

# Weekly Weather & Crop Bulletin

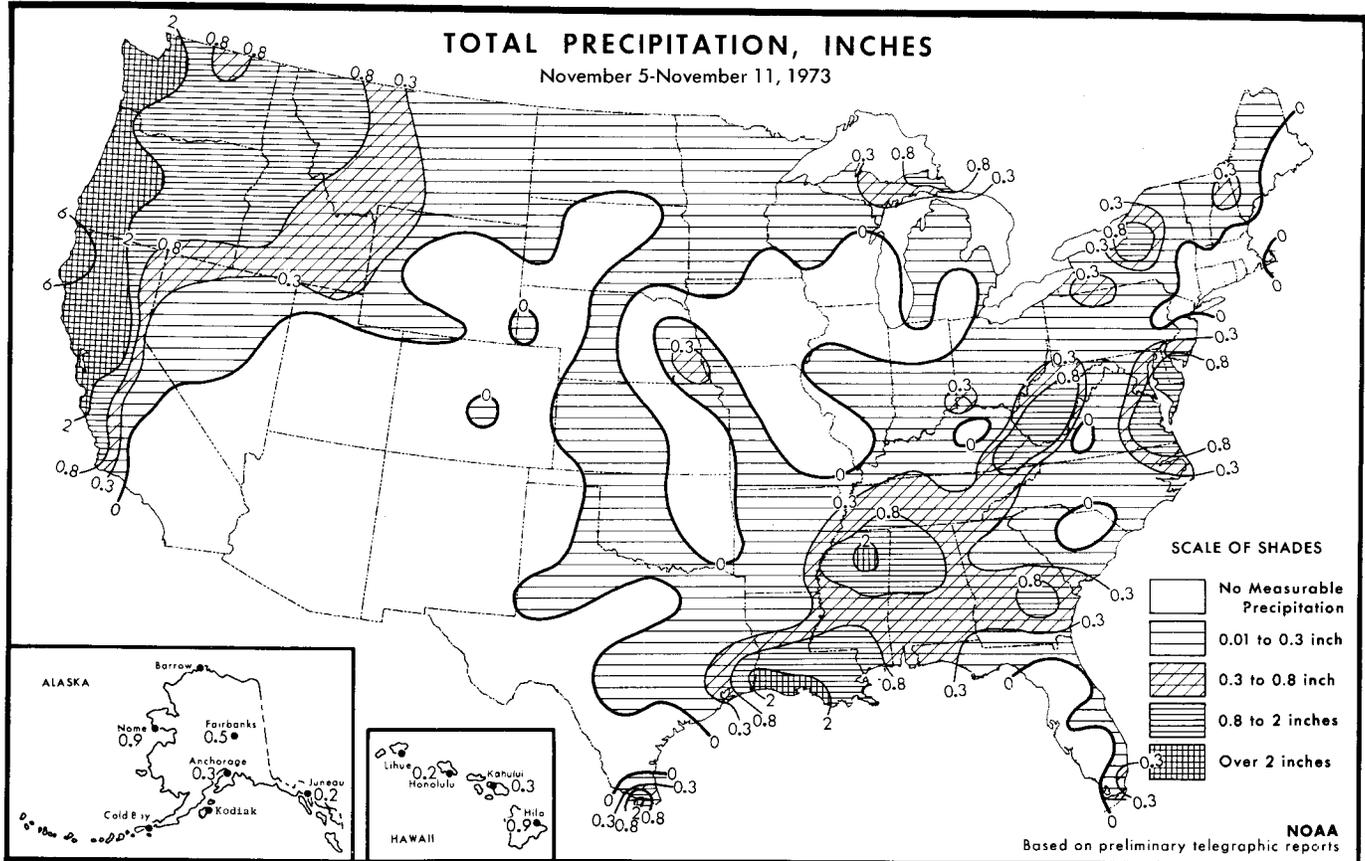
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## NATIONAL WEATHER SUMMARY

**HIGHLIGHTS:** Two early fall snowstorms howled through the Nation. One dumped snow from the northwestern Rockies to the western Corn Belt, the other buried an area centered on Syracuse, N. Y., in over 1 foot of snow. Freezing temperatures crept south: Saturday morning set many record lows throughout Dixie: Birmingham, Ala., had 25°.

**PRECIPITATION:** Skiers rejoiced throughout the northern Rockies and in Upstate New York; both areas got from 0.30 in. to 0.80 in. precipitation (water equivalent) as snow. Snow fell in lesser amounts on the northern Plains and in the Lake States.

A train of lows moved inland on the West Coast all week bringing moist air into the Northwest. A large area from central California through west Washington and Oregon accumulated 2.00 or more in. rain; one north California spot had 6.00 in. rain.

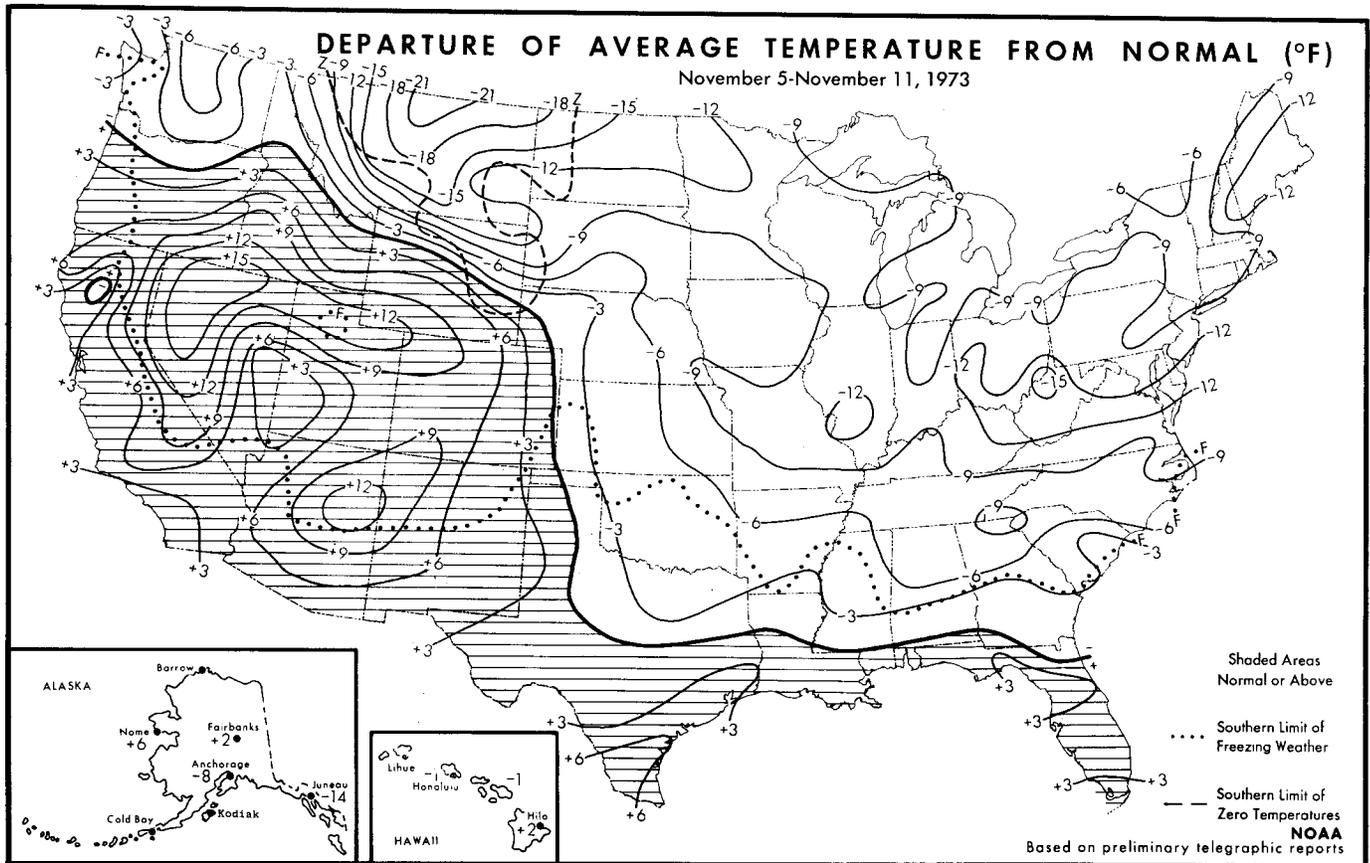
In the East, scattered thundershowers produced from 0.80 to 2.00 in. rain in several Gulf States

and 0.80 in. throughout the central Appalachians and around the Chesapeake Bay.

A vigorous storm dumped snow on Montana and rain on the Pacific Northwest Monday. Two in. morning snow accumulated at Burns, Ore., Crater Lake, Ore., got 15 in. new snow, while gusty winds drove drifting snow across the Continental Divide in Montana. Snow also fell at Ste. St. Marie, Mich. (2 in.), and Syracuse, N. Y., where a 10 in. snowfall paralyzed the city.

The heavy Pacific Coast rain began to accumulate; by 8 p.m. Monday San Rafael, Calif., had 1.30 in. Overnight Monday-Tuesday snow flurried from New York through Pennsylvania and Ohio, while by 1 a.m. San Rafael, Calif., had accumulated 1.43 in. rain in the preceding 6 hours. By early Tuesday 1 in. snow covered Lewiston, Idaho, and in general snow covered the ground from the Pacific Northwest to the Nebraska Panhandle.

Back East, a huge storm in Canada brought 35 mph winds into western New York. Another foot of snow



fell at Syracuse during the day, and Rome, N. Y., got 9 in. of snow. Out West, Livingston, Mont., had 13 in. on the ground and Mullan, Idaho, had 10 in.

Wednesday, sunshine was confined to Florida and southern California, clouds overhung the rest of the Nation. North Minnesota got 2 in. snow, drizzle moistened an area from north Texas to the upper Mississippi Valley, rain continued on the north Pacific Coast. Ukiah, Calif., got 0.50 in. in 6 hours. Overnight Wednesday-Thursday, Eureka, Calif., got 1.50 in. rain, while dense fog blanketed the Fresno area.

By Thursday afternoon, the western storm reached Omaha, Nebr., where 2 in. snow accumulated. Scottsbluff, at the other end of the State, had 5 in. on the ground. Just ahead of the bitter cold front, thunderstorms raged from Texas to the Carolinas. Montgomery, Ala., and Anderson, S. C., both had 0.50 in. rain in 6 hours.

Friday, snow erupted around the Great Lakes as cold northwesterly winds passed over warmer waters. Ste. St. Marie, Mich., got 2 in. in 6 hours for a 10 in. total on the ground. By early Saturday, Niagara Falls, N. Y., had 2 in. snow. But a High brought clear skies and colder temperatures to much of the Northeast on Saturday. The western storm, however, continued to cause rain and snow. San Rafael, Calif., got 0.72 in. rain in 6 hours.

Sunday the eastern High, centered over West Virginia, brought a fair day to much of the East, while the Northwestern rains continued. Seattle, Wash., got 0.92 in. morning rain, while later, Crescent City, Calif., got 1.20 in. in 6 hours.

**TEMPERATURE:** Winter began to tighten its icy fist on about three-quarters of the Nation. Dixie felt frost, while most of the Northeast averaged from 9° to 12° below normal. In the Northwest intense cold air from Canada gripped the northern Rockies and Plains. One area in north Montana averaged 21° below normal.

However, 620 miles southwest of the Montana cold spot, a large section of northcentral Nevada roasted in temperatures 15° above normal. The Southwest had temperatures well above seasonal norms, while the Gulf areas averaged near normal or slightly above.

Monday afternoon highs were 15° to 20° cooler than highs on Sunday the 4th from the mid-Atlantic Coast to the lower Mississippi Valley. In west-central Texas temperatures were down as much as 37° from the previous day.

Tuesday morning lows sunk to record cold at the Chicago, Ill., airport, 21°, and at Evansville, Ind., 24°--but it was much colder in the Northwest. Cut Bank, Mont., reported -2°, for the coldest spot in the Nation.

Wednesday morning much of Montana stood at the zero mark, Cut Bank recorded -13°. In the East, unseasonable cold temperatures pushed into the South. Freezing temperatures were recorded in North Carolina, and Richmond, Va., woke up to 22°.

Afternoon temperatures in Montana rose to less than 10° over most of the State. The afternoon high at Billings, Mont., was 2°. The Southwest in contrast set some record highs Wednesday afternoon. Lubbock, Tex., hit 85°, a record.

(Continued on page 13.)

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** A cool, dry week over the Corn Belt favored the corn and soybean harvests. The Texas High Plains cotton harvest progressed rapidly, but rainy, damp weather slowed cotton picking in the Delta. Rain and snow replenished drought depleted moisture in the Northwest.

**SMALL GRAINS:** By November 11, winter wheat planting in Kansas advanced to 95% complete, 2 to 3 weeks behind normal. Late seeded wheat has emerged to reasonably good stands although top growth is quite small over much of Kansas. Oklahoma wheat was 99% seeded. Heavy precipitation recharged soil moisture in Washington, Oregon, northern Idaho and northwest Montana.

Moisture is short on the Texas High Plains and dryland wheat is developing slowly. Condition of winter wheat in Colorado is excellent. Wheat improved in Nebraska, most acreage is rated good. Much late planted acreage is short and some could use a light rain. In South Dakota, fall seeded grains are generally good.

Montana winter wheat looks fair to good. Snow cover in northwest and central Montana is good while eastern areas have poor protection; however, wind damage has been light. Some intended fall grain acreage in Washington remains to be seeded, but may have to wait until spring.

**CORN:** Cold, dry weather allowed Corn Belt farmers to harvest corn day and night for a week of excellent progress. By November 11, harvest of the Nation's corn crop advanced 19 points to 77% complete in sharp contrast to only 48% a year ago when wet fields delayed harvesting. The Corn Belt harvest advanced 21 points during the week to 76% complete compared to 44% complete a year earlier and 70% normal average completion.

Completion of corn harvesting is ahead of the 5-year average in all Corn Belt States except in Nebraska and South Dakota where the average is equalled and in Missouri and Kansas which are behind average progress. Lack of grain storage capacity and drying fuel slowed harvesting for some Nebraska farmers.

The Iowa corn crop reached 72% harvested compared to 37% in 1972 and the normal average of 57%. Corn in Illinois was 82% harvested versus 45% in 1972 and 73% average. Harvest completion for other States: Ohio 80%, Indiana 75%, Minnesota 90%, Nebraska, 65%, South Dakota 83%, and Missouri 58%.

**COTTON:** Cotton harvesting on the Texas High Plains progressed well but rainy, damp weather slowed picking progress in Oklahoma, Arkansas, Louisiana, Mississippi and Alabama. Harvesting is running much slower than in 1972 and average in these last 5 States. Good harvest progress was made in the South Atlantic States. The damp weather has lowered quality on much cotton in the Delta.

Cotton harvesting in the 11 southern States advanced 8 points during the week to about 48% complete, behind both last year's progress of 54% complete and the 5-year average of 53% complete. The Texas harvest is 36% complete versus 35% in 1972 and 38% average. Harvest completion for other States: Mississippi 68%, Arkansas 68%, Louisiana 50%, Alabama 55%, Tennessee 67%, Georgia 74%, South Carolina 78%, and North Carolina 73%.

In California, cotton harvesting peaked. A few growers finished and started cutting stalks. Excellent harvest weather continued in Arizona and New Mexico.

**SOYBEANS:** Farmers finished another week of good soybean harvesting aided by favorable weather. The Nation's soybean harvest advanced 8 points last week to 81% complete, well ahead of last year's wet-slowed progress of 64% complete. The Corn Belt soybean harvest neared completion at 95% complete, ahead of both 71% complete a year earlier and the normal average of 84% complete.

The soybean harvest was almost over in Illinois, Iowa, Minnesota, and Nebraska and neared completion in other Corn Belt States. Both Missouri and Kansas are exceptions with harvesting about three-fourths complete, about normal. Harvesting in Michigan and Wisconsin is far ahead of the usual.

In the South, soybeans were 53% harvested, a 13-point gain for last week, and slightly ahead of last year's 50% complete. Combining is lagging in Arkansas at 46% complete versus 60% in 1972. Mississippi soybeans were 57% harvested versus 51% in 1972 and 64% average.

**OTHER CROPS:** Good weather permitted outdoor work almost every day last week in the Corn Belt and good progress was made on harvesting and fall plowing now 35% done.

Sorghum grain harvesting advanced with no interruptions from weather to 84% complete versus 65% in 1972 and 81% average for the 7 States which produced 90% of the 1972 crop. These States and their harvest completion rates are: Texas 93%, Kansas 70%, Nebraska nearly complete, Oklahoma 57%, Missouri 73%, South Dakota 85%, and Colorado 48%. California sorghum harvesting is nearly complete.

Burley tobacco in Kentucky was 28% stripped, higher humidity would help this activity. Tobacco stripping progressed rapidly in Tennessee to 60% complete.

Peanut combining is completed in Virginia, North Carolina, Georgia, Alabama, and is 82% done in Texas.

Rain and wet fields hampered potato harvesting in Washington and near Salinas, California.

**FRUITS AND NUTS:** In California, the grape and walnut harvests neared completion while tangerine packing was active and the Navel orange harvest was slow with reports of mold, poor color and small size.

Florida citrus groves remain in good condition but need rain; citrus harvesting increased. In contrast, rains continued to interrupt the Texas citrus harvest. Arizona citrus harvesting was active in the Salt River Valley.

**VEGETABLES:** Harvesting of Florida vegetables increased last week but continued to lag well behind last year and is below levels of other recent years. Beans, sweet corn, cucumbers, eggplant, radishes, and squash are now available in good volume.

Rain interrupted planting and harvesting activity in the Texas Lower Rio Grande Valley and slowed harvesting in some areas of California.

**PASTURES AND LIVESTOCK:** Moderate to heavy precipitation over the Northwest replenished much moisture depleted by months of drought. Cold weather slowed pasture growth in northern States while rain over much of the Southeast benefited small grain pastures. Cattle in the Great Plains are grazing harvested grain fields.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Nov. 11, 1973

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 . . .	48	- 8	1.7	+ 1.0	La.Baton Rouge . . .	62	+ 1	1.8	+ .6	Youngstown . . .	33	- 9	.1	- .5
Mobile . . .	62	+ 1	.5	- .1	Lake Charles . . .	64	+ 2	2.3	+ 1.5	OKLA.,Okla. City . . .	47	- 5	T	- .4
Montgomery . . .	54	- 3	.5	+ .1	New Orleans . . .	64	+ 2	1.7	+ 1.0	Tulsa . . .	46	- 5	T	- .6
ALASKA,Anchorage . . .	17	- 8	.3	0	Shreveport . . .	55	- 3	.2	- .7	OREG.,Astoria . . .	47	- 1	4.8	+ 2.4
Barrow . . .	---	---	---	---	MAINE,Caribou . . .	25	- 9	T	- .8	Burns . . .	44	+ 5	1.3	+ 1.0
Fairbanks . . .	10	+ 2	.5	+ .3	Portland . . .	32	- 9	0	- .9	Medford . . .	50	+ 6	3.9	+ 3.4
Juneau . . .	22	-14	.2	- 1.5	MD,Baltimore . . .	37	-11	.6	- .1	Pendleton . . .	42	- 1	1.6	+ 1.3
Kodiak . . .	---	---	---	---	MASS,Boston . . .	40	- 7	0	- .9	Portland . . .	45	- 2	1.4	+ .4
Nome . . .	26	+ 6	.9	+ .6	Chatham . . .	39	---	T	---	Salem . . .	48	+ 1	4.0	+ 2.8
ARIZ,Flagstaff . . .	48	+10	0	- .2	MICH,Alpena . . .	30	- 8	T	- .6	PA,Allentown . . .	36	- 9	T	- .7
Phoenix . . .	68	+ 7	0	- .1	Detroit . . .	32	-11	T	- .5	Erie . . .	35	- 8	T	- .8
Tucson . . .	66	+ 6	0	- .1	Flint . . .	33	- 7	0	- .5	Harrisburg . . .	39	- 8	.1	- .6
Winslow . . .	57	+13	0	- .1	Grand Rapids . . .	32	- 9	T	- .6	Philadelphia . . .	38	-10	.2	- .5
Yuma . . .	69	+ 5	0	- .1	Houghton Lake . . .	29	- 9	.1	- .5	Pittsburgh . . .	33	-11	T	- .5
ARK,Fort Smith . . .	47	- 6	T	- .8	Lansing . . .	32	- 9	T	- .5	Scranton . . .	33	- 9	T	- .7
Little Rock . . .	49	- 4	T	- .9	Marquette . . .	29	- 8	.5	- .1	R.I. Providence . . .	37	- 9	T	- .8
CALIF,Bakersfield . . .	65	+ 7	0	- .1	Muskegon . . .	35	- 8	T	- .5	S.C. Charleston . . .	55	- 3	.3	- .2
Eureka . . .	58	+ 6	6.0	+ 5.0	S. Ste. Marie . . .	28	- 9	1.4	+ .7	Columbia . . .	54	- 2	T	- .4
Fresno . . .	61	+ 5	.2	0	MINN,Duluth . . .	20	-11	.1	- .4	Greenville . . .	45	- 9	.1	- .5
Los Angeles . . .	64	0	0	- .1	Internatl Falls . . .	18	-11	.1	- .3	S.D. Aberdeen . . .	25	- 9	T	- .2
Red Bluff . . .	56	- 1	3.3	+ 2.9	Minneapolis . . .	27	- 9	T	- .3	Huron . . .	29	- 7	T	- .2
San Diego . . .	64	+ 1	0	- .2	Rochester . . .	27	- 9	T	- .4	Rapid City . . .	27	-11	T	- .2
San Francisco . . .	60	+ 4	3.3	+ 3.0	St. Cloud . . .	24	-10	.1	- .2	Sioux Falls . . .	30	- 7	T	- .3
Stockton . . .	60	+ 4	2.2	+ 2.9	MISS,Jackson . . .	55	- 3	.4	- .3	TENN,Chattanooga . . .	44	- 8	.5	- .3
COLO,Denver . . .	47	+ 7	T	- .2	Meridian . . .	56	0	.6	0	Knoxville . . .	43	- 8	.6	- .1
Grand Junction . . .	50	+ 7	0	- .2	MO,Columbia . . .	37	-10	T	- .6	Memphis . . .	48	- 5	.7	- .3
Pueblo . . .	47	+ 5	T	- .2	Kansas City . . .	38	-10	T	- .5	Nashville . . .	45	- 7	.4	- .3
CONN,Bridgeport . . .	41	- 6	T	- .8	St. Louis . . .	36	-12	T	- .6	TEX,Abilene . . .	54	- 2	T	- .4
Hartford . . .	37	- 8	0	- .7	Springfield . . .	41	- 7	T	- .7	Amarillo . . .	51	+ 2	T	- .2
D.C.Washington . . .	41	-10	.6	- .1	MONT,Billings . . .	22	-16	.3	+ .1	Austin . . .	63	+ 1	T	- .5
FLA,Apalachicola . . .	64	+ 1	.2	- .4	Glasgow . . .	15	-18	.1	0	Beaumont . . .	64	+ 2	1.4	+ .7
Daytona Beach . . .	70	+ 3	.2	---	Great Falls . . .	19	-18	.6	+ .4	Brownsville . . .	75	+ 5	.6	+ .2
Ft. Myers . . .	73	+ 2	T	- .3	Havre . . .	12	-22	.2	+ .1	Corpus Christi . . .	72	+ 6	T	- .4
Jacksonville . . .	63	- 1	T	- .5	Helena . . .	19	-16	.6	+ .5	Dallas . . .	---	---	---	---
Key West . . .	79	+ 4	0	- .8	Kalispell . . .	26	- 8	1.2	+ .9	Del Rio . . .	64	+ 2	T	- .2
Lakeland . . .	70	+ 2	T	- .5	Miles City . . .	27	-10	T	- .1	El Paso . . .	58	+ 4	0	- .1
Miami . . .	77	+ 3	.3	- .5	Missoula . . .	29	- 5	1.4	+ 1.2	Fort Worth . . .	54	- 4	T	- .6
Orlando . . .	71	+ 3	0	- .4	NEBR,Grand Island . . .	36	- 5	T	- .2	Galveston . . .	69	+ 3	.2	- .7
Tallahassee . . .	64	+ 3	T	- .4	Lincoln . . .	36	- 8	.5	+ .2	Houston . . .	66	+ 5	.4	- .5
Tampa . . .	70	+ 2	T	- .4	Norfolk . . .	31	- 9	.1	- .2	Lubbock . . .	54	+ 3	T	- .2
W.Palm Beach . . .	75	+ 1	.7	---	N.Platte . . .	35	- 4	T	- .1	Midland . . .	56	+ 1	T	- .2
GA,Atlanta . . .	49	- 5	.2	- .4	Omaha . . .	33	- 8	.1	- .3	San Angelo . . .	60	+ 2	T	- .3
Augusta . . .	52	- 4	.2	- .3	Valentine . . .	34	- 3	T	- .2	San Antonio . . .	64	+ 2	.1	- .2
Macon . . .	55	- 2	.6	+ .1	NEV,Ely . . .	38	+ 2	T	- .1	Victoria . . .	69	+ 4	T	- .6
Savannah . . .	56	- 3	.6	+ .1	Las Vegas . . .	61	+ 5	0	- .1	Waco . . .	60	0	T	- .5
HAWAII,Hilo . . .	76	+ 2	.9	- 2.0	Reno . . .	53	+13	.1	0	Wichita Falls . . .	53	- 3	T	- .4
Honolulu . . .	76	- 1	.2	- .3	Winnemucca . . .	55	+16	.2	0	UTAH,Blanding . . .	48	+ 7	0	- .2
Kahului . . .	75	- 1	.3	- .2	N.H.Concord . . .	29	-12	0	- .8	Salt Lake City . . .	53	+13	T	- .6
Lihue . . .	---	---	---	---	N.J.Atlantic City . . .	37	-12	.8	- .1	VT,Burlington . . .	33	- 6	T	- .3
IDAHO,Boise . . .	51	+10	.9	+ .6	Trenton . . .	39	-10	T	- .8	VA,Lynchburg . . .	40	-10	T	- .6
Lewiston . . .	42	0	1.5	+ 1.2	N.MEX.Albuquerque . . .	52	+ 6	0	- .1	Norfolk . . .	45	- 9	1.4	+ .7
Pocatello . . .	42	+ 4	.4	+ .2	Roswell . . .	53	+ 4	T	- .1	Richmond . . .	40	-12	.9	+ .2
ILL,Cairo . . .	42	- 9	.1	- .8	N.Y.Albany . . .	34	- 8	T	- .6	Roanoke . . .	39	-11	T	- .7
Chicago . . .	33	-11	T	- .5	Binghamton . . .	31	-10	T	- .6	WASH,Colville . . .	35	- 1	1.3	+ .8
Moline . . .	32	-11	0	- .4	Buffalo . . .	33	- 9	.1	- .6	Omak . . .	33	- 5	.7	+ .4
Peoria . . .	33	-11	T	- .5	New York . . .	42	- 9	0	- .8	Quillayute . . .	42	- 4	4.7	+ 1.8
Rockford . . .	32	- 9	0	- .6	Rochester . . .	36	- 7	.1	- .5	Seattle-Tacoma . . .	45	0	3.0	+ 1.2
Springfield . . .	35	-11	.1	- .5	Syracuse . . .	33	-11	.8	+ .1	Spokane . . .	36	- 2	1.6	+ 1.1
IND,Evansville . . .	37	-11	T	- .7	N.C.Asheville . . .	42	- 7	T	- .5	Walla Walla . . .	41	- 3	1.5	+ 1.1
Ft. Wayne . . .	34	- 9	T	- .6	Charlotte . . .	46	- 7	T	- .5	Yakima . . .	35	- 5	1.3	+ 1.1
Indianapolis . . .	35	- 9	.1	- .5	Greensboro . . .	41	- 9	.2	- .4	W.Va.Beckley . . .	32	-13	1.0	+ .3
South Bend . . .	35	- 8	.1	- .5	Hatteras . . .	51	- 8	.2	- .8	Charleston . . .	34	-14	.9	+ .2
IOWA,Burlington . . .	34	- 9	T	- .5	Raleigh . . .	45	- 8	.1	- .5	Huntington . . .	36	-12	.8	+ .3
Des Moines . . .	34	- 7	T	- .4	Wilmington . . .	51	- 7	.2	- .4	Parkersburg . . .	33	-15	.4	0
Dubuque . . .	30	- 9	T	- .6	N.DAK,Bismarck . . .	22	-11	T	- .2	WIS.Green Bay . . .	27	-11	T	- .4
Sioux City . . .	33	- 7	T	- .3	Fargo . . .	21	-12	.1	- .1	La Crosse . . .	29	-10	T	- .5
KANS,Concordia . . .	39	- 6	T	- .3	Williston . . .	15	-17	.1	0	Madison . . .	29	- 9	T	- .5
Dodge City . . .	42	- 4	T	- .2	OHIO,Akron-Canton . . .	34	-10	.1	- .4	Milwaukee . . .	31	- 9	T	- .5
Goodland . . .	40	- 1	.1	0	Cincinnati . . .	34	-12	.4	- .1	WYO,Casper . . .	40	+ 3	T	- .2
Topeka . . .	38	- 8	T	- .4	Cleveland . . .	34	-11	.3	- .3	Cheyenne . . .	43	+ 7	T	- .2
Wichita . . .	42	- 6	T	- .4	Columbus . . .	34	-10	.2	- .3	Lander . . .	41	+ 7	0	- .3
KY,Lexington . . .	37	-11	T	- .7	Dayton . . .	33	-13	.1	- .4	Sheridan . . .	24	-13	T	- .2
Louisville . . .	39	- 9	.2	- .5	Toledo . . .	32	-10	T	- .5	P.R.San Juan . . .	83	+ 4	.4	- 1.0

## CONDENSED STATE SUMMARIES

The Bulletin capsulizes nationally important weather and crop conditions. Every Monday SRS publishes more detailed data in State Weekly Weather and Crop Bulletins in cooperation with the National Weather Service, NOAA. Voluntary weather observers, crop reporters, and county extension agents contribute weekly observations for these reports.

**ALABAMA:** Moderate to heavy rains statewide Thursday, heaviest westcentral with around 2.50 in. at Aliceville and Gorgas. Clearing and much colder thereafter, lowest temperatures of season over weekend. Freeze southward to Montgomery-Selma area. Temperatures in high 20's and low 30's north and central. Low of 20° at Valley Head Saturday morning.

Harvest of cotton, corn and soybeans made only fair progress because rains slowed these operations. Cotton harvest about 55% complete, 70% 1972. Growers south and central have harvested many fields and are busy shredding stalk. Harvest of a good corn crop is 75% complete, about same as 1972. Soybeans 57% harvested, 63% 1972. Small grains 80% seeded. Young seedlings benefited from rains. Pastures supplying seasonally short to adequate grazing. Many stockmen supplemental feeding.

**ARIZONA:** Sunny, dry weather all week. Temperatures early week slightly subnormal north, above normal elsewhere. By midweek all sections recorded temperatures 5° to 10° above normal. Daytime highs approached record levels by mid and late week. Dry air allowed minimum temperatures to drop 40° to 60° from afternoon maximums.

Excellent weather for cotton harvest. Sorghum harvest near completion Pima, Cochise Counties. Salt River Valley and Yuma harvest slow. Fall sugar beets harvested Cochise County. Spring sugar beets good development Yuma. Normal harvest alfalfa hay, growth early new plantings satisfactory. Land preparation small grains progressed. Some areas seeded: Salt River Valley and southeast. Lettuce harvest continued Salt River Valley and Yuma, virtually complete Cochise County. Thinning later plantings active Yuma. Harvest mixed vegetables continued seasonal progress Salt River Valley, Yuma areas. Cantaloupe harvest continued Salt River Valley and began last week Yuma. Chili pepper harvest still active Cochise County.

Lemons, Navel oranges, grapefruit, Algerian tangerines harvested Salt River Valley. Lemons, grapefruit harvested Yuma, sizes smaller, quality excellent. Groves remain very good. Ranges fair to poor Statewide. Conditions continued decline, no precipitation most areas for over 2 months. Range grasses very dry, not much new feed. Supplemental feeding necessary some areas. Hauling stockwater some areas. Cattle, calves mostly good. Sheep, lambs on winter pastures fair to good. Lambing active.

**ARKANSAS:** Quite cool. Subnormal readings reported statewide. Temperatures 3° to 7° subnormal, lower 50's over south half and mid to upper 40's north half. Extremes: 67°, Hot Springs; 20°, Gilbert. Precipitation generally light and less than 0.25 in. statewide; 1.19 in. Rohwer the most. Most fell on Thursday, but some fell Wednesday through Friday extreme south.

Harvest delayed under cloudy skies and wet soils. Open weather needed to continue harvest. Cotton 68% harvested, deterioration in crop due to inclement weather. Cutting of rice almost complete, yields normal. Soybeans 46% combined, good yields.

Harvest mostly over on bulk of feed grains. Excellent growth on early wheat and oat plantings.

Additional plantings expected as weather permits. Major vegetable and fruit harvest complete. Marketing of greens active. Pecan harvest underway. Pastures furnished adequate feed. Live-stock good, movement normal.

**CALIFORNIA:** North coast mountains had precipitation Saturday and Sunday, which extended southward into central rest of week. Amounts light central but some north mountain areas had over 10.00 in., mostly rain. Fair weather continued south. Temperatures subnormal over north and along most coastal areas and mostly near normal elsewhere.

Peak cotton harvest, weather ideal, first picking well along. Few growers complete, began cutting stalks and discing. Rains halted rice harvest in final stages. Sugar beet harvest stopped Sacramento Valley. Harvest continued elsewhere. Harvest nearly complete sorghum, corn, dry beans, occasional final harvest of alfalfa hay. Fieldwork active. Grape harvest neared completion. Harvest walnuts nearly complete. Few apples picked, rain slowed fieldwork. Olive and persimmon harvest continued. Harvest Deglet Noor dates full swing, other varieties mostly complete.

Tangerine packing active. Navel orange harvest slow, reports of mold, poor color, small size. Lemons picked, volume light. Avocados picked, quality good. Artichokes picking up. Broccoli volume moderate Salinas, cauliflower light. Rain slowed brussels sprouts, black spotting controls applied. Cantaloupe Imperial about complete. Carrots moderate Salinas, Santa Maria. Rain hampered celery central coast. Picking sweet corn Kern County, south. Lettuce past peak San Joaquin, beginning Palo Verde. Light bell peppers Salinas, San Joaquin, Santa Maria. Rain slowed potatoes Salinas. Sweet potatoes tapering San Joaquin. Market tomatoes neared end San Joaquin, good volume south.

Continued rains improved ranges and new grass grew rapidly. Virtually all cattle off high elevation ranges. Calving, lambing continued, no unusual losses; predator control necessary. Cows, ewes excellent condition. Supplemental feeding continued and increased. Ground water, stockwater supplies replenished and most streams rising. Bees good condition for overwintering. Turkeys continued to move to processors. Milk, egg production seasonal levels.

**COLORADO:** Cold air dominated north. Southwest remained mild and dry. Precipitation early week mostly snow and later in week mostly light rain or drizzle. Heaviest snows: Walden 25 in., 1.27 in. of precipitation; Craig 23 in., 1.23 in. of precipitation; Estes Park 17 in., 1.22 in. of precipitation. Temperatures generally subnormal north, above normal south. Extremes: 77° at Trinidad, -15° at Fraser.

Clear weather brought relief from last week's storm north. Farm activities continued uninterrupted south. Corn for grain 50% harvested, 36% last week, and 55% 5-year average. Grain sorghum harvest 48% finished, still behind 5-year average of 63%. Sugar beet harvest virtually complete at 97% compared to 86% last week. Wheat condition excellent due to added moisture. Ranges, pastures good.

**FLORIDA:** Temperatures several degrees above normal except near or below normal over weekend. Rainfall moderate to locally heavy southeast coast late week. Dry soils prevailed most of State.

Harvest of remaining field crops active. Soybean harvest progressed rapidly and neared completion west. Cotton harvest continued. Light cutting of sugarcane underway. Dry soils slowed planting of small grains. Early planted grains grew slowly, rainfall would benefit them. Pastures very poor to poor, soil moisture mostly short. Cattle, calves fair to good. Citrus grove condition remains good; rain needed-surface soil moisture low-irrigation in all areas-dry cool weather speeding tree dormancy-harvest active for Thanksgiving trade.

Harvest of vegetables increased but continued to lag well behind 1972 and average. Weekend cool front will slow crop maturity somewhat but is beneficial for quality, size and insect, disease control. Some west and north areas may have received sufficient frost to end harvest of tender crops. Beans, sweet corn, cucumbers, eggplant, radishes, squash now available in good volume. Celery, pepper, tomatoes, leafy crops continued light but increased.

**GEORGIA:** Temperatures 3° to 6° above normal. Little or no rain southeast. Mostly light elsewhere averaging 0.10 to 0.25 in. except heavy westcentral with amounts near 1.00 in. Rains mainly midweek. Dry weekend, much colder, freeze or frost most areas except coast and south border.

Moisture reserves mostly short to very short south and eastcentral; other areas mostly adequate. Small grains 58% seeded. Cotton mostly good, harvest 74% completed. Corn mostly good, 77% gathered. Peanut harvest complete, Federal-State inspection service report November 5 indicated 1.34 billion pounds inspected. Soybeans fair to mostly good, 53% combined. Pecan harvest about 21% complete, crop mostly fair to good. Cattle mostly good. Pastures fair to mostly good.

**HAWAII:** Weather varied--mostly warm and humid. Rainfall light to heavy and beneficial to crops. Crop maturity slow in higher elevations because of cool weather. Bananas and papayas plentiful. Leafy and certain other vegetables in light supply. Leeward pastures dry and in poor condition. Pastures in other areas improving. Cattle condition fair to good. Sugar harvest about complete most plantations. Pineapple harvest light.

**IDAHO:** Temperatures near normal even though lows dropped unseasonably low early week. Record breaking early snow north, central mountains and higher elevations elsewhere. Rain fell in lower valleys during most of period. Snow: Grangeville 10 in., McCall 20 in., Idaho City 6 in. and Pocatello 4 in. Statewide temperatures rose at end of period but unsettled weather continued. Precipitation much above normal statewide.

Snow interrupted field activity north and higher elevation areas. Rains south slowed work. Sugar beet harvest slowed by wet fields with southcentral and southwest 67% complete, generally finished east. Potato digging and seeding fall grains continued on a few fields. Potato marketing active. Plowing and fertilizing fields as weather permitted. Livestock generally good condition but close culling in north where hay supplies short.

**ILLINOIS:** Dry week, one-half inch snow central portion midweek. Temperatures about 10° subnormal entire State. Particularly cold weather beginning

and end of week, minimums in 20's.

Corn about 82% harvested, 45% 1972, 1970-72 average 73%. Grain sorghum about 65% harvested. Fall plowing 1974 corn and soybean acreage about 40% complete, 26% 1972, average 35%. Pastures supplying nearly 65% livestock roughage requirements, both 1972 and average about 55%. Pasture condition excellent 7%, good 67%, fair 18%, poor 8%. Soil moisture short 3%, adequate 90%, surplus 7%. Fieldwork: 6 days suitable. Main activities: Harvesting corn, fall plowing, applying fertilizer. Grain sorghum harvest and completion of soybean harvest additional activities some areas.

**INDIANA:** Dry fall continued. Showers of trace north to 0.30 in. south. Temperatures declined to low 20's and averaged 8° subnormal. Humidity very low. Soil temperatures subnormal. Excellent week for harvesting and other field activities. Fieldwork averaged 6 days. Topsoil moisture mostly adequate. Subsoil moisture short to mostly adequate.

Corn harvest moved ahead rapidly; 75% harvested, 55% average, 30% in 1972. Corn harvest advanced 20 percentage points from previous week. Soybeans 95% combined, 85% average, 50% 1972. Wheat virtually all seeded. Wheat 90% emerged, stands good. Plowing for 1974 crops advanced to 30% mark. Apple picking nearly done. Pastures rated mostly fair.

**IOWA:** Cold high pressure brought subnormal temperatures. Precipitation confined to 1.00 to 3.00 in. snow south. Good harvesting weather; 7 days suitable for fieldwork.

Corn 72% harvested, 5-year average 57%. Harvesting most advanced northwest where 78% complete and least advanced southwest where 61% complete. Popcorn 92% harvested. Harvesting of soybeans almost over. Planting winter wheat essentially complete. Grain sorghum 82% harvested, average 74%. Fall plowing 35% completed. Topsoil moisture supplies 3% short, 96% adequate, and 1% surplus. Motor fuel supplies adequate for harvesting operations but below last year. Fertilizer supplies reported as less than adequate.

**KANSAS:** Temperatures near normal northwest to 7° subnormal northeast. Week began much below normal, but weekend readings were much above normal. Precipitation generally only few hundredths inch, with only 33 of 89 counties reporting measurable rainfall.

Fall harvest active, although damp weather slowed it somewhat. Grain sorghum 70% harvested, 60% week earlier, 80% average. Corn 55% harvested, 40% last week, 75% average. Soybean acreage 75% harvested, 60% last week, 70% year earlier, range 70% to 95% last decade. Sugar beet digging active, neared completion. Wheat planting 95% complete. Late seeded wheat emerging to reasonably good stands. Wheat top growth quite small much of State. Stockmen weaning calves, moving cattle off native pastures. Some cattle moved to early planted wheat fields.

**KENTUCKY:** A cold rain Monday and cloudy skies through Thursday. Some light rain mixed with snow over extreme north Thursday. Clear with coldest weather of season Friday and Saturday, temperatures in upper teens Saturday morning. Rain and cloudy weather slowed corn and soybean harvest slightly but many farmers have completed harvest.

Corn 83% harvested. Soybeans 82% harvested. Freeze killed vegetative growth most areas and should enhance harvesting late soybeans. Burley

tobacco 28% stripped, higher humidity would benefit tobacco stripping. Fall wheat and barley mostly seeded, emerged grain good condition. Pastures mostly good. Livestock satisfactory.

**LOUISIANA:** Temperatures 2° below normal to 3° above. Cool early week with some rain. Warm midweek with showers preceding cold front late week. Temperature extremes: 85° Ruston and 35° Monroe. Precipitation light to moderate, weekly total mostly 0.25 to 0.75 in. Locally heavier southwest. Greatest one-day, 3.45 in. Oberlin Thursday. Excessive moisture limited harvest operations, 2.2 days suitable for fieldwork.

Cotton 50% picked, rainy weather lowered quality and yield. Soybeans 50% harvested, 75% 1972. Sweet potato harvest nearly finished. Sugarcane 25% harvested, yields off in south. Small grain seeding neared completion. Pecan harvest active, yield and quality reported fair to good. Pastures making good growth. Livestock good.

**MARYLAND-DELAWARE:** Cool throughout 2-State area with highs in mid-70's and lows in low 20's except midteens Garrett County. Precipitation light entire area, less than 0.50 to 1.20 in. Windy weekend with record low temperatures Sunday morning some stations.

Harvest progressed with some interruptions. Soybean combining made rapid progress. Corn harvest nearly finished. Tobacco stripping active. Freezing temperatures did little damage as all crops mature.

**MICHIGAN:** Cold high pressure system dominated weather early week. Temperatures 7° to 10° subnormal. Stambaugh reported lows of 7° Wednesday morning and 6° Saturday morning. Water equivalent of precipitation generally totaled 0.40 in. or less over extreme north lower and west upper peninsula and less than 0.10 in. over remainder lower. Sault Ste. Marie had 1.30 in. for week and reported 10 in. snow on ground Friday.

Farmers made rapid progress with corn harvest and fall plowing. Fieldwork: Averaged 5.3 days. Soil moisture generally adequate. Corn 81% harvested, average 60%. Unharvested corn low in moisture content. Harvest slowed by inability of elevators to receive corn as fast as desired. Soybeans 94% harvested, average 73%. Sugar beets over 90% harvested. Potato harvest finished. Much fall plowing accomplished. Cold weather slowed pasture growth. Pasture feed supplies below average. Apple harvest finished. Cabbage and cauliflower harvest nearly complete.

**MINNESOTA:** Cold, dry. Temperatures 6° to 12° subnormal. Some zero readings northwest and northcentral. Coldest -2° at Cass Lake on 6th. Rapid warm-up on 11th, afternoon highs 40's to 50's most areas. Little or no precipitation south half. However, north half had 1 to 3 in. of snow, water content 0.15 in. or less. After warm weekend only patches of snow remained.

Soybean crop practically all combined, last year 86%, 5-year average 90%. Moisture content of harvested beans 12%, 17% 1972, 16% average. Corn 90% harvested, last year 1972 71%, 5-year average 67%. Moisture content of harvested corn 20%, 25% for both 1972 and average. Frozen ground slowed plowing operations. Harvested soybean fields 71% plowed. Corn land 54% plowed.

**MISSISSIPPI:** Mild but wet. Temperatures near normal upper Delta to about 7° above normal coast. Extremes: 86° to 29°. Rainfall heavy, averaged

from 2.00 to 3.00 in. Weekend fair and cold; frost over much of State and a freeze north. Soil moisture supplies mostly surplus north, mostly excessive central, and adequate to excessive south. Fieldwork averaged 1.6 days.

Cotton 68% harvested, 81% 1972, 74% average. Soybeans 57% combined, 51% 1972, 64% average. Corn 84% harvested. Pecans 35% harvested. Fall sown wheat 82% and oats 90% planted. Hay and roughage supplies mostly adequate. Feed grain supplies short to adequate. Pasture and livestock fair to good.

**MISSOURI:** Temperatures: About 8° to 10° subnormal over all but west Ozarks and Bootheel. Northeast prairie 10° subnormal while Bootheel only 1° subnormal. Precipitation locally heavy in Bootheel, Caruthersville reported 1.32 in. Up to 2 in. of snow northeast. Precipitation negligible elsewhere.

Fieldwork: 5 days suitable. Soybean harvest 78% complete, 56% 1972, 71% 1968-72 average. Corn harvest 58% complete, 55% 1972, 62% 1968-72 average. Grain sorghum harvest 73% complete, 63% 1972, 69% 1968-72 average. Cotton harvest 70% complete, 50% 1972, 72% 1968-72 average. Intended fall seeding 74% complete, 73% 1972. Intended fall plowing 35% complete, 33% 1972. Soil moisture supplies 1% short, 87% adequate, 12% surplus. Pasture conditions mostly good.

**MONTANA:** Great snowfall and above normal precipitation west, southwest, central, and southcentral first part of week. Arctic air engulfed State just as it was over-run by moist Pacific air. Subzero temperatures accompanied storm northcentral, central and northeast, and much below normal temperatures elsewhere. Dry rest of week east of Divide but rain or snow continued west. Strong warming statewide over weekend.

Winter feeding started as cold and snow prevailed. Nearly 75% livestock receiving supplemental feed in northwest, central and southcentral, 50% in northcentral, 33% in northeast, southeast and southwest. Winter wheat fair to good. Snow-cover good northwest and central districts, poor in eastern districts and fair to good elsewhere. Wind damage to winter wheat mostly light.

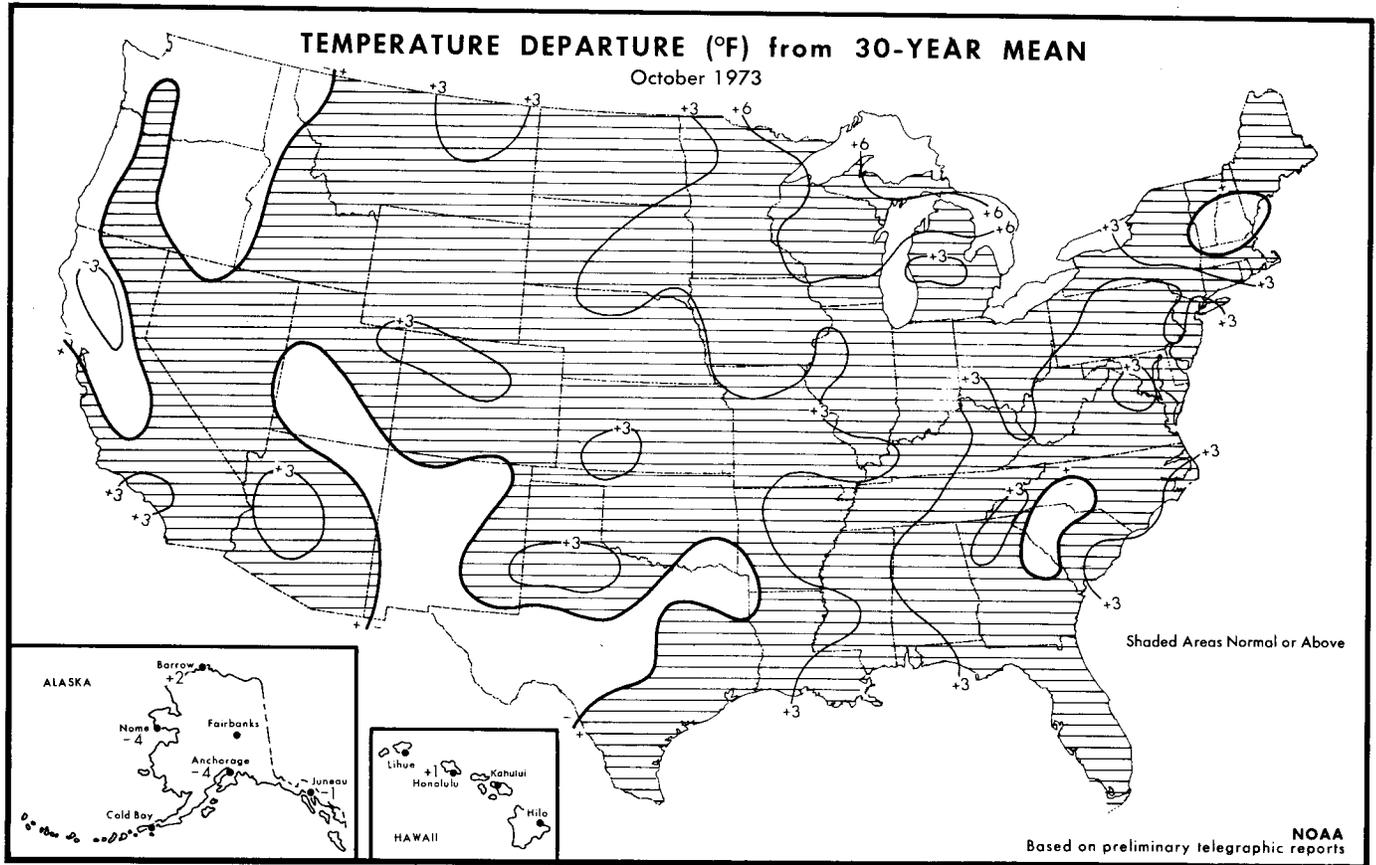
**NEBRASKA:** Very cold early, above normal temperatures late. Precipitation light. Soil moisture supplies adequate. Topsoil 5% surplus, 95% adequate. Subsoil 8% surplus, 92% adequate. Fieldwork: 6.5 days. Mostly another good week for harvesting crops and other fall work.

Lack of grain storage capacity and drying fuel slowed harvest for some. Corn 65% harvested, 40% 1972, 65% average; 20% moisture, 21% last week, 24% 1972. Sorghum nearly harvested, 60% 1972, 80% normal. Soybean harvest practically complete, 85% 1972, 95% average. Wheat condition improved, 9% excellent, 67% good, 24% fair. Much late planted acreage short, some could use light rain. Range and pasture feed 17% above average, 78% average, 5% below average. Hay and forage supplies 12% above average, 79% average, 9% below average. Many cattle gleaning stalks.

**NEVADA:** Precipitation light northwest, mild temperatures. Showers northeast. South dry and warm. Highest 85° Las Vegas on 11th, record for so late in year. Low 16° at Tonopah. Greatest precipitation 0.34 in. Owyhee. Incline Village had 7 in. snow.

Seeding winter grains virtually complete. Cotton harvest progressed well in Pahrump Valley.

(Continued on page 11.)



#### OCTOBER WEATHER

**HIGHLIGHTS:** Mild temperatures and sunny, dry weather following an early October wet spell favored harvesting progress in the Corn Belt. Much of the Northwest drought area, especially in Washington and Oregon, received above normal precipitation.

**PRECIPITATION:** Precipitation during October was mostly above normal over the Central United States and in much of the Northwest. Large areas in the western Corn Belt and in east Texas and Arkansas received twice the normal rainfall. Areas getting less than normal precipitation included the Atlantic States, the extreme northern Plains, and most of the Southwest.

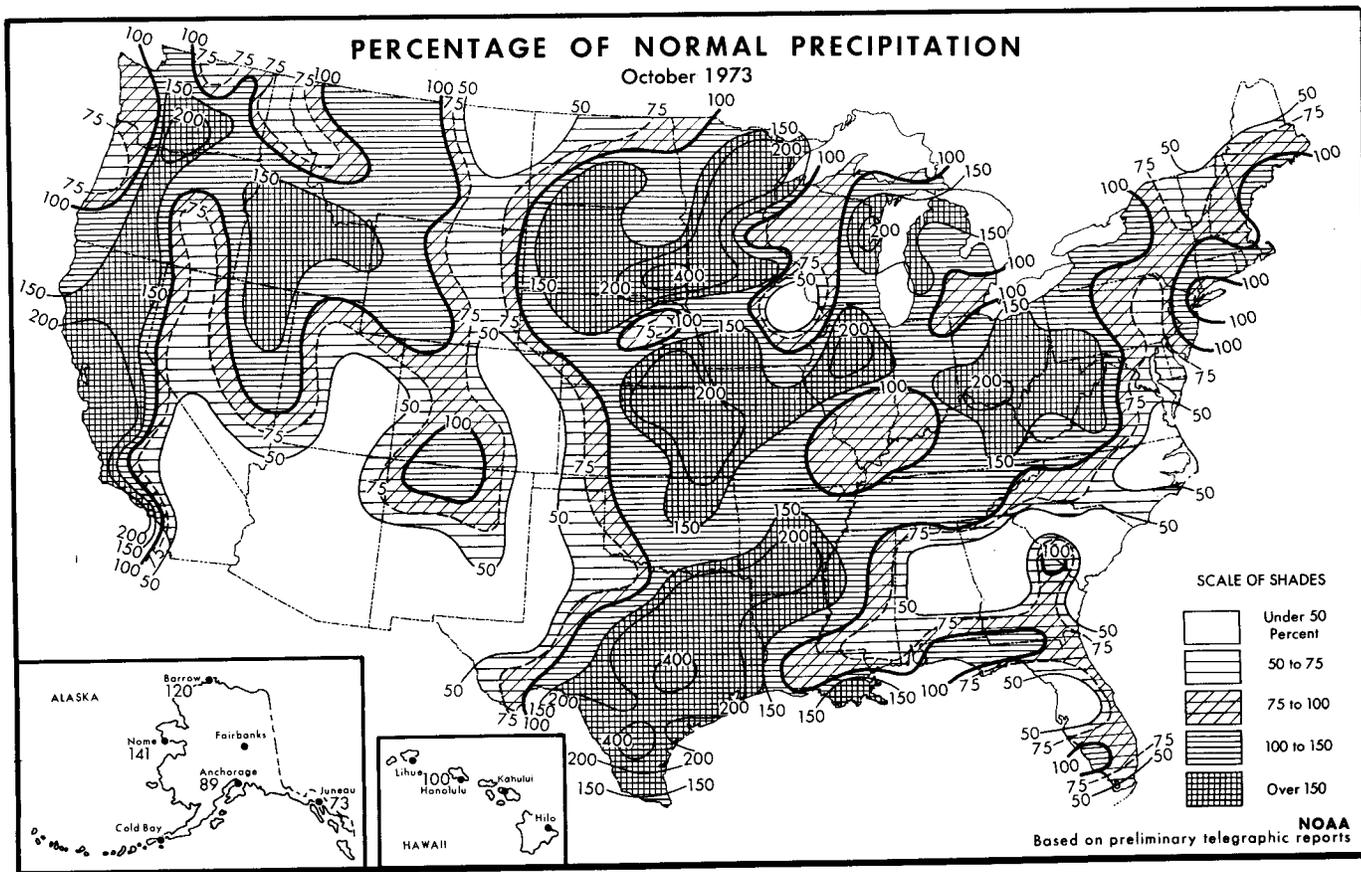
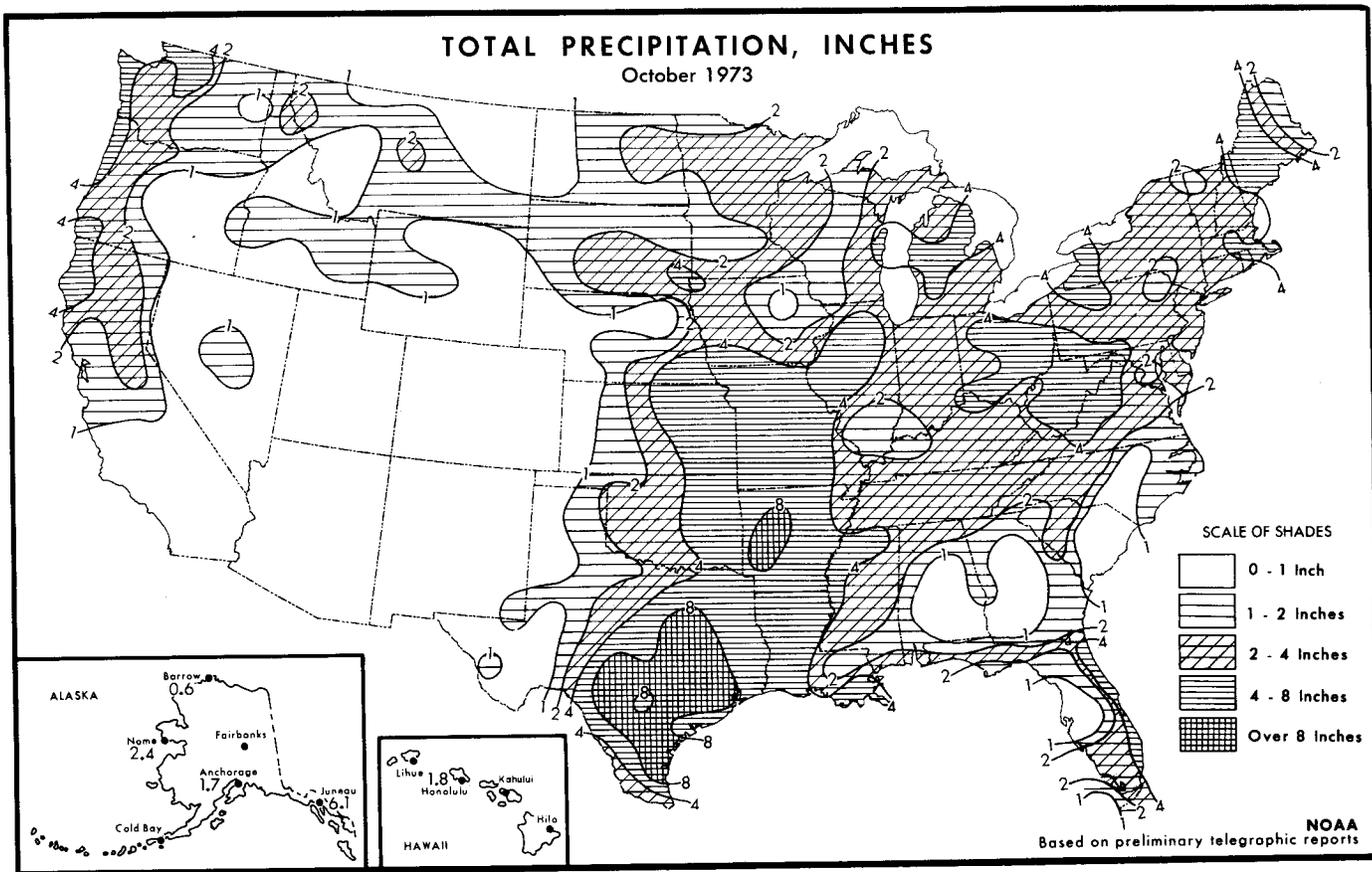
Most of October's precipitation fell during the first 2 weeks. Torrential rains October 8-14 of from 2 to 6 in. drenched a strip stretching from Texas and Louisiana through Minnesota. These wet conditions through midmonth delayed winter wheat seeding in the southern Great Plains for the fifth straight week and also halted the Texas cotton harvest for the third straight week. Meanwhile eastern Corn Belt farmers made good progress harvesting corn and soybeans.

The third week of October turned sunny and rainless almost everywhere except for heavy rains again

in east Texas, Arkansas and Mississippi. The sunny, dry weather continued over the Nation's midsection until the end of the month when numerous thunderstorms and showers broke out from east Texas to Michigan. The almost 2 weeks of clear autumn weather permitted rapid harvest progress. Rain caused some interruptions in the Northwest, but greatly benefited small grains and pastures.

The last week in the month brought joy to skiers and other snow lovers as deep snow accumulated in the Northern Rockies, the northern Plains and eastward into New York. The lake area of western New York ended the month with up to 18 in. of new snow on the ground.

**TEMPERATURE:** October temperatures averaged near or slightly above normal over practically the entire Nation. Most of the Corn Belt and Lower Mississippi River Valley averaged 3° above normal. Mild autumn temperatures generally prevailed throughout the month. As the month ended, cold Arctic air drove deep into the Nation bringing the season's first frost to many areas of the Corn Belt and readings in the 30's and 40's in the Southeast.



Temperature and Precipitation Data for OCTOBER 1973

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 . . .	67	+ 1	1.0	- 2.0	La. Baton Rouge . . .	73	+ 4	1.9	- .6	Youngstown . . .	55	+ 3	2.9	+ .2
Mobile . . .	74	+ 5	2.2	- .8	Lake Charles . . .	73	+ 2	4.1	- 1.0	OKLA. Okla. City . . .	64	+ 1	3.0	+ .5
Montgomery . . .	68	+ 1	.5	- 1.8	New Orleans . . .	73	+ 3	5.1	+ 2.3	Tulsa . . .	65	+ 2	6.2	+ 2.9
ALASKA. Anchorage . . .	32	- 4	1.7	- .2	Shreveport . . .	68	0	5.4	+ 2.6	OREG. Astoria . . .	51	- 2	5.9	- 1.9
Barrow . . .	19	+ 2	.6	+ .1	MAINE. Caribou . . .	44	+ 1	1.5	- 1.9	Burns . . .	47	- 1	.6	- .3
Fairbanks . . .	--	--	--	--	Portland . . .	49	0	3.4	+ .2	Medford . . .	53	0	2.8	+ .9
Juneau . . .	41	- 1	6.1	- 2.2	MD. Baltimore . . .	58	+ 1	2.9	- .3	Pendleton . . .	53	- 1	1.7	+ .5
Kodiak . . .	--	--	--	--	MASS. Boston . . .	56	+ 1	2.7	- .4	Portland . . .	54	0	3.1	- .5
Nome . . .	26	- 4	2.4	+ .7	Chatham . . .	55	--	6.8	--	Salem . . .	52	- 2	2.8	- 1.1
ARIZ. Flagstaff . . .	50	+ 3	T	- 1.5	MICH. Alpena . . .	52	+ 6	4.0	+ 1.6	PA. Allentown . . .	56	+ 2	2.1	- .9
Phoenix . . .	74	+ 3	0	- .5	Detroit . . .	56	+ 4	2.0	- .6	Erie . . .	55	+ 4	3.6	+ .3
Tucson . . .	71	+ 1	0	- .6	Flint . . .	54	+ 3	2.7	+ .3	Harrisburg . . .	57	+ 1	2.5	- .5
Winslow . . .	59	+ 2	T	- .7	Grand Rapids . . .	55	+ 4	4.1	+ 1.5	Philadelphia . . .	59	+ 3	2.2	- .6
Yuma . . .	75	0	0	- .4	Houghton Lake . . .	51	+ 4	3.1	+ .1	Pittsburgh . . .	56	+ 3	4.5	+ 2.0
ARK. Fort Smith . . .	64	0	4.4	+ .9	Lansing . . .	54	+ 3	2.1	- .4	Scranton . . .	53	+ 2	2.0	- 1.5
Little Rock . . .	68	+ 5	5.9	+ 3.0	Marquette . . .	53	+ 5	2.5	+ .2	R. I. Providence . . .	54	+ 1	3.2	+ .1
CALIF. Bakersfield . . .	68	+ 1	.2	- .1	Muskegon . . .	55	+ 2	3.3	+ .7	S. C. Charleston . . .	70	+ 4	.6	- 2.2
Eureka . . .	52	- 2	4.1	+ .9	S. Ste. Marie . . .	50	+ 4	2.8	0	Columbia . . .	67	+ 2	.7	- 1.7
Fresno . . .	63	- 2	1.0	+ .6	MINN. Duluth . . .	48	+ 3	4.6	+ 2.4	Greenville . . .	62	0	1.0	- 2.4
Los Angeles . . .	70	+ 3	.1	- .3	Internatl Falls . . .	48	+ 6	1.9	+ .2	S. D. Aberdeen . . .	51	+ 3	1.3	+ .1
Red Bluff . . .	63	- 3	2.4	+ 1.0	Minneapolis . . .	54	+ 5	1.3	- .3	Huron . . .	53	+ 4	2.1	+ .9
San Diego . . .	67	+ 1	T	- .5	Rochester . . .	54	+ 4	2.6	+ .9	Rapid City . . .	51	+ 1	1.4	+ .6
San Francisco . . .	61	0	1.6	+ .9	St. Cloud . . .	51	+ 4	3.1	+ 1.5	Sioux Falls . . .	53	+ 3	5.7	+ 4.4
Stockton . . .	63	- 1	2.1	+ 1.5	MISS. Jackson . . .	69	+ 2	2.7	+ .7	TENN. Chattanooga . . .	63	+ 1	3.7	+ .7
COLO. Denver . . .	55	+ 4	.5	- .5	Meridian . . .	69	+ 3	2.0	- .2	Knoxville . . .	62	+ 1	3.5	+ .9
Grand Junction . . .	56	+ 1	.2	- .5	MO. Columbia . . .	60	+ 2	5.1	+ 2.0	Memphis . . .	68	+ 5	3.4	+ .7
Pueblo . . .	56	+ 1	.8	- .2	Kansas City . . .	61	+ 1	5.8	+ 2.9	Nashville . . .	66	+ 4	3.3	+ 1.0
CONN. Bridgeport . . .	60	+ 5	2.8	- .6	St. Louis . . .	61	+ 3	2.3	- .6	TEX. Abilene . . .	67	+ 1	3.2	+ .3
Hartford . . .	55	+ 2	3.5	+ .3	Springfield . . .	62	+ 2	4.3	+ .5	Amarillo . . .	62	+ 1	1.0	- .8
D. C. Washington . . .	63	+ 4	1.7	- 1.4	MONT. Billings . . .	50	0	1.4	+ .3	Austin . . .	71	0	11.1	+ 8.3
FLA. Apalachicola . . .	73	+ 2	1.3	- 1.1	Glasgow . . .	49	+ 4	.2	- .4	Beaumont . . .	72	+ 2	5.1	+ 2.2
Daytona Beach . . .	75	+ 2	4.4	- 1.2	Great Falls . . .	49	+ 1	1.0	+ .3	Brownsville . . .	76	0	3.8	+ .3
Ft. Myers . . .	77	+ 1	4.1	0	Havre . . .	48	+ 2	1.0	+ .2	Corpus Christi . . .	76	+ 1	10.0	+ 7.2
Jacksonville . . .	71	0	4.1	- 1.1	Helena . . .	46	0	.7	0	Dallas . . .	--	--	--	--
Key West . . .	80	+ 1	2.4	- 3.4	Kalispell . . .	44	0	1.2	0	Del Rio . . .	71	0	4.8	+ 2.8
Lakeland . . .	75	0	2.1	- 2.8	Miles City . . .	50	+ 1	.6	- .3	El Paso . . .	63	- 1	1.1	- .8
Miami . . .	78	0	3.4	- 4.8	Missoula . . .	45	+ 1	.6	- .4	Fort Worth . . .	68	0	6.8	+ 4.2
Orlando . . .	76	+ 2	1.1	- 2.9	NEBR. Grand Island . . .	55	+ 2	1.5	+ .5	Galveston . . .	76	+ 2	6.4	+ 3.5
Tallahassee . . .	70	0	2.4	0	Lincoln . . .	56	- 1	4.9	+ 3.3	Houston . . .	72	+ 2	9.3	+ 5.6
Tampa . . .	76	+ 1	1.0	- 1.8	Norfolk . . .	55	+ 2	.8	- .4	Lubbock . . .	64	+ 3	.9	- 1.1
W. Palm Beach . . .	78	0	7.0	- 1.0	N. Platte . . .	52	+ 1	1.3	+ .4	Midland . . .	65	- 1	.6	- 1.1
GA. Atlanta . . .	65	+ 3	.8	- 1.6	Omaha . . .	57	+ 3	2.9	+ 1.2	San Angelo . . .	67	- 1	2.0	+ .2
Augusta . . .	64	- 1	2.0	0	Valentine . . .	53	+ 4	1.6	+ .7	San Antonio . . .	73	+ 2	4.8	+ 2.3
Macon . . .	67	+ 1	.7	+ 4.7	NEV. Ely . . .	46	0	.9	+ .2	Victoria . . .	75	+ 2	6.3	+ 2.8
Savannah . . .	69	+ 2	.2	- 2.4	Las Vegas . . .	68	+ 1	T	- .2	Waco . . .	70	+ 1	9.4	+ 6.8
HAWAII. Hilo . . .	--	--	--	--	Reno . . .	49	0	.6	+ .1	Wichita Falls . . .	68	+ 2	1.9	- 1.0
Honolulu . . .	79	+ 1	1.8	0	Winnemucca . . .	48	0	.6	- .2	UTAH. Blanding . . .	52	0	.7	- .7
Kahului . . .	--	--	--	--	N. H. Concord . . .	48	- 1	2.5	- .2	Salt Lake City . . .	54	+ 2	.7	- .5
Lihue . . .	--	--	--	--	N. J. Atlantic City . . .	57	0	2.7	- .5	VT. Burlington . . .	49	+ 1	1.9	- 1.1
IDAHO. Boise . . .	52	0	1.2	+ .4	Trenton . . .	59	+ 2	3.7	+ .9	VA. Lynchburg . . .	59	+ 1	4.0	+ 1.4
Lewiston . . .	51	- 1	1.6	+ .4	N. MEX. Albuquerque . . .	56	- 2	.4	- .4	Norfolk . . .	64	+ 2	1.4	- 1.5
Pocatello . . .	49	0	1.2	+ .3	Roswell . . .	61	+ 2	.5	- .6	Richmond . . .	61	+ 2	2.6	- .4
ILL. Cairo . . .	64	+ 2	2.6	- .3	N. Y. Albany . . .	51	0	2.1	- .7	Roanoke . . .	60	+ 2	4.3	+ 1.1
Chicago . . .	59	+ 4	3.5	+ .7	Binghamton . . .	53	+ 3	2.7	- .4	WASH. Colville . . .	46	- 1	1.7	+ .1
Moline . . .	57	+ 2	3.1	+ .6	Buffalo . . .	54	+ 3	4.3	+ 1.3	Omak . . .	47	- 1	2.0	+ 1.1
Peoria . . .	58	+ 3	5.2	+ 2.7	New York . . .	60	+ 1	2.7	- .7	Quillayute . . .	49	- 2	10.2	- .3
Rockford . . .	57	+ 4	5.2	+ 2.5	Rochester . . .	55	+ 3	2.7	+ .1	Seattle-Tacoma . . .	52	0	3.3	- .7
Springfield . . .	61	+ 4	5.5	+ 2.6	Syracuse . . .	54	+ 2	3.8	+ .6	Spokane . . .	47	- 2	1.0	- .6
IND. Evansville . . .	62	+ 3	2.0	- .6	N. C. Asheville . . .	59	+ 3	2.4	- .7	Walla Walla . . .	54	- 1	1.8	+ .3
Ft. Wayne . . .	57	+ 4	3.1	+ .2	Charlotte . . .	62	- 1	2.4	- .6	Yakima . . .	49	- 2	1.5	+ .9
Indianapolis . . .	59	+ 4	3.2	+ .6	Greensboro . . .	60	+ 1	2.3	- .4	W. Va. Beckley . . .	55	+ 1	3.2	+ .6
South Bend . . .	58	+ 5	3.5	+ .3	Hatteras . . .	68	+ 3	1.3	- 2.9	Charleston . . .	59	+ 2	4.8	+ 2.2
IOWA. Burlington . . .	59	+ 4	3.0	+ .3	Raleigh . . .	62	+ 1	.6	- 2.1	Huntington . . .	61	+ 4	3.4	+ 1.5
Des Moines . . .	59	+ 5	3.3	+ 1.2	Wilmington . . .	67	+ 2	1.5	- 1.5	Parkersburg . . .	59	+ 2	3.7	+ 1.6
Dubuque . . .	56	+ 5	.7	- 2.0	N. DAK. Bismarck . . .	47	0	1.4	+ .5	WIS. Green Bay . . .	55	+ 6	4.0	+ 2.1
Sioux City . . .	57	+ 3	2.0	+ .6	Fargo . . .	50	+ 3	1.5	+ .4	La Crosse . . .	57	+ 6	1.9	- .3
KANS. Concordia . . .	59	+ 1	4.3	+ 2.6	Williston . . .	47	+ 1	.3	- .4	Madison . . .	54	+ 4	2.3	+ .1
Dodge City . . .	61	+ 3	1.2	- .2	OHIO. Akron-Canton . . .	57	+ 4	4.6	+ 2.1	Milwaukee . . .	55	+ 5	3.0	+ .9
Goodland . . .	53	0	.5	- .3	Cincinnati . . .	59	+ 1	4.4	+ 2.2	WYO. Casper . . .	49	+ 1	.6	- .2
Topeka . . .	60	+ 2	4.6	+ 2.3	Cleveland . . .	58	+ 5	4.0	+ 1.6	Cheyenne . . .	49	+ 1	1.1	- .7
Wichita . . .	61	+ 1	3.4	+ 1.0	Columbus . . .	59	+ 5	3.3	+ 1.2	Lander . . .	48	+ 1	1.5	+ .3
KY. Lexington . . .	61	+ 3	2.6	+ .3	Dayton . . .	59	+ 3	3.3	+ 1.1	Sheridan . . .	48	0	.8	- .3
Louisville . . .	62	+ 4	2.3	0	Toledo . . .	56	+ 4	2.8	+ .4	P. R. San Juan . . .				

(Continued from page 7.)

Cattle and sheep generally good, water and feed adequate most areas. Livestock should winter well barring extreme weather.

**NEW ENGLAND:** Cold, windy and dry. Little daily temperature changes. Lowest temperatures ranged mostly from teens far north to 30's along southern coast. On Friday night 30° minimum at Boston marked first below freezing temperature of season. Highest readings generally in 30's to 40's north to south. Precipitation: Mostly light snow flurries scattered throughout week and these mostly over northern Vermont.

**NEW JERSEY:** Temperatures well below seasonal norms. Warmest weather of week on 8th, 57°. Temperatures fell over weekend to record and near record lows. Lowest 15° on 11th at East Millstone. Precipitation heaviest over south and coastal sections with no measurable precipitation in north. Heaviest weekly total 0.77 in. at Pomona. Some snow flurries on 6th south and on 9th central and north.

**NEW MEXICO:** Considerable cloudiness, cold at night eastern plains. Partial clearing afternoons these sections, warm afternoons midweek and weekend. Elsewhere cold nights and very warm afternoons with night-to-day temperature ranges in excess of 50° some stations. Temperature statewide up to 10° warmer than normal. Continued dry except some drizzle not measurable eastern plains.

Favorable harvest weather. Harvest of cotton, grain sorghum, peanuts active. Wheat, barley good, need moisture. Broomcorn, lettuce, apple, alfalfa harvest near complete. Pecan picking, raking limited basis. Ranges fair, top subsoil moisture short. Livestock good.

**NEW YORK:** Due to a cold northwesterly flow, most stations reported well below normal temperatures. Snow flurries with small accumulations common over interior but precipitation, with one important exception, well below normal. Cold, moist northwesterly winds moving across warm waters of Lake Ontario resulted in locally heavy snow squalls downwind of lake. Heavy snowfall locally and amounts quite variable. From late Monday to Wednesday up to 18 in. fell in Syracuse area while more than 6 in. fell in Rome-Utica area as moist winds funneled into Mohawk Valley.

**NORTH CAROLINA:** Statewide some rain fell during week, but average mostly less than 0.50 in. Any slowdown in harvest activities minimal. Temperatures dipped and widespread frost reported. Soil moisture declined, 67% reporters indicated supplies short to very short. Fieldwork averaged 4.6 days.

Corn harvest 92% complete, 86% 1972, 67% 10-year average. Soybean harvest gaining momentum, 50% harvested, 21% 1972, 30% 10-year average. Cotton harvest slowed by oversupply at gins, picking now 73% complete, 50% 1972, 63% 10-year average. Peanut combining complete, yields of record proportion. Sorghum grain 82% harvested, 74% 1972. Lespedeza seed 80% harvested, 50% 1972. Small grain acreage 67% seeded, slightly behind 1972. Growing small grains only fair shape, stands suffering from extreme dry spell. Pastures poor to fair.

**NORTH DAKOTA:** Cold, temperatures mainly below freezing. Extremes: 6° below zero, Williston; 35°, Lisson. Average temperatures ranged from 13° subnormal northwest to 8° subnormal south-

east. Only significant precipitation late on 6th and early on 7th when 1 to 2 in. snow blanketed most of State. Precipitable water from snow about 0.10 in. Milder temperatures caused snow to largely disappear. Cattle grazing pastures and stubble. Some combining of sunflowers, moving hay to feeding quarters and preparing for winter.

**OHIO:** Clearing on 5th and a freeze warning issued for south and west. High pressure continued to dominate weather, bringing fair to partly cloudy weather, although some light snow flurries reported north. Some rain over central and south late on 8th. High pressure, cold air prevailed from 9th through 11th. Snow flurries 9th, amounts of 1.00 to 2.00 in. northeast. Temperatures averaged well below normal most of week.

Cool, sunny days made row crop harvest a day and night operation as farmers raced to make up time lost by previous week's rain. Corn harvest 80% complete, 30% in 1972, 70% normal. Some late cornfields badly lodged. Soybeans 95% combined, 50% last year, 85% normal average. Sugar beet lifting virtually complete, should finish by November 15. Popcorn harvest 90% complete, normal 75%. Soil moisture 8% short, 88% adequate, 4% surplus. Six days favorable for fieldwork.

**OKLAHOMA:** Temperatures much below normal, ranged from 6° to 11° below normal. Precipitation light most areas except about 1.50 in. southeast. Weekend cool and mostly dry.

Wheat acreage 99% seeded, 96% 1972. Early planted fields providing good grazing. Oats 95% planted, 100% 1972. Barley 96% seeded, 100% 1972. Sorghums 57% harvested, 1972 49% harvested, 5-year average 72%. Cotton 97% bolls open, only 8% harvested, slowed by damp weather, 27% harvested in 1972, 5-year average 22%. Peanuts 73% threshed, same as year ago. Pecans beginning to fall. Livestock good. Pastures and ranges remained good for season.

**OREGON:** Heavy precipitation exceeded normal for November. Coast: From 4.20 in. Astoria to 7.24 in. North Bend. Interior valleys west: From 2.68 in. Portland to 7.41 Grants Pass. East of Cascades: 0.52 in. Nyssa to 1.68 in. Redmond. Heavy snows reported mountains, central portions east. Bend reported 27 in. snow, Condon 17 in., Dufur 16 in. Temperatures near normal south, 5° to 13° below north. Highs in mid-50's, lower 60's. Cold air remained trapped lower levels northcentral area, highs held in 40's. Lows in teens and lower 20's east. Redmond coldest with 8°. West of Cascades lows in mid-20's, lower 30's.

Wet fields limited activity. Some sugar beets to be dug when fields dry. Rain recharged depleted soil moisture, water sheds, stock ponds, springs, rivers; some to above normal levels. Filbert harvest essentially complete, yields above normal except freeze damaged areas. Walnuts near completion, production below normal, quality good. Cranberry harvest approached completion. Pasture, range conditions improved.

**PENNSYLVANIA:** Pennsylvania tasted winter; cold air and snow appeared most sections. Above normal temperature trend in evidence since September ended abruptly with averages 8° to 10° below normal and 12° below previous week for coldest since February. Daily lows mostly teens and 20's and highs 30's and 40's. Extremes: 14° and 58°. Precipitation mostly from showers, 0.30 in. or less with less than 0.10 in. eastern two-thirds. Traces to 5 in. snow northwest decreasing to only flurries southeast midperiod. Statewide freeze

brought this year's growing season to an end. Most fall harvests completed.

**PUERTO RICO:** Rainfall averaged 1.10 in. or about 0.40 in. subnormal. Little or no rain south-central and northwestern coast. Good showers totaled 2.00 to 4.00 in. for week in west Cordilleras and 2.00 to 3.00 in. east sections. Temperatures averaged 80° on coast and 75° interior. Highest 92°, lowest 57°

Young sugarcane developing well all zones except northwest where lack of rain slowed ratoon development in nonirrigated fields. Coffee zones reported good progress harvesting operations. Tobacco plantations continued good progress seedbed preparation and seeding operations but more rain needed for satisfactory development of new crop. Pastures generally good to excellent with fertilizing and cultivating making good progress except in north and northwest where growth satisfactory but dry weather delaying fertilizing. Minor crop zones report good development despite lack of rain with good abundance of yams, yucca and sweet potatoes in west and bananas in southeast.

**SOUTH CAROLINA:** Temperatures slightly above normal. Cooler than usual midweek, much colder end week. Freezing weather north and west Saturday morning, continued inflow of cold air weekend. Rainfall generally subnormal varying from around 0.50 in. at Anderson to trace in north-central and northeast.

Moisture still short to very short, northwestern portion adequate. Cotton good crop, 78% harvested, 74% 1972, 5-year average 81%. Corn 93% harvested, 91% 1972. Soybeans 94% mature, 40% harvested, 29% harvested 1972, 5-year average 20%. Pastures fair. Winter grazing 87% planted, 90% 1972; 70% emerged. Wheat and oats fair. Wheat 42% planted, 40% planted 1972; 29% emerged. Oats 59% planted, 45% planted 1972; 39% emerged. Small grains, pastures need rain. Sorghums 44% harvested, 48% harvested 1972. Fall vegetables fair.

**SOUTH DAKOTA:** Near record-breaking cold temperatures early week. Some areas reported lows near 0° to -10°. Unseasonably cold temperatures persisted, by weekend mostly in 40's and 50's. Weekly averages 5° to 12° subnormal. Precipitation very light and scattered--mostly light snow.

Harvest of row crops made good progress, snow and mud delayed it some areas. Corn 83% harvested, near normal, 1972 63%. Sorghum for grain 85% harvested, 1972 61%, normal 97%. Soybean harvest near completion at 97%, 1972 87%. Fall seeded grains generally in good condition with good stands and growth. Most areas reported adequate feed and fuel supplies. Livestock grazing stubble fields and cornstalks. Some supplemental feeding of hay where ground snow covered.

**TENNESSEE:** Rainfall from about 0.50 in. east to 1.50 in. west. Temperatures 5° subnormal east to 1° subnormal west. Cold front on Thursday brought a statewide killing frost.

Soybeans nearly 50% harvested, 1 week behind normal but considerably ahead of 1972. Nearly all fields ready for combining, crop made good recovery from late start. Corn 75% harvested, normal for date. Some late plants hurt by worms cutting stalks. Cotton 67% picked, 55% 1972, average 60%. Picking behind schedule 3 weeks ago. Germination, growth of small grains quite good. Intended wheat acreage 80% sown, average for the date. Tobacco stripping progressed rapidly, 60% completed. Many producers busy grading, sales will begin shortly.

**TEXAS:** Rainfall subnormal. Drizzle with little or no rain from Trans-Pecos into Edwards Plateau and coastal bend. Lower Rio Grande Valley had above average rainfall with weekly totals of 2.69 in. at Mercedes and 2.47 in. at Harlingen. Cool air covered State early week, warming trend followed south and central Wednesday. Friday, another cold front brought cool weather Saturday. Warming west and central Sunday. Average temperatures near normal except Edwards Plateau and lower valley where 3° and 7° above normal, respectively.

Moisture adequate to surplus south half continued to delay harvest of cotton and seeding wheat and oats. On high plains and in Trans-Pecos, moisture short. Dry land wheat on high plains developing slowly. Cotton and sorghum harvest making good progress on high and low plains. Major crops percent harvested: Cotton 36, 1972 35, 5-year average 38; sorghum 93, 1972 79, 5-year average 83; corn 97, 1972 99; soybeans 46, 1972 54; peanuts 82, 1972 87. Lower Rio Grande Valley: Rains Monday halted vegetable seeding. Cabbage, peppers, and tomato harvest continued when weather permitted. Laredo: Dry weather needed to plant onions. San Antonio-Winter Garden: Light cabbage and carrot harvests underway. Cucumbers, peppers, and squash continued move to markets. Coastal Bend: Several hundred acres of spinach, which was washed out by earlier heavy rains, being replanted. Cucumber, squash harvest continued. East Texas: Rains continued delay digging sweet potato crop. High Plains: Carrot digging continued and light supplies of peppers still available. Pecan harvest active. Citrus supplies remain light because rains interrupted harvest. Ranges, pastures excellent. Grazing good except few areas where rain caused flooding and standing water. Wheat and oat grazing improved. Livestock excellent. Screwworm cases heavy south Texas, lower valley. Hay baling active scattered areas.

**UTAH:** A few isolated light showers early week north mostly along Wasatch Front, less than 0.10 in. Temperatures varied ranging from 2° to 8° subnormal some of colder valleys to 2° to 8° above warmer areas.

Harvest of corn for grain--last crop to be harvested--progressed rapidly with generally dry, warm weather most farming areas. Less than 10% of corn for grain acreage still standing. Grading, sorting, and marketing of potatoes, dry onions, and apples in progress. Apple cider being pressed in Utah County. Breeding of ewes on fall and winter range lands will continue till early December. Turkey processing near peak this week. Care, feeding of cattle, sheep in feedlots and on valley farms increased. Fall marketing, shipping of cattle, lambs in progress.

**VIRGINIA:** Gradually turning colder, temperatures near normal early week and about 15° subnormal by week's end. Extremes: 68° and 16°. Killing frost over central, east, and north about midweek. First snow flurries of season reported in north-west mountains Monday and Friday.

Topsoil moisture 89% adequate, 7% surplus, 4% short. Fieldwork: 3.9 days suitable. Good progress in cover crop seeding. Wheat acreage 77% seeded, 66% last week. Corn 77% harvested, most of commercial area combined. Soybean harvest active; 60% complete, 22% 1972. Peanut harvest virtually complete, storage problems still exist. Cotton picking active. Pastures mostly good. Sweet potatoes about 85% harvested, good yields, quality.

WASHINGTON: West: Average high temperatures in 40's, minimums in low 30's and high 20's. Precipitation from 0.50 to 4.00 in. Rain with snow flurries throughout week. Christmas tree harvest full swing. Potatoes, carrots, celery harvest nearing completion. Tulip, daffodil bulb planting active. Some livestock grazing but pasture growth slowing. Greenchopping active few areas. Farmers doing shop work, record keeping and elk hunting. East: Average high temperatures in 30's, lows 20's with some teens early week. Precipitation from 0.40 to 1.50 in. Snowfall from 2 to 6 in. slowed or stopped fieldwork. Muddy fields plagued sugar-beet, potato digging. Some winter grains remain to be seeded, may have to wait till spring. Slight damage to fruit and shade trees by snow. Most livestock on supplemental feed.

WEST VIRGINIA: Temperatures subnormal. Parkersburg 9° below normal while in eastern panhandle, Martinsburg only 2° below normal. Precipitation Saturday, Sunday and again on Thursday. Much in snow flurries. Farmers completed fall harvests, cared for livestock and did general chores.

WISCONSIN: Winter-like cold prevailed. Temperatures 10° subnormal. Temperatures lowered into teens statewide several evenings falling to 9° or 10° parts west and north. Precipitation sparse, only traces south two-thirds while extreme north had

near 2 in. midweek.

Harvesting progress continued good. Corn for grain 80% harvested, 1972 40%, 1968-72 average 60%. Most done in west and north, finishing up east and south. Yields varied, but generally below last 2 years. Corn low in moisture content, saved on fuel and drying costs. Corn quality very good. Corn stalks chopped for bedding. Soybeans 95% combined, 1972 30%, 1968-72 average, 60%. Yields also varied, poor where dry past summer. Frozen ground stopped fall plowing at 65% done, 1972 30%, 1968-72 average 57%. More acres plowed this fall than in several years. Soil moisture 10% short, 90% adequate. Some cabbage, red beets harvested, but most other vegetable crops done. Farms going into winter in good shape. Farmers in good spirits since much work accomplished this fall in sharp contrast to year ago.

WYOMING: Temperatures below normal except for Evanston. Both Sheridan Gap and Colony 20° below normal. Temperatures very cold early week, moderated thereafter. Extremes: -12° at Glenrock Monday, 68° at Kaycee and Glenrock Friday. Precipitation general statewide except for parts Big Horn drainage and Wind River drainage. Largest amounts fell northwest, eastcentral and southeast. Moran received largest amount, 1.88 in. Cattle being moved to winter pasture. Livestock in good condition. Corn harvest continued.

(Continued from page 2.)

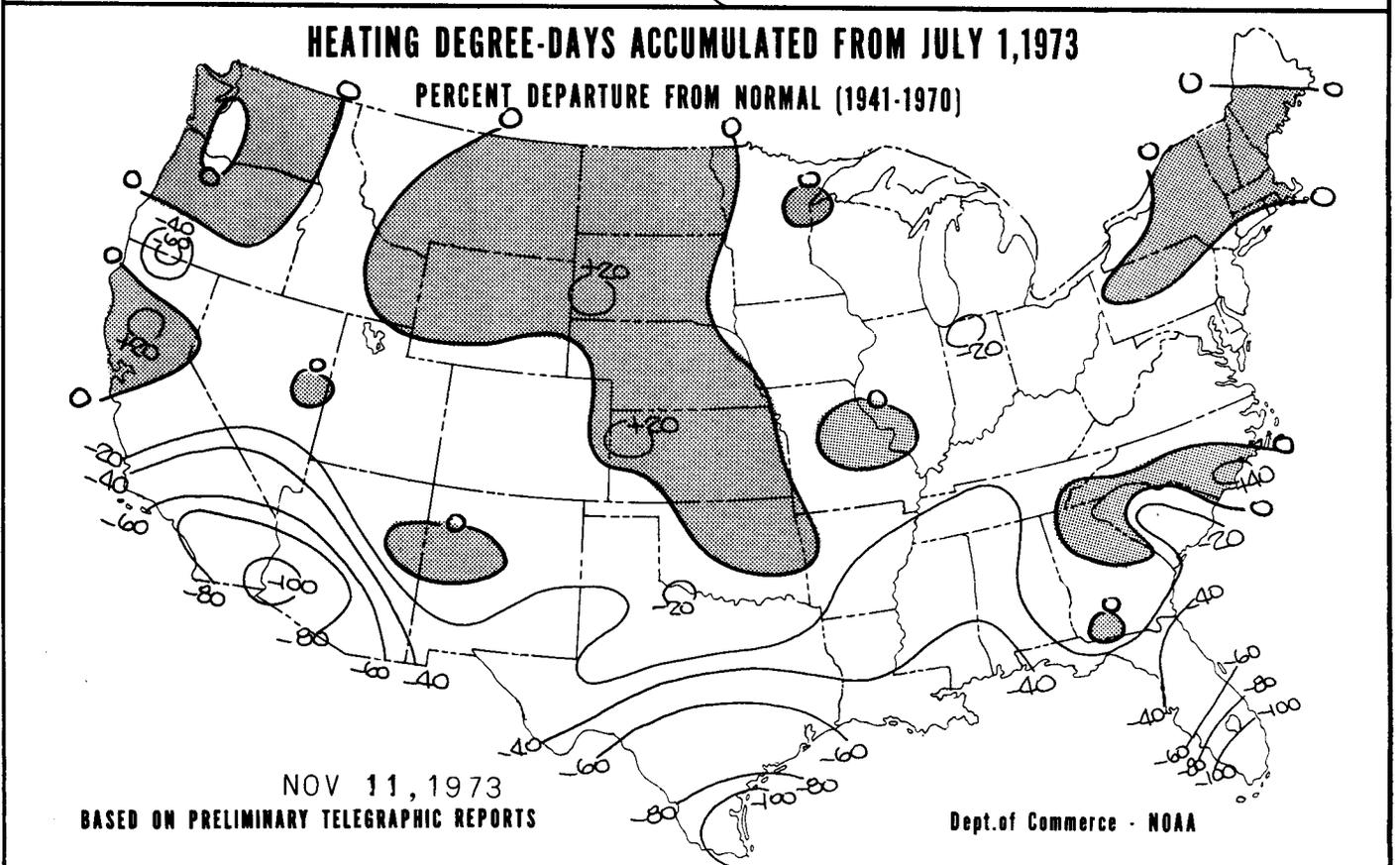
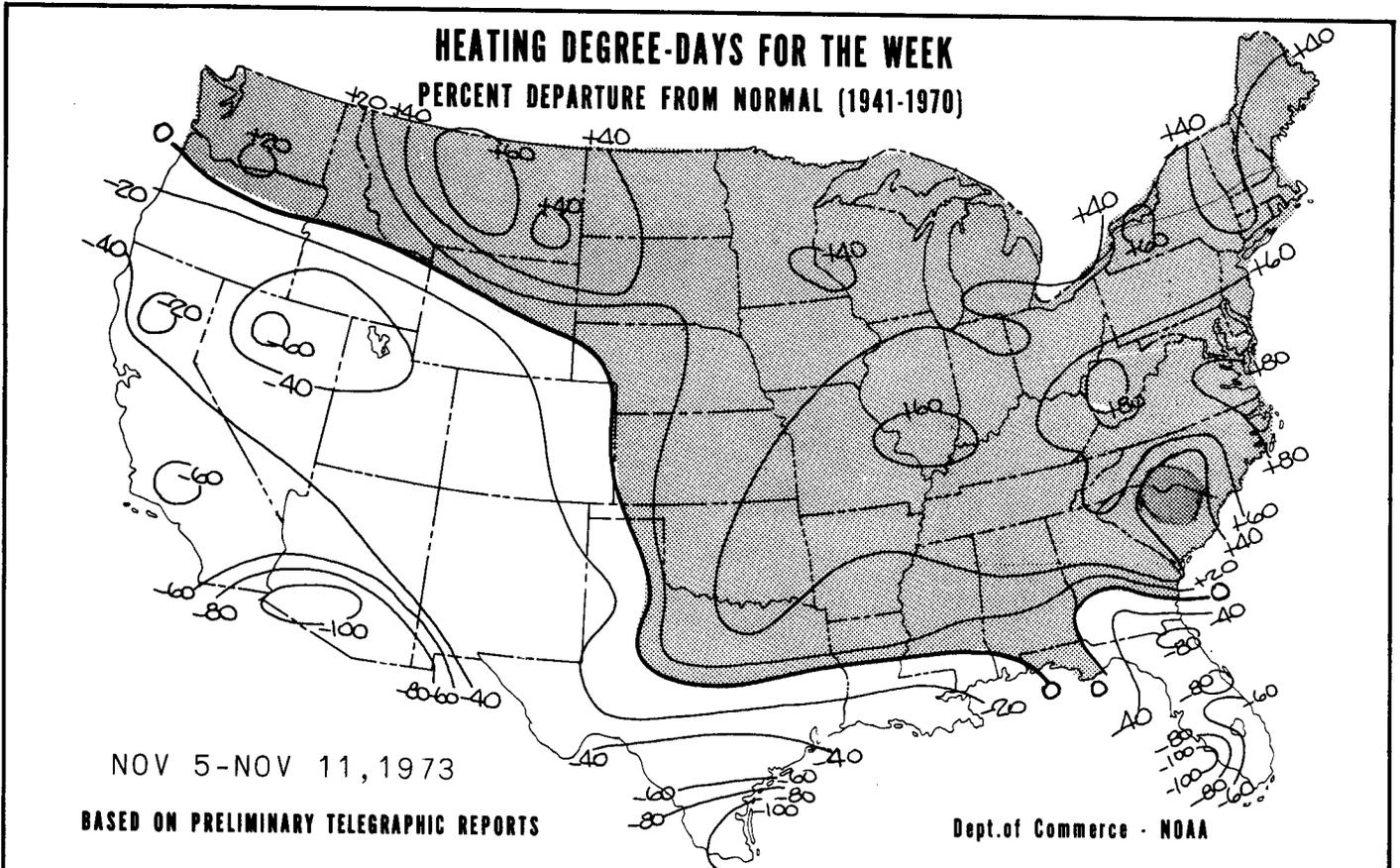
Arctic air chilled the northern Plains Thursday morning. North Dakota was mostly below 0°. Havre, Mont., shivered at -14°. Omaha, Nebr., recorded a new record low, 17°. Warmth prevailed only around the Gulf--Key West, Fla., and Corpus Christi, Tex., both had the Nation's warmest overnight lows, 75°. Temperatures reached the 80's along the Gulf that day, the central Plains reached only 30's and 40's, and parts of Montana failed to reach 10°.

Friday a large High, centered in South Dakota, continued to pump freezing air into the Nation.

By Saturday morning the cold reached deep into Dixie; Birmingham, Ala., set a record low, 22°. Other record lows: St. Louis, Mo., 18°; Dubuque, Iowa, 14°; Madison, Wisc., 13°. Saturday was cool and fair in the East. Highs were in the 30's in the North; Alabama and Mississippi reached 50's.

Sunday, the Baltimore-Washington International Airport began the day at a record low 21° and Roanoke, Va., had a record low 16°. Warming occurred only from Kansas through the southern Rockies, where it reached the low 70's.

Standard copy for the Weekly Weather and Crop Bulletin is prepared by: Dr. Richard E. Feich, Agricultural Climatologist; Arlon M. Scott, Agricultural Statistician; John Carlin Ryan, Editor.



Heating Degree Days (Base 65°) For Week Ending Nov. 11, 1973

States and Stations	Weekly		Seasonal Accumulation		States and Stations		Weekly		Seasonal Accumulation		States and Stations		Weekly		Seasonal Accumulation				
	TOTAL	Departure*	TOTAL	Departure*	TOTAL	Departure*	TOTAL	Departure*	TOTAL	Departure*	TOTAL	Departure*	TOTAL	Departure*	TOTAL	Departure*			
																	From 1972	Departure*	From 1972
ALA. Birmingham	114	38	206	50	233	71	1030	7	-118	71	1030	7	-118	233	71	1030	7	-118	
MOBILE	32	17	53	41	193	82	490	44	-41	82	490	44	-41	193	82	490	44	-41	
MONTGOMERY	73	142	34	34	172	55	605	47	45	55	605	47	45	172	55	605	47	45	
ARIZ. Flagstaff	116	68	945	-271	244	56	1136	-149	-297	56	1136	-149	-297	244	56	1136	-149	-297	
PHOENIX	0	30	2	57	229	78	897	31	-230	78	897	31	-230	229	78	897	31	-230	
TUCSON	3	34	27	51	226	62	801	77	-215	62	801	77	-215	226	62	801	77	-215	
WINSLOW	81	50	481	15	230	69	786	15	216	69	786	15	216	230	69	786	15	216	
YUMA	0	16	0	22	248	57	1109	-120	-291	57	1109	-120	-291	248	57	1109	-120	-291	
ARK. Fort Smith	123	39	269	11	228	65	861	22	-273	65	861	22	-273	228	65	861	22	-273	
LITTLE ROCK	112	28	197	75	210	50	797	55	-152	50	797	55	-152	210	50	797	55	-152	
CALIF. Bakersfield	44	37	67	58	260	59	1558	158	45	59	1558	158	45	260	59	1558	158	45	
EUREKA	44	37	1328	93	312	85	1466	23	-395	85	1466	23	-395	312	85	1466	23	-395	
FRESNO	28	36	173	10	324	77	1414	-168	-264	77	1414	-168	-264	324	77	1414	-168	-264	
LOS ANGELES	17	13	33	45	285	82	908	-128	-323	82	908	-128	-323	285	82	908	-128	-323	
RED BLUFF	59	14	218	45	285	65	950	73	-323	65	950	73	-323	285	65	950	73	-323	
SAN FRANCISCO	34	24	517	51	72	15	141	34	7	15	141	34	7	72	15	141	34	7	
STOCKTON	36	32	169	18	285	66	1115	32	-323	66	1115	32	-323	169	18	285	66	1115	
COLO. Denver	127	35	753	20	197	73	511	38	62	73	511	38	62	197	73	511	38	62	
GRAND JUNCTION	102	28	507	-105	202	85	490	58	-21	85	490	58	-21	202	85	490	58	-21	
PUEBLO	123	48	575	42	202	85	490	58	-21	85	490	58	-21	202	85	490	58	-21	
CONN. Bridgeport	159	51	871	46	166	51	402	40	92	51	402	40	92	166	51	402	40	92	
HARTFORD	193	45	375	81	299	114	1167	155	-187	114	1167	155	-187	299	114	1167	155	-187	
DEL. Wilmington	158	45	375	81	335	110	1268	43	-158	110	1268	43	-158	335	110	1268	43	-158	
D.C. Washington	164	66	303	46	323	129	1269	131	-115	129	1269	131	-115	323	129	1269	131	-115	
FLA. Apalachicola	29	3	47	13	367	140	1317	6	-156	140	1317	6	-156	367	140	1317	6	-156	
DAYTONA BEACH	10	5	11	10	324	110	1494	163	-239	110	1494	163	-239	324	110	1494	163	-239	
FT. MYERS	0	27	30	28	272	48	1508	91	-156	48	1508	91	-156	272	48	1508	91	-156	
JACKSONVILLE	0	0	0	0	265	61	1092	34	-195	61	1092	34	-195	265	61	1092	34	-195	
KEY WEST	0	0	0	0	251	39	1362	22	-139	39	1362	22	-139	251	39	1362	22	-139	
LAKELAND	5	0	9	7	202	48	754	109	-83	48	754	109	-83	202	48	754	109	-83	
MIAMI	0	0	0	0	204	46	801	8	-166	46	801	8	-166	204	46	801	8	-166	
ORLANDO	2	8	8	6	291	27	973	107	-119	27	973	107	-119	291	27	973	107	-119	
TALLAHASSEE	27	9	84	9	292	60	773	78	-88	60	773	78	-88	292	60	773	78	-88	
TAMPA	3	8	9	6	276	27	987	60	-91	27	987	60	-91	276	27	987	60	-91	
W. Palm Beach	0	0	0	0	131	68	1252	9	-91	68	1252	9	-91	131	68	1252	9	-91	
GA. Atlanta	112	35	270	11	74	37	91	76	-150	35	270	11	74	74	37	91	76	-150	
Augusta	92	27	207	8	131	68	1252	9	-91	68	1252	9	-91	207	27	207	8	131	
Macon	67	10	134	31	269	50	929	4	-111	50	929	4	-111	134	10	134	31	269	
Savannah	66	21	122	4	169	109	801	8	-166	21	122	4	-111	169	109	801	8	-166	
IDAHO. Boise	94	64	720	65	250	79	551	85	-54	64	720	65	-217	250	79	551	85	-54	
LEWISTON	161	3	782	8	182	72	467	12	-117	3	782	8	-117	182	72	467	12	-117	
POCATELLO	122	64	1049	39	182	36	433	25	-58	64	1049	39	-58	182	36	433	25	-58	
ILL. Cairo	160	64	325	16	57	29	255	-117	-144	64	325	16	-144	57	29	255	-117	-144	
CHICAGO	224	77	620	20	176	29	255	-117	-144	77	620	20	-144	176	29	255	-117	-144	
Moline	223	67	717	51	181	75	938	151	-240	67	717	51	-240	181	75	938	151	-240	
Peoria	230	71	622	8	214	75	938	151	-240	71	622	8	-240	214	75	938	151	-240	
Rockford	232	64	712	56	258	67	817	15	-141	64	712	56	-141	258	67	817	15	-141	
Springfield	192	73	499	45	163	60	404	4	-200	73	499	45	-200	163	60	404	4	-200	
IND. Evansville	211	72	416	32	294	146	759	25	-99	72	416	32	-99	294	146	759	25	-99	
FORT WAYNE	186	36	631	60	217	72	478	13	-85	36	631	60	-85	217	72	478	13	-85	
Indianapolis	209	71	516	62	161	52	284	6	-50	71	516	62	-50	161	52	284	6	-50	
South Bend	206	52	585	-145	131	52	284	6	-50	52	585	-145	-50	131	52	284	6	-50	
IOWA Burlington	217	67	593	28	170	42	386	17	-37	67	593	28	-37	170	42	386	17	-37	
Des Moines	214	52	597	-102	123	36	282	17	-37	52	597	-102	-37	123	36	282	17	-37	
DeBakee	246	69	790	69	302	46	241	85	113	69	790	69	113	302	46	241	85	113	
ST. LOUIS	219	45	689	71	169	98	484	19	-134	45	689	71	-134	169	98	484	19	-134	
KANSAS Concordia	181	41	584	28	121	309	86	1358	85	-276	41	584	28	-276	121	309	86	1358	
Dodge City	161	28	484	1	302	98	484	19	-134	28	484	1	-134	302	98	484	19	-134	
Goodland	171	6	903	160	309	86	1358	85	-276	6	903	160	-276	160	309	86	1358	85	-276
Topeka	155	24	521	13	329	98	484	19	-134	24	521	13	-134	24	521	13	329	98	484
Wichita	161	43	452	35	214	329	98	484	19	-134	43	452	35	-134	43	452	35	214	329
KY. Lexington	199	76	444	23	194	97	420	84	-226	76	444	23	-226	194	97	420	84	-226	
LA. Baton Rouge	180	61	390	63	212	78	548	90	-212	61	390	63	-212	212	78	548	90	-212	
LAKE CHARLES	28	10	50	60	219	81	557	28	-160	10	50	60	-160	219	81	557	28	-160	
NEW ORLEANS	25	17	39	43	222	78	741	13	-214	17	39	43	-214	78	741	13	-214		
NEW ORLEANS	23	19	117	43	224	74	762	1	-72	19	117	43	-72	224	74	762	1	-72	
ST. LOUIS	71	0	1455	-53	129	38	312	19	-72	0	1455	-53	-72	129	38	312	19	-72	
MAINE. Caribou	278	70	1455	-53	129	38	312	19	-72	70	1455	-53	-72	70	1455	-53	-72		

\* Based on 1941-70 Normals.



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