

Weekly Weather & Crop Bulletin

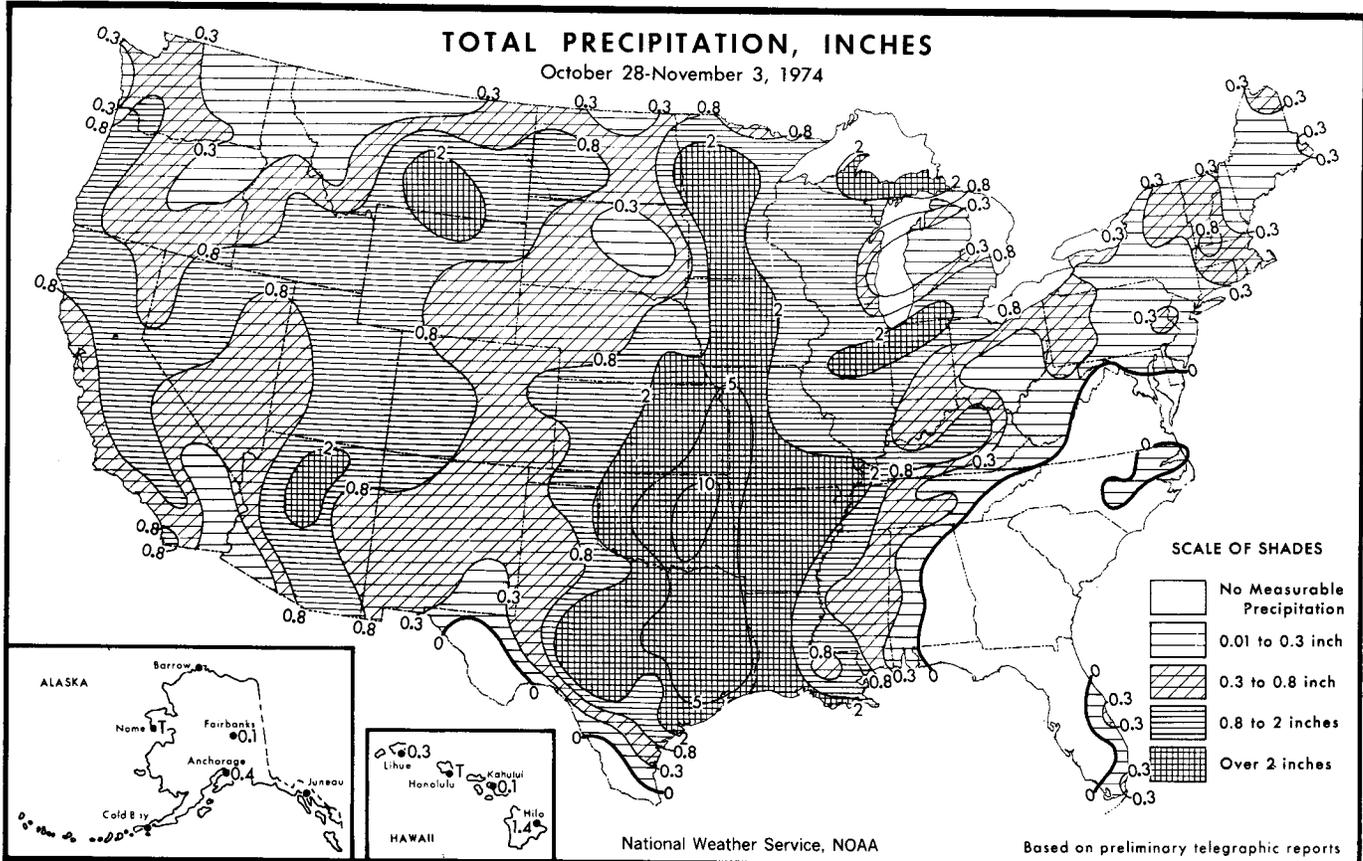
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NATIONAL WEATHER SUMMARY For the Week of October 28-November 3

HIGHLIGHTS: Unseasonably warm temperatures dominated the Nation from the Rockies eastward. The greatest departures occurred in the area between Memphis to Chicago where temperatures for the week averaged at least 15° above normal.

Heavy precipitation fell from east Texas northward where Tulsa, Okla. reported 10.62 in.; Houston, Texas got 5.84 in. and St. Cloud, Minn. reported 2.19 in. Heavy precipitation also fell in the Desert Southwest.

PRECIPITATION: Early in the week a cold front invaded the West Coast triggering precipitation over wide areas as it drifted eastward across the Nation. By the weekend the storm front remained stationary along a line from Detroit through central Texas.

The heaviest precipitation during the week occurred just ahead of the front as it collided

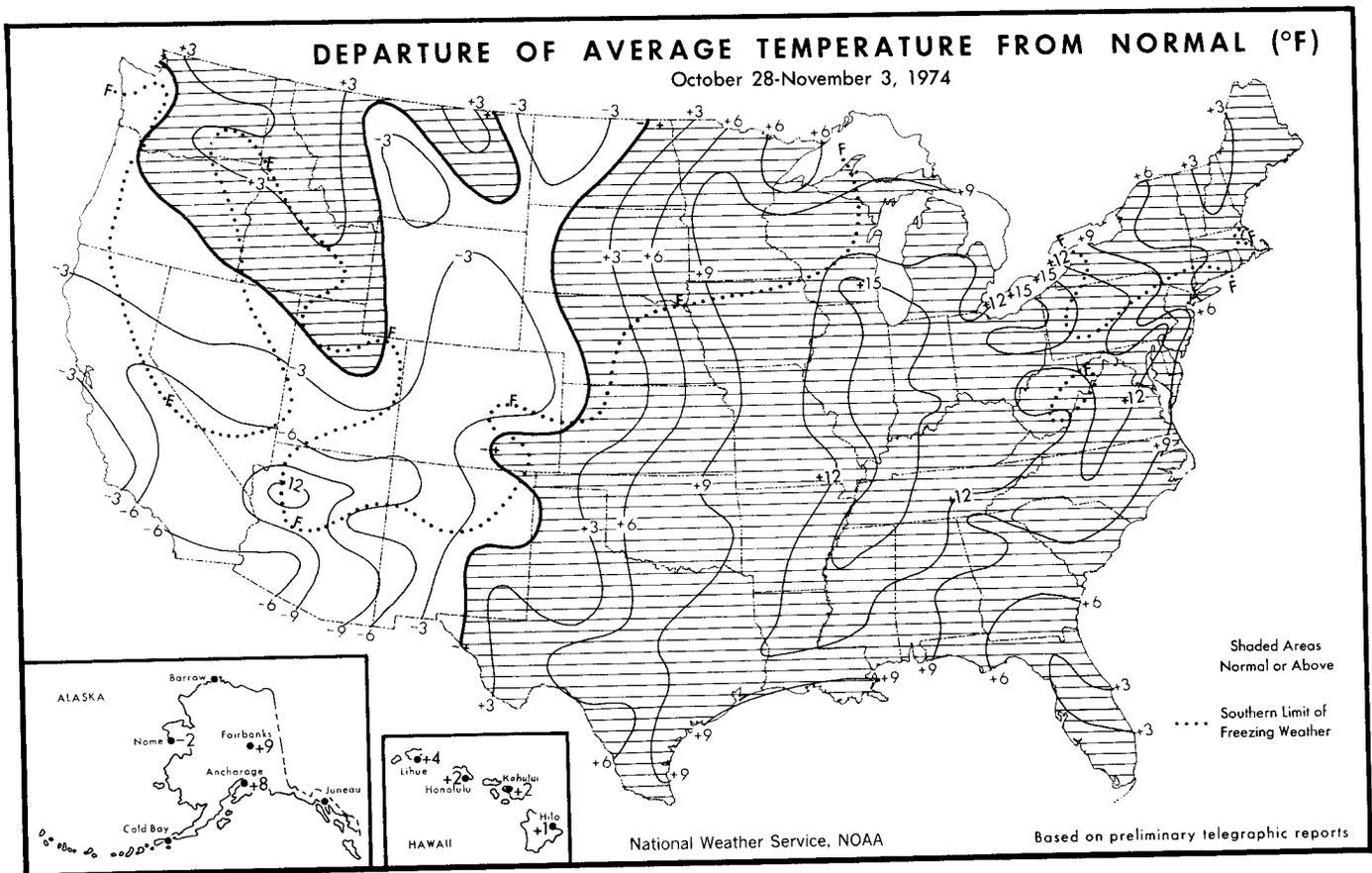
with warm moist air flowing northward from the Gulf. Meanwhile, little or no precipitation was recorded last week in several Southeastern States.

Monday, a cold front from the Pacific brought rain to the Pacific Coast States and snow to the Cascade and Sierra Ranges.

East of the Rockies, warm air moving northward triggered scattered showers and thunderstorms from eastern Texas through the lower and mid-Mississippi Valley Region and over much of the Central Plains. Locally heavy rains caused some flash and urban flooding from eastern Texas into southwest Arkansas.

Early morning thunderstorms swept across Louisiana on Tuesday causing significant damage at Lafayette and Baton Rouge. The Baton Rouge area reported 5.50 in. of rain and local flooding.

Wednesday, the cold front was located over eastern Colorado and New Mexico. A snow storm behind the front deposited 7 in. of snow on



Flagstaff, Ariz. during the morning. Ahead of the front numerous showers and thundershowers continued from southeast South Dakota and Iowa southward through eastern and central Texas.

By Thursday the Pacific front had moved into central Texas. The storm dumped heavy rains from central and southeastern Texas northward into the upper Mississippi Valley.

A westward flow of air into the northern mountains from a large Pacific high produced widespread snow showers on Friday. Rains averaging between 2.00 in. and 3.00 in. fell in Montana.

A large low pressure system began developing on Saturday over the southern tip of Nevada, while the associated storm drifted slowly through the southern Plateau. Rain and snow showers fell over Arizona and the southern portions of Nevada and Utah. Flagstaff, Ariz., received 5 in. of new snow during the morning.

Sunday morning thunderstorms dumped between 1.00 in. to 3.00 in. of rain along the cold front that cut across Oklahoma and Missouri. Heavy rains during the evening and morning hours caused a number of rivers to flood from western Missouri to north central Texas. Reports of 7 to 8 ft. of snow came from eastern Colorado by midafternoon.

TEMPERATURE: A high pressure system in the Southeastern United States, surrounded by warm tropical air from the Gulf of Mexico, pushed temperatures well above normal throughout most of the Nation's entire eastern half. In contrast, cool Pacific air flowing over the West Coast and southern mountain areas sent readings plummeting to below normal readings. Arizona experienced the greatest departures as temperatures averaged as much as 12° below

normal.

Monday, the Northern Atlantic Coast States were unseasonably cold. The lowest temperatures ever measured on this date were reported from: Providence, R.I., 25°; Albany, N.Y., 18°; Burlington, Vt., 19°; Caribou, Maine and Portland, Maine, 18°.

It was another unseasonably cold morning in New England on Tuesday. Temperatures at 2:00 am. ranged from 22° at Concord, N.H., to 77° at Key West, Fla.

Wednesday, pre-dawn temperatures were near freezing in the Rockies and across most of the Plateau. However, a flow of warm, humid air off the Gulf of Mexico kept the thermometer above 50° during the early morning hours as far north as the Great Lakes Region.

The chilliest morning temperatures were in the higher elevations of the northern Rockies on Thursday. Alamosa, Colo. dipped to 17° and Cut Bank, Mont., chilled to 22°.

Friday, morning temperatures fell into the 20's across the northern Rockies and Plains. Laramie, Wyo., dipped to 23°.

During pre-dawn hours on Saturday, temperatures remained unseasonably mild from the lower Plains through most of the Mississippi to the Atlantic Coast. Columbia and Florence, S.C. recorded the highest daily reading with 89°. And both Wilmington, N.C. with 87° and Greensboro, N.C. with 85° set record highs for so late in the season.

Sunday, warmer than normal temperatures prevailed from the Gulf Coast States, northeast into the Ohio Valley and the mid- and lower Atlantic Coast States. Temperatures remained in the 70's along the Gulf Coast with 50's and 60's extending northward to lower New England.

NATIONAL AGRICULTURAL SUMMARY

For the Week of October 28–November 3

HIGHLIGHTS: Row crop harvesting continued to make good progress in all areas except the Southern Great Plains. Heavy rain and flooding stopped field activity in much of Kansas, Oklahoma and Texas while rain or snow had slowed harvesting elsewhere by end of period, except in the South Atlantic States.

The Nation's corn for grain crop was 59% harvested by November 3d, behind last year's excellent progress ahead of the normal 56%. Soybeans were 70% harvested nationwide on the 3d, also ahead of the average 67%. Winter wheat seeding was on schedule and nearing completion in many States.

SMALL GRAINS: Rain or snow fell in varying amounts over much of the Nation, relieving the dry topsoil conditions in many areas, aiding germination and growth of fall seeded grains. Heavy rains in Kansas, Oklahoma and Texas caused extensive flooding and drownout in some areas and will necessitate replanting.

The winter wheat crop got a boost in many areas from the added moisture, however, much of the Northern Plains and Northwest States were still very dry. Winter wheat seeding was on schedule in most North Central States and Oklahoma, but trailing in Texas. Seeding was 95% complete in Ohio and Illinois, 90% done in Indiana and 76% in Missouri. Wheat condition is rated mostly fair in Nebraska and generally good in Colorado.

CORN: Corn harvesting continued to make excellent progress in most major States until rain slowed or stopped fieldwork in nearly all areas except the South Atlantic States. Harvest of the Nation's corn crop advanced 10 points from the previous week to 59% harvested by November 3d, now trailing last year's excellent progress, but ahead of the 56% normally harvested.

Corn Belt harvest, at 56% complete, lagged the 1973 level of 63% but exceeded the normal pace of 53%. Harvesting was nearly complete in South Dakota at 94% versus 69% usually; Minnesota follows with 87% done. Iowa farmers continued to make good gains and 48% of their crop was harvested, well behind last year's level but slightly ahead of the normal 46%. In Illinois 45% was harvested versus 60% in 1973 and the usual 58%.

Harvest in the South Atlantic States was 83% complete while the South Central progress advanced to 71%, both were behind the 1973 pace.

COTTON: Rain stopped cotton harvesting in much of Texas and delayed progress in Oklahoma and Louisiana. Harvest advanced at a steady pace in most other Southern cotton States; picking in those 11 States advanced 7 points to 38% complete, behind the 1973 progress of 41% and the normal 44%. South Carolina's harvest was most advanced, 70% done, 2 points ahead of normal. The Arkansas harvest at 36% done was far behind last year and normal. The Texas harvest stalled at 28% versus 27% in 1973 and the usual 29%.

In the west, rain hampered the harvest. The New Mexico crop was 5% picked, and first picking in California's San Joaquin Valley was over two-thirds complete.

SOYBEANS: The Nation's soybean harvest advanced 9 points to 70% complete, 2 points behind the progress of a year earlier, but ahead of the normal 67% harvested by November 3d. Soybean combining in the Corn Belt was 86% complete, well ahead of the usual progress, but trailing the 1973 level.

Rain slowed harvesting in many States, but not before excellent progress was made. Illinois, the Nation's leading soybean producer, had 90% harvested. In Iowa, 93% had been harvested versus 97% in 1973 and the normal 83%. The soybean harvest was virtually done in Minnesota and South Dakota, 95% finished in Ohio and Nebraska, but least advanced in Kansas with only 45% combined.

Harvest in the South jumped 12 points, but continued slightly behind last year and the average 42%. Progress ranged from only 10% complete in Oklahoma to 66% done in Louisiana.

OTHER CROPS: Sorghum grain harvesting continued sharply behind last year's pace in Kansas, Nebraska, Oklahoma, and Texas. Harvest was 85% complete in Nebraska, 62% in Texas, 35% in Kansas, and 34% in Oklahoma.

Maine potato growers continued digging in favorable weather. In Idaho only a few scattered fields were left to dig, mostly in the south central area.

Peanut harvest was virtually complete in Georgia, North Carolina, and Virginia; rain delayed harvest in Texas at 59%, compared with 76% in 1973.

Sugarbeet lifting was over 90% complete in Ohio and 92% in Michigan. There was concern about the warm weather's impact on stockpiled beets.

FRUITS AND NUTS: Apple harvesting is about done in most States although picking continued in a few scattered orchards.

Filberts and walnuts are being harvested in Oregon. Pecans were 15% gathered in Georgia. Some fallen pecans in Texas were lost to flooding.

The citrus fruit condition was excellent in Florida, but rain was needed in most areas. In Texas, picking was held to a minimum in wet groves. Fruit was sizing extremely well. In California, Navel orange harvest continues but the Valencia harvest was about complete.

VEGETABLES: Dry weather in the Florida growing areas, necessitated active irrigation to maintain soil moisture, whereas in Texas wet condition hampered harvesting and seeding and increased disease problems in some vegetable fields. Harvest of mixed vegetables continues in good volume in California.

PASTURES AND LIVESTOCK: Rain and snow improved pastures in many of the drier areas, but lateness of the season will curtail use at higher elevations. Cattle movement to winter pastures continues in several States but supplemental feeding is necessary where pasture feed is short. Cattle and sheep were being turned in on corn stocks and other stubble in harvested fields. Excellent wheat and oat growth was furnishing good grazing in the Southern Plains.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Nov. 3, 1974

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 . . .	69	+12	T	-.6	La. Baton Rouge . . .	74	+11	.6	-.1	Youngstown	61	+14	.6	-.1
Mobile	74	+11	.1	-.4	Lake Charles	75	+10	3.6	+2.8	OKLA. Okla. City . . .	64	+8	5.7	+5.3
Montgomery	68	+8	0	-.5	New Orleans	74	+9	1.9	+1.3	Tulsa	65	+9	10.6	+10.0
ALASKA Anchorage . . .	36	+8	.4	+1	Shreveport	72	+10	4.6	+3.9	OREG. Astoria	47	-2	.3	-1.7
Barrow	---	---	---	---	MAINE Caribou	42	+4	.3	-.5	Burns	41	0	.3	0
Fairbanks	23	+9	.1	-.1	Portland	48	+4	.1	-.9	Medford	46	-2	.8	+ .2
Juneau	---	---	---	---	MD. Baltimore	64	+12	.1	-.6	Pendleton	49	+3	.3	0
Kodiak	---	---	---	---	MASS. Boston	55	+4	.4	-.5	Portland	49	0	1.4	+ .3
Nome	20	-2	T	-.3	Chatham	51	---	T	---	Salem	47	-2	1.0	-.2
ARIZ. Flagstaff	32	-12	3.3	+3.0	MICH. Alpena	53	+11	.2	-.3	PA. Allentown	57	+8	.3	-.4
Phoenix	60	-6	1.8	+1.7	Detroit	58	+11	1.0	+ .4	Erie	63	+17	.4	-.4
Tucson	54	-10	1.2	+1.1	Flint	59	+14	.8	+ .2	Harrisburg	59	+9	.1	-.6
Winslow	44	-6	.6	+ .5	Grand Rapids	59	+13	.7	+ .1	Philadelphia	64	+12	.1	-.6
Yuma	63	-6	.1	0	Houghton Lake	53	+11	.3	-.3	Pittsburgh	63	+15	.6	0
ARK. Fort Smith	66	+9	4.2	+3.4	Lansing	58	+13	1.2	+ .7	Scranton	58	+11	T	-.7
Little Rock	68	+12	2.7	+1.9	Marquette	51	+9	2.1	+1.5	R.I. Providence	54	+5	.5	-.4
CALIF. Bakersfield . . .	58	-3	.9	+ .8	Muskegon	58	+12	.3	-.4	S.C. Charleston	68	+7	0	-.5
Eureka	50	-3	1.0	-.1	S. Ste. Marie	48	+8	2.1	+1.4	Columbia	69	+10	0	-.5
Fresno	54	-5	1.1	+ .9	MINN. Duluth	42	+4	1.6	+1.2	Greenville	67	+11	T	-.7
Los Angeles	59	-7	.5	+ .2	Internatl Falls	43	+8	.7	+ .4	S.D. Aberdeen	46	+6	.3	+ .1
Red Bluff	56	-3	.9	+ .4	Minneapolis	52	+10	1.1	+ .8	Huron	48	+6	.1	-.2
San Diego	61	+3	1.1	+ .9	Rochester	52	+10	1.4	+ .8	Rapid City	43	0	.7	+ .6
San Francisco	55	-3	.6	+ .2	St. Cloud	49	+9	2.2	+1.9	Sioux Falls	49	+7	.3	+ .1
Stockton	54	-4	.8	+ .5	MISS. Jackson	73	+13	.5	-.1	TENN. Chattanooga . . .	64	+9	0	-.7
COLO. Denver	42	-4	.7	+ .5	Meridian	70	+11	.4	-.1	Knoxville	68	+13	T	-.7
Grand Junction	44	-3	1.3	+1.1	MO. Columbia	62	+11	1.4	+ .9	Memphis	72	+15	1.7	+1.0
Pueblo	47	0	.6	+ .4	Kansas City	58	+6	5.6	+5.1	Nashville	70	+15	.3	-.3
CONN. Bridgeport	57	+5	T	-.8	St. Louis	66	+14	.8	+ .2	TEX. Abilene	62	+2	3.2	+2.7
Hartford	54	+6	.6	-.2	Springfield	63	+11	4.7	+4.1	Amarillo	54	+1	.6	+ .3
D.C. Washington	67	+13	T	-.6	MONT. Billings	39	-4	2.3	+2.2	Austin	73	+8	1.8	+1.3
FLA. Apalachicola	72	+6	0	-.4	Glasgow	41	+3	.4	+ .3	Beaumont	75	+10	3.3	+2.5
Daytona Beach	71	+2	.1	-.7	Great Falls	39	-3	.3	-.2	Brownsville	80	+8	0	-.5
Ft. Myers	75	+2	T	-.5	Havre	40	+1	T	-.1	Corpus Christi	79	+10	.7	+ .3
Jacksonville	70	+4	T	-.6	Helena	40	+2	.4	+ .3	Del Rio	71	+6	.1	-.2
Key West	78	+1	.1	-.8	Kalispell	41	+5	T	-.3	El Paso	55	-3	.3	+ .2
Lakeland	73	+3	T	-.4	Miles City	42	+1	1.5	+1.4	Fort Worth	70	+8	4.2	+3.7
Miami	77	+2	.5	-.8	Missoula	43	+5	.1	-.1	Galveston	75	+7	3.4	+2.8
Orlando	73	+3	T	-.5	NEBR. Grand Island . . .	49	+3	1.5	+1.3	Houston	77	+11	5.8	+4.9
Tallahassee	68	+4	0	-.5	Lincoln	53	+6	2.6	+2.4	Lubbock	57	+2	.5	+ .2
Tampa	74	+3	0	-.4	Norfolk	50	+5	1.7	+1.5	Midland	63	+3	.5	+ .3
W. Palm Beach	77	+3	0	-1.3	N. Platte	45	+1	.5	+ .4	San Angelo	67	+6	2.3	+2.0
GA. Atlanta	68	+11	T	-.6	Omaha	55	+8	1.8	+1.5	San Antonio	71	+6	.9	+ .4
Augusta	66	+7	0	-.4	Valentine	44	+1	.7	+ .6	Victoria	77	+10	2.3	+1.7
Macon	68	+8	0	-.4	NEV. Ely	36	-4	.4	+ .3	Waco	72	+9	6.3	+5.8
Savannah	69	+7	T	-.4	Las Vegas	53	-7	.4	+ .3	Wichita Falls	66	+7	1.8	+1.3
HAWAII. Hilo	76	+1	1.4	-1.5	Reno	42	-3	.8	+ .7	UTAH. Blanding	40	-5	1.6	+1.4
Honolulu	80	+2	T	-.5	Winnemucca	42	-1	1.2	+1.0	Salt Lake City	48	+2	.9	+ .6
Kahului	78	+2	.1	-.3	N.H. Concord	47	+3	.1	-.7	VT. Burlington	49	+5	.5	-.1
Lihue	80	+4	.3	-.8	N.J. Atlantic City	60	+8	.1	-.8	VA. Lynchburg	65	+12	T	-.6
IDAHO. Boise	47	+1	.5	+ .2	Trenton	62	+10	.1	-.6	Norfolk	67	+10	0	-.6
Lewiston	49	+3	.1	-.2	N.MEX. Albuquerque . . .	47	-4	.3	+ .2	Richmond	66	+12	T	-.7
Pocatello	44	+2	1.0	+ .8	Roswell	54	+1	.3	+ .1	Roanoke	63	+11	0	-.6
ILL. Cairo	65	+10	2.0	+1.3	N.Y. Albany	50	+4	.1	-.5	WASH. Colville	45	+5	.2	-.2
Chicago	64	+16	1.3	+ .7	Binghamton	55	+10	.1	-.6	Omak	45	+5	T	-.3
Moline	61	+14	.8	+ .3	Buffalo	57	+11	.3	-.5	Quillayute	46	-1	.3	-2.8
Peoria	62	+14	2.1	+1.6	New York	59	+6	1.2	-.6	Seattle-Tacoma	46	-2	.6	-.6
Rockford	59	+13	.9	+ .3	Rochester	56	+9	.3	-.3	Spokane	42	+1	.1	-.3
Springfield	65	+15	1.5	+ .9	Syracuse	53	+6	.7	-.5	Walla Walla	48	0	.4	0
IND. Evansville	68	+16	.8	+ .2	N.C. Asheville	62	+10	0	-.7	Yakima	47	+3	.4	+ .2
Ft. Wayne	61	+14	.8	+ .1	Charlotte	67	+11	T	-.6	W. Va. Beckley	62	+14	T	-.6
Indianapolis	63	+14	.4	-.2	Greensboro	66	+12	T	-.6	Charleston	62	+11	T	-.6
South Bend	63	+16	2.2	+1.5	Hatteras	67	+6	0	-1.0	Huntington	64	+13	.2	-.3
IOWA. Burlington	59	+11	1.2	+ .7	Raleigh	66	+11	0	-.6	Parkersburg	62	+11	T	-.5
Des Moines	56	+9	3.0	+2.6	Wilmington	68	+8	T	-.6	WIS. Green Bay	53	+11	.8	+ .4
Dubuque	56	+11	1.2	+ .6	N. DAK. Bismarck	39	0	.8	+ .7	La Crosse	55	+11	1.3	+ .9
Sioux City	53	+8	1.4	+1.1	Fargo	44	+5	2.1	+1.9	Madison	58	+15	1.2	+ .8
KANS. Concordia	53	+3	2.0	+1.7	Williston	32	-5	.8	+ .7	Milwaukee	59	+15	.3	-.1
Dodge City	53	+3	1.2	+ .9	OHIO. Akron-Canton	62	+15	.3	-.3	WYO. Casper	37	-4	.7	-.5
Goodland	44	-2	1.4	+1.2	Cincinnati	65	+15	.8	+ .2	Cheyenne	37	-5	.4	+ .2
Topeka	58	+7	2.8	+2.4	Cleveland	62	+14	.5	-.1	Lander	38	-1	1.0	-.7
Wichita	59	+7	3.1	+2.7	Columbus	62	+14	.1	-.4	Sheridan	40	-1	2.1	+1.9
KY. Lexington	65	+14	.9	+ .3	Dayton	63	+14	.2	-.3	P.R. San Juan	79	-1	1.2	-.1
Louisville	66	+14	.7	+ .1	Toledo	59	+12	1.2	+ .7					

Based on 1941 - 70 normals

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: Fair weather with above normal temperatures during week. Nearly 3 weeks of dry weather for most areas with exception of light rainfall across the Tennessee Valley and along coast on 29th.

Cotton harvest made good progress even though slowed by scattered showers north. Harvest 57% complete, 44% 1973. About 60% Tennessee Valley crop harvested, 40% year earlier. Many gins running around-the-clock to keep up with harvest. Corn harvest especially active on farms where cotton and soybean harvest more advanced. Corn for grain about 78% harvested, 67% in 1973. Slightly over 50% expected soybean production harvested, 45% same time in 1973. Small grain seeding made fair progress as farmers gave priority to crop harvest. Shortage of moisture also delayed planting many localities, especially south. Almost 75% expected acreage in ground.

ARIZONA: Very wet, cool week. Amounts from 0.10 in. lower Colorado River Valley, 2.00 to 4.00 in. central basins, and mountains. Snow above 5,000 ft. up to 24.00 in. snow Mogollon Rim, central mountains. Temperatures 5 to 10° below normal.

Cotton harvest limited Yuma, rain stopped other areas. Grain sorghum harvest limited Yuma, no activity other areas. Sugarbeet harvest Cochise County stopped, wet fields, beets for spring harvest good growth. Some loss cut hay from rain. Limited lettuce harvest Pima County. Lettuce planting continues, Yuma. Limited lemon, tangerine picking Maricopa County. Lemon harvest full swing, grapefruit harvest started Yuma County. Rains improved water supplies, range forage. Cattle and sheep fair to good.

ARKANSAS: Abnormally warm with mean temperatures 7 to 12° above normal. Extremes: 84 and 41°. Warming early in week, brief cooling at mid-week, warming again late in week. Rainfall west half mostly in excess of 3.00 in. East half from near inch to over 3.00 in. Showers through week with heaviest rainfall early week and on weekend.

Rains stopped harvesting activities. Few low-lying areas flooded. Soil moisture adequate to surplus. Cotton defoliation problems, leaves fail to shed, top bolls opening slowly. Crop needs 2 weeks to dry and mature, 76% open bolls, 94% in 1973. Cotton 36% picked, 61% 1973. Rice 95% harvested. Soybean harvest stopped, beans slow to size causing small beans, reduced yields, 28% harvested, 4 points below 1973. Rains helped land preparation, germination of small grains. Early seedings making excellent growth. Grain sorghum 90% harvested. Fescue making good growth. Some alfalfa to be cut for hay. Pastures providing surplus forage. Cattle in good condition making gains.

CALIFORNIA: Storms moving through, brought cool, cloudy weather. Precipitation all areas except extreme southeast. Precipitation scattered north portion 26th; general over most areas early in week, again at end of period, amounts ranging from over 1.00 in. along coast to over 2.00 in. Sierra Nevada. Snow fell over higher mountains. Cooling trend gave below average temperatures most areas, about 5° below average south.

Harvesting field crops slow due to rain. Fall

planting small grains continued. Sugarbeet digging active, many fields complete. Grain sorghum harvesting slowed due to wet fields, 50% complete. Rice fields 95% harvested. Cotton harvesting continues, rains slowed harvest. First picking cotton 65 to 90% complete, San Joaquin Valley. Some final picking completed, growers shredded, disced residue to prevent bollworm buildup. Dry bean thrashing delayed due wet fields.

Wine grape harvest slowed by rain. Walnut harvest continues after slowdown due rain. Apple harvest drawing to close, olive picking active. Fig harvest about complete Merced; some drying still being done. Date harvest continues with good quality, some wind losses. Navel orange harvest continues with good quality reported, Valencia harvest about complete. Grapefruit, lemon harvest seasonally active, good quality reported. Packing Fairchild tangerines in Coachella Valley.

Artichoke continues Central Coast, broccoli, cauliflower heavy Salinas, Santa Maria, good quality. Brussel sprouts normal. Carrot tapering Salinas, increasing San Joaquin, cantaloup winding up Imperial. Salinas celery increasing, generally good quality, Oxnard beginning. Rain interrupted lettuce San Joaquin Valley. Light bell pepper movement, fall potato virtually complete Tulelake, light digging long whites in Delta. Sweetpotato interrupted by rain, market tomatoes continue San Joaquin, south.

Condition livestock varied. Sheep continue onto alfalfa, corn fields in Central Valley. Lambing nearing halfway. Some work on some farms. Cattle continue onto winter pasture, supplemental feeding necessary. New season's native feed up and growing many areas. Stock water supplies remain adequate most areas.

COLORADO: Early week storm produced snow mountains, light rains lower elevations. Storm produced cooled temperatures eastern plains. First killing freeze on 31st, east. Weekend storm produced more snow mountains and northeastern slope, light rain southeast.

Moisture slowed harvest statewide. Corn grain 66% harvested, 5-year average 37%. Sugarbeets 87% harvested. Dry bean harvest complete. Sorghum grain harvest 33% complete, 5-year average 39%. Winter wheat seeding virtually complete, 88% emerged. Winter barley seeding nearly complete, 86% emerged. Fall seeded grains generally good condition. Cattle generally good condition, being pastured on crop residue.

FLORIDA: Warm days, mild nights prevailed with scattered showers restricted to the southeast coastal areas. Temperature averaged near to slightly above normal. Rainfall totals were light with some stations reporting no rain.

Soil moisture short most areas. Harvest active soybeans and cotton, practically complete for corn and peanuts. Sugarcane good condition, cutting cane for sugar expected to begin by mid-month. Planting small grains delayed by dry weather. Pastures conditions range from very poor to poor. Cattle and calves fair to good condition. Citrus tree and fruit condition excellent, rain needed all areas, some irrigation being applied. Early fruit color good. Tree dormancy beginning. Dry weather continued over vegetable growing areas. Irrigation active to maintain soil moisture. Har-

vest fall vegetables increasing. Sweetcorn, snap beans and radishes continue in good supplies. Cukes, squash, peppers, eggplant moderate supplies, tomatoes, celery and leafy crops in light supplies but increasing.

GEORGIA: Warm with temperatures 5 to 10° above normal north and 1 to 5° above normal south. Continued dry weather with only isolated showers mountains and near coast. Dry warm weather continued through weekend.

Soil moisture short to mostly very short. Weather favorable for harvest operations, detrimental for fall seeding. Cotton 61% harvested. Corn harvest nearly 75% complete. Peanut harvest virtually complete. Soybean harvest 41% complete. Seeding of small grains 51% complete, dry soils delaying planting, germination, and growth. Pastures poor to mostly fair, condition continues decline. Cattle good. Pecans 15% gathered.

HAWAII: Light showers helpful in retaining moisture from previous week's rains and increased water supplies.

Crops and grass growth made good progress with favorable weather. Vegetable supply adequate. Bananas and papayas plentiful. Cattle condition fair to good. Sugar harvesting active, pineapple harvesting very light.

IDAHO: Rain, with snow above 5,000-6,000 ft., fell over most of Idaho. Heaviest amounts in southeast and south central. Panhandle reported light amounts while Malad, southeast, reported 1.62 in. Temperatures moderate with averages in 40's to low 50's.

Rains brought needed moisture but slowed field operations. Land preparation, seeding of fall grains continue. Rains helped emergence, early development fall seeded grains. Sugarbeet harvest slowed by wet weather. Few scattered potato fields to harvest, mostly south central. Feed supplies adequate for livestock. Rains improved palatability dry forage ranges and pastures. Cattle marketings increasing as fall roundup approaches completion.

ILLINOIS: Temperatures 11 to 16° above normal. Precipitation varied, amounts ranging to 2.00 in.

Corn harvest 45% complete, 60% 1973 3-year (1971-73) average 58%. Rains slowed harvest some areas. Soybean harvest 90% complete, 95% 1973, average 90%. Seeding 1975 winter wheat 95% complete, same as 1973, average 93%. Recent rains improved new seedings. Grain sorghum harvest 40% complete. Plowing 1975 corn and soybean acreage 30% complete, same as 1973 and average. Pastures mostly fair to good condition. Soil moisture 21% short, 72% adequate, 7% surplus. Fieldwork: 5.5 days suitable.

INDIANA: Very warm. Several days with showers. Temperatures averaged 16° above normal. Daily minimums in 50's, daily maximums 70 to 75°. Rainfall about 2.00 in. in west third, 0.75 in. east. Humidities high.

Fieldwork averaged 5 days. Topsoil and subsoil moisture short to mostly adequate. Corn 35% harvested, 45% average, 55% in 1973. Soybeans 85% combined, 90% in 1973. Wheat 90% seeded, 95% in 1973. Wheat 65% emerged, stands mostly good. Pastures poor to mostly fair.

IOWA: Cloudy, wet and mild week. Precipitation well above normal all districts with temperatures averaging 10 to 13° above normal.

Harvesting activity in most areas stopped at midweek. Much needed rain received over State. Fieldwork: 3.8 days suitable, average 4.1. Corn harvest 48% complete, average 46%. As farmers return to fields, most will be harvesting corn and

plowing. Soybean harvest 93% complete, average 83%. Most remaining soybeans in southeast. Popcorn harvest 76% complete. Grain sorghum harvest 67% complete, same as normal. Plowing for 1975 crop, 27% complete. Topsoil moisture 16% short, 68% adequate and 16% surplus.

KANSAS: Temperatures ranged from 3° above normal west to 9° above normal southeast. Precipitation general with amounts ranging from moderate west to heavy east central and southeast. Moderate to serious flooding east central and southeast. Four to 8.00 in. snow fell extreme northwest.

Fall crop harvest moved ahead, but stopped by weekend rains. Sorghum grain harvest 35% complete, 55% 1973, 65% average. Corn 70% harvested, 35% 1973, 65% average. Soybeans 45% harvested, 55% 1973, 75% average. Sugarbeet harvest continued western areas, now 95% complete. Wheat benefited from additional moisture, stands evening up and most areas making good growth. Cattle marketing seasonally active. Some supplemental feeding on native grasses.

KENTUCKY: Temperatures averaged 10 to 15° above normal with showers around mid and end of week. Rainfall totals as much as 1.00 in. west.

Another good week for outdoor work, 5 days suitable. Topsoil moisture adequate. Corn and soybean harvests advanced rapidly, progress about equal 5-year average. Corn 70% harvested, 75% 1973, 72% average. Soybeans 56% combined, 72% 1973, 58% average. Burley tobacco 11% stripped, 17% 1973, 18% 3-year average. Winter wheat seeding 65% complete, 81% 1973, 76% average. Cattle and sheep getting 90% of roughage requirements from pastures.

LOUISIANA: Warm with scattered heavy rainfall several sections. Temperatures 11 to 14° above normal, except 6° above in lower Delta. Extremes: 90° Mamou and 43° Bogalusa. Precipitation highly variable, weekly totals less than 1.00 in. to more than 4.00 in. Greatest 1-day total 6.55 in. Opelousas, substantial wind or tornado damage south-west 29th.

Rains delayed harvest most areas. Fieldwork possible 3.7 days. Soil moisture adequate to surplus north, short to adequate south. Main activities cane, cotton, soybean harvests, fall plowing, and land leveling. Cotton harvest complete, 35% 1973, normal 50%. Stalk shredding and dinking behind pickers. Soybean harvest 66%, 43% 1973, normal 60%. Quality and yields good. Sugarcane harvest full swing, 20% complete about normal. Sucrose and purity good, cane lighter than expected. Sweetpotato harvest 90%. Wheat and oats seeding 70%, 2 weeks behind normal. Rains beneficial. Pastures average north, below average south. Cattle fair to good.

MARYLAND AND DELAWARE: Temperatures 5 to 8° above normal. Highs mid-70's to mid-80's. Lows low 30's to low 40's. Some record high readings of 86° November 1. Precipitation very light. Reports of less than 0.25 in.; most stations zero.

Another excellent harvest week. Corn harvest nearing completion. Soybean combining well along. Some delays waiting for frost damaged late fields to dry. Apple harvest in final stages. Fall grain seeding pushed following corn and soybean harvest. Need moisture for germination and maintaining growth of earlier seedings.

MICHIGAN: Temperatures from 10° above in the Upper to 15° above normal Lower Peninsula. Precipitation totaled 1.00 to 2.00 in. Upper and extreme southern Lower less than 0.50 in. elsewhere.

Corn harvest slow, but other crops ahead of last year. Soil moisture ranges from wet north to dry south. Fieldwork: 4.9 days suitable. Grain corn 35% harvested, 67% 1973, 57% average. Soybeans 90% harvested, 87% 1973, average 62%. Sugarbeet lifting 92% completed, 81% 1973, 63% average. Fall plowing 25% completed. Pasture short. Apples mostly picked, cauliflower and cabbage nearly finished.

MINNESOTA: Mild wet week. Temperatures 6 to 9° above normal. Extremes: Low 70's early week to upper teens late in week. Precipitation 1.50 to 1.75 in. Central and north, and 0.75 to 1.25 in. southern third; 1 to 2 in. snow upper northwest on 1st.

Several days of much needed rainfall partly replenished depleted moisture reserves. Wet field conditions interrupted corn and sunflower harvest, fall plowing and fertilizer application. Corn 87% harvested, 1973 75%, average 61%. Soybean combining virtually completed, with exception northern one-third. Soil moisture still short most areas despite rainfall.

MISSISSIPPI: Temperatures averaged 8° above normal. Extremes: 89 and 39°. Widespread showers 29th. Largest amount in 24-hour period was 5.32 in.

Soil moisture adequate. Cotton bolls 44% open but not harvested, 54% harvested, normally 37% bolls open but not harvested and 62% harvested. Soybeans 17% shedding but not mature, 41% mature but not harvested, 39% harvested. Normal 39% mature and 56% harvested. Cotton and corn in mostly fair condition. Soybeans in fair to good condition.

MISSOURI: Unusually warm week, temperatures averaging 10 to 15° above normal. Generally heavy rains northwest and southwest, number of stations reporting more than 2.00 and 3.00 in. Otherwise rainfall near or below normal remainder of State.

Fieldwork: 3 days suitable. Corn 62% harvested, 43% 1973, 53% 5-year average. Soybeans 58% harvested, 65% 1973, 59% average. Grain sorghum 56% harvested, 64% 1973, 61% average. Cotton 47% harvested, 61% 1973, 60% average. Fall seeding 76% complete, 70% average. Fall plowing 31% complete, 35% average. Soil moisture adequate to surplus, pasture fair to good condition.

MONTANA: First snowstorm of season followed warm dry weather first of week. Temperatures 3° below normal central and south central to 6° above normal. Highs first of week mostly 60's falling to 30's and 40's midweek with minimums in teens. Above normal precipitation, some amounts over 1.00 in. all but west and north central.

Topsoil moisture deficiencies believed all areas except north central. Winter wheat fair to good. Grazing open, forage supplies on fall and winter pastures adequate.

NEBRASKA: Rainfall amounts good over State. Temperatures near or above normal.

Fieldwork: 4.2 days suitable. Topsoil moisture supplies short 63%, subsoil moisture supplies short 100%. Corn 70% harvested, normal 60%, 1973 45%. Sorghum 85% harvested, normal 75%, 1973 90%. Soybean 95% harvested, 1973 95%, normal 90%. Wheat condition mostly fair. Range and pasture feed supplies short 98%. Culling cows continuing.

NEVADA: Precipitation general with rain and snow continuing through weekend south and east. Rainfall well above normal, ranging from 0.40 in. Las Vegas to 2.47 in. Austin. Temperatures below normal average from 1 to 2° in north, 5° south central and 7° extreme south. Extremes: 87°

Logandale to 15° McDermitt.

Winter wheat about 90% seeded. Potato harvest windup near. Cotton harvest started with 80% bolls open. Movement sheep to winter ranges nearly complete, cattle complete all areas except south.

NEW ENGLAND: Unseasonably mild weather. Cold October 28th, later temperatures above normal with some record highs central and southern sections. Precipitation ample south with 0.50 in. of rain, less 0.10 in. north. Cold front November 1st produced showers north.

Maine growers continued potato digging in favorable weather. Shipments active. Some acreage still to be dug.

NEW JERSEY: A mild week, averaging 9 to 12° above normal. Averages: 57° north, 62° south and 61° coastal. Extremes: 76° at Newton on 29th and 84° at Bridgeton and Hammonton on November 1st. Rainfall light, averaging 0.19 in. north, 0.25 in. south and 0.47 in. coast.

Soil moisture expressed in % of field capacity averaged 53% north, 58% central and 59% south. Above normal temperatures beneficial for fall sown grains. Harvest of hardy fall vegetables nearing completion. A few apple and cranberry growers continue to harvest their crops. Combining of soybeans and corn for grain active.

NEW MEXICO: Significant rains all sections first half of week and weekend; totals from a few tenths east and south to more than 1.00 in. some northern mountain and northwestern points. Several inches of snow west of Divide. Temperatures near normal eastern plains to 5 to 6° below normal west.

Moisture adequate. Rains, wet fields hampered field work all areas. Light frosts received. Cotton fair, some rust, bolls 50 to 80% open, about 5% picked. Alfalfa fair, 4th and 5th cut near complete. Sorghum mostly fair, 25% east, 100% north harvested. Fall stands of wheat, barley good. Corn harvest continues. Apple picking complete. Harvest continuing; potatoes, lettuce, onions, chile. Ranges fair, livestock fair to good. Livestock movement to winter ranges. Calf deliveries active on contract and to market.

NEW YORK: Temperatures averaged well above normal reversing the cool trend of the last several weeks. Rainfall was below normal. Burlington, Poughkeepsie and Saranac Lake were the only stations to receive more than 0.50 in. Week was mild until the cooling trend over weekend. Readings climbed above 70° on 29th and over much of State on 31st and 1st. Spotty rain occurred midweek and more substantial rain spread into New York night of 3d. Extremes: 78° at Glens Falls and Poughkeepsie on 1st, 15° at Saranac Lake on 28th.

NORTH CAROLINA: Dry weather with well above normal temperatures throughout period.

Fieldwork averaged 4.9 days. Cotton 44% harvested, 1973 64%, average 52%. Corn 85% harvested, 1973 91%, average 64%. Soybeans 20% harvested, 1973 30%. Sorghum grain 74% harvested, 1973 78%. Small grains 53% planted, 1973 53%, average 58%. Pasture conditions mostly fair to good. Soil moisture very short to adequate.

NORTH DAKOTA: Temperatures across State above normal, ranging from 12° above normal east central to 7° above normal west central, southwest and south central. Highs ranged from 75° at Beulah to 86° at Fort Yates. Lows ranged from 15° at Breien to 30° Fargo. Precipitation above normal all divisions, ranging from 2.80

Continued on page 11

THE HEATING DEGREE-DAY STATISTIC AND THE UPCOMING HEATING SEASON

The cold, icy touch of winter has already made itself felt in many northern States and is lurking in the not-too-distant future for most of the rest of the Nation. While the overall heating fuel supply prospects for this year may be brighter than last, considerable concern still exists. The possibility of a prolonged cold period over a broad geographic area would cause severe problems. An excellent indicator of the demand for heating fuel in an area is the heating degree-day statistic which relates average temperature to fuel needs. To provide up-to-date information on the heating degree-day situation, a weekly presentation with the appropriate maps and table begins with this issue.

Heating engineers developed the heating degree-day statistic as a useful integrator of temperature and fuel consumption early in the century. The heating degree-day statistic is a simple method, using only outdoor air temperature, and neglecting the other factors such as solar radiation and wind. Numerous studies have established the fact that when the daily mean air temperature is 65° or higher, most buildings require no heat to maintain an inside temperature of at least 70°.

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

$$65^{\circ} - \frac{\text{Max Temp} + \text{Min Temp}}{2.0} = \text{Daily Heating Degree-Days}$$

Thus, each degree of mean temperature below 65° is one degree-day unit. If the mean temperature is 45°, 20 heating degree-days would be accumulated. If the daily mean temperature were 25°, 40 degree-day units were accumulated. Twice as much fuel would be required on a day with 40 heating degree-days than a day with 20 heating degree-days. If the mean temperature is greater than 65°, the heating degree-day value is set equal to zero (0) for the day. The degree-days for any given period are obtained by totaling the degree-days for each day of the period.

The fuel industry has adopted this procedure for monitoring fuel consumption and anticipating fuel needs. Supply levels can be monitored by simply keeping up-to-date on the heating degree-

day accumulations. Forecasts can be converted into heating degree-day statistics and used to determine future fuel demands. The high cost of storing oil and gas puts a premium on precise evaluation of fuel use rates and peak demands, and on the efficient scheduling of deliveries. This is of particular importance when the total supply picture is tight.

Weekly for the remainder of the heating season, we will publish the two maps on page 9 showing the Heating Degree-days for the Week as percent departure from normal (1941-70) and the total Heating Degree-days accumulation from July 1, 1974 as percent departure from normal. In addition, the table on page 10 will appear giving the actual data used to calculate the percentage values in the maps. The map on page 11, which shows the percent departure from last year of Heating Degree-days accumulated from July 1, 1974, will be published as space is available. Additional pertinent articles and materials will be presented as the season progresses.

As the maps are presented, a positive departure indicates that the heating degree-day accumulation is greater than the comparative value, so temperatures have been colder than anticipated and thus fuel consumption is greater than expected. Similarly, a negative departure indicates that conditions have been warmer than anticipated. Note the similarity in the weekly percent of normal departure and the temperature departure map on page 2.

Thus far this heating season most of the Nation has been above normal in degree-days, or below normal in temperature. Only the Far Western States and the western Gulf Coast have been warmer than normal. This past week temperatures were well below normal from the Rockies westward, but well above normal to the east.

The heating degree data are supplied by the National Weather Service offices across the Nation and are being summarized and maps prepared by the National Meteorological Center, Suitland, Maryland.

Published monthly normals for all cooperative stations are available in Climatography of the United States No. 81. Daily normals are available in Climatography of the United States No. 84. Both are available from the National Climatic Center, Asheville, North Carolina 28801.

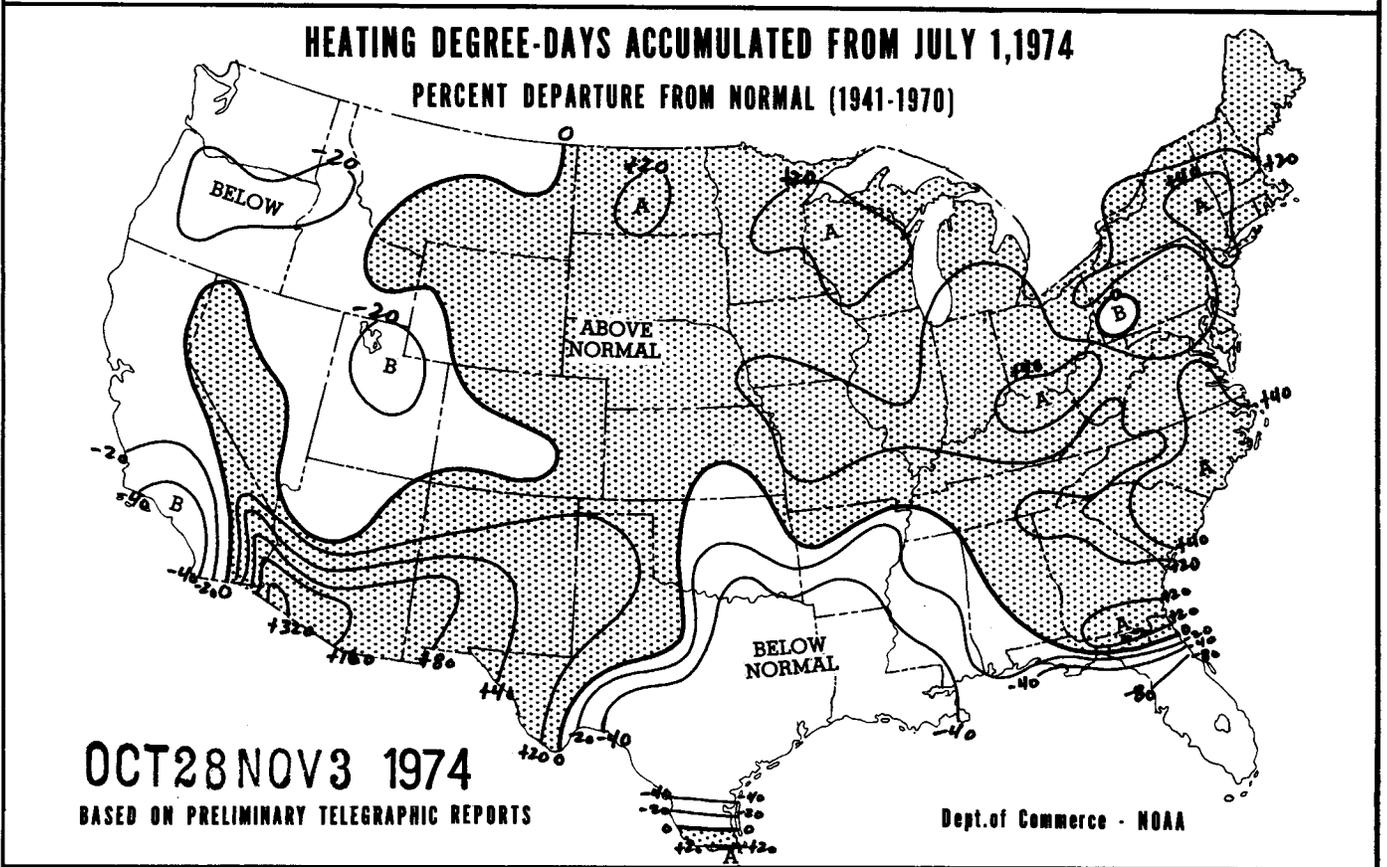
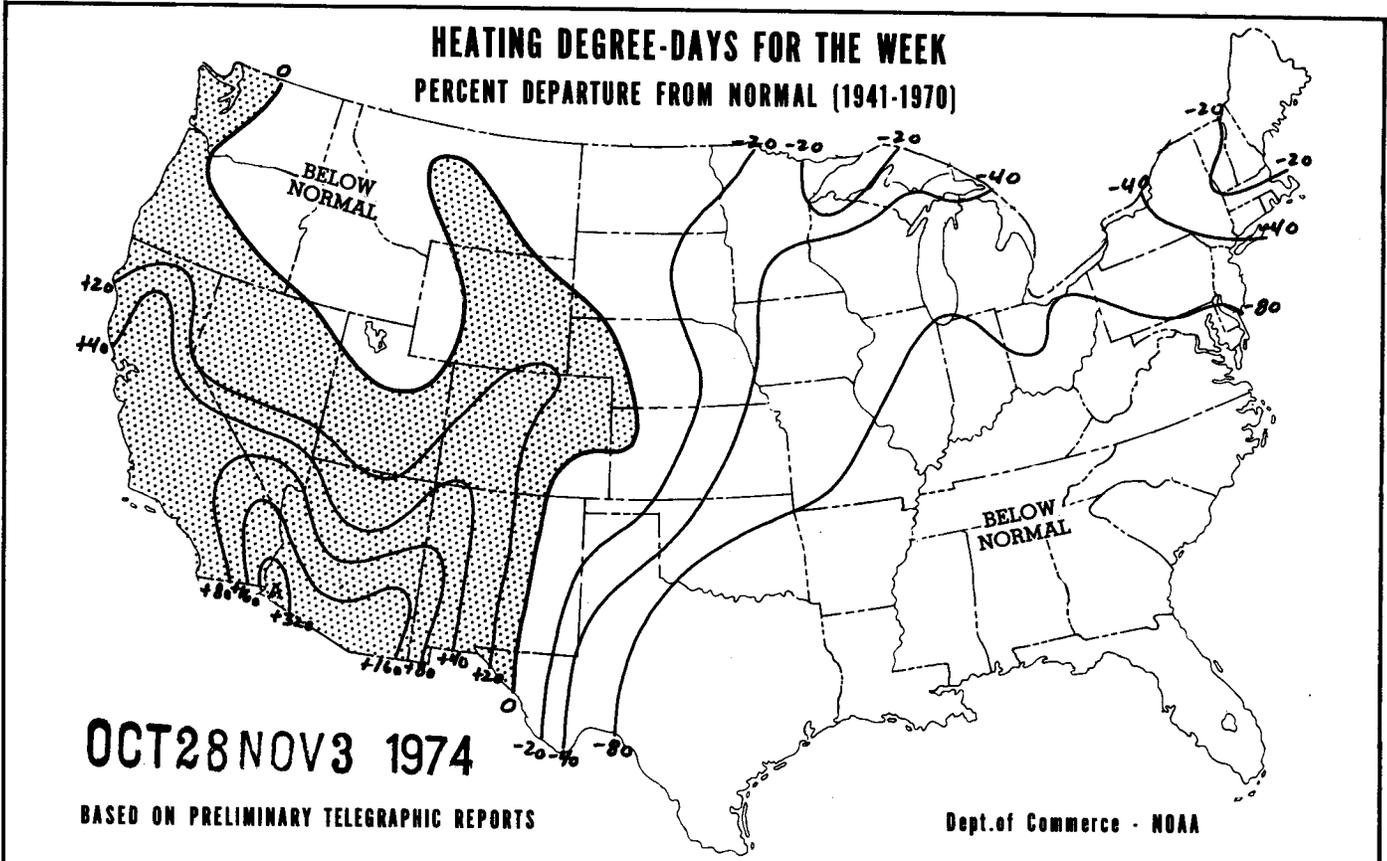
Table 1. The normal heating degree-day accumulations by months during the primary heating season for fifteen cities across the United States and the 1973 accumulations.

City	November		December		January		February		March		Annual Total	
	Norm*	1973	Norm	1973	Norm	1974	Norm	1974	Norm	1974	Norm	1973/74
Washington, D.C.	510	399	856	708	911	677	776	716	617	490	4211	3414
Philadelphia, Pa.	564	508	924	810	1014	897	871	926	716	667	4865	4452
Trenton, N.J.	561	516	933	802	1020	906	885	915	738	692	4947	4559
New York, N.Y.	528	485	915	785	1017	903	885	919	741	713	4848	4527
Boston, Mass.	594	570	992	782	1110	1022	969	1000	834	809	5621	5410
Buffalo, N.Y.	756	720	1150	1107	1280	1167	1137	1187	1020	989	6927	6652
Cleveland, Ohio	702	605	1076	946	1181	1015	1039	1035	896	777	6154	5445
Detroit, Mich.	747	703	1132	1119	1252	1189	1075	1152	921	901	6419	6285
Chicago, Ill.	774	685	1175	1158	1305	1230	1089	1058	908	803	6497	5957
St. Louis, Mo.	600	538	942	1077	1045	1083	837	804	682	539	4750	4629
Omaha, Nebr.	813	770	1218	1315	1389	1439	1106	981	942	724	6601	6030
Minneapolis-St. Paul, Minn.	993	915	1451	1493	1649	1642	1366	1344	1147	1092	8310	7970
Denver, Colo.	768	758	1004	1029	1088	1277	902	831	868	672	6016	5772
Salt Lake City, Utah	777	732	1076	975	1147	1181	885	936	787	603	5978	5657
Seattle-Tacoma, Wash.	612	633	760	632	831	809	636	606	648	573	5185	4774

*Normals based on 1941-70.

FAX CHART 136

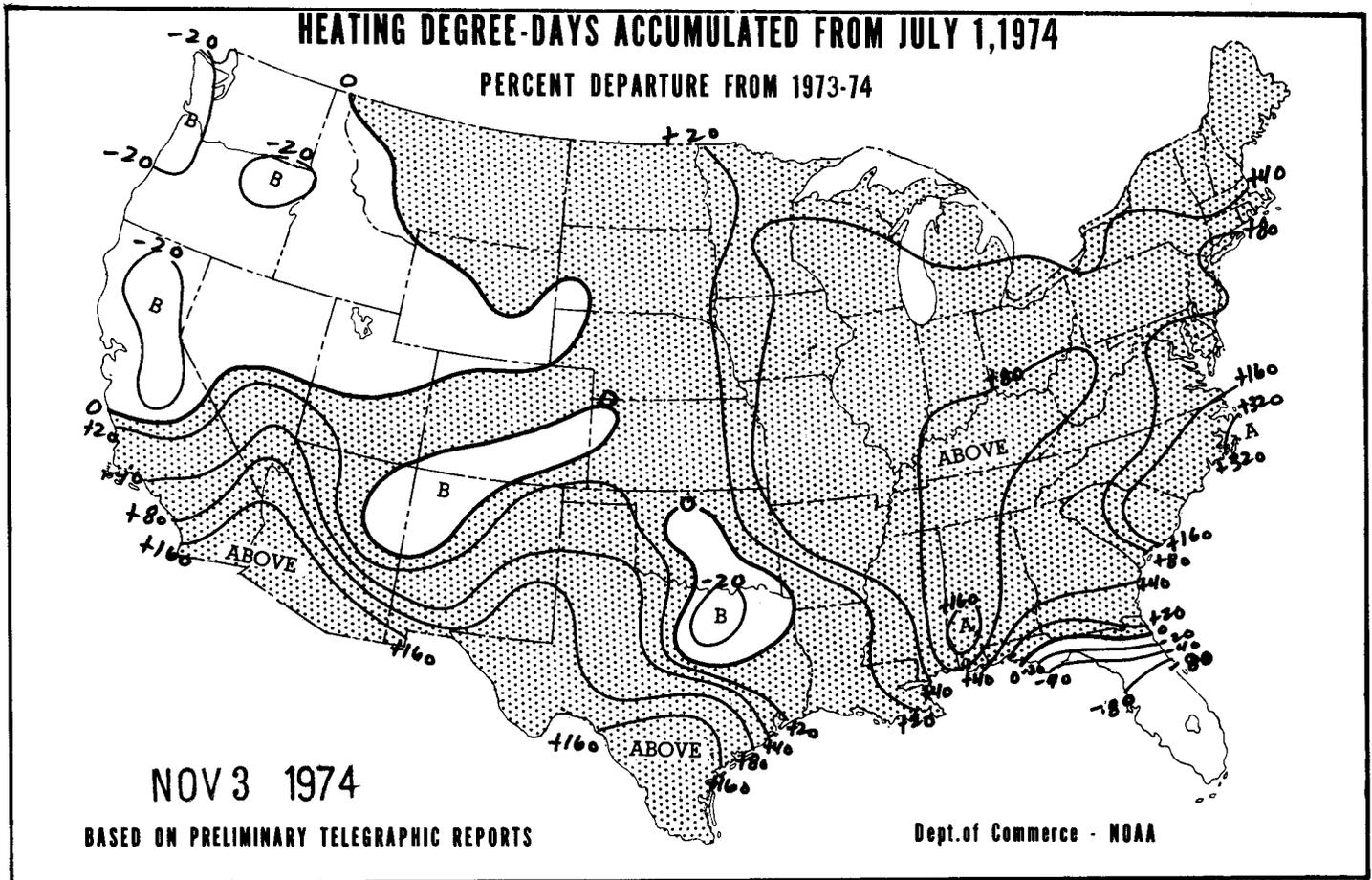
OCT 73



Heating Degree Days (Base 65°) For Week Ending Nov. 3, 1974

States and Stations	Weekly		Seasonal Accumulation			States and Stations	Weekly		Seasonal Accumulation			States and Stations	Weekly		Seasonal Accumulation		
	TOTAL	Departure*	TOTAL	Departure*	Departure From 1973-74		TOTAL	Departure*	TOTAL	Departure*	Departure From 1973-74		TOTAL	Departure*	TOTAL	Departure*	Departure From 1973-74
ALA.Birmingham	0	-58	178	8	86	Portland	120	-25	910	71	140	Tulsa	13	-52	179	-4	32
Mobile	0	-25	58	7	37	MD.Baltimore	17	-74	353	35	76	OREG.Astoria	123	-14	851	-90	-247
Montgomery	1	-42	120	7	51	MASS.Boston	69	-30	591	162	176	Burns	164	-1	829	-117	-164
ARIZ.Flagstaff	228	62	871	-136	66	MICH.Alpena	80	-83	1142	70	281	Medford	131	-12	430	-104	-26
Phoenix	37	20	37	11	35	Detroit	46	-81	705	148	262	Pendleton	111	-19	421	-137	-149
Tucson	76	54	82	45	58	Flint	44	-95	770	78	224	Portland	110	-1	428	-191	-82
Winslow	145	42	369	51	-15	Grand Rapids	46	-90	887	268	359	Salem	127	-13	548	-85	-153
Yuma	17	13	17	13	17	Houghton Lake	83	-81	1100	87	271	PA.Allentown	56	-58	611	125	210
ARK.Fort Smith	11	-51	169	5	33	Lansing	50	-88	857	202	253	Erie	42	-90	775	93	247
Little Rock	5	-58	134	-43	58	Marquette	97	-64	1047	95	267	Harrisburg	52	-53	513	122	205
CALIF.Bakersfield	45	13	49	-21	9	Muskegon	48	-88	787	116	229	Philadelphia	19	-72	363	35	122
Eureka	101	17	1125	10	-143	S. Ste. Marie	120	-54	1359	187	317	Pittsburgh	19	-103	510	-45	121
Fresno	75	30	94	-17	-32	MINN.Duluth	157	-34	1490	304	381	Scranton	45	-81	676	82	112
Los Angeles	38	12	43	-101	14	Internat Falls	156	-52	1395	93	350	R.I.Providence	77	-35	651	148	156
Red Bluff	64	20	98	-5	-43	Minneapolis	92	-76	872	65	246	S.C.Charleston	0	-36	141	50	99
San Diego	25	7	26	-48	16	Rochester	92	-71	902	102	252	Columbia	0	-48	181	47	112
San Francisco	70	24	384	-17	-83	St. Cloud	113	-65	1107	204	320	Greenville	1	-60	244	62	85
Stockton	77	29	98	-13	-19	MISS.Jackson	0	-43	85	-26	16	S.DAK.Aberdeen	134	-43	836	-9	45
COLO.Denver	160	23	666	76	83	Meridian	0	-49	111	-23	54	Huron	117	-48	758	11	52
Grand Junction	148	25	392	-48	11	MO.Columbia	27	-69	447	-114	160	Rapid City	151	-5	795	30	-1
Pueblo	125	1	417	-29	-7	Kansas City	49	-47	410	89	127	Sioux Falls	109	-51	781	51	134
CONN.Bridgeport	55	-36	454	110	227	St. Louis	11	-80	377	77	113	TENN.Chattanooga	9	-68	278	53	104
Hartford	76	-47	695	139	238	Springfield	25	-65	370	58	152	Knoxville	4	-68	238	20	70
DEL.Wilmington	18	-75	429	101	212	MONT.Billings	180	-24	891	88	77	Memphis	0	-60	149	-27	61
D.C.Washington	10	-66	276	37	151	Glasgow	170	-18	948	-22	69	Nashville	0	-75	244	20	139
FLA.Apalachicola	0	-17	8	-23	-10	Great Falls	185	-20	908	-10	22	TEX.Abilene	4	-40	118	8	30
Daytona Beach	0	-4	0	-4	-10	Havre	177	-14	1008	-46	109	Amarillo	66	-20	330	64	78
Ft. Myers	0	-2	0	-2	0	Helena	175	-11	1185	97	73	Austin	0	-24	21	-30	11
Jacksonville	0	-17	38	10	8	Kalispell	169	-32	1237	-108	47	Brownsville	0	-4	5	1	5
Key West	0	0	0	0	0	Miles City	157	-12	836	9	54	Corpus Christi	0	-7	4	-6	4
Lakeland	0	-3	0	-3	-4	Missoula	154	-36	967	-176	-96	Del Rio	2	-18	16	-27	15
Miami	0	0	0	0	0	NEBR.Grand Island	112	-20	574	44	67	El Paso	67	-14	178	61	80
Orlando	0	-3	0	-3	-6	Lincoln	83	-42	502	33	50	Fort Worth	0	-35	36	-41	-15
Tallahassee	0	-24	56	13	-1	Norfolk	101	-40	614	19	71	Galveston	0	-10	5	-13	4
Tampa	0	-3	0	-3	-6	North Platte	139	-10	747	85	20	Houston	0	-17	13	-20	3
W. Palm Beach	0	0	0	0	0	Omaha	70	-47	556	125	137	Lubbock	36	-38	262	58	102
GA.Atlanta	0	-58	174	2	70	Valentine	145	-13	755	42	26	Midland	12	-33	108	6	4
Augusta	0	-48	163	37	48	NEV.Ely	202	26	1010	-7	-68	Beaumont	0	-23	18	-28	2
Macon	0	-40	109	8	42	Las Vegas	84	40	91	-4	42	San Angelo	1	-38	62	-29	23
Savannah	0	-32	81	6	25	Reno	157	17	766	13	-31	San Antonio	0	-20	20	-21	13
IDAHO.Boise	128	-7	530	-76	-65	Winnemucca	163	6	823	-12	-29	Victoria	0	-12	6	-15	6
Lewiston	108	-28	475	-136	-118	N.H.Concord	126	-19	1020	226	178	Waco	0	-30	25	-40	-2
Pocatello	142	-20	796	-3	-79	N.J.Atlantic City	29	-64	472	133	135	Wichita Falls	1	-48	84	-31	10
ILL.Cairo	0	-71	228	27	80	Trenton	28	-62	422	91	159	UTAH.Salt Lake C	118	-17	424	-149	-122
Chicago	21	-96	534	100	164	N.MEX.Albuquerque	128	32	337	68	5	VT.Burlington	113	-37	959	130	137
Moline	27	-97	563	73	156	Roswell	74	-8	331	81	153	VA.Lynchburg	9	-77	378	72	154
Peoria	25	-96	533	73	161	N.Y.Albany	105	-27	935	282	251	Norfolk	4	-54	229	52	135
Rockford	44	-92	613	33	160	Binghamton	71	-70	913	161	245	Richmond	11	-64	372	114	189
Springfield	11	-98	447	59	167	Buffalo	51	-82	698	40	127	Roanoke	19	-70	392	85	160
IND.Evansville	1	-92	404	91	196	New York	42	-42	415	123	192	WASH.Quillayute	134	9	1045	-88	-295
Fort Wayne	26	-98	604	83	213	Rochester	63	-63	776	160	244	Seattle-Tacoma	129	11	643	-138	-110
Indianapolis	11	-102	548	126	264	Syracuse	81	-43	824	232	251	Spokane	158	-8	797	-74	-107
South Bend	23	-105	538	-18	182	N.C.Asheville	23	-72	392	30	141	Walla Walla	120	-1	430	-42	-68
IOWA.Burlington	39	-81	537	85	189	Hatteras	0	-36	144	51	110	Yakima	128	-20	643	-89	-118
Des Moines	61	-69	530	14	179	Charlotte	2	-61	266	75	117	W.VA.Beckley	21	-101	646	65	232
Dubuque	60	-85	751	92	238	Greensboro	6	-73	300	31	94	Charleston	18	-79	499	142	236
Sioux City	85	-53	563	-1	128	Raleigh	4	-66	312	22	173	Huntington	11	-85	455	101	245
KANS.Concordia	79	-30	400	2	29	Wilmington	0	-38	154	56	110	Parkersburg	19	-78	557	199	293
Dodge City	82	-21	356	21	33	N.Dak.Bismarck	182	-3	1168	215	166	WIS.Green Bay	85	-74	1015	187	373
Goodland	146	11	630	74	-5	Fargo	148	-36	1003	82	102	LaCrosse	73	-73	780	142	307
Topeka	51	-50	391	31	84	Williston	180	-13	1109	93	128	Madison	50	-106	777	7	141
Wichita	43	-46	281	-3	13	OHIO.Akron-Canton	20	-103	610	63	229	Milwaukee	45	-100	751	55	231
KY.Lexington	8	-88	463	133	231	Cleveland	22	-97	612	78	243	WYO.Casper	191	21	979	108	11
Louisville	4	-90	436	117	242	Columbus	20	-98	510	31	205	Cheyenne	195	32	966	85	-41
LA.Baton Rouge	0	-28	27	-40	5	Cincinnati	13	-89	524	163	231	Lander	184	2	943	49	-74
Lake Charles	0	-22	16	-30	2	Dayton	19	-95	552	123	239	Sheridan	172	1	1011	97	29
New Orleans	0	-23	24	-27	4	Toledo	43	-85	689	135	206						
Shreveport	0	-37	46	-42	0	Youngstown	31	-96	722	129	211						
MAINE.Caribou	168	-18	1341	69	197	OKLA.Okla City	13	-54	154	-37	-11						

* Based on 1941-70 Normals.



Continued from page 7
 in. east central to 0.06 in. north central. Greatest weekly rainfall was 1.96 in. at Fargo. Weekend was cool and damp with additional precipitation some areas.

Rain and snow received helped to replenish moisture supplies, but also halted harvest of corn and sunflowers temporarily. Precipitation will help pastures, haylands and be of benefit to fall sown grains as well as improve outlook for next year.

OHIO: Temperatures unseasonably warm. Range: 81° south, 33° north. Locally heavy rainfall north 2d and 3d. Greatest amount 1.34 in. north central, least 0.09 in. south.

Soybean harvest over 95% complete, 90% in 1973, and 80% normal. Corn for grain 55% harvested, 60% both 1973 and normal. Moisture content remains high. Sugarbeets over 90% harvested, 70% in 1973, and 55% normal. Popcorn 65% harvested, 80% in 1973, and 70% normal. Wheat over 95% seeded, virtually done in 1973, and 90% normal. Wheat 75% emerged. Soil moisture supplies 32% short, 64% adequate and 4% surplus. Fieldwork: 6 days favorable.

OKLAHOMA: Temperatures 3 to 9° above normal. Precipitation averaged from 0.50 in. Panhandle to 5.25 in. south central. Weekend cool, very wet; flooding in several areas of State.

Rainfall brought harvest progress near standstill. Some work early week, weekend rains caused extensive flooding which will cause crop loss and re-planting. Topsoil moisture surplus 57% before weekend floods. Wheat seeding 98% complete, same as year ago and average. Sorghum combining 34% com-

plete, behind 50% in 1973 and average 51%. Cotton harvest stymied wet weather, 2% picked, 5% 1973, 10% average. Peanuts 45% dug, some losses possible. Soybean harvest less than 10% complete, average 40%, 30% in 1973. Pecans dropping small crop. Ranges and cattle mostly good.

OREGON: Substantial rains exceeding 1.00 in. in west, 0.20 to 0.60 in. east. Temperatures near normal. Maximums generally in 60's. Minimums up- per 20's to lower 30's.

Fall seeding and land preparation continues. Fall grain germinating with rainfall. Shortage of fertilizer. Sugarbeet harvest continues, filberts and walnuts being harvested. Apple harvest finished along with most vegetables and potatoes. Ranges continue dry but improved by recent rains. Stock water, grass are short. Winter feed adequate, fire-hazard high. Cattle prices depressed, many cattle being held into winter.

PENNSYLVANIA: Very warm dry week. Temperatures averaged 9 to 15° above normal east, 10 to 18° above west. Average daytime highs 60's and 70's, overnight lows 40's and 50's. Scattered light showers in west midweek. Showers most sections weekend. Weekly rainfall totaled under 0.25 in. south and north central, 0.25 to 0.50 in. elsewhere.

Farmers finishing harvests, fall plowing and seeding.

PUERTO RICO: Average rainfall over island 2.49 in., 0.92 in. above normal. Highest weekly total rainfall 8.99 in. Jayuya followed by 8.96 in. Mar-

ica. Local floods in low-lying areas near rivers some northern and southern sections. Temperatures 77° coasts, 72° interior. Maximum 91°, minimum 57°.

Flooding caused by heavy rain did considerable damage to sugarcane fields in nearly all sections. Ripe coffee beans are still falling from trees due to rains, harvest delayed due to poor condition of roads. New plantings of tobacco have suffered from soil erosion in most zones. Pastures in good condition most areas. Food crop operations were interrupted by rains, but harvest of plintains, bananas, yams and vegetables was normal.

SOUTH CAROLINA: Temperatures 40's to 80's. State very dry all of October. Only precipitation during week in mountains. Crops and wooded areas very dry.

Soil moisture shortages more critical. Conditions excellent for harvest. Cotton 70% harvested, 68% 1973, 68% average. Corn 92% harvested, 90% 1973, 85% average. Soybeans 28% harvested, 21% 1973, 12% average. Sorghums 58% harvested, 43% 1973, 50% average. Pastures continue decline. Winter grazing 70% planted, 76% 1973, 80% average. Small grains suffering dry conditions; wheat 25% planted, 25% 1973, 25% average; oats 40% planted, 39% 1973, 37% average. Pecan condition poor.

SOUTH DAKOTA: General rain averaging 0.50 in. State remains very dry. Extremes: 79° Pickstown, 20° Brookings.

Corn harvest 94% complete, normal 69%, 1973 68%. Sunflower seed harvest nearly complete. Localized showers will help fall seeded grain. Livestock in good condition, calf sales increasing.

TENNESSEE: Locally heavy showers west. Temperatures considerably above normal. Dry weather east and many forest fires. Precipitation year to date above normal.

Soybeans 85% mature, 33% harvested, same as 1973 and average. Nearly all corn mature and 55% picked, 1 week behind normal. High moisture content in both soybeans and corn delaying harvest. Cotton bolls 75% open, 90% 1973, 85% average, 33% picked, 50% picked 1973 and normal. Tobacco stripping delayed by dry weather, 35% stripped, one week behind normal. Small grains up to good stands. Wheat 70% oats and barley 90% seeded, slightly behind average and 1973.

TEXAS: From 2 to 3 in. rains over large portion East Texas. Another 8.00 in. rainfall over portions north central Texas 31st. Light snow Panhandle 3d. All but far west above normal temperature. North central 17° above normal. Precipitation above normal nearly all State. North central and northeast 3 in. above weekly normal.

Rains across State stopped planting and harvest activity. Moisture good to excellent for seeding wheat and oat crops. Early stands continue excellent progress and furnishing grazing where fields are dry. Harvest cotton, corn, sorghum, peanuts delayed by weather. Major crops percent harvested: Cotton 28, 1973 27, average 29; corn 77, 1973 96, average 97; sorghum 62, 1973 88, average 73; soybeans 37, 1973 36, average 38; peanuts 59, 1973 76, average 72; sugarbeets 35, 1973 63, average 42. Major crops percent planted: Wheat 92, 1973 94, average 94; oats 91, 1973 88, average 83.

High Plains: Wet weather delayed harvest of lettuce and carrots. Trans-Pecos: Bell pepper harvest nearing completion in Reeves County. East: Wet fields continue to hamper harvest of sweetpotato crop. Coastal Bend: Emerged spinach making satisfactory growth. Showers delayed completion of planting. Cucumber harvest remains active. San Antonio-Winter Garden: Rains interrupted vegetable harvest. When weather permitted,

harvest of eggplant, cucumbers, squash and peppers active. Early cutting of cabbage fields getting underway. Lower Rio Grande Valley: Damp, cool weather increased disease problems in some vegetable fields. Cabbage and carrots are making good progress. Seeding will resume as fields dry. Pecan harvest was interrupted in most areas by rains and floods. Some pecans that had fallen may be lost completely to floods. Citrus picking was held to a minimum during the week as most groves were too wet to enter. Fruit is reported sizing extremely well. Harvest will pick up rapidly as soon as groves dry.

Wheat, oats excellent growth, furnishing increasing grazing on High and Low Plains. Heavy rains provided excellent moisture for range pastures. Some farmers still cutting hay East and Blacklands when weather permits. Confirmed cases screwworms continue.

UTAH: Shower activity averaged 1.50 in. south and central and 0.75 in. north. Average temperatures near normal; slightly below in south central and southeast, and somewhat above rest of State.

Harvest late summer crops progressing rapidly. Scattered showers over weekend temporarily halted harvest sugarbeets and field corn for grain. Sorting, grading, and marketing dry onions and apples in progress, just beginning potatoes. Movement sheep and cattle down from high summer range virtually completed. Fall and winter range feed prospects going into winter worst in many years.

VIRGINIA: Trace of showers north and west early in period otherwise unseasonably hot and dry weather continued. Extremes: 87 and 27°.

Excellent week for harvest. Topsoil moisture becoming very short. October rainfall sharply below normal most areas. Rain needed all areas for small grains, pastures, cover crops, seeded hay and grasses and as aid for land preparation. Corn harvest 71% complete, near finish in east and southeast. Soybean harvest halfway. Peanut harvest virtually over. Cotton picking expected to increase. Some damage late boles by frost-freeze in early October. Wheat 64% seeded, dry soils slowing planting. Rain needed to assure uniform germination. Flue-cured tobacco sales continue. Growers other types preparing for market. Pastures declined due moisture shortage. Many farmers preparing for winter relocating livestock, repairs and cutting firewood.

WASHINGTON: West: Average temperatures subnormal. Extremes: 60 and 30°. Precipitation throughout week with total amounts 0.30 in. to over 1.50 in.

Harvesting celery, beets, carrots, potatoes. Flower bulb planting and blueberry pruning underway. Major activities: Ditch digging, field ditching, lime spreading. New pasture seedings and winter rye seedings have germinated. Pastures still short. Livestock on winter rations. East: Average temperatures about 3° above normal. Extremes: 60, 30°. Total precipitation varied from 0.01 to 0.40 in.

Rain is needed in dryland areas. Harvesting sugarbeets, potatoes, grain corn. Winter wheat seeding about 80% completed. Major activities: Fertilizing, plowing, spraying for greenbugs, repairing hop trellis, cleaning apple bins, ladders, and props. Some cattle have been brought down from summer ranges and others are moving on to aftermath feeds.

WEST VIRGINIA: Temperatures much above normal. Precipitation very light.

Soil moisture 62% adequate, 38% short. Few pastures still productive. Corn harvest continues northeast. Some late seeding of small grains, germination is slow. Fieldwork suitable 5.1 days. Cattle in good condition, with many being held over for the winter.

WISCONSIN: Temperatures averaged 12° above normal. Mild until weekend when colder air moved in from north. Scattered showers during week with amounts exceeding 1.00 in. A few snow flurries north 3d.

Corn for grain 40% harvested, 1973 60%, 1968-73 average 50%. Moisture content still high on late corn. Much variation in moisture content and yields. Soft corn presenting storage problems with mold reported, shrinkage and light test weights common. Picker-shellers and dryers operating steadily. Soybeans 80% harvested, 1973 80%, 1968-73 50%, early beans have best yields and quality, late beans were still green when frozen. Fall plowing 45% done, 1973 55%, normal 50%, rains improved plowing conditions where

previously too dry. North nearly done harvesting and plowing. Soil moisture 45% short, 50% adequate, 5% surplus. Rain benefited new seedings and winter grains. Fall pastures poor, most farms on winter feeding program. Harvesting of fruits and vegetables about done except for some apples, carrots, red beet, and cabbage. Warm, moist weather of past two weeks hastened curing of tobacco in sheds.

WYOMING: Precipitation on increase and very beneficial past week. Most drainages averaging from 0.50 to 1.00 in. Temperatures slightly above normal.

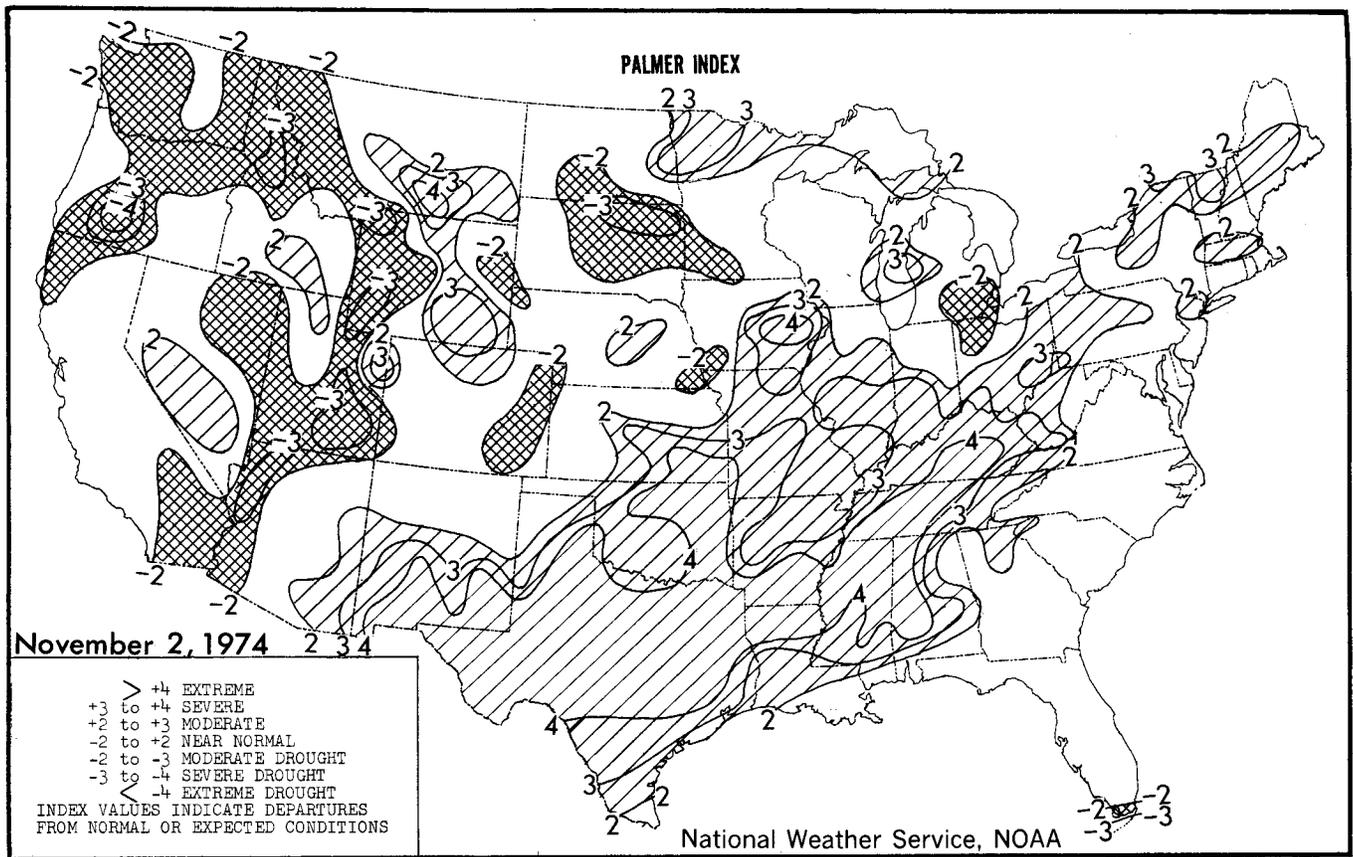
Harvesting fall crops virtually complete except corn for grain. Few fields sugarbeets remain. Sugar content near 18%. Corn for grain 65% picked, 40% 1973, 85% 1972. Rain and snow continued to improve winter wheat prospects. Soil moisture still short most areas. About 65% yearlings, 40% calves, 75% lambs marketed compared with 75%, 50%, 75% in 1973. Livestock condition good. Winter feed supplies adequate. Range condition fair.

Heating Degree Days (Base 65° F.)

October 1974

ALA. Birmingham	159	MAINE, Caribou	789	OKLA. Okla. City	88
Mobile	58	Portland	624	Tulsa	94
Montgomery	115	MD. Baltimore	303	OREG. Astoria	398
ALASKA, Anchorage	937	MASS. Boston	458	Burns U.	515
Barrow	1820	Chatham	441	Medford	333
Fairbanks	1342	MICH. Alpena	628	Pendleton	312
Juneau	690	Detroit	495	Portland	300
Nome	1255	Flint	519	Salem	364
ARIZ. Flagstaff	322	Grand Rapids	555	PA. Allentown	471
Phoenix	21	Houghton Lake	633	Erie	511
Tucson	53	Lansing	538	Harrisburg	414
Winslow	260	Marquette U.	564	Philadelphia	313
Yuma	12	S. Ste. Marie	729	Pittsburgh	384
ARK. Fort Smith	113	MINN. Duluth	684	Scranton	503
Little Rock	111	Internatl Falls	669	R. I. Providence	512
CALIF. Bakersfield	26	Minneapolis	467	S. C. Charleston	136
Eureka U.	360	Rochester	478	Columbia	163
Fresno	59	St. Cloud	558	Greenville	205
Los Angeles U.	25	MISS. Jackson	79	S. DAK. Aberdeen	455
Red Bluff	69	Meridian	103	Huron	414
Stockton	60	MO. Columbia	257	Rapid City	407
San Diego	14	Kansas City	227	Sioux Falls	419
San Francisco	117	St. Louis	242	TENN. Chattanooga	250
COLO. Denver	379	Springfield	211	Knoxville	215
Grand Junction	266	MONT. Billings	444	Memphis	121
Pueblo	249	Glasgow	481	Nashville	196
CONN. Bridgeport	368	Great Falls	419	TEX. Abilene	67
Hartford	542	Havre	530	Amarillo	199
D. C. Washington	250	Helena	588	Austin	11
FLA. Apalachicola	8	Kalispell	676	Beaumont	20
Ft. Myers	0	Miles City	452	Brownsville	3
Jacksonville	38	Missoula	575	Corpus Christi	4
Key West	0	NEBR. Grand Island	315	Del Rio	9
Lakeland U.	0	Lincoln	278	El Paso	107
Miami	0	Norfolk	340	Fort Worth	16
Orlando	0	North Platte	373	Galveston U.	2
W. Palm Beach	0	Omaha	300	Houston	15
Tallahassee	56	Valentine	398	Lubbock	166
Tampa	000	NEV. Ely	622	Midland	65
GA. Atlanta	148	Las Vegas	55	San Angelo	37
Augusta	152	Reno	478	San Antonio	19
Macon	95	Winneucca	521	Victoria	7
Savannah	79	N. H. Concord	684	Waco	14
IDAHO, Boise	391	N. J. Atlantic City	392	Wichita Falls	54
Lewiston	362	Trenton U.	343	UTAH, Salt Lake City	316
Pocatello	500	N. MEX. Albuquerque	212	Salt Lake City	316
ILL. Cairo U.	170	Roswell	189	VT. Burlington	665
Chicago	360	N. Y. Albany	631	VA. Lynchburg	304
Moline	349	Binghamton	615	Norfolk	213
Peoria	354	Buffalo	483	Richmond	310
Rockford	400	New York	341	Roanoke	378
Springfield	299	Rochester	535	WASH. Colville	571
IND. Evansville	280	Syracuse	565	Quillayute	438
Fort Wayne	424	N. C. Asheville	316	Seattle-Tacoma	380
Indianapolis	380	Charlotte	216	Spokane	519
South Bend	378	Greensboro	244	Walla Walla U.	326
IDAHO, Burlington	322	Hatteras R.	141	Yakima	452
Des Moines	307	Raleigh	268	W. VA. Beckley	447
Dubuque	433	Wilmington	149	Charleston	388
Sioux City	317	N. DAK. Bismarck	582	Huntington	337
KANS. Concordia	223	Fargo	537	Parkersburg U.	357
Dodge City	180	Williston U.	553	WIS. Green Bay	588
Goodland	329	OHIO. Akron-Canton	438	Madison	443
Topeka	213	Cincinnati U.	371	Milwaukee	461
Wichita	156	Cleveland	423	WYO. Casper	504
KY. Lexington	338	Columbus	374	Cheyenne	509
Louisville	314	Dayton	384	Lander	513
LA. Baton Rouge	25	Toledo	477	Sheridan	513
Lake Charles	16	Youngstown	480		
New Orleans	24				
Shreveport	32				

Preliminary reports from airport locations, except those marked U for urban and R for rural.
*Estimated.

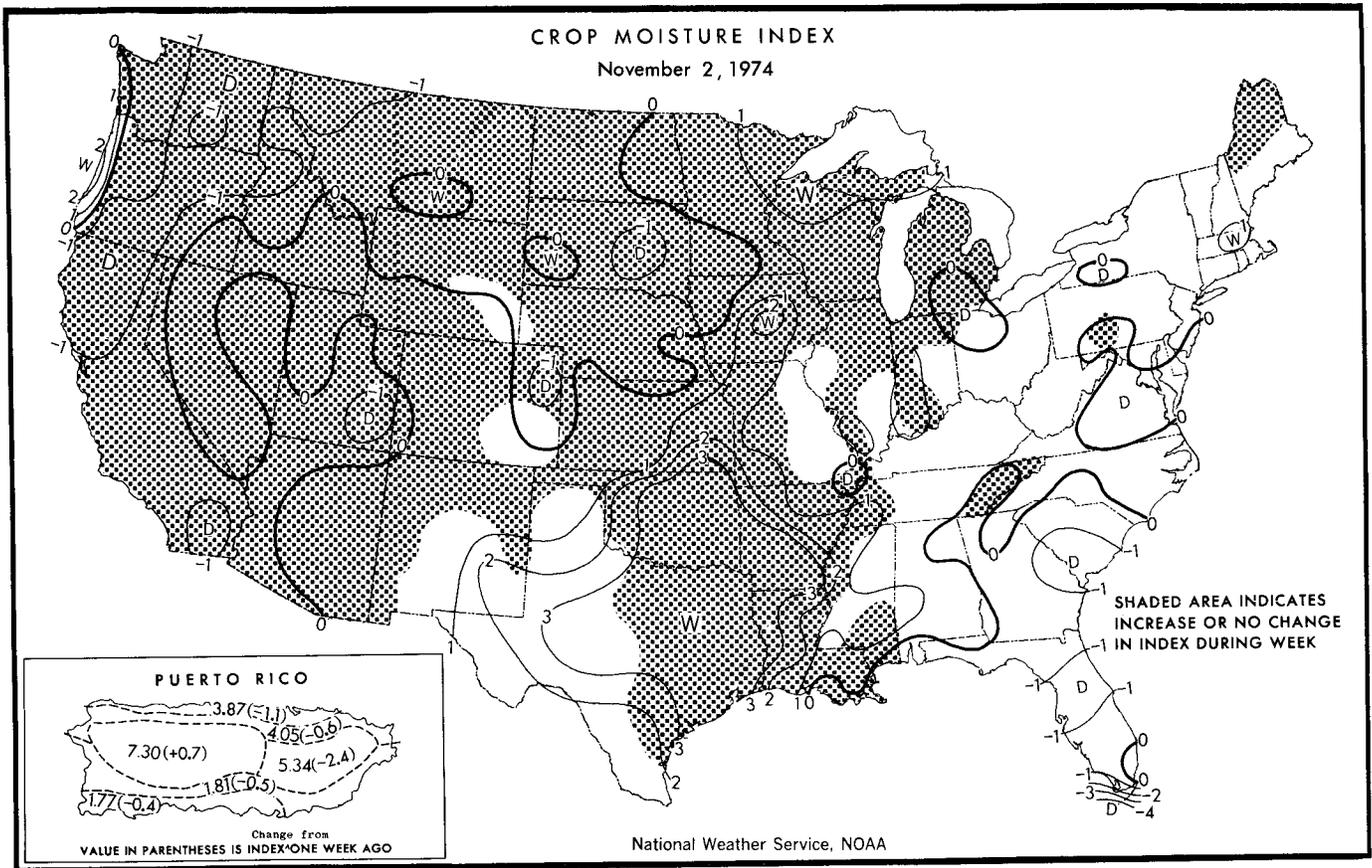


PALMER INDEX

Drought areas, as indicated by the Palmer Index, have improved considerably in the past month. All of the dry areas in the Western mountains have received significant precipitation during October, most of it falling during the last week. The moderate drought in the Far West has spread to include the Pacific Northwest since last month, but some light rain fell there during the last week of the period. In some areas like New Mexico and eastern Arizona, the drought has ended but moderate to severe drought persists in the areas indicated by the double hatching. The severe areas are confined to small pockets in southeastern Colorado, western Wyoming and northern Idaho. Northeastern South Dakota also has a small area of severe drought. One week of rain does not break the drought. The general rains have been very beneficial to help germinate winter grains that had previously been planted in dry ground. Also, snow in the higher elevations will help next years water supply.

Please remember that the Palmer Index differs from the Crop Moisture Index on the opposite page in that the Palmer Index indicates the cumulative departures from normal of the expected precipitation over a long period of time whereas the Crop Moisture Index is an index of evapotranspiration anomaly for this week only.

This is the last week that the Palmer Index and Crop Moisture Index will appear this year. The maps will again appear in early April of 1975.



SHADED AREAS: Index increased or did not change last week

Index

- Above 3.0 Excessively wet, some fields flooded
- 2.0 to 3.0 Too wet, some standing water
- 1.0 to 2.0 Prospects good, some fields too wet
- 0 to 1.0 Moisture adequate for present normal needs
- 0 to -1.0 Prospects improved, but rain still needed
- 1.0 to -2.0 Some improvement, but still too dry
- 2.0 to -3.0 Drought eased, but still serious
- 3.0 to -4.0 Drought continues, rain urgently needed
- Below -4.0 Not enough rain, still extremely dry

UNSHADED AREAS: Index decreased last week

Index

- Above 3.0 Some drying, but still excessively wet
- 2.0 to 3.0 More drying weather needed, work delayed
- 1.0 to 2.0 Favorable, except still too wet in spots
- 0 to 1.0 Normal growth and fieldwork
- 0 to -1.0 Topsoil moisture short, germination slow
- 1.0 to -2.0 Abnormally dry, prospects deteriorating
- 2.0 to -3.0 Too dry, yield prospects reduced
- 3.0 to -4.0 Potential yields severely cut by drought
- Below -4.0 Extremely dry, most crops near ruin

The map gives a general picture of how wet or dry the Nation was last week. It shows areas where abnormal wetness or dryness have hindered crops and areas where moisture conditions have favored them.

The lines show the crop-moisture situation according to an index computed from values of temperature and precipitation by areas...350 climatological divisions, which correspond roughly to SRS's crop reporting districts. Previous weekly computations of soil moisture account for the effects of prior weather.

Shaded areas are those where precipitation increased the index last week or where soils did not dry. Unshaded areas dried last week.

The centers of wet or dry areas are marked: W=wet; D=dry. The map lines mark off crop situations. Use the legend to interpret.

Local variations caused by isolated rain or by soil differences are not shown. While shallow rooted crops in poor soils may suffer more than the map shows, conditions may be better where soils are good. Also, legends apply to growing rather than mature plants. Any map interpretation must consider both the growth stage and moisture status and trend. In irrigated regions, the index values reflect only departures from ordinary irrigation requirements.



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