

# Weekly Weather & Crop Bulletin

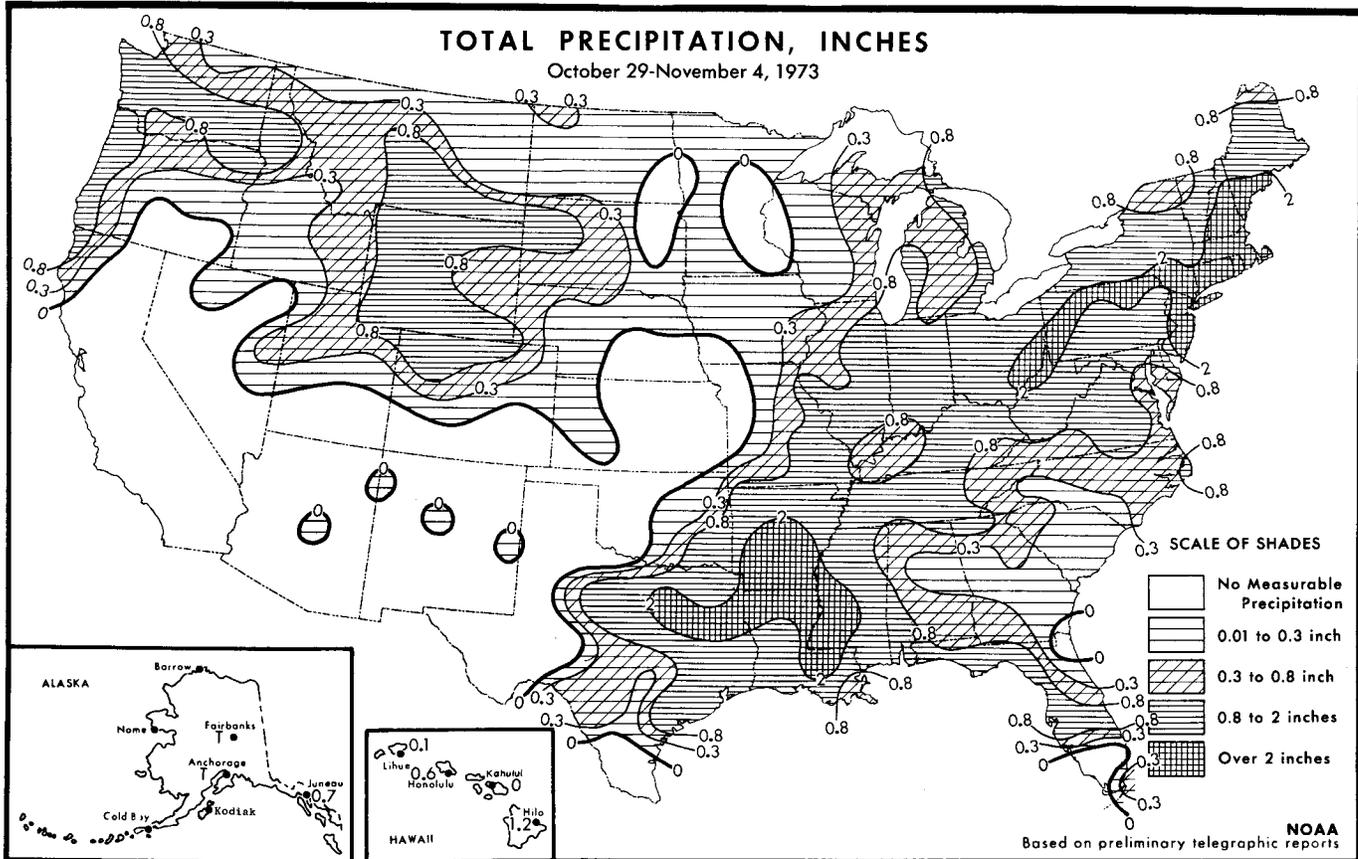
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## NATIONAL WEATHER SUMMARY

**HIGHLIGHTS:** The first major winter storm of the season roared out of the Rockies into the western Plains early Thursday. By Sunday, parts of Nebraska, South Dakota, and Wyoming lay under deep snow, while temperatures in Montana and Idaho dropped below the zero mark.

**PRECIPITATION:** While most of the Nation's western half stayed dry last week, a large section of the Pacific Northwest, parts of the northern Rockies, and a section of the northwestern plains received 0.80 in. or more of precipitation, much of it as snow. The central plains were dry, but to the east, rain fell almost everywhere. A strip extending from southeastern Ohio, through Pennsylvania to the northeastern shores of the Atlantic, received 2.00 in. or more rain as did parts of Texas, Louisiana, Arkansas, and Mississippi.

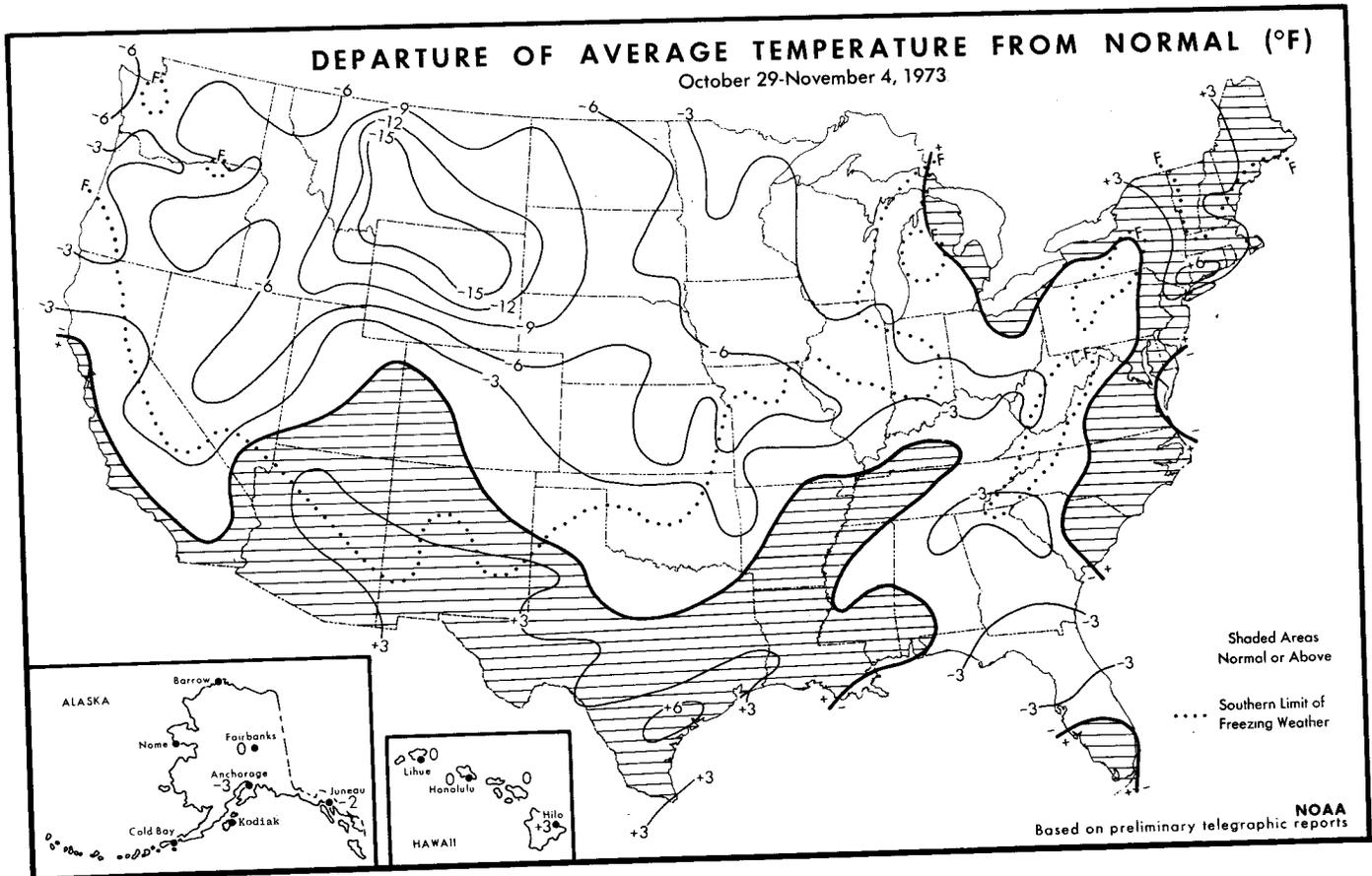
Early Monday a deep low over Pennsylvania dumped considerable rain over the East. Charlottesville,

Va., received 1.00 in. within 6 hours, while Altoona, Pa., recorded 1.62 in. in 12 hours from Sunday night to Monday morning; 2.50 in. fell at Lakehurst, N. J. Snow fell in the West Virginia mountains.

By evening, New York, N. Y., had received almost 2.00 in. rain, ending a dry period of 26 straight days. This almost broke an 1884 record of 27 days with no measurable precipitation. Snow started in the West Monday. Lander, Wyo., received 4 in.

Tuesday, the intense eastern storm moved its main activity over New England. Bangor, Maine, reported 1.00 in. afternoon rain, while Rumford, Maine, received 3.00 in. in 24 hours. Drenching rain also struck Dallas-Ft. Worth, Tex.; 2.00 in. fell areawide, but some stations reported 4.00 in.

Early Wednesday a cold front extending from Michigan through Louisiana set off numerous thunderstorms. Jacksonville, Ark., had 1.21 in. rain. Snow fell to the west: Lewistown, Mont., had 2 in.



morning snow for a total of 7 in. on the ground. By afternoon, Halloween looked like Christmas from the northern Intermountain Region to the northern Plains. Totals by sundown included: Yakima, Wash., 2 in., Lewiston, Idaho, 1 in., and Butte, Mont., 2 in.

Thursday morning, 10 in. snow had accumulated at Butte, Mont., and Cody, Wyo., had 9 in. The storm, this winter's first major one, moved into the western Plains. By late Thursday snow fell in western Minnesota and in southeastern Nebraska. Friday, Steamboat Springs, Colo., had 1 ft. snow on the ground, while South Dakota lay under from 1 in. to 7 in. Friday's snowfall was greatest in southeastern Wyoming, where 9 in. fell that day. Snow also extended itself into Nebraska, where 3 in. fell at Scottsbluff. To the east, showers fell from the Ohio Valley to New England.

By Saturday morning, more snow came out of the Rockies to the northern Plains: Cheyenne, Wyo., had 9 in. overnight snow for a total of 13 in. on the ground. By late Sunday, the deepest snow throughout the western Plains and Rockies was piled on Buford, Wyo. --28 in.

**TEMPERATURE:** The northwestern quarter of the Nation averaged 3° or more below normal. One large section of the Rockies, Plains, and western Corn Belt was under the norm by 6°, and an area embracing parts of Montana and Wyoming shivered at 14° below normal for the week. By the weekend, several record lows were recorded in the general area.

Outside of the northwestern cold spot, most of the Nation stayed fairly close to seasonal norms. Only parts of New York-Connecticut and Texas averaged 6° or more above seasonal norms.

Monday morning, fall continued a drive into the South. Lows were in the 40's throughout the south-east, 20° cooler than the previous morning. Early afternoon temperatures only reached the 40's from New England to the northern Rockies, while some southern Florida and southwestern desert areas recorded 80's.

Tuesday morning fall reached Florida: Tallahassee started the day at 30° and Daytona Beach at 43°--both record lows for the date. By afternoon, the Nation's temperatures ranged from 35° at Rock Springs, Wyo., to 84° at Brownsville, Tex.

Florida felt cold again Wednesday: Tallahassee had a 2 a.m. temperature of 38°. To the north, 30's prevailed from New England to the Rockies. Cut Bank, Mont., reached only 29° by early afternoon.

Montana also took the Thursday morning low for the Nation--23° at Butte. And the winter storm roared out of the Rockies, temperatures dropped throughout the Nation's midsection. Kansas and southern Colorado reached the high 60's and low 70's in the afternoon, while Montana and Wyoming had 20's and 30's.

Friday morning temperatures stood in the 20's in the Rockies and in the 30's in the northern Plains, because a large High over Canada pushed the frosty air southward. At Dodge City, Kans., the mercury fell from a high of 83° Thursday afternoon to 37° Friday morning.

The weekend brought intense cold to the northwestern quarter. Bozeman, Mont., recorded -4°, Saturday morning. Freezing temperatures spread as far south as Tucumcari, N. Mex., and as far west as Indianapolis, Ind. Sunday morning, Butte, Mont., recorded -6° and Pocatello, Idaho, had 4°, a record low.

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Corn and soybean harvesting made good progress last week as harvest completion advanced ahead of average in the Corn Belt. Rain slowed cotton harvesting in the South and boosted winter wheat in the eastern Corn Belt and Southeast. Kansas wheat seeding neared completion.

**SMALL GRAINS:** A second dry week allowed Kansas farmers to make good headway planting winter wheat. Intended Kansas winter wheat acreage was 90% planted by November 4, about 2 weeks behind the normal end of fall planting. Most unplanted acreage is in eastern Kansas.

Winter wheat seeding neared completion about on schedule with 1972 progress in Oklahoma at 97% done and in Texas, 94% done. Planting was almost over in most areas of the Corn Belt except in Missouri, only 68% complete. Rain boosted small grains recently planted in the South and will provide soil moisture needed to finish planting.

Most winter wheat in Nebraska is rated good although cold weather lowered condition some; late plantings need more growth before winter. Colorado wheat is in excellent shape. Fall seeded grains in South Dakota good to excellent. Rains benefited winter wheat in the eastern Corn Belt where most acreage is rated good to excellent. Some late seeding of small grains continued in the Northwest where most stands are in good condition.

**CORN:** Corn harvesting continued to make excellent progress in the Corn Belt despite light rains over the eastern part which slowed field activities a little. Harvest of the Nation's corn crop advanced 15 points from the previous week to 58% harvested by November 4, well ahead of the 42% harvested a year earlier.

Corn Belt harvest at 55% complete exceeded both the normal average of 54% done and last year's pace of 37%.

Eastern Corn Belt corn was 60% harvested, 4 points ahead of average progress while the western Corn Belt crop at 52% harvested is equal to average progress.

Harvesting was most complete in Minnesota at 74% versus 52% usually done and least advanced in Kansas at only 40% complete versus 65% usually done. Iowa corn harvesting advanced 19 points to 45% harvested versus 29% in 1972 and 47% normally harvested. The Illinois crop was 60% gathered, a weekly gain of 18 points and compares to 37% complete a year ago and 65% normally harvested. The Southern corn harvest advanced to 79% complete versus 68% a year earlier.

**COTTON:** Rain slowed cotton harvesting in Texas, Arkansas, Louisiana and Mississippi. Cotton harvesting in Texas increased 5 points last week to 27% complete, behind both last year's progress of 33% complete and the normal average of 30% complete. Harvesting in Arkansas advanced 14 points to 61% complete, ahead of the average 59% complete. Mississippi cotton harvesting also increased 14 points last week to 62% harvested, 2 points less than average.

Cotton picking in the 11-major Southern cotton States advanced 8 points overall last week to 40% complete. This trails both last year's progress, 46%, and the normal average, 44%. South Carolina's harvest is most advanced, 70% done, 4 points behind normal. The Alabama harvest at

45% done is far behind the usual 70% done.

In California, cotton harvesting continued but some farmers had difficulty defoliating rank cotton. The Arizona harvest was rapid under favorable weather.

**SOYBEANS:** The Nation's soybean harvest advanced 9 points last week to 73% complete, 13 points ahead of progress a year earlier. Soybean combining in the Corn Belt gained 10 points last week with 90% of the crop harvested by November 4. This is far ahead of both last year's progress of 70% complete and the normal average of 80% complete for this date.

Gentle rains slowed the harvest pace in the eastern Corn Belt, but 94% of the soybeans are harvested compared to 66% in 1972 and 81% normally harvested. Dry, cold weather favored rapid harvest progress in the western Corn Belt where 86% of the soybeans are combined versus 74% in 1972 and 78% normally harvested.

In Illinois, the Nation's leading soybean producer, the harvest was virtually complete. In second ranked Iowa, the harvest was nearly complete at 97% done. Soybean harvesting was also nearly finished in Minnesota at 98% done and in Nebraska, 95% done. About 40% of the Southern soybean crop was harvested, 1 point behind a year earlier.

**OTHER CROPS:** Sorghum grain harvesting advanced rapidly under cold, dry weather in the Great Plains reaching 78% complete overall for the 7 States accounting for 91% of the U. S. sorghum acreage--Texas, Oklahoma, Colorado, Kansas, Nebraska, South Dakota and Missouri. This is far ahead of last year's 59% complete for this time and is also 6 points ahead of the normal average. Harvesting was 88% done in Texas, 60% done in Kansas, 95% done in Nebraska.

Potato harvesting in Idaho is complete except for scattered fields while digging continued in Washington.

**FRUITS AND NUTS:** Apple harvesting is about complete although picking continued in a few scattered orchards.

The Oregon filbert and walnut harvest is 90% complete. The California walnut and almond harvest is nearly done, also. Pecan harvesting gained momentum in the South.

Naval orange harvesting increased in California and some tangerines were packed. Florida citrus trees need rain as growers irrigated in all areas there.

**VEGETABLES:** Sweet corn is in good supply in Florida while cucumbers and snap bean supplies were moderate.

Light cabbage harvesting started in the Lower Rio Grande Valley of Texas while cucumber and pepper picking continued.

Lettuce harvesting in California passed the peak near San Joaquin and is virtually complete at Salinas.

**PASTURES AND LIVESTOCK:** Showers benefited pastures in the South where dryness was a problem. Cattle moved to feedlots, crop residue and volunteer wheat fields in the southern Great Plains. Snow and cold weather in the northern Mountain States of the West accelerated final livestock movement to winter ranges and made supplemental feeding necessary in some areas.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Nov. 4, 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 . . .	57	- 2	.1	-.6	La. Baton Rouge . . .	65	+ 2	3.0	+1.9	Youngstown . . .	45	- 1	1.4	+ .8
Mobile . . .	65	+ 2	1.2	+ .6	Lake Charles . . .	67	+ 3	.8	+ .1	OKLA. Okla. City . . .	54	- 1	.1	-.5
Montgomery . . .	59	- 1	.6	+ .1	New Orleans . . .	65	0	.7	+ .1	Tulsa . . .	53	- 2	.1	-.6
ALASKA. Anchorage . .	25	- 3	T	-.4	Shreveport . . .	63	+ 2	2.9	+2.2	OREG. Astoria . . .	44	- 5	1.8	-.5
Barrow . . .	---	---	---	---	MAINE. Caribou . . .	39	+ 2	.7	-.1	Burns . . .	35	- 7	T	-.2
Fairbanks . . .	14	0	T	-.2	Portland . . .	47	+ 3	2.3	+1.6	Medford . . .	46	- 1	.4	+ .1
Juneau . . .	36	- 2	.7	-1.1	MD. Baltimore . . .	51	0	1.7	+1.0	Pendleton . . .	42	- 4	.9	+ .6
Kodiak . . .	---	---	---	---	MASS. Boston . . .	53	+ 4	2.5	+1.7	Portland . . .	46	- 3	1.6	+ .7
Nome . . .	---	---	---	---	Chatham . . .	53	---	3.0	---	Salem . . .	44	- 5	1.7	+ .5
ARIZ. Flagstaff . . .	46	+ 5	T	-.3	MICH. Alpena . . .	43	+ 2	.9	+ .4	PA. Allentown . . .	50	+ 2	1.8	+1.2
Phoenix . . .	66	+ 2	T	-.1	Detroit . . .	46	0	.9	+ .3	Erie . . .	48	+ 2	1.9	+1.2
Tucson . . .	64	+ 1	0	-.1	Flint . . .	44	0	.8	+ .3	Harrisburg . . .	49	- 1	1.8	+1.1
Winslow . . .	52	+ 3	0	-.1	Grand Rapids . . .	43	- 1	.8	+ .3	Philadelphia . . .	52	+ 2	1.6	+1.0
Yuma . . .	68	+ 1	0	-.1	Houghton Lake . . .	41	0	.4	-.2	Pittsburgh . . .	46	- 1	2.1	+1.6
ARK. Fort Smith . . .	53	- 4	.9	+ .2	Lansing . . .	43	- 1	.7	+ .1	Scranton . . .	47	+ 2	1.4	+ .6
Little Rock . . .	57	+ 1	2.4	+1.7	Marquette . . .	39	- 1	.5	+ .1	R.I. Providence . . .	52	+ 5	2.5	+1.8
CALIF. Bakersfield . .	60	- 1	0	-.1	Muskegon . . .	44	- 2	.9	+ .4	S.C. Charleston . . .	62	+ 1	.1	-.4
Eureka . . .	49	+ 4	1.0	0	S. Ste. Marie . . .	40	0	.8	+ .2	Columbia . . .	60	+ 1	.2	-.2
Fresno . . .	55	- 4	0	-.1	MINN. Duluth . . .	31	- 5	T	-.5	Greenville . . .	54	- 3	.5	-.3
Los Angeles . . .	67	+ 2	0	-.1	Internatl Falls . .	32	- 1	.1	-.2	S.D. Aberdeen . . .	33	- 6	T	-.2
Red Bluff . . .	56	- 3	T	-.4	Minneapolis . . .	37	- 4	T	-.3	Huron . . .	36	- 5	T	-.2
San Diego . . .	65	+ 1	T	-.1	Rochester . . .	37	- 4	T	-.4	Rapid City . . .	31	-12	.8	+ .7
San Francisco . . .	58	0	0	-.2	St. Cloud . . .	35	- 3	T	-.4	Sioux Falls . . .	36	- 6	T	-.2
Stockton . . .	57	- 1	0	-.2	MISS. Jackson . . .	60	0	2.2	+1.6	TENN. Chattanooga . .	52	- 3	1.6	+ .9
COLO. Denver . . .	42	- 2	.4	+ .2	Meridian . . .	61	+ 2	1.1	+ .5	Knoxville . . .	54	0	.4	-.2
Grand Junction . . .	48	+ 1	T	-.1	MO. Columbia . . .	45	- 6	.5	-.1	Memphis . . .	57	+ 1	1.1	+ .3
Pueblo . . .	44	- 2	T	-.2	Kansas City . . .	45	- 7	T	-.6	Nashville . . .	56	+ 1	.8	+ .2
CONN. Bridgeport . . .	56	+ 7	3.1	+2.4	St. Louis . . .	46	- 6	.8	+ .2	TEX. Abilene . . .	60	0	1.0	+ .5
Hartford . . .	52	+ 5	2.7	+2.1	Springfield . . .	50	- 2	.3	-.5	Amarillo . . .	52	- 1	0	-.3
D.C. Washington . . .	56	+ 3	.5	-.2	MONT. Billings . . .	28	-14	1.2	+1.0	Austin . . .	67	+ 2	.3	-.3
FLA. Apalachicola . .	64	- 2	---	---	Glasgow . . .	29	- 8	.1	0	Beaumont . . .	67	+ 2	1.0	+ .3
Daytona Beach . . .	65	- 4	.2	---	Great Falls . . .	24	-17	.8	+ .7	Brownsville . . .	75	+ 3	T	-.6
Ft. Myers . . .	75	+ 2	T	-.5	Havre . . .	29	- 9	.2	0	Corpus Christi . . .	74	+ 5	.1	-.4
Jacksonville . . .	61	- 5	T	-.8	Helena . . .	27	-11	.6	+ .4	Dallas . . .	---	---	---	---
Key West . . .	79	+ 2	T	-1.1	Kalispell . . .	32	- 5	-.3	0	Del Rio . . .	68	+ 3	.6	+ .3
Lakeland . . .	68	- 2	1.9	+1.4	Miles City . . .	30	-11	T	-.1	El Paso . . .	62	+ 5	0	-.1
Miami . . .	76	0	.5	-.4	Missoula . . .	30	-7	.4	+ .2	Fort Worth . . .	60	- 1	2.5	+2.0
Orlando . . .	68	- 2	.8	+ .3	NEBR. Grand Island .	40	- 5	T	-.2	Galveston . . .	72	+ 4	1.5	+ .8
Tallahassee . . .	59	- 5	1.2	+ .8	Lincoln . . .	41	- 8	0	-.3	Houston . . .	68	+ 4	1.2	+ .3
Tampa . . .	68	- 3	1.8	+1.5	Norfolk . . .	38	- 7	.1	-.1	Lubbock . . .	57	+ 3	T	-.3
W. Palm Beach . . .	75	0	0	---	N. Platte . . .	37	- 6	.1	0	Midland . . .	61	+ 2	T	-.3
GA. Atlanta . . .	55	- 1	.2	-.4	Omaha . . .	40	- 6	T	-.3	San Angelo . . .	64	+ 3	T	-.3
Augusta . . .	56	- 3	.1	-.3	Valentine . . .	34	- 7	.5	+ .4	San Antonio . . .	68	+ 3	.6	+ .1
Macon . . .	59	- 1	.3	-.1	NEV. Ely . . .	33	- 6	.3	+ .2	Victoria . . .	73	+ 6	.7	+ .2
Savannah . . .	60	- 2	.1	-.4	Las Vegas . . .	60	+ 1	0	-.1	Waco . . .	64	+ 1	1.5	+ .9
HAWAII. Hilo . . .	77	+ 3	1.2	-1.3	Reno . . .	40	- 3	0	-.1	Wichita Falls . . .	58	- 1	T	-.5
Honolulu . . .	77	0	.6	+ .1	Winnemucca . . .	36	- 5	T	-.2	UTAH. Blanding . . .	46	+ 1	0	-.2
Kahului . . .	76	0	0	-.3	N.H. Concord . . .	45	+ 2	2.1	+1.5	Salt Lake City . . .	42	- 2	.7	+ .4
Lihue . . .	76	0	.1	-1.1	N.J. Atlantic City . .	52	+ 1	2.1	+1.4	VT. Burlington . . .	47	+ 5	.8	+ .1
IDAHO. Boise . . .	40	- 5	.1	-.2	Trenton . . .	53	+ 2	3.4	+2.7	VA. Lynchburg . . .	53	0	1.0	+ .4
Lewiston . . .	39	- 6	1.4	+1.1	N.MEX. Albuquerque . .	52	+ 2	T	-.2	Norfolk . . .	57	0	.4	-.3
Pocatello . . .	33	- 9	.6	+ .3	Roswell . . .	57	+ 5	0	-.2	Richmond . . .	56	+ 2	1.3	+ .6
ILL. Cairo . . .	53	- 2	.8	+ .1	N.Y. Albany . . .	48	+ 3	1.7	+1.1	Roanoke . . .	53	0	.7	0
Chicago . . .	44	- 3	.9	+ .2	Binghamton . . .	43	- 1	1.6	+ .9	WASH. Colville . . .	35	- 4	.4	-.1
Moline . . .	42	- 5	.5	0	Buffalo . . .	45	0	1.8	+1.2	Omak . . .	35	- 6	.2	-.1
Peoria . . .	43	- 4	1.0	+ .4	New York . . .	54	+ 2	3.0	+2.3	Quillayute . . .	40	- 7	1.8	-1.0
Rockford . . .	43	- 2	.6	0	Rochester . . .	48	+ 2	.9	+ .3	Seattle-Tacoma . . .	44	- 4	.9	-.2
Springfield . . .	45	- 5	.7	+ .1	Syracuse . . .	46	0	1.5	+ .8	Spokane . . .	34	- 7	.8	+ .4
IND. Evansville . . .	50	- 2	.7	+ .1	N.C. Asheville . . .	50	- 2	.3	-.3	Walla Walla . . .	41	- 7	1.3	+ .9
Ft. Wayne . . .	45	- 1	1.3	+ .7	Charlotte . . .	55	- 1	.2	-.4	Yakima . . .	36	- 7	1.0	+ .8
Indianapolis . . .	45	- 3	1.0	+ .4	Greensboro . . .	53	0	.6	0	W. Va. Beckley . . .	45	- 2	1.8	+1.2
South Bend . . .	45	- 1	.8	+ .1	Hatteras . . .	62	+ 1	1.0	+ .1	Charleston . . .	47	- 4	.2	-.4
IOWA. Burlington . . .	43	- 5	.6	+ .1	Raleigh . . .	57	+ 2	.6	+ .1	Huntington . . .	50	- 2	1.4	+1.0
Des Moines . . .	42	- 4	T	-.4	Wilmington . . .	62	+ 2	.5	-.1	Parkersburg . . .	48	- 3	2.1	+1.7
Dubuque . . .	40	- 3	.2	-.4	N. DAK. Bismarck . . .	31	- 7	.1	0	WIS. Green Bay . . .	40	- 1	.5	+ .1
Sioux City . . .	40	- 5	.1	-.2	Fargo . . .	32	- 6	T	-.2	La Crosse . . .	41	- 1	T	-.5
KANS. Concordia . . .	42	- 7	T	-.3	Williston . . .	27	-10	.2	+ .1	Madison . . .	41	- 1	.2	-.2
Dodge City . . .	46	- 4	T	-.3	OHIO. Akron-Canton . .	48	+ 2	1.6	+1.1	Milwaukee . . .	42	- 1	.7	+ .2
Goodland . . .	39	- 5	.1	-.1	Cincinnati . . .	46	- 3	1.0	+ .6	WYO. Casper . . .	26	-15	.7	+ .5
Topeka . . .	45	- 5	0	-.4	Cleveland . . .	48	+ 1	1.8	+1.2	Cheyenne . . .	32	- 8	1.2	+1.1
Wichita . . .	45	- 8	T	-.5	Columbus . . .	47	- 1	1.6	+1.1	Lander . . .	28	-11	.9	+ .6
KY. Lexington . . .	48	- 3	.9	+ .4	Dayton . . .	45	- 4	1.3	+ .9	Sheridan . . .	26	-15	1.1	+ .9
Louisville . . .	49	- 2	.8	+ .2	Toledo . . .	45	0	1.0	+ .5	P.R. San Juan . . .	85	+ 5	.4	-.8

## 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:** Cold air settled deep into State early week. Locally cold temperatures with heavy frost over southeast portions Tuesday morning--upper 20° readings reported in Luverne and Pittsview. Cloudy with light rain Wednesday, subnormal temperatures lasted until early Friday. Fair weather into weekend, temperatures climbed well above normal. Rain Sunday night followed by cooler temperatures Monday.

Scattered showers slowed harvest early in period, but provided moisture for planting fall crops. Cotton harvest about 45% complete, 60% 1972, 5-year average nearly 70%. About 40% of Tennessee Valley crop harvested, 60% 1972. Harvest of corn for grain 67% complete, 65% 1972, 66% for 5-year average. About 45% expected soybean production combined, 50% 1972 and 5-year average. Seeding small grains made fair progress where moisture conditions favorable. About 60% expected acreage in ground. Additional acreage will be seeded as harvest of major crops completed.

**ARIZONA:** Cold front across State early in week, gusty winds and 10° to 15° cooler. Light showers, rain, snow over northeast on 30th. Moist air spread into State from southwest on 3rd with scattered light showers central and southeast Saturday night, early Sunday. Some areas White Mountains received more than 0.25 in. precipitation, otherwise reported amounts less than 0.10 in. Gusty winds northwest on 3rd. Temperatures slightly subnormal northwest, near or slightly above elsewhere. Minimums below freezing in 4,000 ft. valleys Wednesday morning. Warming trend remainder of week.

Cotton harvest rapid with weather favorable. Sorghum harvest southeast area full swing, Salt River Valley slower, crop not ready. Harvest slowing Yuma County, late crop not yet ready. Fall sugar beet harvest, Cochise County steady. Spring sugar beets Yuma, Maricopa Counties good plant development. Alfalfa seed harvest practically completed Yuma. Alfalfa hay harvest limited. New, renovated plantings satisfactory advancement. Lettuce harvest continued central, southeast. Harvest just beginning Yuma area. Thinning later plantings active. Harvest mixed vegetables continued central areas. Red chili pepper harvest active Cochise County.

Cantaloupes fall harvest Yuma area expected next week. Harvest cantaloupes, honeydews continued central areas. Lemon picking continued active Yuma, Salt River Valley. First grapefruit harvest began last week Yuma. Limited grapefruit, Navel orange picking expected next week central areas. Groves, fruit quality generally good. Ranges fair to poor. Virtually no precipitation on ranges 2 to 3 months. Grasses dry, not much new feed growing. Supplemental feeding necessary some areas. Stock water drying up. Hauling water underway, some areas. Cattle, calves good, result of good spring. Sheep, lambs good to fair. Fall lambing active.

**ARKANSAS:** Above normal precipitation southeast half with heaviest amounts of 3.55 in. at Camden and 3.24 in. at El Dorado. Precipitation tapered to less than 1.00 in. extreme northwest. Tempera-

tures ranged from 2° subnormal at Gilbert to 4° above at Texarkana. Mean temperatures ranged from 52° at Mountain Home to 64° at Texarkana. Warmest 80° at El Dorado and Gilbert on November 2. Coolest 30° at Calico Rock October 30 and Gilbert 1st.

Showers limited harvest. Some progress but dry weather needed. Cotton ginning nearly caught up with picking. Cotton 61% picked, same as 1972, 5-year average 59%. Crop fair to good condition. Rice crop 97% cut, yields good. Soybean condition good, 32% combined, same as 1972, 5-year average 39%. Yields above earlier expectations. Wheat and oat planting continued, stands look good. Corn and sorghum harvest progressed. Okra markets closing. Peanut harvest complete. Cutting greens commenced. Pastures adequate. Livestock good condition and gaining.

**CALIFORNIA:** Limited light precipitation north mountains and north coast Sunday and again Wednesday through Friday. Temperatures in those areas averaged slightly subnormal. Remainder of State had generally fair, warm weather. Warm, dry offshore winds along south coast early week raised afternoon temperatures into 90's. Cooler air moved into State late in week.

Small grain planting continued, earlier plantings good growth. Rice, sorghum, dry bean harvest increased. Rice harvest nearing completion. Most dry beans threshed. Sugar beet planting increased central areas. Cotton harvest continued, a few fields second picking. Rank cotton causing defoliation problems. Some alfalfa still being cut. Table and wine grape harvest neared completion. Farmers working vineyards where harvest complete. Walnut and almond harvest nearly done. Apple picking complete except few orchards. Pruning and winter cultural activities increased most deciduous orchards. Pomegranate, persimmon, and olive harvests continued. Avocado harvest increased. Lemon harvest increased. Scarred fruit causing diversion to processing. Navel orange harvest increased as color improved. Some tangerines packed. Desert grapefruit harvest to begin next week.

Artichoke continued, some plume moth damage. Broccoli, cauliflower continued Salinas, good volume Santa Maria. Brussels sprouts normal. Cantaloupes continued Imperial. Carrots moderate Salinas, Santa Maria. Celery heavy central coast, beginning south coast. Sweet corn continued Kern County. Lettuce past peak San Joaquin, Salinas virtually complete. Light bell peppers Salinas, Santa Maria, San Joaquin. Tulelake potatoes virtually complete, favorable grade-out. Sweet potato harvest active Livingston. Market tomatoes slow San Joaquin, heavy San Diego, northern, central State. October rains started new grass growth on pastures, rangelands. More rains needed to sustain young grass. Sheep pastured on alfalfa, stubble fields. Fall calving all districts. Lambing active with ewes, lambs good condition. Supplemental feeding continues many areas. Springs, creeks started flowing, water supplies replenished. Central valley turkey growers moved mature turkeys to processors. Milk, egg production seasonal levels. Bee keepers prepared colonies for overwintering.

**COLORADO:** A major storm late in week dumped heavy

snow on much of the north and central mountains. Heavy snow also reported along eastern foothills north of Denver to Wyoming line. Craig in northwest had 23 in. on ground on 4th and Fort Collins had over 15 in. on ground that day. Precipitation late in period accompanied by a strong outbreak of polar air bringing unseasonably cold weather to much of north and east. Temperatures averaged 2° to 4° above normal southwest and southcentral and 1° to 6° subnormal north and east. One of lowest temperatures was 5° at Maybell early on 30th, highest was 80° at La Junta on November 1.

Several days active harvest early week, then high winds and winter weather interrupted activities. Corn grain and grain sorghum harvest lags behind 5-year average. Corn grain harvest 36% complete, 25% last week and 40% 5-year average. Grain sorghum 97% ripe and 43% harvested, week ago 22% combined, 5-year average 55% harvested. Sugar beet digging progressed well, 86% finished. Wheat excellent. Ranges and pastures remain good.

**FLORIDA:** Frost and freezing temperatures North on 29th. Temperatures near to slightly subnormal. Severe weather Wednesday and Thursday. Rainfall light to locally heavy. Dry soils persist over most of State though scattered showers brought some relief in isolated areas.

Harvesting of soybeans and cotton progressed rapidly as farmers took advantage of open weather. Soybean yields variable. Pecan harvest underway. Sugarcane good condition. Seeding of small grains further delayed by dry conditions. Some grains up to poor stands. Pasture conditions mostly poor to fair, some very poor. Cattle and calves good. Citrus tree condition very good. Rain needed -- irrigation all areas -- some leaf curl -- no new growth showing. Sweet corn in good supply, cucumbers and snap beans moderate. Tomatoes, peppers, leafy crops light, increasing. Squash, radish volume seasonally good. Eggplant movement fair. Cabbage, celery have made first loadings.

**GEORGIA:** Temperatures 1° to 3° subnormal over entire State. Moderate rains 0.50 to 1.00 in. north and south while light rains 0.25 to 0.50 in. central. Fair, warm weather over weekend.

Showers relieved soil moisture shortages much of north, scattered areas elsewhere. Many sections still dry. Cotton, corn, soybean harvest advanced rapidly where weather permitted. Practically all peanuts in. Showers helped small grains -- planting continued. Pecan harvest gained momentum.

**HAWAII:** Scattered, light to heavy showers favored crop progress. Weather becoming cooler -- slowing crop maturity in higher elevations. Heavy supply of bananas and papayas. Certain leafy vegetables in light supply. Pastures in windward and higher elevations improving due to good moisture. Leeward pastures dry -- need rain. Supplemental feeding necessary. Cattle fair to good -- marketing good. Sugar harvest complete some plantations. Pineapple harvest mainly for fresh fruit market.

**IDAHO:** First taste of winter. A cold front first of week lowered temperatures and brought rain, winds, and snow to north, upper Snake River Valleys and east. Moved southward to cover most of State by midweek. Unsettled weather continued during week with lows in 20's and teens by end of period. Snow at higher elevations reported generally statewide with about 10 in. reported on ground in central mountains.

Potato harvest completed except scattered fields southcentral and southwest. Sugar beet harvest full swing southcentral and southwest, neared completion east. Apple picking closing stage. Fall plowing,

some late seeding of fall grain continued. Live-stock on winter pastures, some supplemental feeding cattle. Lamb crop being marketed.

**ILLINOIS:** Temperatures 2° to 5° subnormal. Precipitation in excess of 1.00 in. most of State first of week. Corn harvest nearly 60% complete, 37% 1972, 1970-72 average 65%. Rains not heavy enough to halt fieldwork. Soybean harvest slowly neared completion as rains limited activity. Harvest virtually complete, 78% 1972, average 85%. Grain sorghum about 50% harvested.

Winter wheat seeding virtually complete versus 90% both last year and average. Rains benefited new wheat seedings. Fall plowing 1974 corn and soybean acreage about 30% complete, 23% 1972, average 30%. Rains delayed activity. Pastures excellent 22%, good 58%, fair 18%, poor 2%. Soil moisture short 1%, adequate 75%, surplus 24%. Nearly 4 days suitable for fieldwork. Main activities: Harvesting corn and soybeans, fall plowing, applying fertilizer.

**INDIANA:** Temperatures 1° to 4° subnormal. First major frost of fall season. Rainfall on 3 days, totaling near 1.00 in. uniformly distributed over State. Less than 3 days suitable for fieldwork. Higher than usual humidity and cloudiness slowed drying while rains hampered other field activities. Topsoil moisture mostly adequate to surplus; subsoil moisture adequate to short. Corn 55% harvested, 45% average, 25% in 1972. Soybeans 90% combined, 80% average, 50% in 1972. Wheat 95% seeded, 65% last year. Wheat 80% emerged, stands improved, rated good to excellent. Plowing for 1974 intended crop acreage 20% complete. Pastures improved, rated mostly fair.

**IOWA:** Temperatures averaged 5° subnormal breaking 5 weeks of above normal. Statewide hard freeze morning of November 5th with lows in teens north. Season's first snowflakes fell on November 1 north and on morning of 4th Sioux City had 1 in. on the ground. Other scattered showers during week only managed to total about 0.30 in. subnormal.

Good harvesting weather, 6 days for fieldwork. Soybeans 97% harvested, 79% 1972, normal 84%. Harvest least advanced southeast where 93% soybeans out, most advanced northcentral at 99%. Corn crop 45% harvested, 29% 1972, 5-year average 47%. Corn harvest least advanced southcentral with 38% complete, most advanced northwest and northeast with 48% complete. Winter wheat 85% planted, usually completed by this date. Grain sorghum 74% harvested, average 67%. Popcorn 75% harvested. Fall plowing 22% completed. Motor fuel supplies 94% of normal available for current farm work. Topsoil moisture 5% short, 91% adequate, 4% surplus. Subsoil moisture 1% short, 85% adequate, 14% surplus.

**KANSAS:** Dry, cooler than normal. Temperatures 3° to 6° subnormal, largest departures central counties. Generally only traces of moisture except few hundredths Sunday as freezing drizzle and snow west. Some glazing extreme northwest.

Fall row crop harvest active. Winter wheat planting 90% complete, with most unplanted acreage in east. Grain sorghum acreage 60% harvested, 45% 1972, average 70%. Quality below normal due to excessive September and October moisture. Corn for grain 40% harvested, 65% 1972 and average. Soybean harvest 60% complete, 65% 1972, average 80%. Sugar beet harvest made good progress. Cattle moving to feedlots, crop residue, or volunteer wheat. Early seeded wheat providing some grazing.

**KENTUCKY:** Rain and cool, cloudy weather slowed corn and soybean harvests; however, higher humidity

NOVEMBER 4 HARVESTING PROGRESS  
IN MAJOR PRODUCING STATES



PERCENT OF ACREAGE HARVESTED

SOYBEANS

	Average	1972	1973
Ohio	80	50	90
Ind.	80	50	90
Ill.	85	78	98
Mich.	64	46	87
Minn.	81	88	98
Iowa	84	79	97
Mo.	63	53	65
Nebr.	90	80	95
Kans.	80	65	60
N. C.	18	8	31
S. C.	6	16	22
Ga. 1/	--	--	--
Ky.	65	56	72
Tenn.	45	20	33
Ala.	50	50	45
Miss.	49	45	49
Ark.	39	32	32
La.	60	55	45

1/ Not available.  
These 18 States produced 96% of the Nation's soybeans in 1972.

SORGHUM GRAIN

	Average	1972	1973
Mo.	61	60	64
S. Dak.	88	53	76
Nebr.	70	50	95
Kans.	70	45	60
Okla.	63	45	50
Texas	76	73	88
Colo.	55	8	43

These 7 States produced 90% of the Nation's sorghum grain in 1972.

CORN

	Average	1972	1973
Ohio	60	25	60
Ind.	45	25	55
Ill.	65	37	60
Mich.	48	21	67
Wisc.	45	30	66
Minn.	52	60	74
Iowa	47	29	45
Mo.	54	54	43
S. Dak.	70	50	70
Nebr.	50	35	45
Kans.	65	65	40
N. C.	70	84	91
Ga. 1/	--	--	--
Ky.	73	60	75

1/ Not available.  
These 14 States produced 91% of the Nation's corn in 1972.

COTTON

	Average	1972	1973
N. C.	52	35	64
S. C.	74	63	70
Ga. 1/	--	--	--
Tenn.	53	55	55
Ala.	70	60	45
Mo.	63	47	61
Miss.	64	76	62
Ark.	59	61	61
La.	55	60	35
Okla.	15	26	7
Texas	30	33	27

1/ Not available.  
These 11 States produced 81% of the Nation's cotton in 1972.

aided tobacco stripping. Corn harvest 75% complete, 60% 1972, 73% average. Soybean harvest 72% complete, 56% 1972, 65% average. A week of favorable weather would allow most farmers to finish harvesting corn and soybeans. Most areas west and many areas throughout central State have not had killing freeze. Freeze would kill weeds in late beans and make for easier harvesting. Burley tobacco 17% stripped, 25% 1972. Wheat 81% seeded, much of early wheat emerged. Recent rains beneficial to small grain and pastures.

**LOUISIANA:** Cool to mild with rain Tuesday and heavy thundershowers late Sunday and Monday morning. Weekly temperatures near normal on coast, 2° to 6° above normal elsewhere. Extremes: 85° Lake Charles and Lafayette Saturday and 34° Ashland and Clinton Tuesday. Weekly precipitation 1.00 to 5.00 in. Greatest 1-day total reported 5.63 in. at Clinton Monday a.m.

Farmers made good progress harvesting crops in spite of showers Tuesday. General rains Sunday and early Monday will halt harvest operations. Soil moisture adequate to surplus. Fieldwork averaged 4.9 days. Cotton harvest good progress, over 35% picked, 60% 1972, 55% average. Some parishes have problems with boll rot. Soybeans harvest active as weather permitted, 45% combined, 55% 1972, 60% average. Yields good most areas.

Sweet potato digging near 90%, a week later than 1972, yields and quality good most areas. Sugarcane harvest steady progress, 20% delivered to mills, 30% 1972, 25% in 1971. Few fields of corn, rice, sorghum grain, and hay remain for harvest. Small grain seeding made some progress, 80% of oats and 75% wheat sown. Crop damaged by armyworms most areas. Pecan harvest continued, good yields most areas. Cultivated winter vegetables. Shallots and cabbage planting active New Orleans area. Pastures supplying average forage. Calving continued. Livestock good.

**MARYLAND - DELAWARE:** Temperatures near normal except 4° above normal northcentral and eastern shore areas of Maryland and northern Delaware. Precipitation throughout two States, totals 1.00 in. to 3.00 in. except for local storms on 29th and 30th amounts of 4.50 to 6.00 in. at few locations. Corn and soybean harvest interrupted by showers but some progress made. Harvest nearly complete south and well along elsewhere. Grain crops and pastures growing. Some freezing temperatures reported Sunday morning.

**MICHIGAN:** Temperatures near to slightly above normal early week falling to below normal late in week. Precipitation averaged 0.40 to near 1.00 in. falling mainly Monday through Friday. Light snow occasionally mixed with rain at times over upper most of week and over northern lower over weekend. Frequent rain and wet fields slowed fall harvest. Fieldwork averaged 3.0 days. Soil moisture adequate to surplus. Corn 67% harvested, average 48%. Soybeans 87% harvested, average 64%. Sugar beets 81% harvested. Fall potato harvest nearly finished. Rains aided growth of late planted wheat. Pasture feed supplies average. Much fall plowing accomplished. Rainy weather delayed finish of apple harvest in some orchards. Harvest of cabbage, carrots, and cauliflower neared completion.

**MINNESOTA:** Cold, dry week. Temperatures normal beginning, ending up 5° to 8° subnormal. A hard freeze with minimum temperatures 25° or colder settled over all of State on 4th. Precipitation totals generally less than 0.05 in., third consecutive week with little or no precipitation.

Some snow north and central districts on 1st and 2nd but accumulations less than one-half inch or only traces.

Rapid harvest fall crops continued as field conditions remained favorable. Soybeans 98% combined, average moisture content 12 percent; 5-year average 81% combined and 15% moisture; 1972 88% harvested, moisture content 15%. Corn picking and combining 74% completed, moisture content 20%; 5-year average harvest progress 52%, moisture 25%; 1972 60% harvested, 26% moisture. Potato digging and sunflower combining about completed. More than 67% harvested soybeans fields and 40% corn land plowed. Soil moisture adequate except surplus in a few northwest and southeast localities.

**MISSISSIPPI:** Near normal temperatures. Many places received moderate to heavy rainfall October 27 and/or the 31st. First light frost of season in few northern counties on one or more weekday mornings. Temperature extremes ranged from 89° to 31°. Severe thunderstorm activity during weekend brought some hail and damaging winds to central State late Sunday, mainly northeast Hinds County.

Soil moisture supplies mostly adequate north, adequate to surplus central portion, and short to adequate south. Fieldwork averaged 3.8 days. Cotton harvest 62% complete, 76% in 1972, 64% normal. Soybeans 49% harvested, 35% previous week, 45% in 1972, 49% normally. Harvest of other crops: corn 74%, sorghum 89%, rice 97%, hay 97%, sweet potatoes 83%. Planting of wheat 74% complete and oats 86% planted. Field crops fair to good. Pastures fair to good. Livestock mostly good.

**MISSOURI:** Southern half averaged about 1.50 in. rain, while northern half averaged between 0.33 to 0.50 in. Temperatures averaged within a few degrees of normal. About 4 days suitable for fieldwork. Soybeans 65% harvested, 53% 1972, 63% 1968-72 average. Corn 43% harvested, 54% 1972, 54% 1968-72 average. Cotton 61% harvested, 47% 1972, 63% 1968-72 average. Grain sorghum 64% harvested; 60% 1972, 61% 1968-72 average. Intended fall seeding now 68% complete, 56% last week and 73% last year. Intended fall plowing 28% complete, 30% 1972. Soil moisture supplies generally adequate to surplus. Pasture condition 10% fair, 74% good, 16% excellent.

**MONTANA:** Temperatures turning cold with some heavy precipitation as another fall storm hits. High temperatures fell to teens and 20's by end of week. Low below zero western, southwest and central. All divisions received above normal precipitation except northeast and southeast. Precipitation fell mostly as snow, ranged from 0.07 in. northeast division to 1.75 in. west division. Snow and cold weather accelerated livestock movement to winter locations. Supplemental feeding started most districts. Harvest of potatoes and sugar beets virtually complete. Fall fieldwork at standstill.

**NEBRASKA:** Temperatures 5° to 11° subnormal. Up to 12 in. snow. Mostly 1 to 5 in. northwest over weekend. Soil moisture supplies declined. Topsoil 8% surplus, 90% adequate, 2% short. Subsoil 10% surplus, 90% adequate. Fieldwork: 7 days. Good drying and harvesting weather 3 straight weeks resulted in near completion fall harvesting except corn. Corn behind normal as farmers allowing crop to dry down in field to conserve drying fuel. Corn 45% harvested, 35% 1972, 50% average; 21% moisture, 22% last week and 1972. Sorghum 95% harvested, 50% 1972, 70% average; 15% moisture, 16% last week, 18% 1972. Shortages of storage and

grain cars with record crops and rapid harvest resulting in considerable quantities sorghum being piled on ground. Soybeans 95% harvested, 80% 1972, 90% average; 13% moisture, same week ago, 15% 1972. Wheat declined, 52% good, 28% fair, 20% poor. Late plantings need more growth before winter. Sugar beet harvest almost completed. Range and pasture 78% above average, 17% average, 5% below average. Cattle being moved into harvested fields.

NEVADA: Temperatures ranged from 82° at Las Vegas to 2° at Ely. Owyhee had 2 in. of snow on ground November 4. Ely had greatest precipitation with 0.34 in. None reported south. Seeding winter grains 90% complete. Potato harvest 95% complete. In southern valleys final cutting of alfalfa neared completion as cotton harvest got underway with 85% bolls open. Livestock good. Movement of sheep to winter ranges virtually complete, cattle 75% complete.

NEW ENGLAND: Copious precipitation amounts of from 2.00 to 5.00 in. fell early in week as two vigorous storms raked the area with high winds and rain. A cold front just after midweek produced another 0.50 to 1.00 in. most sections while scattered showers and snow flurries accounted for a few more hundredths of an inch west and north sections later in week. Temperatures started out relatively mild with high readings in 50's and 60's. A cooling trend set in by midweek, however, which carried through right into weekend. Strong gusty winds persistent entire week.

NEW JERSEY: Mild, wet week. Temperatures normal to 5° above normal. Extremes: Low 70's Friday afternoon to low 30's Monday morning. Heavy rain covered State Monday into Tuesday. Greatest 24-hour total 5.80 in. at Freehold. Light showers continued into Wednesday and Thursday but amounts were mostly under 0.25 in. Harvest of hardy vegetables rapidly nearing completion. Sweet potato harvest 80% to 90% complete. Scattered apple harvest continued. Cranberry harvest complete. Field corn and soybean harvest well advanced. Soil moisture adequate for fall sown grains and cover crops.

NEW MEXICO: Warmest first half of week with cooling trend last half. Much colder northeast corner over weekend with high at Clayton on Sunday only 43°. Some mountain area minimums in middle and lower teens. Very light showers and snow flurries central part Tuesday and over most of north on Sunday. Only negligible amount of precipitation. Light killing freeze statewide. Grain sorghum, cotton, peanuts, broomcorn harvest continued, crops good condition. Winter wheat, barley stands good, need moisture. Alfalfa good, cutting final stage. Light fifth clip north, sixth clip south. Apple harvest neared completion. Lettuce harvest 80% complete. Pecan hulls opening, light drop. Other crops satisfactory. Ranges fair. Livestock good.

NEW YORK: Much needed rain fell over entire State first part of week easing, to a large extent, threat of brush and forest fires in mountains. By midweek another rapidly moving storm moved across State, again resulted in good soaking for most sections. Heaviest rainfall amounts lower Hudson Valley, the Catskills and greater metropolitan New York City where over 3.00 in. rain fell. Elsewhere 1.00 to 1.50 in. rain recorded except northeast section where less than 1.00 in. rain fell for weekly total. All stations in State reported above normal rainfall for week. Average weekly temperatures above normal most

sections and remained so until weekend when cooler air advanced across State sending temperatures down to more normal readings. No record breaking temperatures.

NORTH CAROLINA: Rainfall varied from 0.50 to 1.50 in. as all areas received precipitation early week but by week's end some areas were again short of soil moisture. Soil moisture 58% short to very short. Began and ended with daytime temperatures above normal, however midweek temperatures subnormal. Fieldwork averaged 4.0 days.

Corn harvest clean-up stages coastal plains, statewide 91% harvested, 84% 1972, 70% 10-year average. Peanut harvest over. Cotton picking 64% complete, 35% 1972, 52% 10-year average. Cotton gins swamped, most running two shifts per day, some operating 24 hours a day. Soybean harvest 31% complete, 8% 1972, 18% 10-year average. Sorghum grain harvest 80% complete, well ahead of 1972. Lespedeza seed 50% harvested. Small grains 53% seeded, behind normal. Growing small grains fair to good shape.

NORTH DAKOTA: Temperatures ranged from afternoon highs of 60° at Williston and Beulah early in week to early morning lows of 6° below at Williston over weekend. Other portions of State also cooled early week, in 60's to minimums over weekend as low as 6° to 10° above. Overall temperature averages, however, ranged from 3° above normal extreme northwest to 3° subnormal extreme southeast prior to weekend cooling. Precipitation near normal over extreme west, one-third above normal northcentral. Central, southcentral and extreme west precipitation efficient, ranging from 25% to 50%.

Good progress corn picking and combining sunflowers during week. Less artificial drying necessary than last 2 years. Cooler temperatures stopped vegetative growth but grasses and regrowth in stubble furnishing good feed to livestock.

OHIO: Rain 29th, 30th, and 31st. Windy from 29th through 1st. Frontal system produced showers most sections 2nd. Clear to partly cloudy, afterwards. Weekly temperatures averaged near or slightly subnormal. Freezing temperatures reported from most sections 4th.

Gentle rains slowed rate row crop harvest, but provided needed moisture for winter wheat crop. Reporters indicate germination, growth should improve in previously dry areas.

Corn 60% harvested, about normal for date, 25% in 1972. Soybeans 90% combined, 1972 50%, normal 80%. Harvest completeness ranged up to 95% in northwest. Sugar beets 85% lifted, normal, 60%. Winter wheat seeding nearing completion. Soil moisture 32% surplus, 61% adequate, 7% short.

OKLAHOMA: Temperatures 1° to 3° subnormal. Precipitation averages ranged from none panhandle and a trace westcentral to 1.93 in. southeast. Weekend cool with drizzle most areas except southeast received moderate rain.

Wheat acreage 97% seeded, 95% 1972. Oats 91% seeded, 100% 1972. Barley 94% planted, 100% 1972. Sorghums 99% mature, 50% harvested; 1972 45% harvested, 63% average. Cotton 89% bolls open, 7% harvested; in 1972 100% bolls open, 26% harvested; average 15% harvested. Peanuts 64% threshed, 100% mature. Pecans beginning to fall. Livestock good. Pastures and ranges remained good for season.

OREGON: Temperatures cooled during week. Highs in 60's, lower 70's first of week. Lows in 30's west. In teens and 20's east of Cascades late week. Precipitation reported statewide with

heaviest amounts north. Along coast Cloverdale reported 2.96 in. Rainfall Willamette Valley ranged from 0.50 Portland to 0.95 Eugene. East of Cascades, Parkdale reported 1.90, Hood River 1.16, Heppner 1.06 in. for heaviest amounts.

Rain slowed or stopped fieldwork, snow ended the week. Time to go hunting. Fall seeding neared completion, stands good. Fertilizing where supplies available. Apple harvest completed. Filbert, walnut harvest 90% completed. Cranberries active. Potato digging continued most areas. Harvest of broccoli, cauliflower, carrots, cabbage, squash continued. Some equipment hard to purchase. Pastures, ranges greening.

**PENNSYLVANIA:** After a Monday storm, when 1.00 to 3.00 in. rainfall ended October dryness, unsettled conditions with light rain extended through Wednesday. Clearing, very breezy and cool Thursday; sunny and warm Friday with high temperatures reaching 60's to mid-70's. Sunny with northerly breezes Sunday, clouding up Sunday night with light showers and weekly low readings in 20's and 30's Monday morning. Temperatures near normal through week--coolest since May. Greatest weekly rainfall since early July.

Farmers picked corn. Crop one-half to three-fourths harvested. Mild temperatures and lack of a general freeze have allowed late-season pasture and hay growth and pleasant conditions for fieldwork.

**PUERTO RICO:** A dry warm week. It rained little or not at all north and central zones and a few heavier showers fell extreme west. Rainfall averaged 0.70 in. or 0.87 in. subnormal. Highest weekly total 2.93 in. west zone. Crop moisture conditions generally too dry north and parts of central interior, otherwise near normal all other zones. Temperatures averaged 80° on coast and 74° interior. Highest 95°, lowest 57°.

Young sugarcane developing well all zones except northcentral where too dry for good ratoon development. Coffee harvesting operations progressed well in favorable weather. Preparation of tobacco seedbeds and seeding operations continued good progress all zones. Pasture zones seeding and fertilizing but newly seeded zones need more rain for optimum development. Minor crops generally in good condition all zones except north and central where more rain needed.

**SOUTH CAROLINA:** Temperatures early week subnormal, normal or above near end of week. Greatest departures south and central. Rainfall for week near normal most areas although somewhat below south and east. Showers Sunday and again near midweek. Cold weather front passed Sunday followed by second moving cold front Wednesday. Moisture adequate northwest to short and very short elsewhere.

Cotton 70% harvested, 63% 1972, 5-year average 74%. Corn 91% harvested, 87% 1972. Soybeans 82% mature, 22% harvested, 16% harvested 1972, 5-year average 6%. Pastures fair. Winter grazing 56% emerged, 78% planted, 86% 1972. Wheat and oats fair. Wheat 26% planted, 28% planted 1972; 18% emerged. Oats 39% planted, 36% planted 1972, 25% emerged. Fall vegetables poor to fair. Snap beans, some cucumbers, some squash harvested.

**SOUTH DAKOTA:** Mild weather first of week, highs in 50's and 60's but cold by late week, highs in upper teens west to low 30's east. Lows generally in teens to low 20's. Temperatures 4° to 10° subnormal for week. Precipitation generally light, except southwest and southcentral where 3 to 8 inches of snow fell.

Harvest of row crops continued but wetness

delayed it in some areas. Corn 70% harvested, about equal to normal, 20 points ahead of 1972. Sorghum for grain 76% harvested, 1972 53%, normal 88%. Soybeans 90% harvested, 84% 1972. Fall seeded grains generally good to excellent. Most areas reported adequate feed supplies with livestock grazing stubble fields. Calf marketings beginning to pick up.

**TENNESSEE:** Average weekly rainfall 1.00 to 2.00 in. with all sections reporting precipitation. Temperatures about 2° above normal. Soybean harvest 33% complete, average 45%, normal 20%. Most soybeans mature despite late planting. Corn harvest 60% complete, above last year but below normal. Cotton 55% picked, same as 1972, slightly above average. Over 90% bolls open, poor yields reported. Burley tobacco 45% stripped, considerably less than 1972 but about average. Wheat 75% seeded, 70% 1972 and average. Oats and barley 90% seeded, normal for date. Germination good. Most fields made rapid growth during week.

**TEXAS:** Temperatures averaged 1° above normal northwest to about 9° above normal southwest east of the Pecos. Much west remained dry with subnormal rainfall extending into south Texas. Rainfall increased eastward, averaged as much as 1.00 and 2.00 in. above normal east Texas. Heavy rains northeast Texas Sunday morning. Maud and New Boston reported 6-hour totals of 3.46 and 3.50 in. Other heavy rains southeast Sunday totaled as much as 4.05 in. at Rockland.

Rain south half reduced planting and harvest activity. Adequate to surplus moisture south half delaying harvest cotton and seeding of wheat and oats. High plains moisture short, dry land wheat developing slowly. Harvest cotton, corn and sorghum good to excellent progress high and low plains. Major crops percent planted: Wheat 94, 1972 92; Oat 88, 1972 89; major crops percent harvested: Cotton 27, 1972 33, 5-year average 30; corn 96, 1972 97, 5-year average 30; sorghum 88, 1972 73, 5-year average 76; soybeans 36, 1972 41; peanuts 76, 1972 81; rice 98, 1972 100.

Lower Rio Grande Valley: Light cabbage harvest underway. Cucumber and pepper picking continued. Laredo: Tomatoes made good progress. Coastal Bend: Harvest of cucumbers and squash continued. San Antonio-Winter Garden: Cabbage harvest progressed. Carrot, cabbage, and onion planting continued active. East Texas: Rains delayed completion of digging. Trans-Pecos: Tomato harvest continued active Dell City. High Plains: Some late lettuce still being harvested. Also, light supplies of carrots, peppers, and tomatoes remain available. Pecan harvest delayed some areas due to wet weather.

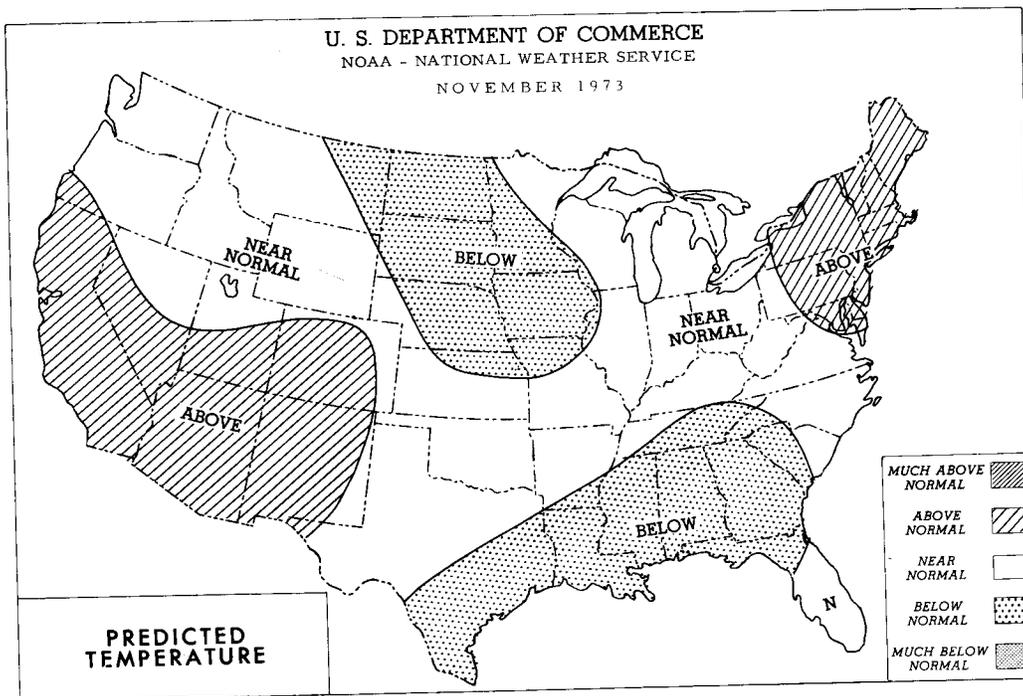
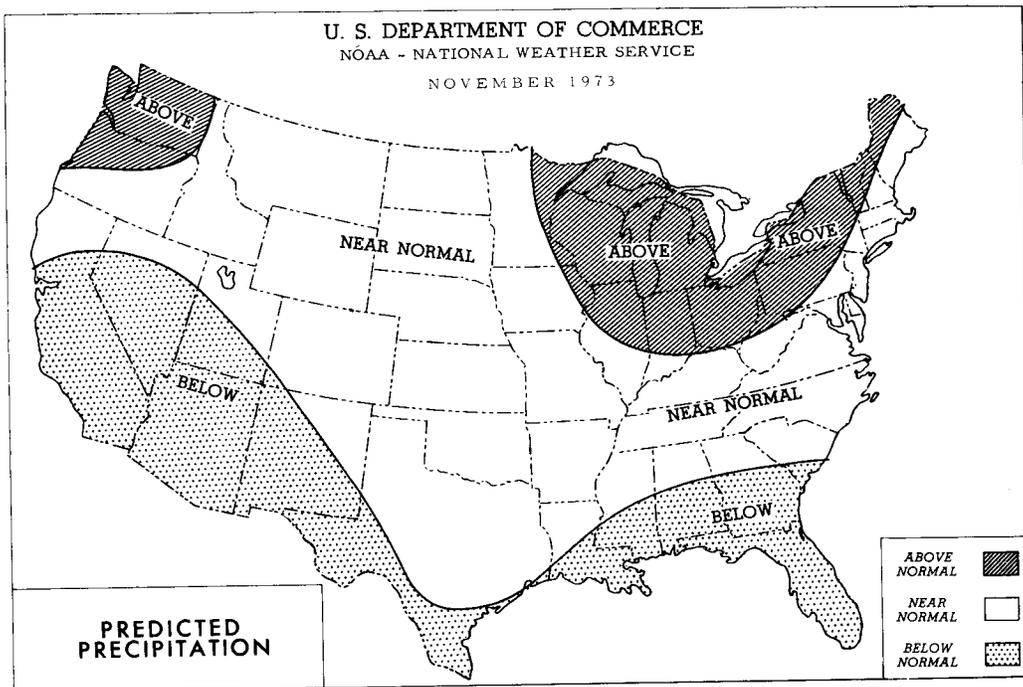
Ranges, pastures excellent statewide. Grazing good with exception a few areas where heavy rains caused flooding and standing water. Wheat and oats furnishing improved grazing with each passing week. Livestock excellent, will go into winter in outstanding shape. Stockers continue to arrive on high plains to take advantage of grazing available on irrigated wheat fields. Screwworm cases continued heavy south Texas and Lower Rio Grande Valley. Hay baling still active even at this late date in scattered areas.

**UTAH:** Few scattered showers northwest early week and north and westcentral sections later. Accumulated moisture locally moderate to heavy north. Temperatures generally near normal. First major snow fell north over weekend.

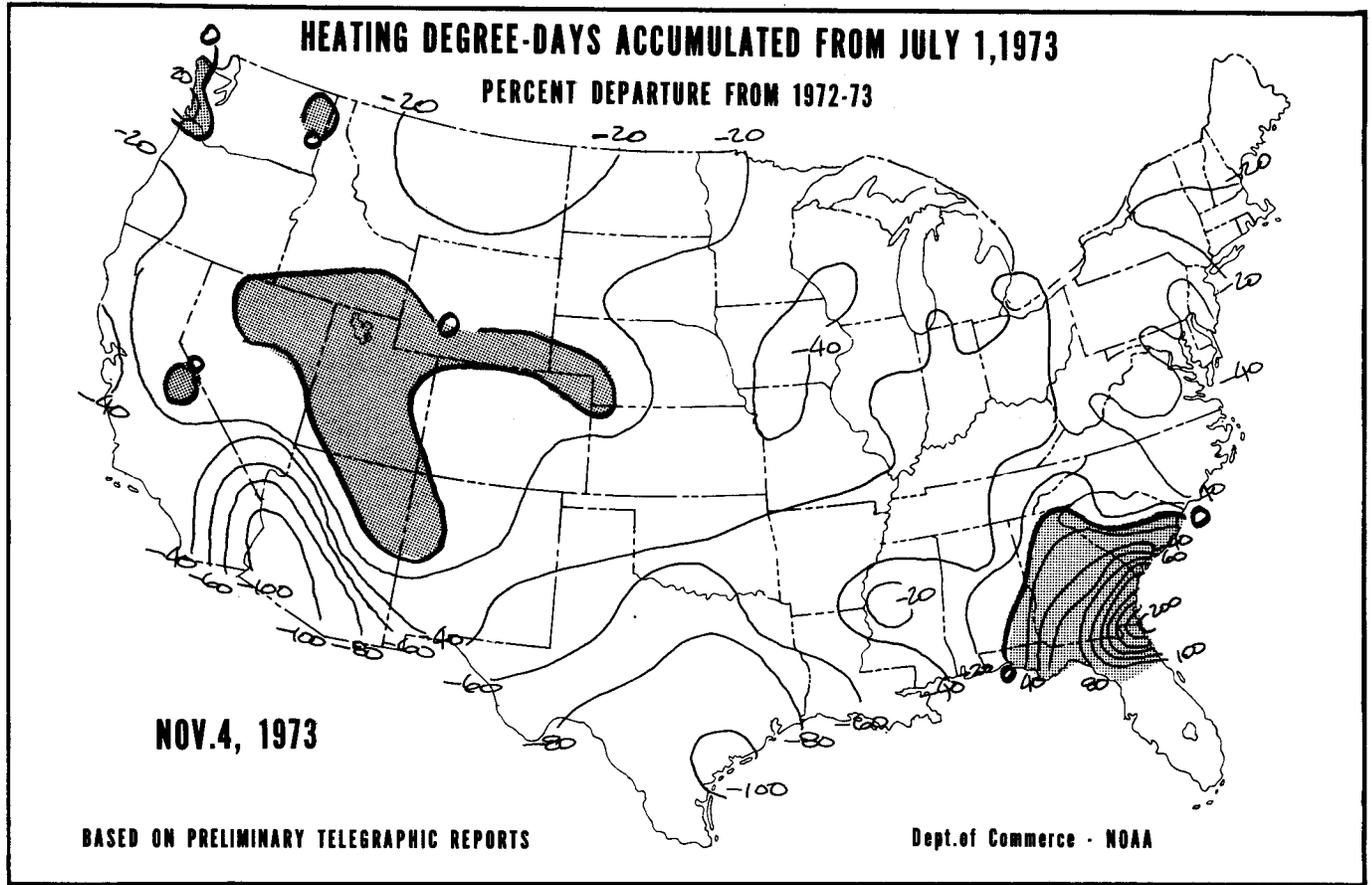
Virtually all crops harvested to November 5 except corn for grain about 30% harvested. Some

(Continued on page 15.)

### AVERAGE MONTHLY WEATHER OUTLOOK



These prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They are taken from the Weather Service's publication Average Monthly Weather Outlook which contains additional information necessary for complete interpretation.



DEGREE DAY STATISTICS AND THE 1973/74 HEATING SEASON

As never before, people are concerned about U.S. fuel supplies for the 1973/74 heating season. To provide up-to-date information on this problem, a weekly presentation of the heating degree-day situation begins with this issue of the Bulletin.

Heating engineers developed the heating degree-day statistic, a useful measure of coldness and fuel consumption, early in the century. They found that when the daily mean temperature is 65° or higher, most buildings require no heat to maintain an inside temperature of 70° (ESSA, Jan., 1969).

The daily degree-day statistic is calculated by subtracting the mean temperature for the day from 65° as follows:

$$65^\circ - \frac{\text{Max} + \text{Min}}{2} = \text{Heating Degree Days}$$

Each degree of mean temperature below 65° is counted as 1 degree-day. If the mean temperature is greater than 65°, the heating degree-day value is taken to be zero. The summation of the degree-day values over a period of time gives a measure of the actual fuel consumption in an area.

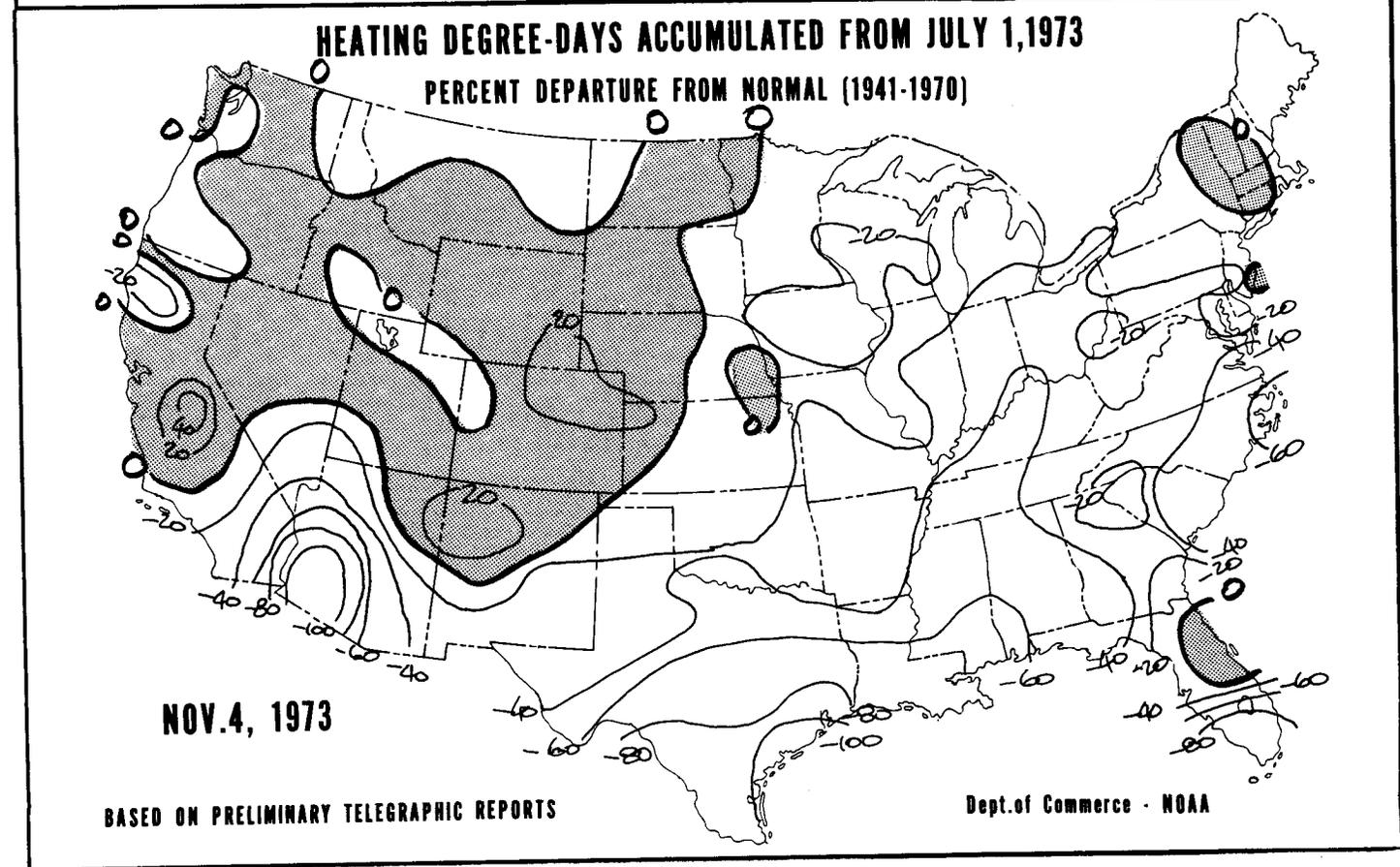
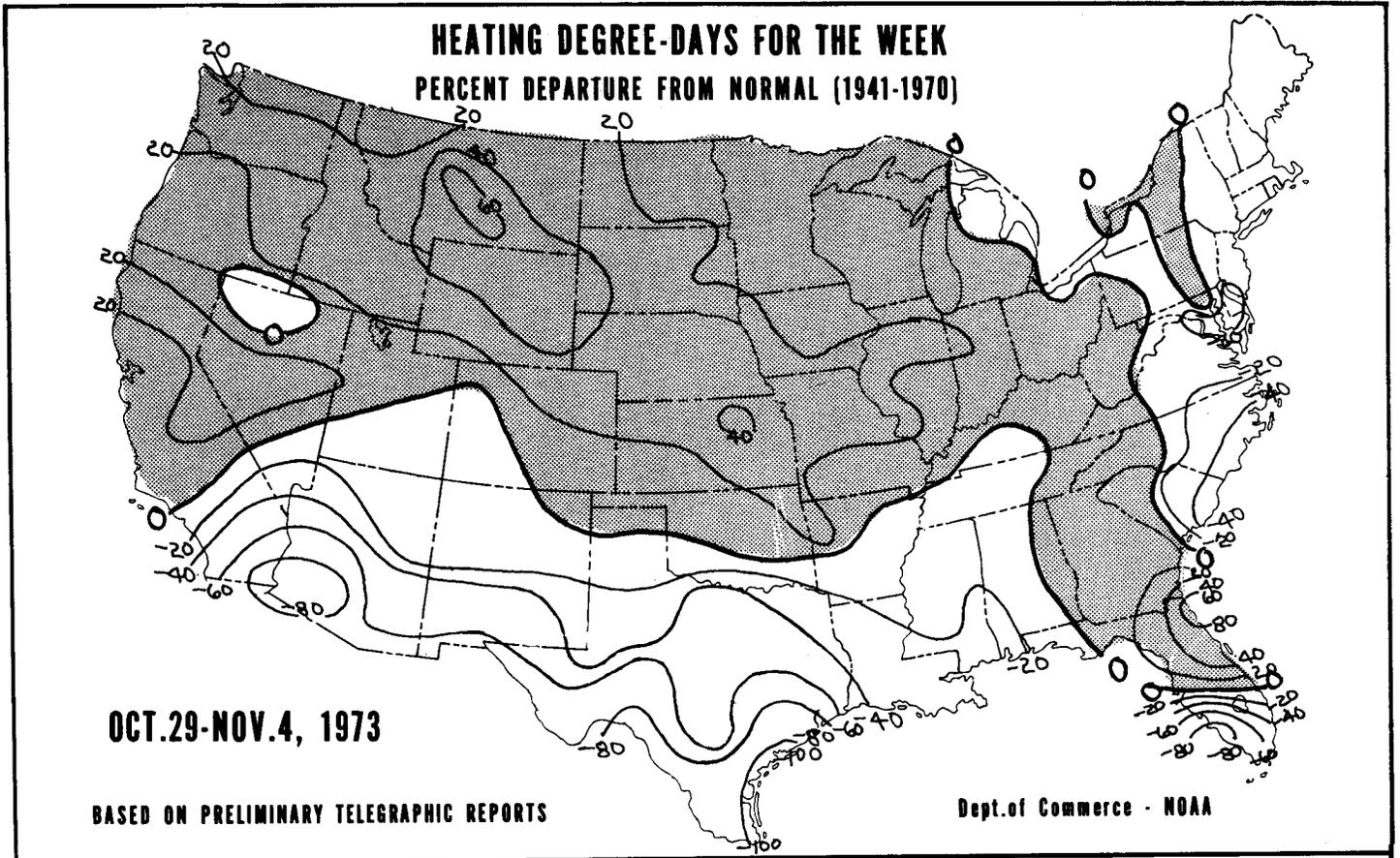
The fuel industry has adopted this procedure for estimating fuel needs. Forecasts are converted

into degree-day estimates which are used to plan fuel requirements and deliveries, allowing them to adjust fuel supplies accordingly. This is of particular importance when fuel supplies are tight as they are currently.

For the remainder of the heating season, we will publish the two maps showing the heating degree-days for the week as percent departure from normal (1941-70) and the total heating degree-day accumulation since July 1 as percent departure from normal. In addition the Table on p. 14 will also be presented each week. The map above will be published as space is available. Additional pertinent articles and material will be presented as the season progresses.

As the maps are presented, a positive departure indicates that the heating degree day accumulation is above normal and therefore fuel consumption will be greater than expected. For the heating season to date, these areas have been restricted to the western third of the Nation, but this past week, over half had above normal heating degree-day accumulations.

This information is being made available to us through the efforts of the National Meteorological Center, National Weather Service, Suitland, Md.



Heating Degree Days (Base 65°) For Week Ending Nov. 4, 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*	
ALA. Birmingham	58	-3	92	-88	61	-13	Portland	128	-19	797	-64	179	-179	128	-19	797	-64
MOBILE	20	-7	21	-35	13	-13	MD. Baltimore	96	+3	297	-35	117	-117	96	+3	297	-35
MONTGOMERY	45	0	69	-51	2	-2	MICH. Boston	155	-11	433	11	93	-93	155	-11	433	11
ARIZ. Flagstaff	130	-38	829	-203	203	-203	MICH. Alpena	155	-11	433	11	93	-93	155	-11	433	11
PHOENIX	2	-16	24	-27	58	-58	DETROIT	131	+1	468	-109	306	-306	131	+1	468	-109
TUCSON	11	-13	24	-17	115	-115	GRAND RAPIDS	153	+14	575	-139	289	-289	153	+14	575	-139
WINSTON	89	-18	400	+65	68	-27	HOUGHTON LAKE	166	-1	861	-177	367	-367	166	-1	861	-177
YUMA	0	6	0	6	27	-27	LANSING	169	+28	633	43	349	-349	169	+28	633	43
ARK. Fort Smith	81	-17	146	-28	105	-105	MARQUETTE	182	+17	815	-162	477	-477	182	+17	815	-162
LITTLE ROCK	57	-9	85	-103	91	-26	MUSKOGEE	149	+10	587	-105	223	-223	149	+10	587	-105
CALIF. Bakersfield	35	+1	59	-17	26	-26	S. STE. MARIE	169	-8	1074	-125	343	-343	169	-8	1074	-125
EUREKA	107	+23	1248	+137	+230	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
FRESNO	66	+19	145	+26	0	0	INTERNATI. Falls	228	+15	1090	-245	368	-368	228	+15	1090	-245
LOS ANGELES	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
RED BLUFF	62	-16	159	+49	-23	-23	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
SAN DIEGO	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
SAN FRANCISCO	52	+5	483	+75	+149	+149	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
STOCKTON	53	+3	133	+14	10	10	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
COLORADO	174	+34	626	+15	49	49	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
GRAND JUNCTION	120	-7	458	-2	11	-11	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
PUEBLO	143	+15	452	-14	-108	-108	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
CONN. Bridgeport	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
HARTFORD	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
DEL. Wilmington	64	-32	234	-109	-179	-179	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
WILMINGTON	61	-17	139	-112	-172	-172	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
D.C. Washington	18	0	18	-16	+7	+7	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
FLA. Apalachicola	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
DAYTONA BEACH	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
FT. MYERS	0	-3	0	-3	0	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
JACKSONVILLE	30	+12	30	0	+20	+20	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
KEY WEST	0	0	0	0	0	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
LAKELAND	4	0	4	0	4	4	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
MIAMI	0	0	0	0	0	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
ORLANDO	6	+2	6	+2	+6	+6	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
TALLAHASSEE	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
TAMPA	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
W. PALM BEACH	0	0	0	0	0	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
GA. Atlanta	71	+10	158	-24	10	10	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
ATLANTA	59	+9	115	-19	+30	+30	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
AUGUSTA	43	+1	67	-41	31	-31	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
MACON	38	+4	56	-25	18	-18	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
SAVANNAH	38	+4	56	-25	18	-18	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
IDAHO Boise	177	-39	626	-11	51	-51	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
LEWISTON	170	-40	626	-11	51	-51	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
POCAHONTO	222	-57	927	-193	108	-108	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
ILL. Cairo	86	+2	165	-96	77	-77	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
CHICAGO	148	-27	396	-57	232	-232	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
MOLINE	158	-30	494	-46	137	-137	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
PEORIA	152	-26	400	-79	232	-232	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
ROCKFORD	157	+17	482	-120	-232	-232	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
SPRINGFIELD	132	+19	508	-86	-211	-211	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
IND. Evansville	105	+9	224	-104	-210	-210	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
FORT WAYNE	136	+8	414	-127	-268	-268	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
INDIANAPOLIS	138	+22	507	-153	-215	-215	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
SOUTH BEND	137	+6	379	-197	-329	-329	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
IOWA Burlington	150	+27	376	-95	-343	-343	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
DES MOINES	159	+25	383	-154	-356	-356	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
DEBUEQUE	168	+18	524	-158	-330	-330	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
STROUT CITY	175	+33	470	-116	-242	-242	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
KANS. Concordia	158	+45	403	-13	-176	-176	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
DODGE CITY	121	+14	223	-29	-176	-176	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
GOODLAND	144	+37	331	-154	0	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
TOPSKA	142	+37	331	-154	0	0	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
WICHITA	127	+34	291	-8	-153	-153	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
KY. Lexington	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
LOUISVILLE	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
LA. Baton Rouge	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
LAKE CHARLES	14	-9	14	-36	-48	-48	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
NEW ORLEANS	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
SHREVEPORT	---	---	---	---	---	---	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62
MAINE. Caribou	178	-11	1177	-123	-321	-321	MINN. Duluth	236	+40	1154	62	496	-496	236	+40	1154	62

\* Based on 1941-70 Normals.

(Continued from page 10.)

third or fourth crop alfalfa hay may be lying in fields waiting to be baled and hauled out in a few areas. First general snowstorm last weekend temporarily halted remaining fieldwork. Sorting, grading, and marketing of potatoes, dry onions, and apples from storage in progress. Breeding of range ewes started. Irrigation water carryover probably best ever. Fall and winter range feed prospects very good except southwest corner. Marketing of cattle, lambs active, moving of cattle, sheep on to fall, winter range lands and into feedlots under way. Soil moisture favorable for germination winter wheat most areas.

**VIRGINIA:** Northern Virginia got 5.00 in. Sunday night. Snow in southwest Monday night. Cool in southwest; above normal temperatures elsewhere. Averaged 70's in daytime, 30's at night. Topsoil moisture replenished, 74% adequate, 13% short and surplus. Fieldwork limited to 3.2 days, biggest interruption thus far in a near ideal harvesting season.

Small grain land preparation and seeding progressed well. Wheat acreage 66% complete, 59% last week. Corn harvest 72% complete. Remaining acreage mostly in mountains and southcentral. Soybean harvest active latter part of week--44% complete. Peanut harvest 94% complete. Cotton harvest interrupted. Flue-cured marketing active. Sweet potato harvest active. Cabbage and snap-bean harvest past peak. Pastures improved considerably.

**WASHINGTON:** West: Temperatures near normal. Cooling end period, minimums 20's and 30's. Precipitation throughout week, snow in Cascades. Harvest carrots, potatoes continued. Frosts ended corn harvest. Cleaned-up caneberry fields. Christmas tree, holiday brush cutting picking up.

East: Temperatures near normal, maximums 50's beginning period, cooling to 40's and 30's. Low temps in 30's and 20's. Snowfall 1 to 7 in. some areas. Precipitation above normal for period, amounts from 0.40 to 1.50 in. Harvest continued for potatoes, grain corn, carrots, sugar beets. Lettuce harvested lower Yakima Valley. Wheat, barley fields good condition. Snow and rain slowed seeding. Hay moving out of growing areas. Supplemental feeding picking up. Livestock good. Fruit harvest over, orchards cleaned up.

**WEST VIRGINIA:** Temperatures a little subnormal. Highs in 60's and 70's with lows in 30's and a few readings in 20's. Precipitation Sunday and through Wednesday with some reports over 5.00 in. Fair weather with cool nights later in the week. Farmers cared for livestock and did general chores.

**WISCONSIN:** Temperatures 4° subnormal, much colder over weekend. Coldest temperatures of season Sunday evening with season's first hard freeze southeast. General rains Tuesday evening and Wednesday, light amounts extreme west and moderate southeast. A few snow flurries extreme north toward end of week.

Wet fields slowed harvesting east and south but other areas well along. Corn for grain 66% harvested, 1972 30%, 1968-72 average 45%. Moisture levels low in corn and quality best in recent years. Yields vary substantially but below last 2 years. Corn standing good for harvest. Some chopping of stalks for bedding. Soybean harvest made excellent progress, 80% combined, 1972 22%, 1968-72 average 43%. Yields show much variation, quality good as moisture content low.

Fall plowing 55% done, 1972 28%, 1968-72 average 47%. Recent rains helped dry areas for plowing. Soil moisture 7% short, 70% adequate, 23% surplus. Most surpluses in east and south, except southwest. Harvesting of fruits and vegetables nearly completed. Some red beets, carrots, and cabbage still being harvested. Stripping of early tobacco underway. Winter chores increasing as cows kept in nights due to colder temperatures. Wood cutting active north where fieldwork done.

**WYOMING:** Mild, dry weather first half of week. Much colder last part. Temperatures ranged from near normal to 6° subnormal. Extremes: 72° at Carpenter, 3° at Big Piney. Snow or rain changing to snow accompanied cold air outbreak. Precipitation amounts generally moderate to locally heavy. Moran reported largest amount, 1.70 in.

Harvesting fall crops virtually complete except corn for grain. Picking grain corn behind normal pace. Surface soil moisture adequate. Roughly three-fourths yearling cattle and lambs marketed, one-half calves sold statewide. Possible winter feed shortages some areas. Heavy weekend snow necessitated supplemental feeding of livestock and halted corn grain harvest.

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



FIRST CLASS MAIL

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Please send subscriptions and any questions or comments to the Editor at above address.

Heating Degree Days (Base 65° F.)

OCTOBER 1973

ALA. Birmingham . . .	73	MAINE, Caribou . . .	649	OKLA. Okla. City . . .	99
Mobile . . .	18	Portland . . .	720	Tulsa . . .	87
Montgomery . . .	57	MD. Baltimore . . .	221	ORIG. Astoria . . .	421
ALASKA, Anchorage . . .	1013	MASS. Boston . . .	289	Burns U. . . . .	570
Barrow . . .	1407	Chatham . . .	---	Medford . . . . .	352
Fairbanks . . .	---	MICH. Alpena . . .	406	Pendleton . . . . .	372
Juneau . . .	1732	Detroit . . . . .	276	Portland . . . . .	326
Nome . . . . .	1197	Flint . . . . .	300	Salem . . . . .	396
ARIZ. Flagstaff . . .	458	Grand Rapids . . .	314	PA. Allentown . . .	290
Phoenix . . . . .	2	Houghton Lake . . .	420	Erie . . . . .	309
Tucson . . . . .	23	Lansing . . . . .	339	Harrisburg . . . . .	238
Winslow . . . . .	306	Marquette U. . . . .	361	Philadelphia . . . . .	196
Yuma . . . . .	0	S. Ste. Marie . . . . .	473	Pittsburgh . . . . .	274
ARK. Fort Smith . . .	97	MINN. Duluth . . . . .	513	Scranton . . . . .	368
Little Rock . . . . .	61	Internatl Falls . . .	530	R. I. Providence . . .	331
CALIF. Bakersfield . .	24	Minneapolis . . . . .	350	S. C. Charleston . . .	34
Eureka U. . . . .	393	Rochester . . . . .	346	Columbia . . . . .	57
Fresno . . . . .	94	St. Cloud . . . . .	419	Greenville . . . . .	132
Los Angeles U . . . .	8	MISS. Jackson . . . . .	61	S. DAK. Aberdeen . . .	442
Red Bluff U . . . . .	96	Meridian . . . . .	49	Huron . . . . .	380
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D. C. Washington . . .	103	Havre . . . . .	505	Austin . . . . .	8
FLA. Apalachicola . . .	15	Helena . . . . .	588	Beaumont . . . . .	13
Ft. Myers . . . . .	16	Kalispell . . . . .	649	Brownsville . . . . .	0
Jacksonville . . . . .	26	Miles City . . . . .	445	Corpus Christi . . . .	0
Key West . . . . .	0	Missoula . . . . .	606	Dallas . . . . .	---
Lakeland U. . . . .	4	NEBR. Grand Island . .	306	Del Rio . . . . .	1
Miami . . . . .	0	Lincoln . . . . .	281	El Paso . . . . .	90
Orlando . . . . .	6	Norfolk . . . . .	314	Fort Worth . . . . .	36
Daytona Beach . . . . .	10	North Platte . . . . .	407	Galveston U. . . . .	1
Tallahassee . . . . .	47	Omaha . . . . .	263	Houston . . . . .	8
Tampa . . . . .	6	Valentine . . . . .	376	Lubbock . . . . .	99
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Macon . . . . .	56	Reno . . . . .	483	San Angelo . . . . .	4
Savannah . . . . .	47	Winnemucca . . . . .	531	San Antonio . . . . .	2
IDAHO, Boise . . . . .	384	N. H. Concord . . . . .	518	Victoria . . . . .	0
Lewiston . . . . .	415	N. J. Atlantic City . . .	248	Waco . . . . .	22
Pocatello . . . . .	500	Trenton U . . . . .	206	Wichita Falls . . . . .	42
ILL. Cairo U. . . . .	107	N. MEX. Albuquerque . .	257	UTAH, Milford . . . . .	486
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Indianapolis . . . . .	211	N. C. Asheville . . . . .	124	Omak . . . . .	---
South Bend . . . . .	229	Greensboro . . . . .	179	Oquillayute . . . . .	500
IOWA, Burlington . . . .	220	Hatteras R. . . . .	31	Seattle-Tacoma . . . . .	388
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Sioux City . . . . .	208	N. DAK. Bismarck . . . .	558	Yakima . . . . .	485
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Preliminary reports from airport locations, except those marked U for urban and R for rural.  
 \*Estimated.