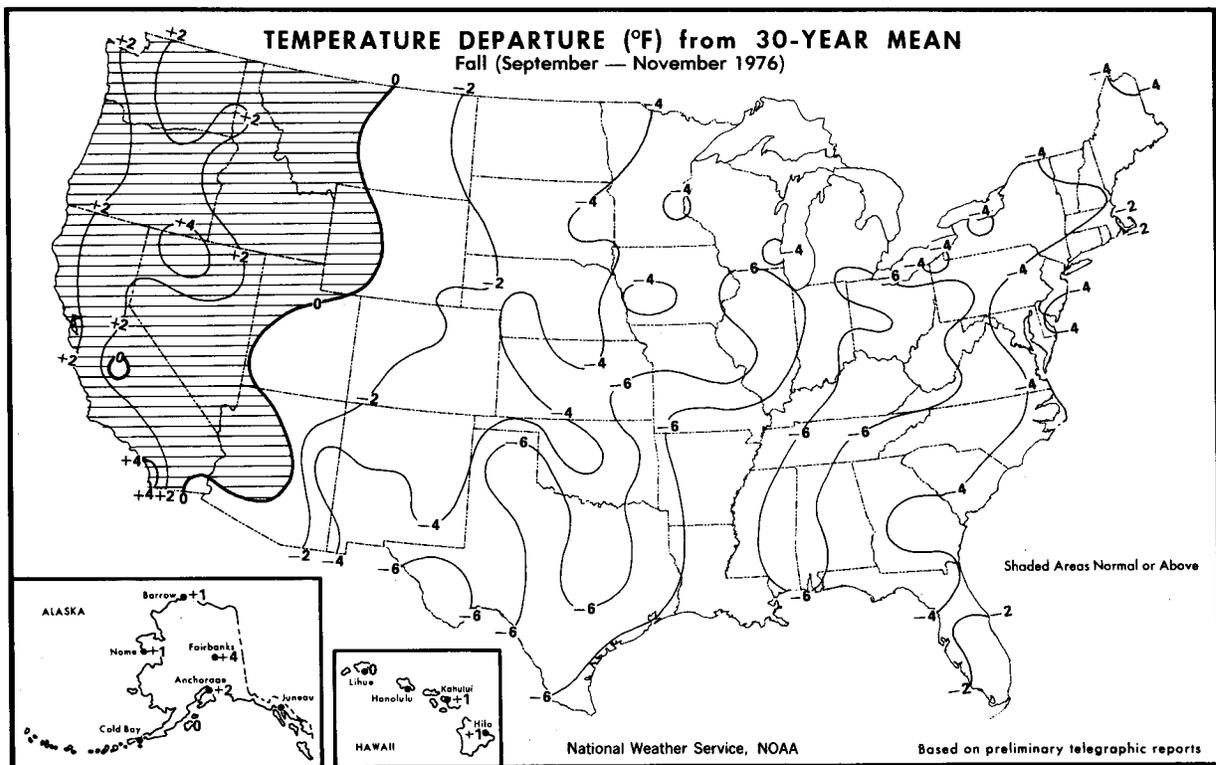
**AMERICAS.** Cold, snowy weather built up snow cover across the Canadian Prairies and eastward to the Atlantic. In contrast, early summer heat with few showers predominated in the grain belts of Brazil, Uruguay, and Argentina. For the most part, weather favored combining of winter wheat.

**EUROPE.** Relatively mild, wet weather persisted until the first cold snap in weeks swept into the region over the weekend bringing some scattered snow. Snow cover remained very limited however, except for the Alpine region, the Nordic Countries, and parts of the Balkans. Introduction of more

seasonal weather will mean reduced vegetative growth, but much pasture land is open for grazing.

**USSR.** Moderate temperatures and rain prevailed over much of the wheat in the European sector. Snow covered less area than usual for mid-December leaving much winter wheat snow free and vulnerable to sudden cold.

**ASIA.** Early summer heat with widely scattered showers characterized Australia weather last week. Conditions favored combining winter wheat. India received very little rain; most showers occurred in extreme southern areas. Tropical storm Nora brought heavy rainfall to parts of Luzon in the Philippines. Cold, dry weather penetrated the People's Republic of China, where only the south escaped frost. Snow cover extended over much of Manchuria but little or none covered north China's winter wheat. Temperatures, however, were not critical.



### Fall Weather Review

**HIGHLIGHTS:** Drier than normal weather in most of the Corn Belt and the northern and central Plains highlighted autumn weather. Areas from central Ohio westward and from the eastern two-thirds of Oklahoma and northern Arkansas northward measured below normal precipitation. North Dakota, most of South Dakota, Minnesota, Iowa, and Wisconsin received less than half the normal amount. Although the growing season is over in these areas, soil moisture reserves for next spring's crops are critical. Elsewhere, the Pacific Northwest also had a very dry season with less than half the normal precipitation. However this area experienced a fairly wet summer so conditions are not as critical as in the northern Plains, where a drought has persisted for some time. Ample fall rains replenished soil moisture in parts of eastern U.S. that looked back on a dry summer.

Seasonal average temperatures slipped below normal in all areas east of the Rocky Mountains. Readings averaged as much as 5 to 7° below normal in most of the East. Many record low temperatures were recorded, especially in the South.

September precipitation favored winter wheat areas of Texas, western Oklahoma, and Kansas, Colorado, and eastern Nebraska. Seeding progressed rapidly in these areas. Showers extended into eastern South Dakota and a large portion of Minnesota but amounts were inadequate to aid these extremely dry areas. Rain also covered most of southwestern U.S. and the Plateau into southwest Montana. Welcome rain fell in the dry areas of the East Coast States.

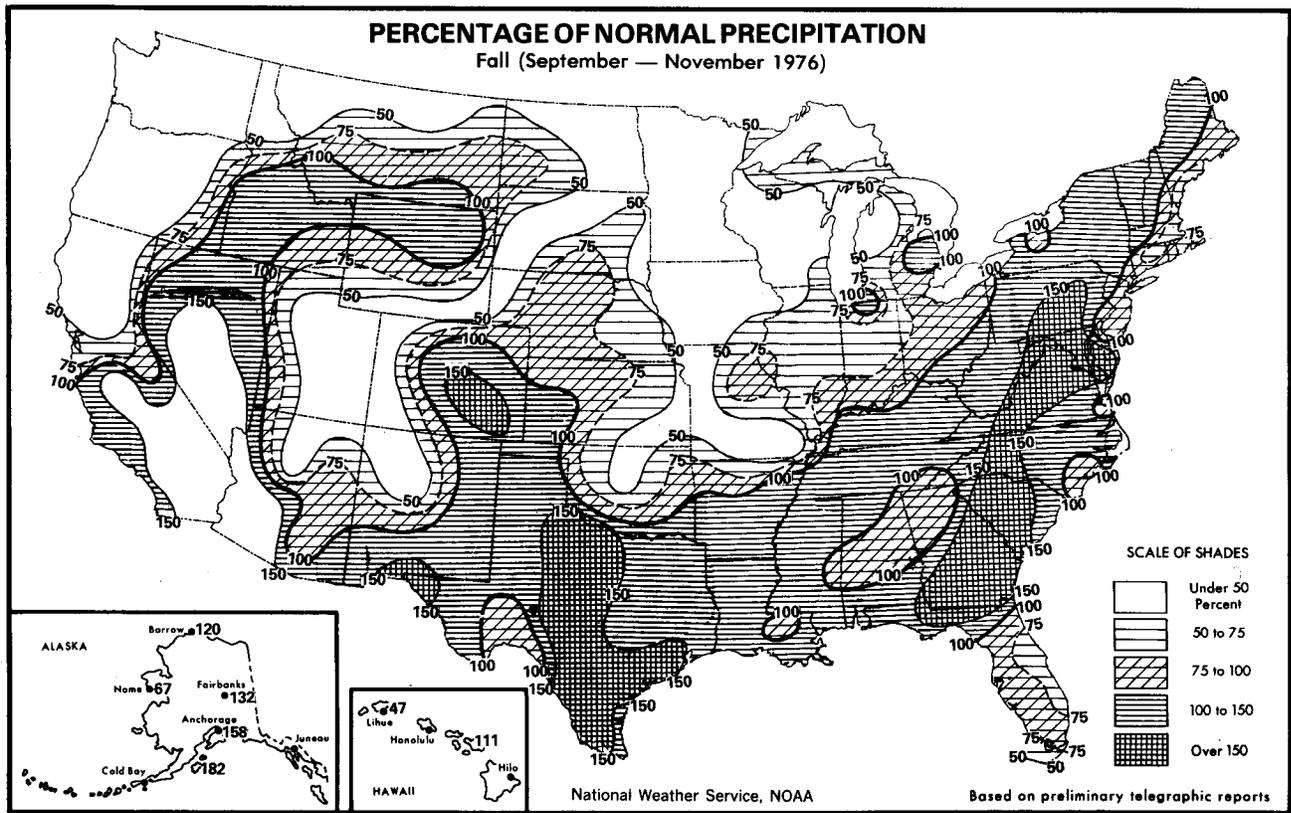
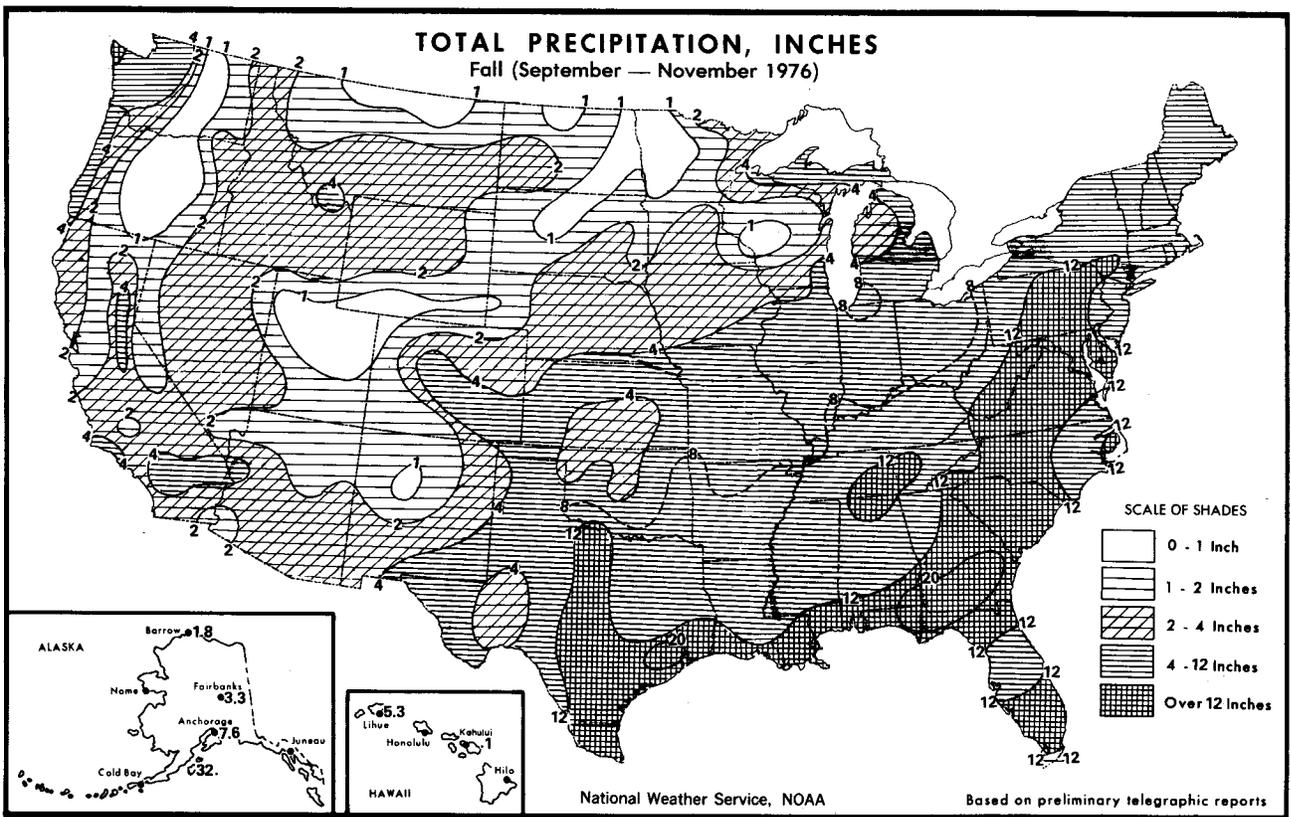
The drought area of the northern Plains continued dry and spread toward Iowa, Illinois, and Missouri. Average monthly temperatures did not show excessive departures but the driest areas of the Plains were 2 to 3° warmer than normal, thus increasing the moisture demand in the area. The

highest negative departure occurred in the Ohio Valley where the month averaged 4° colder than normal.

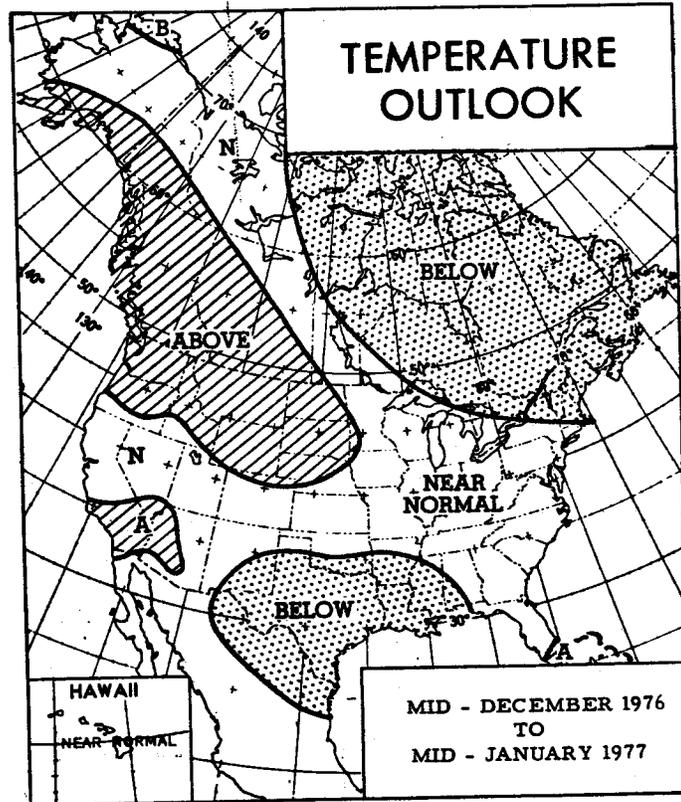
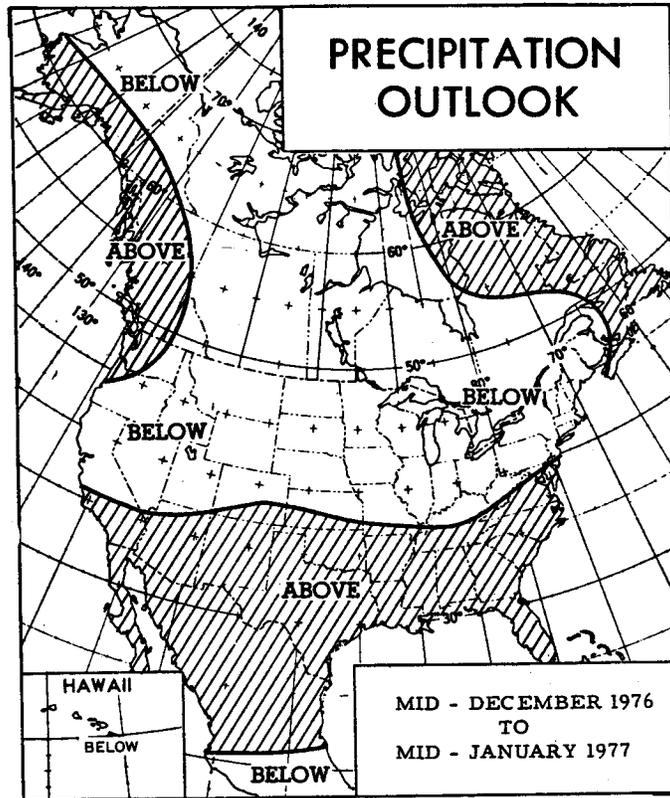
Early in October an outbreak of cold air pushed into the northern Rockies and moved southward and eastward enveloping the Nation, east of the Rockies, in cold arctic air. This marked the first of a succession of cold outbreaks that have dominated seasonal weather patterns. Many areas claimed record temperatures. The average temperature for October ranged 8 to 10° below normal in Texas.

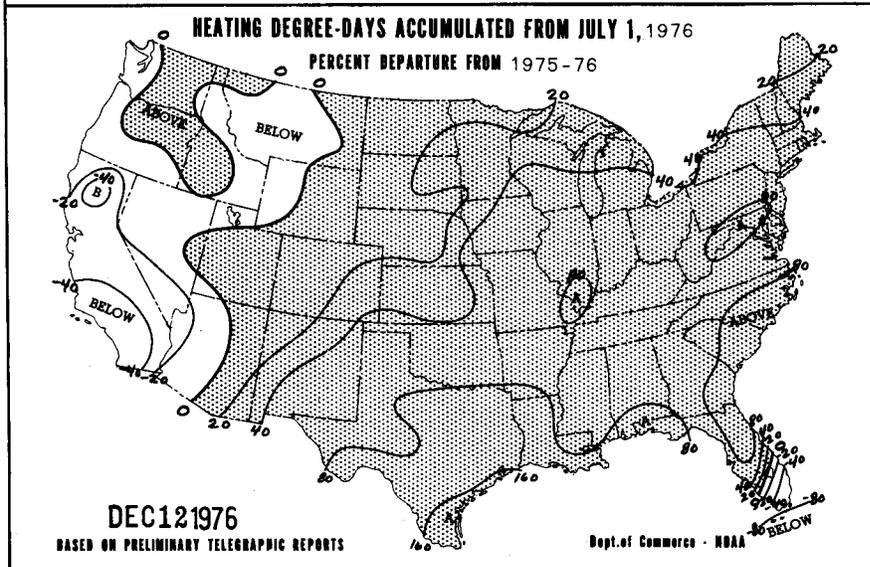
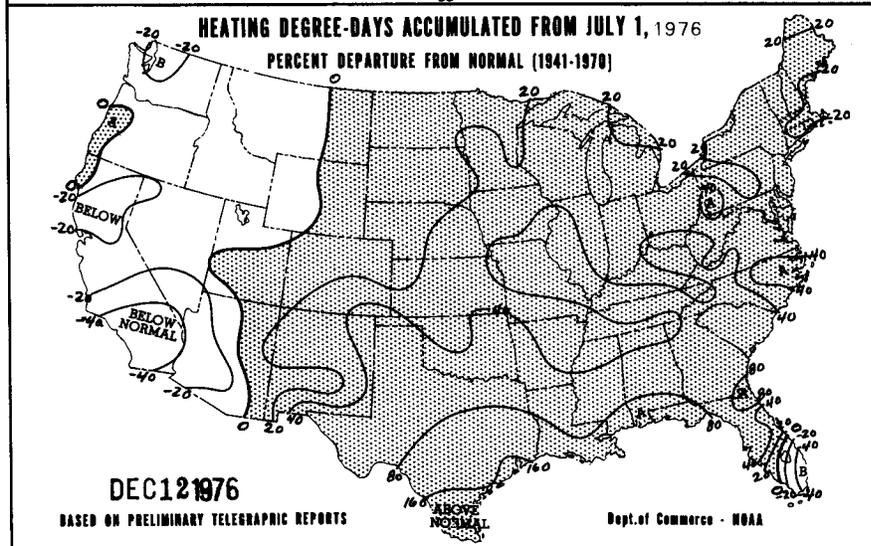
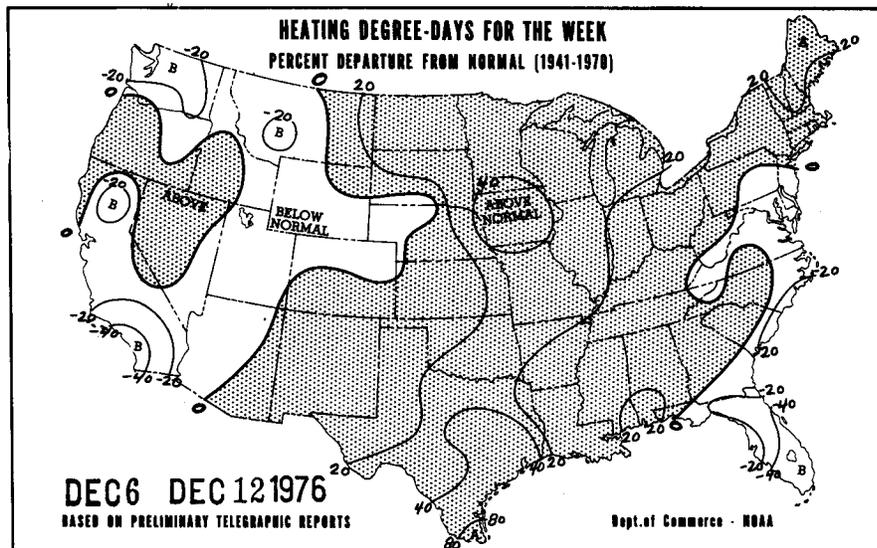
As the cold air encountered warm moist Gulf air, a series of low pressure centers formed along the Gulf Coast and spread rain eastward and north-eastward. Moderate to heavy rain fell in much of the South and East; however, Florida remained drier than normal. Rain extended northward into eastern Kansas and into most of Missouri. Normal or above rain fell in the eastern Corn Belt, but from central Illinois northward and westward moisture remained below normal.

November was a cold, dry month. Normal or above normal precipitation covered areas of extreme southern U.S. and parts of the Rocky Mountains but nearly all of the Nation was drier than normal. New England and the immediate Lakes area registered half of normal precipitation—in the form of snow—but from Pennsylvania through Virginia and southwestward to northern Texas and north through the Plains, little or no precipitation was reported. It was even drier west of the Rockies; limited rainfall in the Southwest amounted to less than a tenth of an inch. Below normal November temperatures occurred in all areas east of the Rockies and averaged 6 to 10° colder than normal in most of eastern U.S. November average temperatures were the coldest ever experienced in many parts of the South.



Average Monthly Weather Outlook



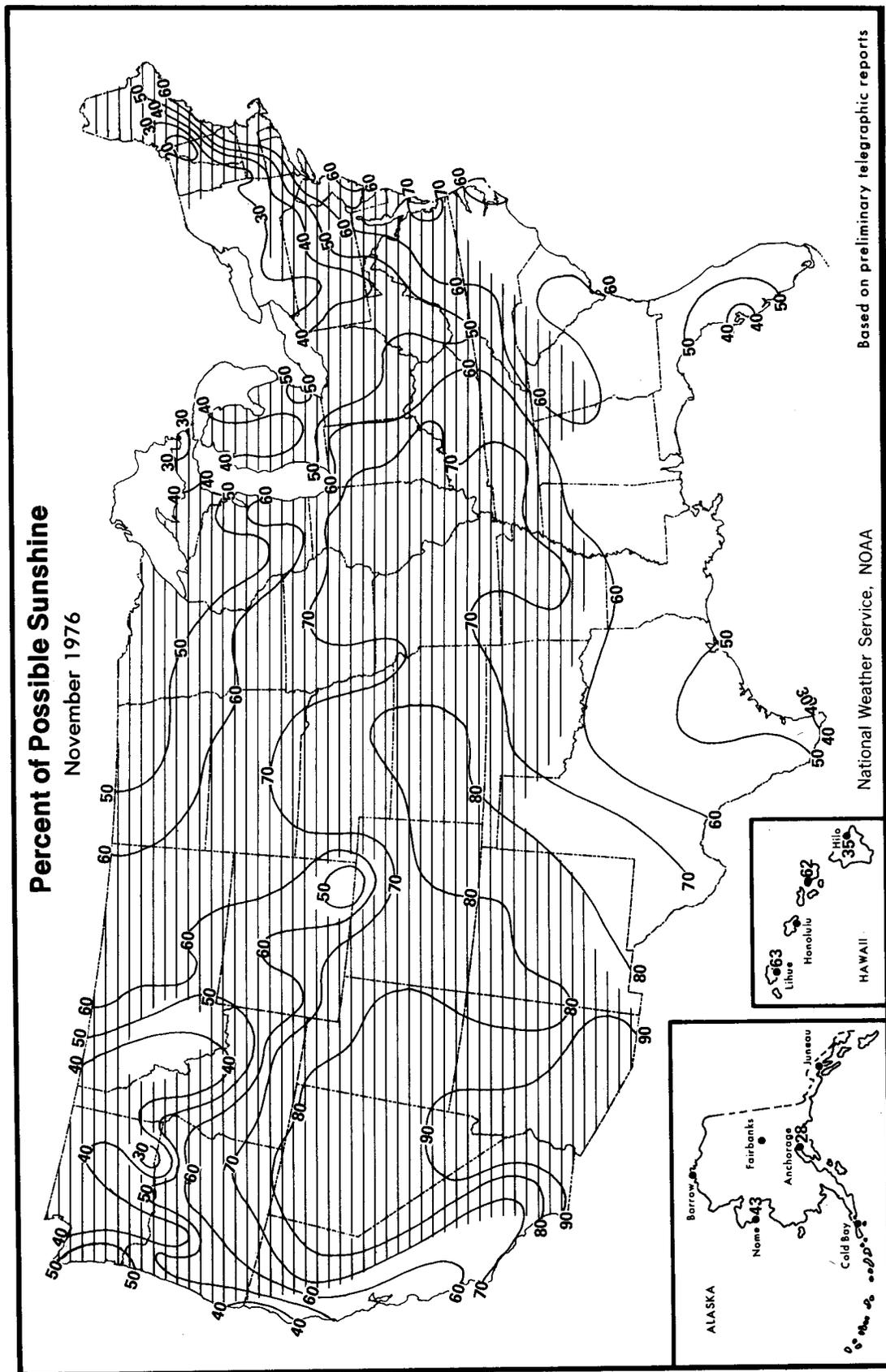


HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING DEC. 12, 1976.

STATES AND STATIONS	SEASONAL ACCUMULATION *			STATES AND STATIONS	SEASONAL ACCUMULATION *			STATES AND STATIONS	SEASONAL ACCUMULATION *						
	WEEKLY	TOTAL	DEPARTURE FROM 1975-76		WEEKLY	TOTAL	DEPARTURE FROM 1975-76		WEEKLY	TOTAL	DEPARTURE FROM 1975-76				
	TOTAL	DEPARTURE*	DEPARTURE FROM 1975-76		TOTAL	DEPARTURE*	DEPARTURE FROM 1975-76		TOTAL	DEPARTURE*	DEPARTURE FROM 1975-76				
ALA. BIRMINGHAM.....	422	1112	403	MAINE CARIBOU.....	427	98	3210	422	497	YOUNGSTOWN.....	270	25	2356	638	794
MOBILE.....	122	801	444	PORTLAND.....	271	9	2419	422	536	OKLA. OKLAHOMA CITY.....	201	34	1203	470	470
HUNTSVILLE.....	122	801	444	MD BALTIMORE.....	190	11	1528	325	602	TULSA.....	201	34	1352	451	497
ARIZ. FLAGSTAFF.....	22	1922	224	MASS-BOSTON.....	222	8	1605	244	560	OREG ASTORIA.....	23	14	1498	360	360
PHOENIX.....	1	1543	103	MICH ALPENA.....	207	6	2614	200	462	BURNS.....	23	14	1498	360	360
TUCSON.....	1	1543	103	BETHTO.....	207	6	2614	200	462	DEFOUR.....	23	14	1498	360	360
WILSON.....	1	1543	103	DETROIT.....	207	6	2614	200	462	HEPPELTON.....	23	14	1498	360	360
YUMA.....	1	1543	103	FLINT.....	207	6	2614	200	462	PORTLAND.....	23	14	1498	360	360
ARK. FORT SMITH.....	121	1351	497	GRAND RAPIDS.....	207	6	2614	200	462	SALEM.....	23	14	1498	360	360
LITTLE ROCK.....	121	1351	497	HOUGHTON LAKE.....	207	6	2614	200	462	PA ALLENTOWN.....	22	6	1823	465	465
CALIF. BAKERSFIELD.....	92	1745	233	LANSING.....	215	9	2451	559	733	ERTE.....	22	6	1823	465	465
EUREKA.....	92	1745	233	HARQUETTE.....	215	9	2451	559	733	HARRISBURG.....	22	6	1823	465	465
FRESNO.....	92	1745	233	HUSKON.....	215	9	2451	559	733	PHILADELPHIA.....	22	6	1823	465	465
LOS ANGELES.....	92	1745	233	S. STE. MARIE.....	215	9	2451	559	733	PITTSBURGH.....	22	6	1823	465	465
RED BLUFF.....	92	1745	233	MINN. DULUTH.....	116	3387	572	558	558	SCRANTON.....	20	20	2084	384	729
SAN DIEGO.....	92	1745	233	INTERNATL FALLS.....	116	3387	572	558	558	I. PROVIDENCE.....	253	27	1976	468	660
SAN FRANCISCO.....	92	1745	233	MINNEAPOLIS.....	116	3387	572	558	558	S. CHARLESTON.....	83	23	784	351	357
STOCKTON.....	92	1745	233	ROCHESTER.....	116	3387	572	558	558	COLUMBIA.....	23	23	1025	465	465
COLO. DENVER.....	96	1778	129	ST. CLOUD.....	121	3029	661	555	555	GREENVILLE.....	10	10	1247	400	509
GRAND JUNCTION.....	96	1778	129	MISS. JACKSON.....	123	15	970	384	408	SDAK. ABERDEEN.....	102	102	2687	556	556
PUEBLO.....	96	1778	129	MERIDIAN.....	138	22	1058	407	379	HURON.....	119	119	2742	523	523
CONN. BRIDGEPORT.....	23	1564	320	MO. COLUMBIA.....	96	80	1927	617	691	RAPID CITY.....	10	10	1247	400	509
HARTFORD.....	23	1564	320	KANSAS CITY.....	96	80	1927	617	691	SIoux FALLS.....	10	10	1247	400	509
DEL. WILMINGTON.....	193	11527	297	SPRINGFIELD.....	245	50	1666	574	550	TENN. CHATTANOOGA.....	186	23	1303	378	348
D. C. WASHINGTON.....	175	1335	289	MONT. BILLINGS.....	274	22	2042	38	48	KNOXVILLE.....	90	31	1337	390	422
FLA. APALACHICOLA.....	58	10	582	GLASGOW.....	274	22	2042	38	48	MEMPHIS.....	90	31	1337	390	422
DAYTONA BEACH.....	20	219	235	GREAT FALLS.....	274	22	2042	38	48	NASHVILLE.....	90	31	1337	390	422
FORT MYERS.....	13	95	27	HAVRE.....	274	22	2042	38	48	TEXAS ABILENE.....	168	45	1150	504	523
JACKSONVILLE.....	63	578	27	HELENA.....	274	22	2042	38	48	AMARILLO.....	215	215	1680	626	626
KEY WEST.....	28	224	10	KALISPELL.....	274	22	2042	38	48	AUSTIN.....	215	215	1680	626	626
LAKELAND.....	28	224	10	MILES CITY.....	274	22	2042	38	48	BEAUMONT.....	215	215	1680	626	626
ORLANDO.....	28	224	10	MISSOULA.....	274	22	2042	38	48	BROWNSVILLE.....	215	215	1680	626	626
TALAHASSEE.....	16	635	231	NEBR. GRAND ISLAND.....	293	39	2090	356	296	CORPUS CHRISTI.....	215	215	1680	626	626
TAMPA.....	28	224	10	LINCOLN.....	293	39	2090	356	296	BEL RIO.....	215	215	1680	626	626
WEST PALM BEACH.....	5	32	32	NORFOLK.....	293	39	2090	356	296	FORT BORTH.....	215	215	1680	626	626
GA. ATLANTA.....	22	1224	410	NORTH PLATTE.....	293	39	2090	356	296	GALVESTON.....	215	215	1680	626	626
AUGUSTA.....	22	1224	410	OMAHA.....	293	39	2090	356	296	HOUSTON.....	215	215	1680	626	626
Macon.....	22	1224	410	VALENTINE.....	293	39	2090	356	296	LUBBOCK.....	215	215	1680	626	626
SAVANNAH.....	22	1224	410	NEV. ELY.....	293	39	2090	356	296	MIDLAND.....	215	215	1680	626	626
IDAHO. BOISE.....	12	1601	14	LAS VEGAS.....	293	39	2090	356	296	SAN ANGELO.....	215	215	1680	626	626
LEWISTON.....	12	1601	14	RENO.....	293	39	2090	356	296	SAN ANTONIO.....	215	215	1680	626	626
POCATELLO.....	12	1601	14	WINNEMUCCA.....	293	39	2090	356	296	VICTORIA.....	215	215	1680	626	626
ILL. CAIRO.....	77	1559	577	N. H. CONCORD.....	323	53	2578	554	455	WICHITA FALLS.....	215	215	1680	626	626
CHICAGO.....	77	1559	577	N. J. ATLANTIC CITY.....	323	53	2578	554	455	UTAH SALT LAKE CITY.....	218	17	1558	158	4
MOLINE.....	77	1559	577	TRENTON.....	323	53	2578	554	455	VT. BURLINGTON.....	328	45	2584	475	719
PEORIA.....	77	1559	577	N. MEX. ALBUQUERQUE.....	224	28	1541	345	267	VA. LYNCHBURG.....	188	14	1497	336	513
ROCKFORD.....	77	1559	577	ROSWELL.....	182	21	1286	214	473	NORFOLK.....	188	14	1497	336	513
SPRINGFIELD.....	77	1559	577	N. Y. ALBANY.....	289	27	2284	459	728	RICHMOND.....	188	14	1497	336	513
IND. EVANSVILLE.....	100	2229	691	BINGHAMTON.....	289	27	2284	459	728	ROANOK.....	188	14	1497	336	513
FORT WAYNE.....	100	2229	691	BUFFALO.....	289	27	2284	459	728	WASH. GUILLAYUTE.....	226	4	1881	130	185
INDIANAPOLIS.....	100	2229	691	NEW YORK.....	289	27	2284	459	728	SEATTLE-TACOMA.....	226	4	1881	130	185
SOUTH BEND.....	100	2229	691	ROCHESTER.....	289	27	2284	459	728	SPOKANE.....	226	4	1881	130	185
IOWA. BURLINGTON.....	100	2229	691	SYRACUSE.....	289	27	2284	459	728	HALL HALLA.....	226	4	1881	130	185
DES MOINES.....	100	2229	691	N. C. ASHEVILLE.....	180	0	1593	388	498	W. VA. BECKLEY.....	218	2	2153	531	866
DUBUQUE.....	100	2229	691	CHARLOTTE.....	180	0	1593	388	498	CHARLESTON.....	218	2	2153	531	866
STOIX CITY.....	100	2229	691	GREENSBORO.....	180	0	1593	388	498	HUNTINGTON.....	218	2	2153	531	866
KANS. CONCORDIA.....	36	185	380	HATTERAS.....	180	0	1593	388	498	PARKERSBURG.....	218	2	2153	531	866
DODGE CITY.....	36	185	380	RALEIGH.....	180	0	1593	388	498	WIS. GREEN BAY.....	107	111	2891	672	772
GOODLAND.....	36	185	380	WILMINGTON.....	180	0	1593	388	498	LACROSSE.....	107	111	2891	672	772
TOPEKA.....	36	185	380	N. DAK. BISMARCK.....	407	77	2749	198	278	HADISON.....	107	111	2891	672	772
NICHITA.....	36	185	380	FARGO.....	407	77	2749	198	278	HILLAURKE.....	107	111	2891	672	772
KY. LEXINGTON.....	14	1803	544	WILLISTON.....	424	17	2878	237	155	WYO. CASPER.....	16	16	2229	158	115
LOUISVILLE.....	14	1803	544	OHIO AKRON-CANTON.....	257	10	2289	635	874	CHEYENNE.....	16	16	2229	158	115
LA. BATON ROUGE.....	81	702	297	CINCINNATI.....	257	10	2289	635	874	LANDER.....	16	16	2229	158	115
LAKE CHARLES.....	79	696	356	CLEVELAND.....	257	10	2289	635	874	SHERIDAN.....	16	16	2229	158	115
NEW ORLEANS.....	79	696	356	COLUMBUS.....	257	10	2289	635	874						
SHREVEPORT.....	124	905	370	TOLEDO.....	257	10	2289	635	874						

\* BASED ON 1941-70 NORMALS.

\* ACCUMULATION FROM JULY 1, 1976.





# FIRST CLASS MAIL

## HARVESTING PROGRESS

Percent of Acreage Harvested  
As of December 12

### cotton

	<u>1976</u>	<u>1975</u>	<u>Avg</u>
Ala.	90	90	93
Ark.	1/	2/	1/
Ga.	85	1/	2/
La.	2/	1/	1/
Miss.	98	85	93
Mo.	2/	2/	1/
N. C.	91	95	89
Okla.	92	50	1/
S. C.	1/	2/	1/
Tenn.	2/	1/	1/
Tex.	73	80	64
11 States	84	84	74

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

1/ Data not available.

2/ Virtually complete.

