

# Weekly Weather & Crop Bulletin

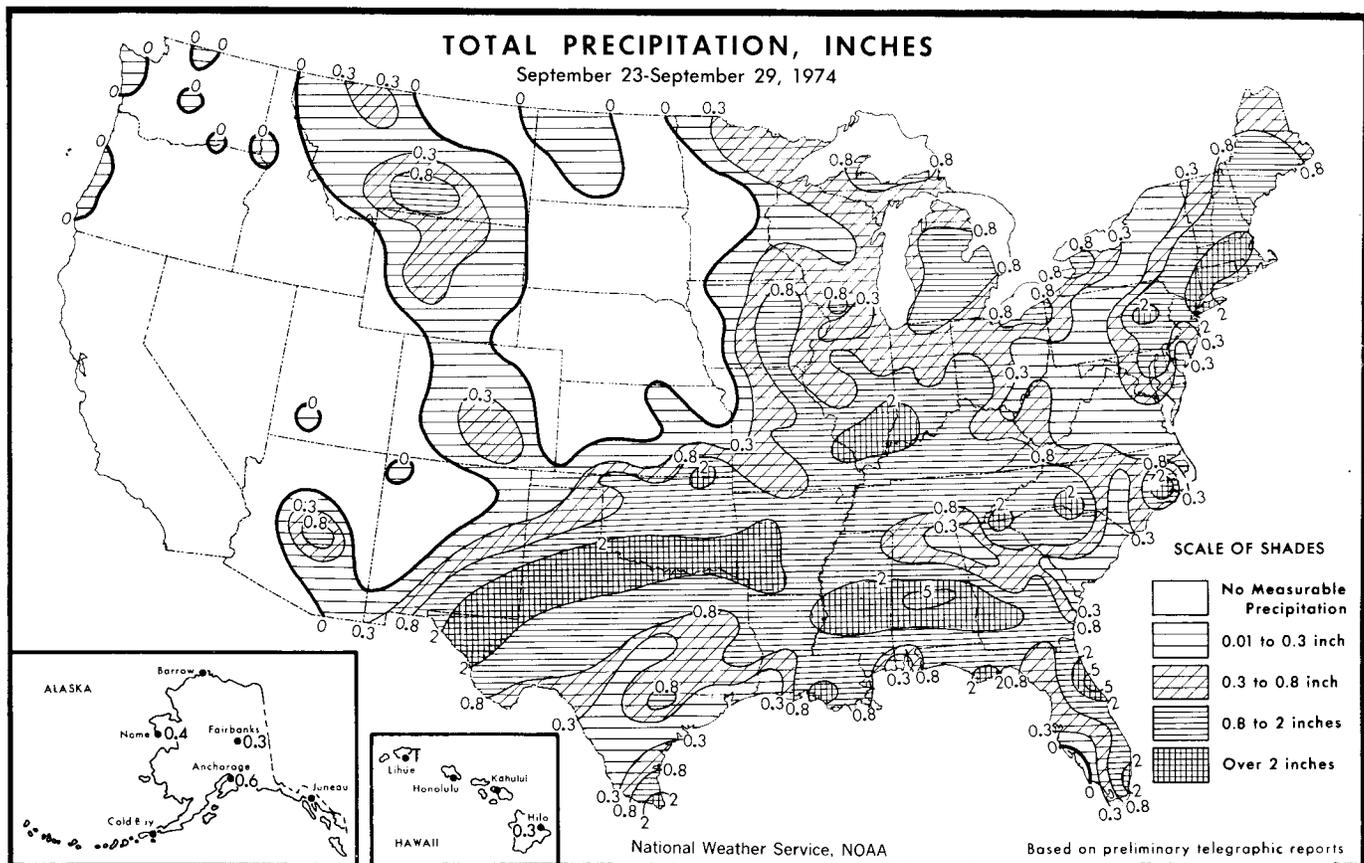
U. S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

U. S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service

Volume 61, No. 40

Oct. 1, 1974

Washington, D. C.



## NATIONAL WEATHER SUMMARY

**HIGHLIGHTS:** Cooler than normal temperatures covered the U.S. last week except for the western mountain areas. The greatest negative departures were recorded in west central Texas, where Abilene temperatures averaged 13° below normal. Moderate frost hit the northern Corn Belt early in the week.

In contrast, readings were 4 to 8° above normal in California and Oregon.

Most of the week's precipitation fell southeast of a line stretching from southeastern New Mexico to the Great Lakes. Elsewhere, a band of light precipitation fell across the mountains from Texas northwestward through Montana and some heavy thundershowers were reported in central Arizona.

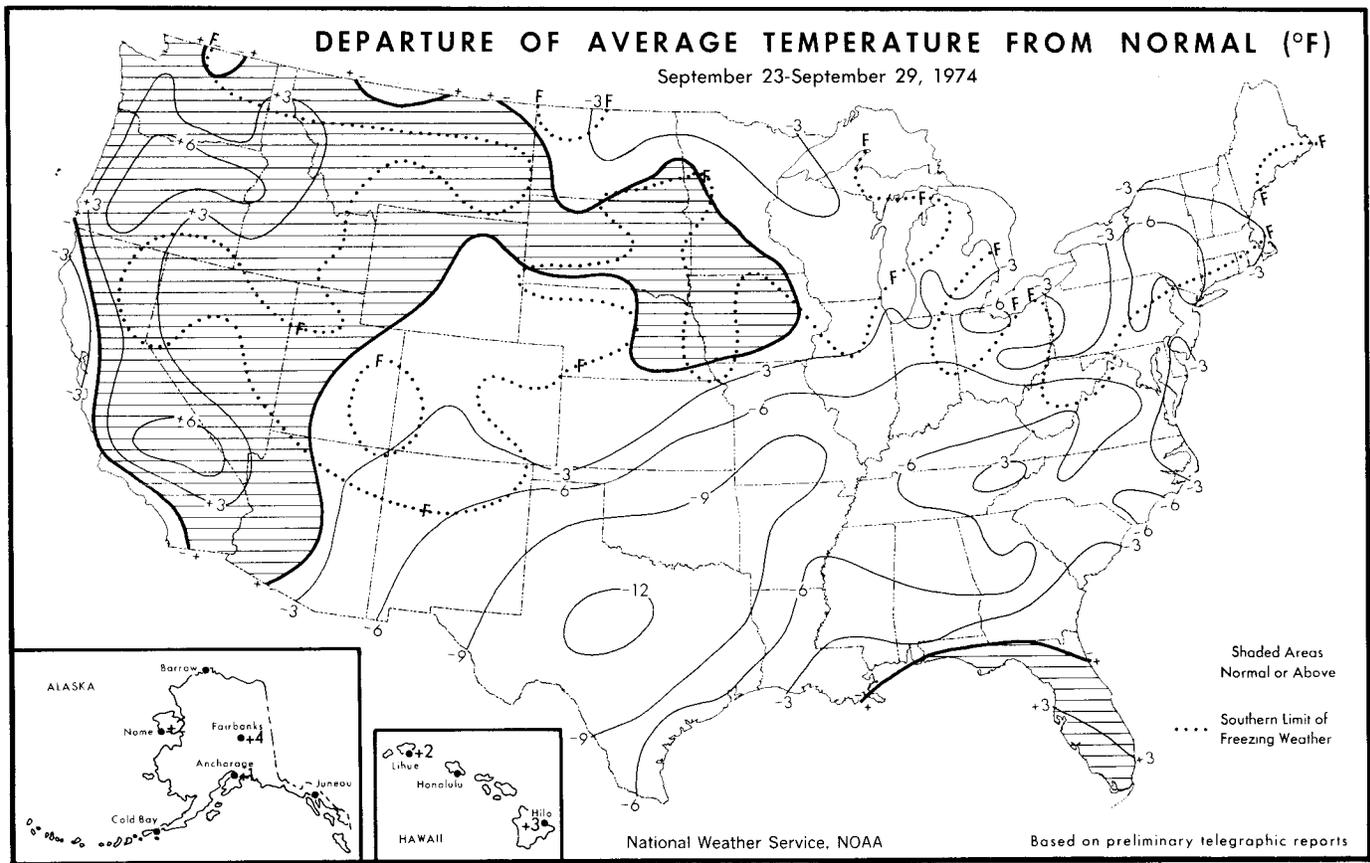
**PRECIPITATION:** During the week, isolated heavy showers and thundershowers were scattered across the Nation's eastern two-thirds. Heavy precipitation fell across Texas, Oklahoma, Arkansas,

Mississippi, Alabama, Georgia, and Florida, measuring from 2.50 to 5.00 in. Further north, moderate precipitation was reported throughout the New England area. However, most of the Far West and the northern Great Plains remained dry.

Monday, the 23d, thundershowers fell across southern Texas and along the south Atlantic Coast. Heavy rains fell during the predawn hours triggering floods in some low lying-areas of El Paso, Texas. The Rio Grande River flooded from El Paso southward to Fort Hancock.

Widespread rains fell from eastern New Mexico across Oklahoma to portions of Arkansas and Missouri on Tuesday. Frederick, Okla., received 2.00 in. in only six hours while both Altus, Okla., and Childress, Texas got more than 1.00 in.

Wednesday, the 25th, showers occurred along the Gulf Coast, in Florida, and through the Great Lakes and in the southern Plateau.



A tropical depression in the northeastern Gulf of Mexico, triggered widespread rains from Florida through the eastern Gulf Coast States to the Tennessee Valley on Thursday. During the afternoon some thunderstorms occurred in southern Arizona. Organ Pipe Cactus National Monument reported 2.00 in. of rain in 2 hours and Nogales got 0.62 in. of rain in only one hour.

Friday, the 27th, the tropical depression triggered heavy predawn rains, dumping 2.00 in. of moisture on St. Petersburg, Fla., before dissipating. Elsewhere, a mixture of snow and rain fell on the northern and central Rockies and along the foothills to the east.

Scattered showers and a few thundershowers occurred from the Atlantic Coast across the Mississippi Valley into Kansas and Oklahoma on Saturday. Charlotte, N.C., measured 2.00 in. during the early morning; Erie, Kans., got 1.50 in., and Windsor, Mo., got 1.00 in.

Sunday, the 29th, widespread precipitation fell in the northern and eastern sections of the Nation as a slow moving storm system inched across the central Great Lakes Region. The storm system also triggered showers and thundershowers from the New England States down the Atlantic Coast to Cape Hatteras, N.C.

**TEMPERATURE:** Most of the Nation experienced below normal temperatures last week. Cool weather in the North Central States at the beginning of the week combined with exceptionally high temperatures on Thursday producing weekly readings 1 to 2° below normal. Only Florida, some Midwest States and the Far West reported temperatures near normal or above.

Monday, the 23d, record low temperatures were set in an area from southeast Minnesota and northwest Pennsylvania to west central Georgia.

Clear skies and record cold temperatures covered the northern and middle Atlantic Coast to the Lower Great Lakes on Tuesday. Some record lows were recorded at the following locations: Providence, R.I., 34°; Hartford, Conn., 30°; Binghamton, N. Y., 23°; Scranton, Pa., 30°; and Cleveland, Ohio 36°.

Wednesday, the 25th, cool morning temperatures continued across much of the eastern two-thirds of the Nation with readings in the 50's from central Texas to the Great Lakes and 40's reaching south into Virginia and North Carolina. Meanwhile, southern Texas and Florida remained mild with readings in the 70's.

Minimum temperatures were cooler than normal during the early morning hours across most of the Nation on Thursday. During the afternoon high temperature records were broken in North Dakota, South Dakota, Nebraska, and Wisconsin with temperatures ranging from 86° to 90°.

Friday, the 27th, cool air replaced Thursdays record breaking heat in the Northern Plains; temperatures were on the cool side, down in the 50's and 60's.

Freezing temperatures prevailed as far south as northern New Mexico over the western mountains on Saturday morning. One of the lowest readings was 18° at Laramie, Wyo.

Sunday, the 29th, early afternoon temperatures held in the 30's in the northern portions of Montana and North Dakota. Coldest evening temperatures were recorded in northern Minnesota where the mercury dipped into the 20's.

## NATIONAL AGRICULTURAL SUMMARY

**HIGHLIGHTS:** Frost damage variable in Southern Corn Belt. Cold wet weather plagued many Southern States. Corn and soybean harvest started in most North Central States. Small grain harvest in final stage.

**SMALL GRAINS:** Dry weather conditions in the Northern Plains enabled farmers to make good harvesting progress. Combining of spring seeded grain is nearing completion in Minnesota and is now virtually completed in Montana. Excellent progress was made in North Dakota as oats and barley harvest was 95% completed, spring wheat 90% and durum 80% harvested.

Rain slowed winter wheat seeding in much of Texas and Oklahoma, but progress advanced rapidly elsewhere in the Great Plains. The Texas wheat crop is 55% seeded, Kansas 60% seeded against only 35% in 1973 and 50% average. Winter wheat seeding in the other North Central States continued at a rapid pace with Nebraska and South Dakota both 80% done. Illinois and Indiana were both 15% completed versus the normal 25%.

**CORN:** The growing season came to an end for much of this year's corn crop over most of the Corn Belt on the nights of September 21 and 22. Damage caused by the earlier than normal frost varied throughout these States as maturity ranged from milk to dough in the latest planted fields to mature and safe from frost.

In Iowa, corn growth was stopped in the northern two-thirds, however, the State's crop was 86% in or past the dent stage. Corn was 70% mature in Illinois, behind 1973 and average progress of 90%.

Harvest is now underway in most of the Corn Belt States and is now 5% completed in Illinois, Indiana, Nebraska, and Ohio. The rate of harvest was behind average in Illinois and Ohio while Indiana farmers were making average progress. The Nebraska harvest was slightly ahead of average.

The Southern corn harvest continued at a good pace in most States, but was also behind normal progress in many States.

**COTTON:** Continued rain and subnormal temperatures are causing boll rot and deterioration of this year's cotton crop in the South Central States. In Mississippi, soil moisture is adequate to excessive, 49% of the bolls are open and 2% of the crop was harvested versus the normal 45% open and 9% harvested. In Arkansas, top bolls aren't maturing, bottom bolls are rotting, and insect infestation is medium to heavy. The condition in Louisiana continues to decline, with 55% of the bolls open, much ahead of the late 1973 progress of 28% open.

Cotton picking has started in Alabama, Arkansas, and North Carolina; gaining momentum as weather permitted in Louisiana, Mississippi, and South Carolina. Harvest made little progress in Texas as cool, wet weather prevailed.

Cool weather delayed maturity in New Mexico, with 35% of the bolls open. Rains reduced quality and yields. Harvest was gaining momentum in central and western areas of Arizona.

**SOYBEANS:** Frost on the nights of September 21 and 22 stopped soybean growth in the Northern Corn Belt States while many fields in the southern half of Illinois, Iowa and much of Indiana and Ohio had only the top of the plants frosted.

Soybeans in Illinois were 45% shedding leaves,

compared with 85% both in 1973 and average. In Iowa 75% of the crop was shedding leaves, much shedding is occurring following the killing frost. Soybeans were in fair to good condition in Missouri, with 38% turning, 13% mature, in 1973 32% were mature.

Harvest is underway in most North Central States, with 5% done in Illinois and Indiana, 6% in Iowa and 10% in Ohio. Progress in these States is much behind last year and average. Soybeans have dried rapidly since the recent frost in Minnesota and 40% of the crop is harvested, compared with only 7% in 1973 and the average of 11%.

In the South, combining is in the early stages. The Louisiana crop is 5% harvested followed by Mississippi with 4% harvested.

**OTHER CROPS:** Cool, wet weather stalled the sorghum harvest in Texas at 53% completed versus 51% in 1973 and the 48% average. Sorghum in Kansas was 25% mature while harvest was active in the east central and southeast. In Nebraska, 60% was ripe and 10% harvested.

Burley tobacco is 76% harvested in North Carolina, behind the 1973 progress of 82%. Kentucky's Burley crop was 80% harvested, but frost damaged much of the standing crop.

Peanuts in Georgia were 79% dug and 65% threshed, while wet weather continued to slow harvest in Texas, with only 29% harvested, compared with 40% in 1973. Harvest in North Carolina at 8% trails last year's pace of 44% and the average 12%.

Potato digging continues active in most of the fall producing States. Aroostock County, Maine harvest is nearly 33% complete.

Sugarbeet lifting started in Michigan, Minnesota, and North Dakota, but no stockpiling. Rice harvest was 96% completed in Texas, while harvest of the first crop in Louisiana was virtually done south and combining of the second crop was underway.

**FRUITS AND NUTS:** Western New York apple harvest continues active, fruit is small, but color is good. Harvest of Red and Golden Delicious apples gaining in Washington, while a good apple crop is being picked in Wisconsin. Wine grape harvest is underway in California, where raisin drying conditions remain favorable. Harvest of New York wine variety grapes is nearly complete in Finger Lakes and Concord harvest is underway all areas. Cool weather has delayed maturity and reduced sugar buildup.

**VEGETABLES:** Frost ended most vegetable growth in many of the North Central and North Atlantic States during the past week. Tomatoes and sweet corn were hit hard in Michigan, while considerable acreage of sweet corn and snap beans were lost in Wisconsin.

Vegetable planting activity was curtailed in most areas of Texas as moderate to heavy rain fell. Fall vegetable harvest is picking up in Florida. Good quantities of broccoli, cauliflower, brussel sprouts, carrots, celery, honeydew melons, lettuce and bell peppers continue being harvested in California.

**PASTURES AND LIVESTOCK:** Pastures and range feed continue to improve in Texas and parts of Arizona and New Mexico as rain replenished topsoil moisture. Livestock are moving down from the higher elevations in California, Colorado, Nevada and Oregon. Winter feed supplies are mostly adequate in Montana, Washington and Wyoming. Livestock movement slow in most Western States.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Sept. 29, 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 . . .	64	- 7	.8	0	La. Baton Rouge . . .	73	- 2	.9	+ .1	Youngstown . . . .	55	- 5	.8	+ .2
Mobile . . . . .	72	- 3	.2	-1.1	Lake Charles . . . .	72	- 4	.1	- .8	OKLA. Okla. City . .	62	- 8	1.3	+ .5
Montgomery . . . .	67	- 6	4.3	+3.4	New Orleans . . . .	75	- 1	1.6	+ .5	Tulsa . . . . .	61	- 9	1.5	+ .5
ALASKA Anchorage . .	45	+ 1	.6	+ .1	Shreveport . . . .	66	- 9	1.7	+1.0	OREG. Astoria . . . .	58	+ 1	0	- .9
Barrow . . . . .	---	---	---	---	MAINE. Caribou . . .	50	- 1	.7	- .1	Burns . . . . .	58	+ 3	0	- .1
Fairbanks . . . . .	43	+ 4	.3	+ .1	Portland . . . . .	54	- 2	1.5	+ .8	Medford . . . . .	67	+ 6	0	- .2
Juneau . . . . .	---	---	---	---	MD. Baltimore . . . .	61	- 4	1.7	+1.0	Pendleton . . . . .	69	+ 8	0	- .2
Kodiak . . . . .	---	---	---	---	MASS. Boston . . . .	58	+ 4	2.0	+1.3	Portland . . . . .	65	+ 5	0	- .5
Nome . . . . .	40	+ 2	.4	- .1	Chatham . . . . .	58	- 1	1.5	---	Salem . . . . .	62	+ 3	0	- .5
ARIZ. Flagstaff . . .	55	0	T	- .4	MICH. Alpena . . . .	52	- 1	.6	- .1	PA. Allentown . . . .	56	- 5	1.8	+1.0
Phoenix . . . . .	83	+ 2	.3	+ .2	Detroit . . . . .	56	- 4	.7	+ .2	Erie . . . . .	56	- 2	.5	- .3
Tucson . . . . .	74	- 4	.1	- .2	Flint . . . . .	57	- 1	1.2	+ .7	Harrisburg . . . . .	58	- 6	.6	0
Winslow . . . . .	63	- 3	T	- .1	Grand Rapids . . . .	54	- 5	1.3	- .5	Philadelphia . . . .	62	- 3	.8	+ .2
Yuma . . . . .	86	+ 2	0	- .1	Houghton Lake . . . .	53	+ 1	1.5	+ .8	Pittsburgh . . . . .	58	- 3	.1	- .5
ARK. Fort Smith . . .	60	-11	1.1	+ .3	Lansing . . . . .	57	- 2	1.5	+ .9	Scranton . . . . .	55	- 5	1.5	+ .9
Little Rock . . . . .	64	- 6	1.0	+ .2	Marquette . . . . .	53	- 2	.9	+ .2	R. I. Providence . . .	57	- 3	2.0	+1.3
CALIF. Bakersfield . .	80	+ 6	0	- .1	Muskegon . . . . .	57	- 1	.5	- .3	S. C. Charleston . . .	71	- 2	T	-1.1
Eureka . . . . .	53	- 3	T	- .3	S. Ste. Marie . . . .	50	- 2	.8	- .1	Columbia . . . . .	67	- 4	.1	- .8
Fresno . . . . .	75	+ 4	0	- .1	MINN. Duluth . . . .	46	- 5	.4	- .2	Greenville . . . . .	64	- 5	1.4	+ .6
Los Angeles . . . . .	71	- 1	0	0	Internat Falls . . . .	46	- 4	.4	- .3	S. D. Aberdeen . . . .	57	+ 2	0	- .4
Red Bluff . . . . .	74	+ 1	0	- .1	Minneapolis . . . . .	55	- 2	T	- .6	Huron . . . . .	58	+ 1	0	- .4
San Diego . . . . .	68	- 1	T	0	Rochester . . . . .	56	0	.5	- .1	Rapid City . . . . .	58	+ 1	0	- .3
San Francisco . . . .	60	- 4	T	- .1	St. Cloud . . . . .	53	- 1	T	- .5	Sioux Falls . . . . .	59	+ 2	T	- .6
Stockton . . . . .	71	+ 1	0	- .1	MISS. Jackson . . . .	68	- 5	3.2	+2.6	TENN. Chattanooga . .	63	- 6	.3	- .5
COLO. Denver . . . .	59	0	.2	- .1	Meridian . . . . .	68	- 4	2.7	+2.0	Knoxville . . . . .	66	- 3	.9	+ .3
Grand Junction . . . .	62	- 2	T	- .2	MO. Columbia . . . .	57	- 8	.7	- .4	Memphis . . . . .	63	- 7	1.4	+ .8
Pueblo . . . . .	61	- 2	.5	+ .3	Kansas City . . . . .	61	- 5	T	-1.0	Nashville . . . . .	64	- 5	1.8	+1.2
CONN. Bridgeport . . .	59	- 4	1.2	+ .6	St. Louis . . . . .	59	- 7	1.5	+ .8	TEX. Abilene . . . . .	60	-13	1.4	+ .8
Hartford . . . . .	56	- 4	3.4	+2.6	Springfield . . . . .	57	- 9	.4	- .6	Amarillo . . . . .	58	- 9	.6	+ .2
D. C. Washington . . .	64	- 3	.7	+ .1	MONT. Billings . . . .	55	0	1.0	+ .7	Austin . . . . .	67	- 9	.5	- .4
FLA. Apalachicola . .	77	0	4.5	+2.7	Glasgow . . . . .	55	+ 2	0	- .1	Beaumont . . . . .	71	- 5	1.1	-1.0
Daytona Beach . . . .	80	+ 2	6.6	+5.0	Great Falls . . . . .	54	0	.3	0	Brownsville . . . . .	77	- 3	2.8	+1.6
Ft. Myers . . . . .	84	+ 4	T	-1.9	Havre . . . . .	54	0	T	- .2	Corpus Christi . . . .	75	- 4	.6	- .5
Jacksonville . . . . .	75	- 1	1.8	+ .1	Helena . . . . .	53	+ 1	T	- .2	Del Rio . . . . .	67	-11	.7	0
Key West . . . . .	85	+ 3	T	-1.7	Kalispell . . . . .	52	+ 2	.1	- .1	El Paso . . . . .	63	- 8	1.4	+1.1
Lakeland . . . . .	81	+ 2	.6	- .6	Miles City . . . . .	57	+ 1	T	- .3	Fort Worth . . . . .	64	-11	1.0	+ .3
Miami . . . . .	85	+ 4	2.6	+ .4	Missoula . . . . .	55	+ 3	.2	0	Galveston . . . . .	72	- 6	T	-1.2
Orlando . . . . .	81	+ 2	1.5	- .1	NEBR. Grand Island . .	62	+ 1	0	- .5	Houston . . . . .	70	- 7	.1	-1.0
Tallahassee . . . . .	77	+ 1	1.3	0	Lincoln . . . . .	62	0	0	- .6	Lubbock . . . . .	59	- 9	3.0	+2.4
Tampa . . . . .	83	+ 4	.4	- .8	Norfolk . . . . .	60	0	0	- .5	Midland . . . . .	62	-11	1.9	+1.5
W. Palm Beach . . . .	83	+ 2	1.8	- .7	N. Platte . . . . .	57	- 1	0	- .4	San Angelo . . . . .	62	-12	1.0	+ .4
GA. Atlanta . . . . .	64	- 5	.1	- .6	Omaha . . . . .	61	0	T	- .6	San Antonio . . . . .	67	-10	.6	- .3
Augusta . . . . .	68	- 3	.2	- .5	Valentine . . . . .	57	- 1	0	- .3	Victoria . . . . .	73	- 5	.2	- .9
Macon . . . . .	67	- 6	.7	0	NEV. Ely . . . . .	54	+ 1	T	- .1	Waco . . . . .	65	-11	.1	- .7
Savannah . . . . .	71	- 3	.2	- .9	Las Vegas . . . . .	80	+ 4	0	- .1	Wichita Falls . . . .	62	-11	3.3	+2.5
HAWAII. Hilo . . . . .	78	+ 3	.3	-1.5	Reno . . . . .	80	+ 3	0	- .1	UTAH. Blanding . . . .	58	- 2	T	- .3
Honolulu . . . . .	---	---	---	---	Winemucca . . . . .	57	+ 1	0	- .1	Salt Lake City . . . .	63	+ 2	0	- .2
Kahului . . . . .	---	---	---	---	N. H. Concord . . . . .	53	- 3	1.2	+ .5	N. J. Atlantic City . .	60	- 4	.5	- .1
Lihue . . . . .	80	+ 2	T	- .5	Trenton . . . . .	60	- 4	.2	- .5	N. MEX. Albuquerque .	61	- 6	0	- .2
IDAHO. Boise . . . . .	63	+ 4	0	- .1	Roswell . . . . .	59	- 8	1.2	+ .8	N. Y. Albany . . . . .	53	- 6	1.0	+ .3
Lewiston . . . . .	63	+ 3	T	- .2	N. Y. Albany . . . . .	53	- 6	1.0	+ .3	Binghamton . . . . .	51	- 6	.2	- .5
Pocatello . . . . .	57	+ 1	T	- .1	Buffalo . . . . .	57	- 2	.9	+ .2	New York . . . . .	61	- 4	2.0	+1.4
ILL. Cairo . . . . .	61	- 8	.3	- .4	Rochester . . . . .	57	- 2	.4	- .1	Syracuse . . . . .	54	- 6	.2	- .4
Chicago . . . . .	59	- 4	.6	- .1	Syracuse . . . . .	54	- 6	.2	- .4	N. C. Asheville . . . .	59	- 5	1.2	+ .4
Moline . . . . .	59	- 2	.1	- .8	Charlotte . . . . .	63	- 6	2.0	+1.2	Greensboro . . . . .	62	- 5	.5	- .3
Peoria . . . . .	59	- 3	.8	0	Hatteras . . . . .	70	- 1	.1	-1.1	Raleigh . . . . .	63	- 4	.2	- .6
Rockford . . . . .	59	- 1	.1	- .8	Wilmington . . . . .	65	- 7	.5	- .6	N. DAK. Bismarck . . .	51	- 3	.2	- .1
Springfield . . . . .	60	- 4	.1	- .7	Fargo . . . . .	55	+ 1	T	- .4	Fargo . . . . .	55	+ 1	T	- .4
IND. Evansville . . . .	58	- 8	2.0	+1.4	Williston . . . . .	53	0	T	- .2	OHIO. Akron-Canton . .	57	- 4	.3	- .3
Ft. Wayne . . . . .	57	- 4	.6	0	Cincinnati . . . . .	57	- 8	.9	+ .3	Cleveland . . . . .	57	- 4	1.0	+ .4
Indianapolis . . . . .	56	- 7	.8	+ .2	Columbus . . . . .	60	- 2	.5	0	Dayton . . . . .	57	- 6	1.0	+ .5
South Bend . . . . .	59	- 2	1.0	+ .3	Toledo . . . . .	55	- 6	.3	- .2	WIS. Green Bay . . . .	54	- 2	.4	- .3
IOWA. Burlington . . .	59	- 3	.6	- .2	Des Moines . . . . .	61	0	.7	0	La Crosse . . . . .	57	- 2	.7	0
Des Moines . . . . .	61	0	.7	0	Dubuque . . . . .	57	- 1	.4	- .6	Madison . . . . .	58	+ 1	.8	+ .1
Dubuque . . . . .	57	- 1	.4	- .6	Sioux City . . . . .	61	+ 1	0	- .6	Milwaukee . . . . .	56	- 2	.3	- .4
Sioux City . . . . .	61	+ 1	0	- .6	KANS. Concordia . . . .	62	- 2	T	- .7	WYO. Casper . . . . .	53	- 2	.1	- .1
KANS. Concordia . . . .	62	- 2	T	- .7	Dodge City . . . . .	63	- 2	T	- .4	Cheyenne . . . . .	54	- 1	T	- .2
Dodge City . . . . .	63	- 2	T	- .4	Goodland . . . . .	59	- 2	0	- .3	Lander . . . . .	56	+ 1	.5	+ .2
Goodland . . . . .	59	- 2	0	- .3	Topeka . . . . .	60	- 5	T	- .7	Wichita . . . . .	60	- 7	.2	- .6
Topeka . . . . .	60	- 5	T	- .7	Wichita . . . . .	60	- 7	.2	- .6	KY. Lexington . . . . .	57	- 9	.7	+ .1
Wichita . . . . .	60	- 7	.2	- .6	Louisville . . . . .	58	- 8	.8	+ .1					

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:** Mostly cool, rainy and cloudy. Heaviest rains Thursday central area. Locally, amounts exceeded 5.00 in. from Jackson northeast to Montgomery.

Heavy rains slowed harvest end of period. Few fields cotton harvested south, central and Tennessee Valley. Open weather needed, only about 33% cotton open. Boll rot occurring few fields. Corn harvest at 25% complete, slightly ahead of 1973. Soybean rapidly reaching maturity. Few fields combined lower half of State. Peanut harvest made fairly good progress with 108,196 tons inspected through September 26th compared with 53,116 in 1973. Hay harvest curtailed by rain most areas.

**ALASKA:** Temperatures averaged 6° above normal. All stations received much needed precipitation. Precipitation is below normal for all stations except Kodiak.

All harvest virtually completed. Yields are generally average or below. Ground moisture supply is much below seasonal normal throughout the agricultural areas.

**ARIZONA:** Widespread thundershowers through Thursday, some 1.00 to 2.00 in. amounts. Temperatures 2 to 3° above normal except west 1 to 5° below. Minimum temperatures below freezing, 10° below normal central mountains, northeast Saturday, Sunday.

Cotton harvest gaining momentum central, western areas, 15 to 30% open Graham, Cochise Counties. Sorghum harvest continued Yuma area, good development elsewhere. Spring sugarbeet crop good progress. Fall sugarbeet harvest expected in 3 weeks. Alfalfa seed harvest complete east, few fields remain Yuma. Lettuce good progress Salt River Valley, Cochise, Pima, Yuma County. Harvest Cochise county about 10 days. Chili, melons, corn marketed locally Graham County. Lemon harvest Yuma County. Sheep cattle mostly fair. Scattered rains improved pasture. Southwestern desert valleys moisture adequate.

**ARKANSAS:** Fifty percent of stations reported near 1.00 in. or more of precipitation. Highest total was 2.66 in. Temperatures 7 to 12° below normal and averaged from 29 to 64°. Extremes: 86 to 37°.

Soil moisture adequate to surplus. Humid weather, rain cool nights deteriorated cotton. Top bolls not maturing, bottom bolls rotting. Insect infestation medium to heavy, defoliation progressed slowly. Few bales ginned. Fair condition with 30% bolls open. Rain interrupted rice combining, 20% harvested, crop needs hot, sunny weather, condition good. Soybeans need sunny weather, late frost. Early varieties mature, late beans good pod development with large beans. Small grain seed bed preparation and planting continued. Corn and sorghum need sunshine to dry grain. Wet weather delayed cutting and curing of hay. Pastures providing adequate to surplus forage.

**CALIFORNIA:** Precipitation limited to scattered showers and thundershowers sections of Sierra

Nevada 24th through 26th and along central coastal areas 25th. Fair, warm weather continued with night and morning low cloudiness along coastal areas. Temperatures averaged near normal along the coast but several degrees above normal over inland areas.

Preparation for fall plantings in full swing in San Joaquin and Sacramento Valleys. Rice continues to be drained, earlier varieties being harvested. Cotton defoliated continues, harvest slow. Wine grape harvest well underway, low sugar problem continues. Raisin drying conditions remain favorable, boxing slow. Emperors, Calmerias, varieties being picked. Almond harvest active, declining warm areas. Walnut harvest increasing, good crop expected. Fog at Santa Barbara helps walnuts fall clear of hull. Peach harvest about over. Date crop expected large, soft varieties being harvested. Prune, pomegranate harvesting light. Desert limes being harvested. Lemon picking light, low grade, small size problem. New citrus crops sizing well. Broccoli, cauliflower strong, good quality, Salinas. Brussel sprouts continue, Bay area. Cantaloup declining westside. Carrots active Salinas, Hemet. Celery strong central coast. Honeydew increased slightly, warm weather. Lettuce continues Brentwood, Fremont, declining Salinas. Bell peppers full swing, fall potatoes continue. Sweetpotato continues San Joaquin Valley. Market tomatoes continue, Modesto, canning tomatoes continue full swing. Early calving started. First movement livestock from summer pastures to lower rangelands beginning north. Irrigated pastures, stubble fields hold large numbers stock. Condition of livestock fair to good. Overgrazing a growing problem. Ample water most areas. Fire ratings high, most inland areas.

**COLORADO:** Moderate precipitation totals ranging from zero north to 0.50 in. south. Higher and middle elevations received 1.00 to 6.00 in. snow September 27th and 28th. Temperatures averaged 3 to 6° below normal San Luis Valley and parts Arkansas River Basin. Elsewhere near normal. North and west freezing weather 28th.

Corn silage harvest 88% complete, sorghum 62%. Corn, sorghum grain harvest 2% complete. Corn condition very good, 81% frost safe. Sorghum 84% turning color, 45% ripe, condition fair. Dry beans 44% threshed. Fall potato harvest progressing rapidly. Winter wheat 81% seeded, 43% emerged. Winter barley 90% seeded, 68% up. Pastures poor condition. Livestock moving down from high country west slope.

**FLORIDA:** Temperatures near normal. Rainfall generally light to moderate. Soil moisture mostly adequate, but excessive some areas.

Field crops good condition. Corn and peanut harvest full swing, soybean and cotton harvest underway. Hay making continues. Land preparation for small grains and winter grazing active. Frequent rains and showers perpetuating good to excellent grazing conditions. Some southern counties still have excessive water in pastures. Cattle and calves good to excellent condition all areas. Citrus tree condition continues excellent. Soil moisture adequate with recent rains. New growth continues all ages. New crop fruit growth excel-

lent. Harvest increasing. Vegetable harvest picking up, sweetcorn increasing. Light supplies eggplant, squash available. Pole beans moving in light volume. Cucumber harvest start expected this week. Tomato, green pepper shipping expected mid-October. Radish, okra moving.

GEORGIA: Temperatures significantly below normal. Greatest departure 5 to 8° below normal central and north. Temperatures southern third about 2 to 4° below normal. Light rain most sections near end of period, heaviest southwest. More than 3.00 in. fell at Americus in Sumter County. Averages close to 1.00 in. west central and southwest, 0.75 in. southeast.

Soil moisture extremely variable, mostly adequate. Harvest progress moderate despite weather problems. Peanuts mostly good to excellent, 79% dug, 65% threshed. Cotton fair to good, boll rot problems persist some areas, 10% harvested. Corn good, 29% harvested. Soybeans highest condition of record, 2% combined, insects still troublesome. Tobacco markets closed during period, longest market period of record with record prices. Pecans beginning to drop, token harvest. Cattle and pastures good. Haying continued, quality off.

HAWAII: Except for scattered showers, weather continued dry.

Crops under irrigation making good progress. Drought in the Hamakua district on Island of Hawaii adversely affecting cane crop and pastures. Water supply low on Maui; supplemental pumping in progress. Vegetable supply adequate. Banana and papaya production at seasonal high. Condition of most cattle good, supplemental feeding necessary dry areas. Sugarcane and pineapple operations normal.

IDAHO: Warm dry weather continued until end of period, when a strong dry cold front passed through causing gusty winds and a drop of 15 to 20° in maximum temperatures. Minima temperatures dropped below freezing at scattered higher elevation stations. Temperatures averaged mid 50's to mid 60's, up to 5° above normal. Very light precipitation up to 0.11 in. end of period, north, central mountains, and southeast.

Fall harvest rapid progress, dry, warm weather. Moisture needed fall grain seeding. Potato digging active, 20% complete. Main area east 10%, southwest under 50%, south central, 20%. Onion harvest 80% complete. Dry beans 90% swathed, 75% threshed. Late apple harvest well underway. Ranges and non-irrigated pastures continue dry.

ILLINOIS: Temperatures 2 to 9° below normal. Precipitation light, amounts under 0.10 in.

Reported freeze damage to corn: 20% no damage, 35% light, 27% moderate, 18% severe. Soybeans: 14% no damage, 33% light, 27% moderate, 26% severe. Corn 70% mature. Both 1973 and average 90%, 5% harvested, same as 1973, 3-year (1971-73) average 8%, condition mostly fair to good. Soybeans 70% turning yellow, average 100%, 45% shedding leaves, 85% both 1973 and average, 5% harvested, 15% 1973, average 20%, condition mostly fair to good. Seeding 1975 winter wheat 15% complete, average 25%. Pasture condition mostly fair to good. Soil moisture 36% short, 60% adequate, 4% surplus. Fieldwork: 6.5 days suitable.

INDIANA: Cool, temperatures averaging 4° below normal. Extremes: 32° on 24th to 80° on 27th. Rainfall averaged from 0.50 in. north and northeast to 1.00 to 1.50 in. southwest.

Fieldwork averaged 6 days. Topsoil and subsoil

moisture mostly adequate. Corn 50% mature, 70% 1973 and average. Corn 5% harvested, same as 1973 and average. Soybeans 5% combined, 10% in 1973 and average. Wheat 15% seeded, 30% in 1973, 25% average. Tobacco 70% cut, same as 1973. Silos 45% filled, 75% in 1973. Pasture decline, rated mostly fair.

IOWA: Temperatures slightly above normal after 4 weeks of below normal. Generally sunny except for rain and few thundershowers on 28th. Several places central portion reported more than 1.00 in. rain but State average continued about 0.50 in. below normal.

Weather good for drying. Days suitable for fieldwork 6.9, average 4.5. Corn in or past dent stage 86%. Growth stopped by killing frost September 21st and 22d in northern two-thirds of State. Some yield loss will occur from frost. Soybeans with leaves shedding 75%, much shedding occurring since killing frost. Damage greatest in northeast, central and east central because of late beans. Harvest 6% complete, normally 8%. Winter wheat 40% seeded. Topsoil moisture 41% short, 59% adequate, subsoil moisture 29% short, 70% adequate, 1% surplus.

KANSAS: Temperatures averaged below normal. No freezing temperatures reported. Rainfall light except extreme southeast where 0.50 to 0.75 in. received weekend.

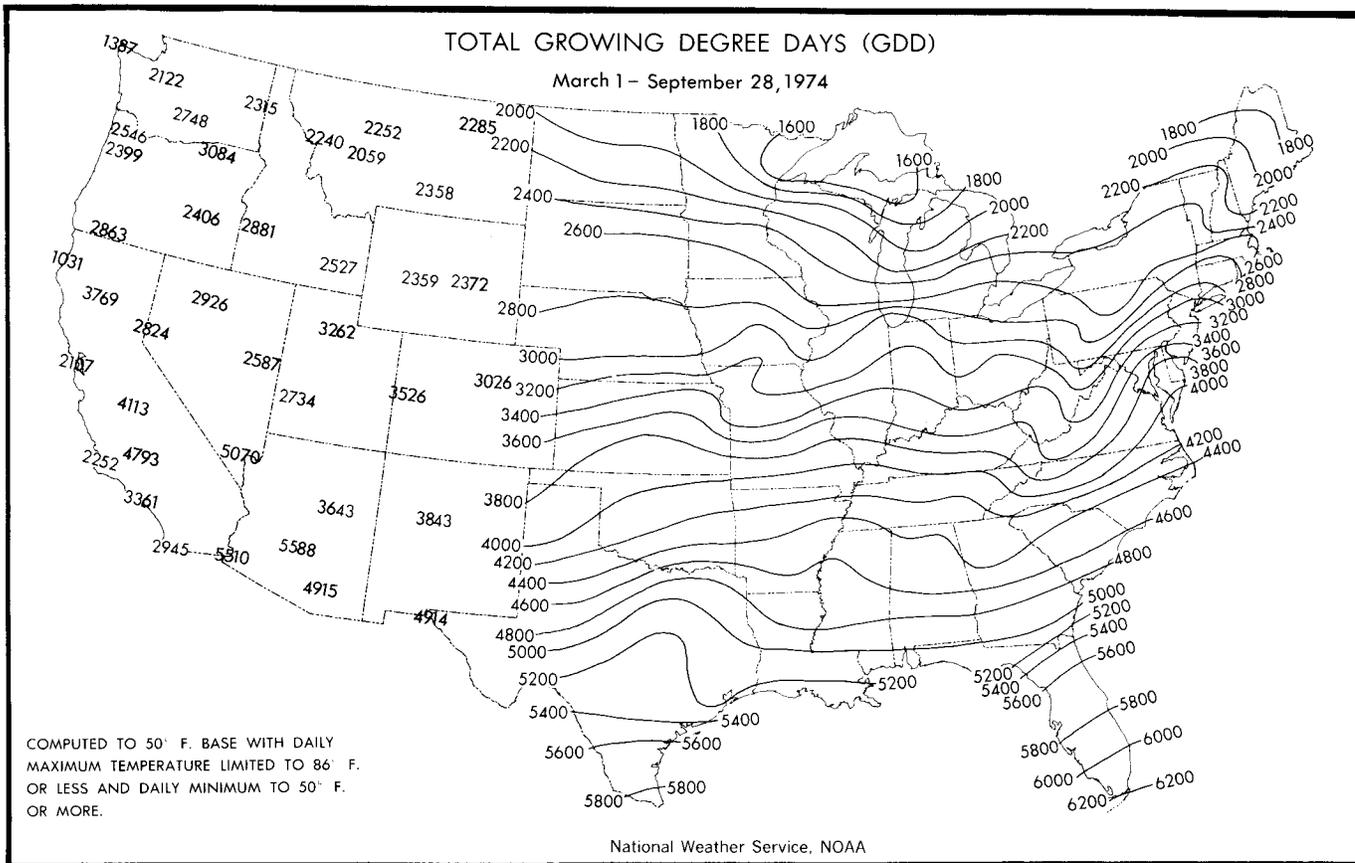
Wheat seeding active 60% seeded, 35% 1973, 50% average. Sorghum grain 25% matured, 45% average, harvest active east central and south-east. Corn 75% matured, 80% average, 15% harvested, 20% average. Soybean crop development continues late, few fields harvested. Fourth cutting alfalfa hay 45% completed, 55% average. New alfalfa seeding 90% completed, average same. Pasture condition declined slightly.

KENTUCKY: Temperatures 5 to 10° below normal. Scattered frost northeast early week. Fair and warmer Tuesday through Thursday. Showers Friday and Saturday totaled near 0.25 in. extreme northeast to over 2.00 in. south and west.

Fieldwork: Nearly 5 days suitable. Topsoil moisture 75% adequate, 25% surplus. Main activities cutting and housing tobacco, chopping silage and harvesting corn and soybeans. Burley 80% harvested. Over 33% of reporters had frost damage to tobacco still standing. Corn harvest 7% complete. Soybeans 2% harvested, 20% shedding leaves and mature, 37% leaves turning yellow, 41% leaves green. Winter hay supply expected adequate. Pastures excellent.

LOUISIANA: Temperatures averaged 8 to 9° below normal north to near normal southeast. Extremes: 91° Alexandria and New Orleans 28th, 46° at Homer 23d. Rainfall varied from near 2.00 in. north to less than 0.50 in. south. Greatest reported 2.22 in. Reserve 26th.

Fieldwork active early week, rains interferred mid-week. Fieldwork possible 3.2 days. Soil moisture adequate to surplus. Land preparation, fall seeding, harvest of cotton and soybeans and machinery repair main activities. Cotton continued decline, mostly fair, 55% open, 28% 1973, 5% harvested. Soybeans 5% cut, good condition. Harvest of first crop rice virtually complete south, combining second crop under way. Harvest 50% done north. Statewide, 95% harvested, 78% 1973. Corn and sorghum harvest 66% complete. Sugarcane fair to good condition, planting active where soils permitted, nearing completion some parishes. Sweetpotatoes fair to good, about 66% harvested. Small grain seeding 10% complete, early seedings emerged. Hay



nearly 85% harvested. Pastures above average. Livestock mostly good.

**MARYLAND AND DELAWARE:** Temperatures 4 to 8° below normal. Highs upper 70's to mid 80's. Lows low 30's to mid 40's. First frosts 23d and 24th. Precipitation 0 to 1.45 in., heaviest southern Maryland.

Excellent week for field work. First frosts of season, damage limited. Corn for grain harvest lagging, 17%, 1973 30%, usual 28%. Corn for silage 80% cut, about normal. Soybeans near normal 50% leaves yellowing, shedding 22% of fields, 23% 1973, 19% normal. Ten percent tobacco still in field, normal less than 5%. Fall seeding progress good. Barley 43%, usual 34%. Wheat starting. Red and golden delicious apples 50% picked.

**MICHIGAN:** Temperatures averaged 0 to 2° above upper and 0 to 4° below normal Lower Peninsula. Killing frost much of State 23d. Precipitation totaled 0.20 to 1.00 in. Upper, northern, and southeastern Lower Peninsula; 1.00 to 2.00 in. elsewhere.

Killing frost damaged corn, soybeans and vegetables. Soil moisture short south, short to adequate elsewhere. Fieldwork averaged 5.7 days. Corn 27% mature, 60% 1973. Corn silage 38% harvested, 68% 1973. Soybeans 25% mature, 30% 1973. Dry beans 50% harvested, 90% 1973. Wheat 55% planted, 80% 1973. Potato harvest active. Sugarbeet harvest started. Third cutting hay continues slow. Pasture short south, short to adequate elsewhere. McIntosh apples about 65% harvested, Jonathans and Red Delicious started.

Tomatoes and sweet corn hard hit by frost. Cabbage and cauliflower harvest continues.

**MINNESOTA:** Temperatures near or slightly above normal west and south to 5° below normal northeast. Precipitation, trace central and west to near 0.50 in. eastern extremes.

Continued dry conditions aided field drying of corn and enabled rapid harvest soybeans and other fall crops. Combining wheat and barley nearing completion and fall potato and sugarbeet harvest underway Red River Valley. Sweet corn processing operations completed. Dry edible bean harvest 80% completed. Corn 60% mature, 1973 90%, average of 84%. Continued dry conditions needed to reduce the high moisture content of freeze damaged corn. Soybeans have dried rapidly since frost and combining 40% completed, 1973 7%, average 11%. Dry soil conditions making plowing operations difficult.

**MISSISSIPPI:** Temperatures from 10° subnormal northern counties to average in southern. Extremes: 95 and 40°. Greatest rainfall 3.02 in. Scattered showers throughout State.

Soil moisture adequate to excessive. Field work: 2.5 days suitable. Cotton 49% open bolls, 2% harvested; normal, 45% open bolls, 9% harvested. Soybeans 28% turning, 20% shedding, 12% mature, 4% harvested; normal, 19% mature, 7% harvested. Rice 67% mature, 32% harvested. All crops generally in fair to good condition.

**MISSOURI:** Generally cool, dry week. Temperatures 5 to 10° below normal. Little or no rain until 28th when showers and thunderstorms drop-

ped from 0.25 in. to 2.00 in. and more on southern and eastern sections. Totals mostly less than 0.25 in.

Fieldwork: 5 days suitable. Soil moisture supplies adequate. Corn 53% mature, 14% harvested, 1973 58% mature, 7% harvested. Soybeans fair to good condition, 38% turning color, 13% mature, 1973 32% mature. Cotton poor to fair condition, 26% bolls open, 24% open 1973. Pastures fair to good condition.

**MONTANA:** Warm through 25th, cooler 26th with strong cooling 29th east. Temperatures averaged 2° below normal south central to 4° above southwest. Highest mostly 80's. Rain or snow latter part of week, heaviest central.

Spring grain harvest virtually complete. Winter wheat seeding 85% done, well ahead of year ago. Chopping corn silage 75% complete. Combining dry beans 35% done. Potato digging 30% done. Topsoil moisture getting short. Winter wheat germination fair to good. Livestock feed supplies for coming season mostly adequate. Livestock movement from summer ranges over 40% complete.

**NEBRASKA:** Warm days, cool nights. Below normal temperatures last two days. Rainfall below normal.

Fieldwork: 7.0 days suitable. Topsoil moisture supplies short 89%, subsoil moisture short 96%. Grain corn harvest begun, harvesting dryland corn for silage. Corn 80% mature, normal 90%, 5% harvested, slightly ahead of normal. Sorghum harvest underway, 95% turned; normal 100%; 60% ripe, normal 75%; 10% harvested, normally 5%. Soybean harvest underway, 70% have shed leaves, normal 95%, 55% mature, 66% normal; 10% harvested, 15% normal. Wheat 80% seeded, normal 88%. Alfalfa growth slowed, 55% of fourth cutting complete. Dry edible bean harvest nearing completion. Yields good, quality excellent. Sugarbeet condition excellent, harvest began this week. Range and pasture feed supplies short 90%.

**NEVADA:** Warm summerlike weather through midweek maximums averaged 10° above normal north and central with minimums near normal. Temperatures 10 to 20° cooler north and central and 5 to 10° extreme south. No precipitation north, south and central widely scattered thundershowers. Caliente only station with measurable precipitation, 0.02 in.

Dry weather favored harvesting, seeded preparation. Alfalfa seed harvest well along. Third cutting alfalfa hay nearly complete except west. Potato digging fair progress. Sixth cutting alfalfa extreme south. Cotton bolls opening Pahrump Valley. Ranges remain extremely dry. Livestock moving to hay lands.

**NEW ENGLAND:** Frost, freezing temperatures interior 24th, followed by warming. Highs 70° plus over weekend. Showers and storms weekend with over 2.00 in. many areas.

Massachusetts cranberries 45% harvested, color good, quality excellent. McIntosh apple harvest full swing, fruit size medium, color good, quality excellent. Aroostook County, Maine potato harvest about 33% complete, slowed by weekend rains, "normal" crop expected. Silage corn harvest full swing all areas since frost.

**NEW JERSEY:** Temperatures averaged 54° north, 60° central and south. Frost and record lows many sections 24th and 25th. Extremes: 26°

Long Valley 24th, and 84° Bridgeton 29th. Rainfall averaged 2.39 in. north, 0.83 in. central, and 0.62 in. south. Heaviest daily total 2.53 in. Long Valley on 28th to 29th.

Soil moisture expressed in % of field capacity averaged 100% north, 88% central and 68% south. Supply of fall vegetables moderate to good. White potato and sweetpotato harvest active. Apple and cranberry harvest making good progress. Silage and hay making continue. Very limited amounts of soybeans and corn for grain harvested. Preparation and planting small grains and corn crops active.

**NEW MEXICO:** Heavy rain southeast, moderate showers rest of south 2 days, mostly dry otherwise. Rising temperatures as clearing progressed, sharply colder except southwest 28th and 29th. Middle and low 20's most northern mountain points.

Heavy rains interrupted field activities. Moisture adequate. Cotton fair, bolls 35% open, cool temperatures delayed maturity. Rains reduced quality, yield. Other crops mostly good. Alfalfa 4th cut active north, 5th, 6th at standstill, black hay in some fields. Sorghum; irrigated 90% dough, dry 60%. Corn silage harvest 60% done. Winter wheat 90% planted, 85% emerged, stands fair to good. Barley 85% in ground. Peanuts slight water damage. Potatoes harvest nearly done. Apples fair. Ranges fair to good. Grass maturity delayed by cool weather. Livestock fair to good.

**NEW YORK:** Temperatures near normal extreme north, 2 to 5° below elsewhere. Widespread frost 23d and 24th, ended growing season. Precipitation above normal southeast, below normal elsewhere.

Corn growth stopped completely in some areas while damage limited to leaves in other areas. Corn silage harvest moving ahead rapidly with 25% harvested. Poor drying conditions slowed third cutting alfalfa now 75% completed. Dry bean harvest delayed by wet weather. On Long Island volume harvest of potatoes, cabbage and cauliflower continues. Upstate all areas harvesting potatoes, frost killed last of vines. Orange County onion harvest 85% complete. Celery stood cold well but the freeze killed lettuce. Sweet corn growth stopped by frost many areas. Snap bean harvest complete and cabbage harvest moving on schedule. West apple harvest continues, fruit small but color good. Harvest of wine variety grapes nearly complete in Finger Lakes. Concord harvest underway all areas. Cool weather delayed maturity and reduced sugar build up and coloring.

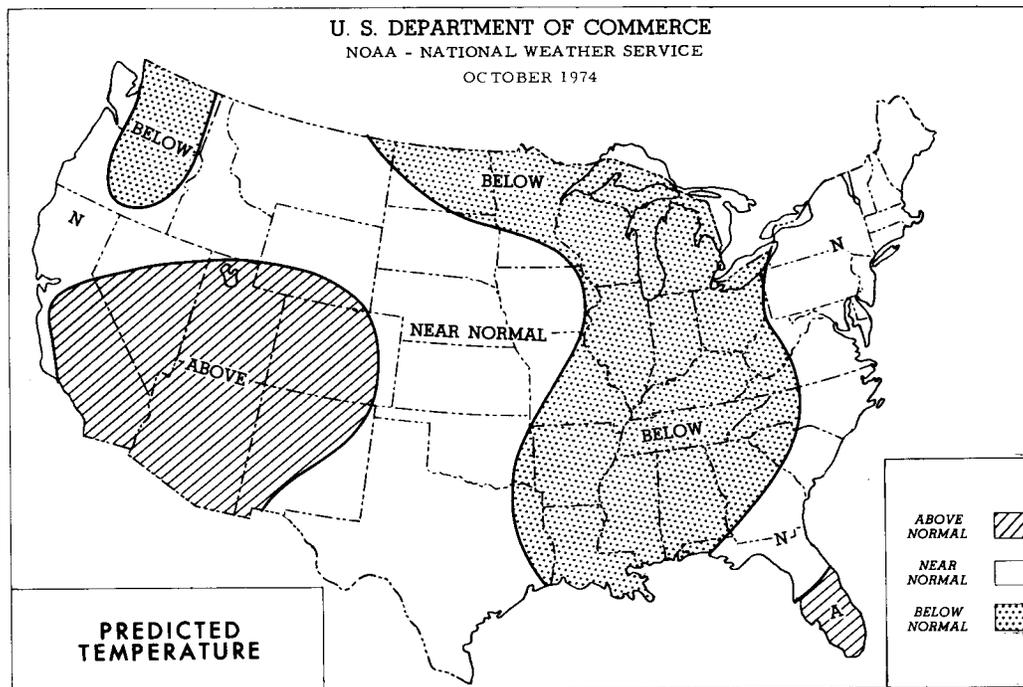
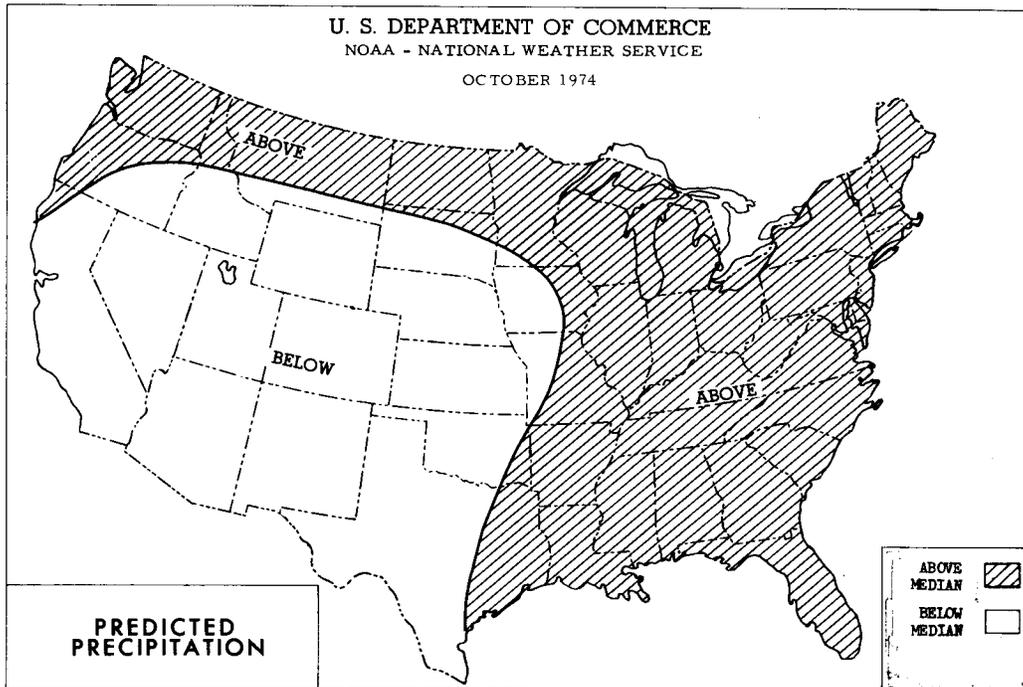
**NORTH CAROLINA:** Temperatures slightly below normal. Rainfall highly scattered and light.

Fieldwork averaged 4.4 days. Soil moisture adequate. Burley tobacco 76% harvested, 1973 82%. Corn 48% harvested, 1973 60%, average 30%. Cotton 1% harvested, 1973 6%, average 9%. Peanuts 8% dug, 1973 44%, average 12%. Soybean and sorghum condition good. Soybeans yellowing in early planted fields. Sweetpotatoes 30% dug, 1973 27%. Apples 65% harvested, 1973 47%, average 56%. Small grains 14% seeded, about on schedule. Pasture good. Labor supplies generally adequate.

**NORTH DAKOTA:** Temperatures above normal except three eastern divisions. Extremes: 94° to 10°. Precipitation way below normal with only trace reported north central, northeast, east central, and southwest.

Excellent progress harvest of small grains. Oats and barley combining 95% completed, hard

### 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.

red spring wheat about 90%, durum about 80% harvested. Flax about 55% combined. Soybeans combining, corn picking and dry bean harvest started. Potatoes about 40% dug, sugarbeet lifting at plant capacity but no stockpiling yet. Soil conditions dry for winter wheat and fall rye seedings.

**OHIO:** Record low temperatures on 23d and 24th. Warmer 25th to 28th followed by wind and cold temperatures 29th. Precipitation end of week ranging 0.25 in. to 1.34 in.

Corn 80% mature, 70% 1973, and 75% normal; corn 5% harvested, 5% 1973 and 10% normal. Soybeans 50% mature, 60% both 1973 and normal; soybeans 10% harvested, 15% 1973 and 20% normal. Some frost damage to late planted corn and soybeans. Harvest completed; corn for silage 60%, 75% normal; tobacco 80%, 90% normal; sugarbeets started. Winter wheat 25% seeded, 30% 1973 and 40% normal. Moisture supplies, 68% adequate, 25% short. Northwest remains dry. Six days favorable for fieldwork.

**OKLAHOMA:** Temperatures 8 to 12° subnormal. Precipitation 0.03 in. Panhandle to 3.80 in. southwest.

Wet conditions limited fieldwork except panhandle. Topsoil moisture surplus 45%, adequate 52%, subsoil moisture 93% adequate. Farming activities harvesting corn, ensilage and planting small grains. Wheat 41% planted, 20% stand; 1973 about same. Condition 19% excellent, 1973 7%. Oats 22% planted, barley 18%. Ground will need reworking some areas due to heavy rains. Corn 29% harvested, 1973 23%. Sorghums 13% combines, 1973 7%. Cotton 29% open bolls, cool weather slowed growth. Boll weevil and bollworms feeding on late squares. Peanut harvest at standstill, wet condition causing disease problems. Range and pasture grasses 81% good or better. Cattle condition 88% good to excellent. Low prices have producers concerned about holding over cattle. Stockers being purchased for fall pasture.

**OREGON:** Temperatures slightly above normal most sections, 90's west of Cascades, mostly 80's east. Highs 60's, low 70's coast, some days into 80's - low 90's. Lows 40's, low 50's, locally, upper 20's - 30's.

Land preparation continuing. Growers waiting rain before seeding. Some dusting in wheat. Corn silage being cut. Red Clover harvest nearly complete. Sugarbeet harvest beginning. Red Delicious apple harvest starting, Anjou pear harvest ending. Prune harvest in full swing. Onion, cabbage, broccoli, cauliflower harvests progressing. Klamath Falls, Hermiston, Ontario areas continue potato harvest. Ranges dry, high fire hazards. Cattle coming out of hills, put on stubble. Feed, water adequate. Utilizing above average amounts chaff and straw. Cattle market slow.

**PENNSYLVANIA:** Weekly temperatures 4 to 6° below north, 2 to 4° below south. Widespread frost all but southeast on 24th. Rainfall from under 0.25 in. southwest to about 3.00 in. parts of southeast, mainly over weekend.

Early frost caught corn, 16% in dough, 51% dented, 32% mature, 1% harvested. Ensilage corn harvest active and 40% completed. Potato harvest 70% completed. Fall plowing 65% done. Barley planting 60%, wheat planting 40% done.

**PUERTO RICO:** Rainshowers generally light Island-wide. Maricao reported a hailstorm along with

heavy rainfall on 27th. Island average rainfall 0.96 in. or 1.03 in. below normal. Highest weekly total rainfall 3.54 in. at Pico Del Este/Luquillo. Highest 24 hour total 2.75 in. at Morovis. Temperatures averaged about 80° on coasts and 74° interior. Maximum 94°, minimum 57°.

Weather favored development of sugarcane ratoons and new plantings. Cultivating and fertilizing operations underway. Coffee farms reported good maturing of grain and harvest taking place in various sections. Heavy rainfall and winds causing beans to fall some western/interior sections. Tobacco zones continue preparing seedbeds and soil for planting. Pastures in good conditions due to recent rains. Weather conditions favorable for new plantings of food crops. Abundance of vegetables plantains, bananas, avocados and other food crops on market.

**SOUTH CAROLINA:** Cooler than usual. First of week nighttime temperatures in 40's northwest and north. Rainfall generally below normal with lightest amounts near south coast.

Soil moisture short portions Piedmont and scattered areas central, adequate elsewhere. Tobacco marketing active. Cotton condition fair to good; controlling insects major activity, defoliating and harvest gaining; bolls open 59%, 4% harvested, 1973 58% and 5% respectively. Corn 58% harvested, same 1973. Soybean condition improved good to excellent, insects still big problem, less than week ago, 29% leaves turning, 11% shedding leaves, 3% mature, 46%, 16%, 3% respectively 1973. Peanuts 67% harvested, 66% 1973. Apples 82% harvested, 82% 1973. Pecan condition poor. Pasture condition good. Harvest fall hays active. Planting winter grazing, small grains, cover crops. Condition fall vegetables fair to good.

**SOUTH DAKOTA:** Warm days, very cool nights. Temperatures averaged 1 to 4° above normal. Extremes: 101° Kennebec 26th, 21° Brookings 29th. No precipitation over 0.10 in. Annual precipitation 2.10 in. below normal.

Corn and soybean harvest started. Progress ahead of normal and 1973. Corn 7% complete, normal 1% and 1973 was 3%. Soybeans 25% complete. Sorghum harvest 16% complete, about normal, 1973 was 7%. Dry conditions slowed or stopped fall fieldwork. Winter wheat seeding 80% complete and rye seeding 65% complete, behind normal and 1973. Livestock movement slow. Dry ranges and pastures causing fire hazard.

**TENNESSEE:** Showers beginning west midweek, locally heavy late week. Temperatures 1 to 5° below normal.

Cotton 2 weeks late, 20% bolls open, very little picked, condition deteriorating. Soybeans excellent but average or early frost will damage, 3% matured, none harvested, normal 15% mature. Corn 10% harvested and 65% mature, same as 1973, normal 20% harvested and 80% mature. Late corn good. More than usual early corn cut for silage. Tobacco 85% cut, 1973, and normal 95%. Weather unfavorable for curing, some damage. Wheat 20% seeded, oats and barley 40%, one week late. Pastures excellent.

**TEXAS:** Generally cool, wet weather. Moderate to heavy rains southwest across high plains, north central, and northeast early week. Most areas 1.00 to 3.00 in. rains by midweek. Clearing skies, dryer air later. Cold front kept temperatures cool, generally 5 to 10° below normal.

Wheat, oats delayed moderate heavy rains most areas. Moisture adequate to surplus seeding fall crops. Harvest cotton, corn, peanuts, sorghum little progress cool, wet weather. Cotton, sorghum maturity high plains delayed by cool, wet weather.

Most areas need warm weather to resume harvest operations. Major crops percent planted: Wheat 1974 55, 1973 55; oats 1974 27, 1973 41. Major crops percent harvested: Cotton 1974 21, 1973 13; corn 1974 48, 1973 58; sorghum 1974 53, 1973 51; peanuts 1974 29, 1973 40; rice 1974 96, 1973 77.

High Plains: Vegetable harvest was curtailed. Light supplies of carrots available when digging resumes. East: Sweetpotato crop is in serious condition as result of recent rains. Some of corn already begun to rot in field, and more potatoes may be lost if dry weather does not soon prevail. Coastal Bend: Fall cucumbers and melons are progressing well due to recent rains which provided adequate moisture conditions. Warmer weather needed to help stimulate growth. San Antonio-Winter Garden: Vegetable activities were curtailed in most areas as moderate to heavy rain fell. Lower Rio Grande Valley: All vegetable activity was curtailed as heavy rains fell and resulted in local flooding. Light pecan harvest early variation continues central, south central. General harvest expected to be underway most areas two to three weeks. Citrus groves benefitted from heavy rains. Trees now excellent condition, fruit should continue to size well.

Range conditions continue improve throughout most areas adequate to surplus moisture fall grazing. Livestock condition good and continues to improve as grazing increases. Hay baling active many areas, one more cutting expected. Hay damaged heavy rains.

UTAH: Isolated light showers principally south. Soil moisture non-irrigated areas of State continue very short. Average temperatures near normal to 7° above.

Ideal harvest weather most areas. Harvest 45% completed for silage corn, 40 to 50% potatoes, 75% onions, 85% tomatoes, 25% apples, 80% third crop alfalfa hay. Drought continues. Winter range condition very poor, less than 50% of normal. Soil moisture very short to short. Winter wheat planting late, 55% of 1975 winter wheat planted. Cattle movement of feeders very slow.

VIRGINIA: Frost west and north 24th. Unseasonably warm late week. Precipitation light and spotty near end. Extremes: 88 and 26°.

Fieldwork: 5.6 days favorable. Topsoil moisture 71% adequate, 29% short. Corn grain harvest 27%, 1973 32%. Soybean, peanut harvest just started. Tobacco harvest progress: Flue-cured 90%, 1973 90%; 1973 fire-cured 91% 1973 74%; burley 80%, 1973 90%; sun-cured 93%, 1973 81%. Pastures top condition. Near perfect haying weather allowed good quality, tonnage. Sweetpotato yield, quality good. Cucumbers, snapbean harvest active. Rapid harvest of very good apple crop. Fall plowing, small grain seeding advanced during open weather. Wheat 10% seeded, oats, barley 20% seeded.

WASHINGTON: West: Average temperatures 4° above normal. Warm early week. Cooling end of week. Extremes: 80 to mid-30°. Light precipitation one morning, total amounts to 0.10 in.

Harvesting celery, carrots, cabbage, lettuce, winter pears, apples, sweet corn, potatoes. Pasture feed supplies adequate to short on non-irrigated

fields. East: Average readings 1° to 6° above normal, cool end of week. Extremes: 80 to 20°. Strong winds and blowing dust closed some roads.

Harvesting dry beans, corn silage, potatoes, sweet corn, hops, Red and Golden Delicious apples, grapes. Seeding winter wheat, barley. Early seeded fields emerging and showing good stand. Other activities: Fertilizing, plowing, fall ground preparation. Ranges and pasture dry and short. Cattle feed supplies adequate for the winter. Livestock in good shape.

WEST VIRGINIA: Temperatures well below normal with killing frost everywhere except northwest and southwest which had scattered frost. Precipitation generally light.

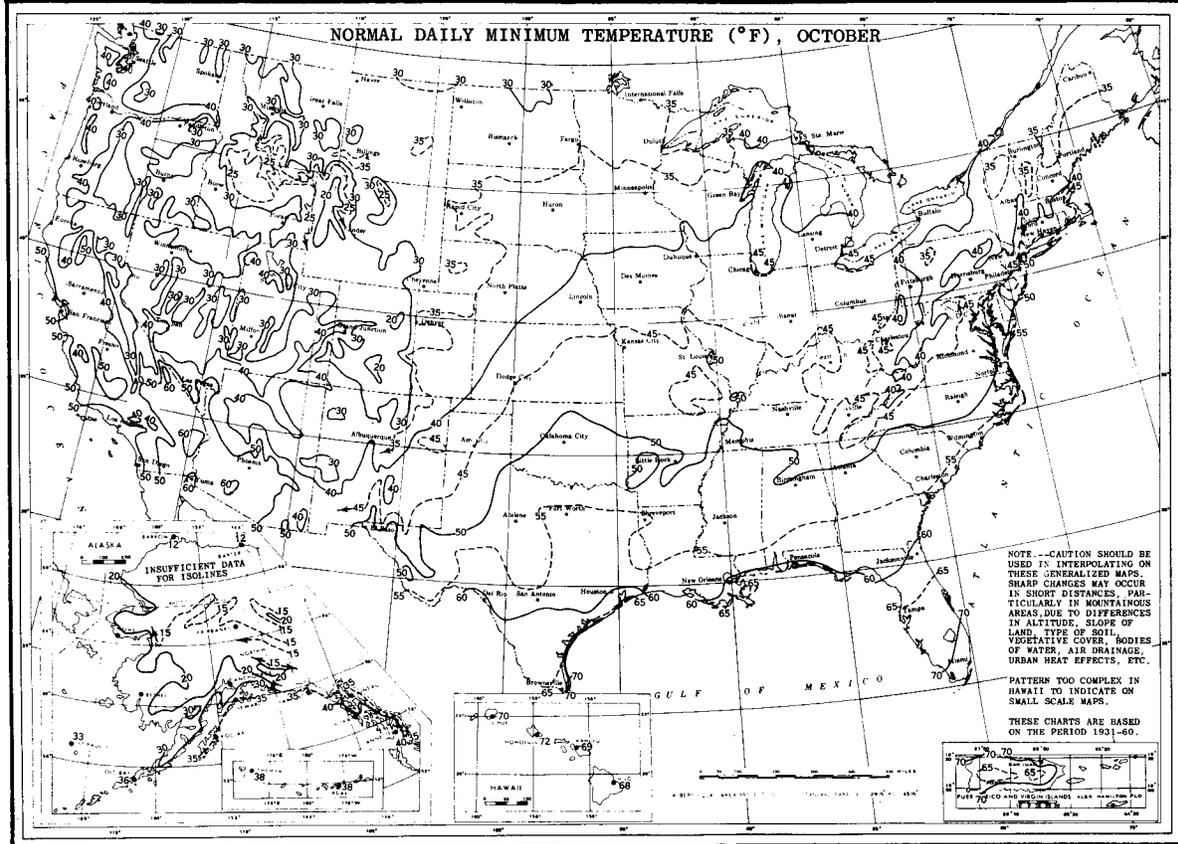
Frost most areas hit corn for grain, especially late corn. Corn condition, however, mostly good. Silage harvest active. Many gardens finished by frost. Soil moisture 88% adequate. Fieldwork averaged 4.9 days. Main activities cutting hay, filling silos, digging potatoes. Second cutting hay 82% complete, 3rd cutting 65%. Potatoes about 90% harvested. Fall seeding; barley 19%, 41% 1973, wheat 10%, 31% 1973. Pastures mostly above average.

WISCONSIN: Freezing temperatures early 23d. Moderating daytime readings during week with record highs in upper 80's 26th. Cooling weekend. Light precipitation early week, few snow flurries north. Heavier and more general rain weekend with amounts over 0.50 in. some areas.

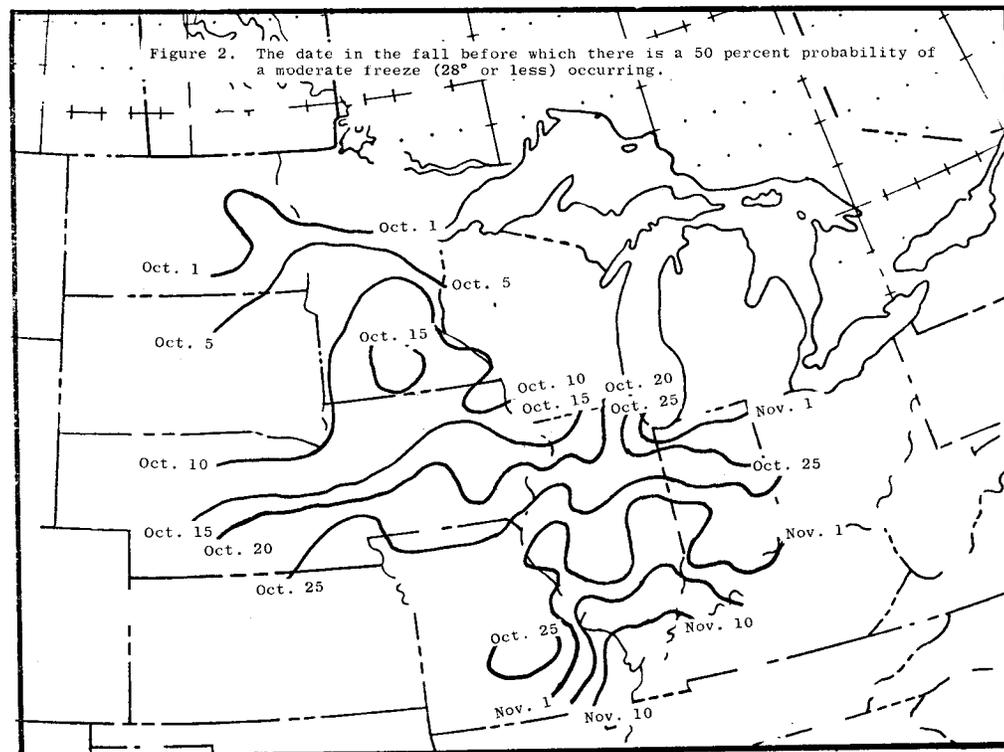
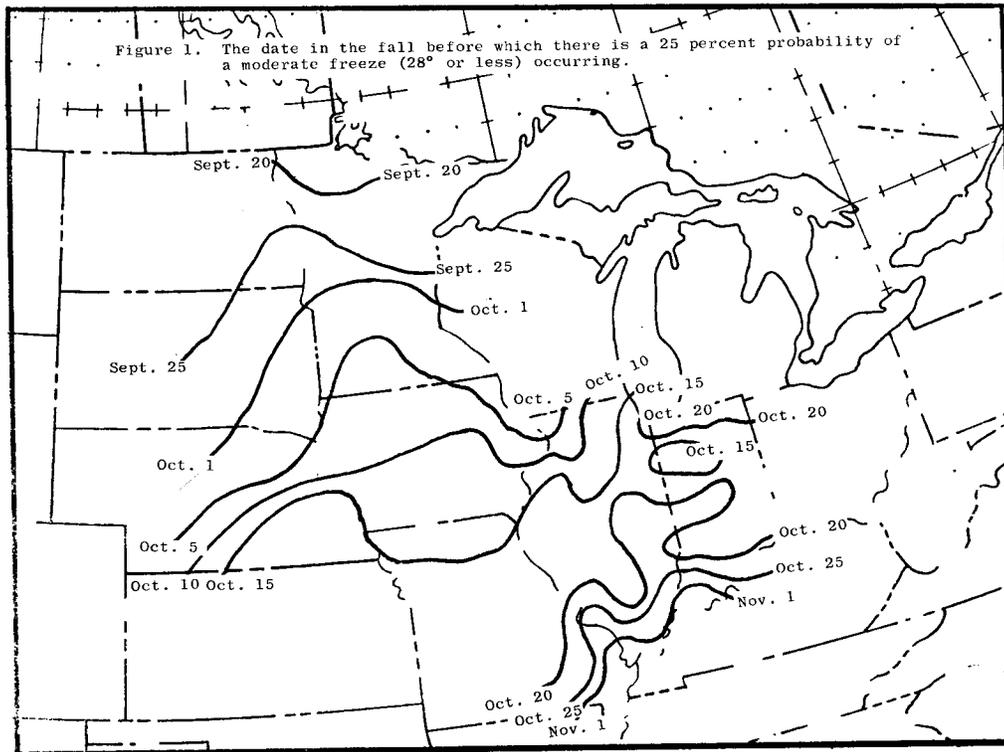
Silo filling very active after hard freeze. Much corn going into silage that was intended for grain. Silo filling 40% done, 1973 50%, normal 45%. Stalks losing moisture fast. A few farmers picking corn but moisture still high in ears. Quality and yields of corn for silage and grain lowered by dry weather and early frost. Soybeans severely affected by frost, early beans were mature and will be harvested, late beans were green and outcome in doubt. Some soybeans in west going in silos. Vegetable crops hurt by frost. Considerable acreage of sweet corn and snap beans lost. Garden vegetables likewise caught by early freeze. Potato harvest proceeding rapidly. A good apple crop being picked. Cranberry harvest in full swing. Fall plowing 10% done, 1973 17%, normal 15%. Dry most areas, soil moisture 65% short and 35% adequate.

WYOMING: Temperatures 25th and 26th upper 70's and 80's. Daytime highs 27th only upper 30's to upper 40's. Temperatures slightly above normal west of Divide, slightly below normal east. Snow and rain mixed on 27th, heaviest in Big Horn, Wind River, Powder, Little Missouri, and Tongue Drainages. Most other areas less than 0.10 in.

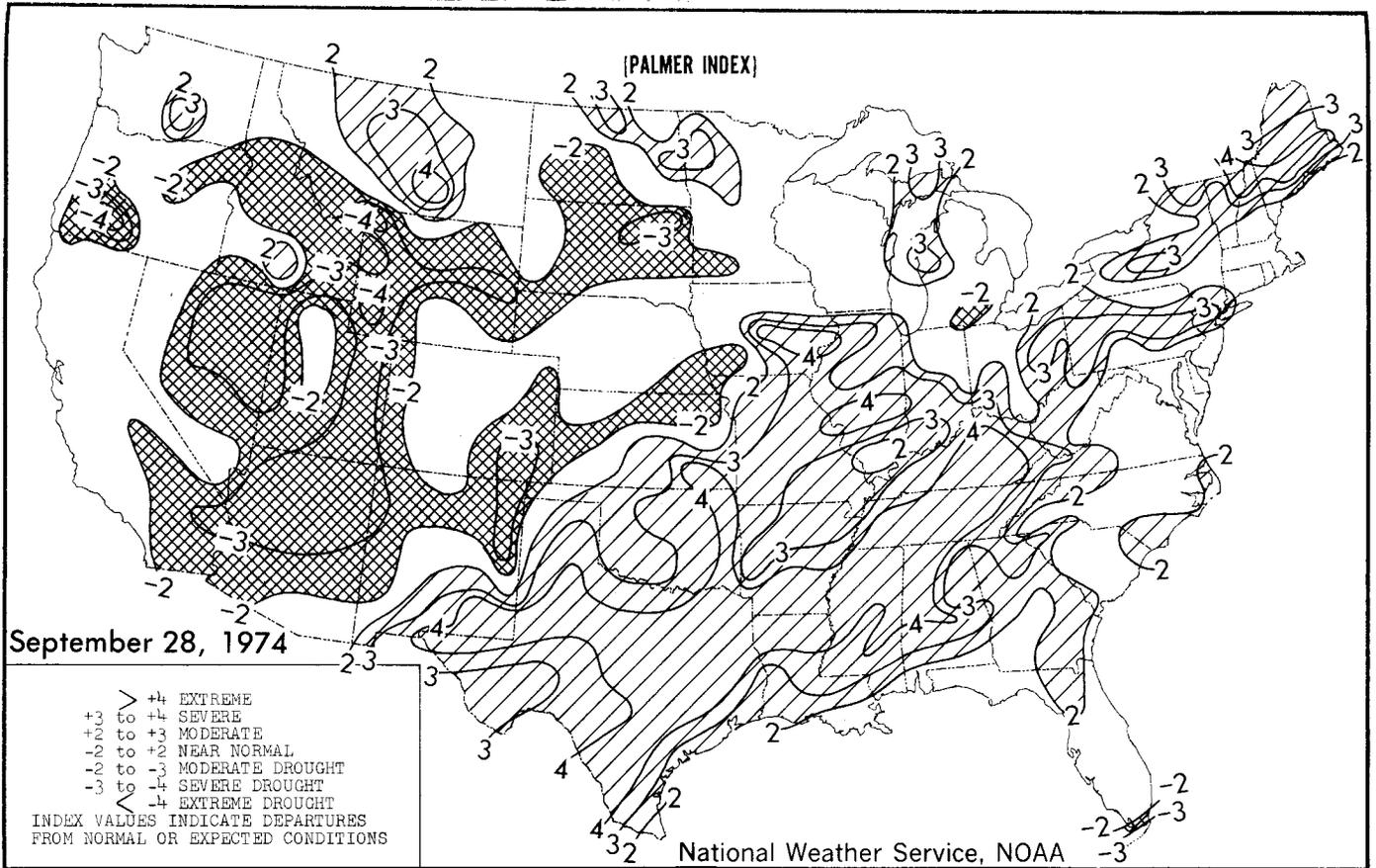
First freeze in many areas occurred night of the 27th. Winter wheat seeding nearly completed, soil moisture short. Digging sugarbeets underway, same as 1973. Corn for grain 70% mature, 50% 1973. Smaller crop anticipated due to early frost. Corn silage 90% harvested, 70% 1973. Dry beans 85% windrowed, 65% combined, 40% combined 1973. Digging potatoes 20% completed, 30% 1973. Hay quality good, adequate supplies for wintering livestock. Livestock movement very slow.



### FROST PROBABILITIES IN THE CORN BELT



Data used to prepare these maps were taken from various individual State publications on frost probabilities.

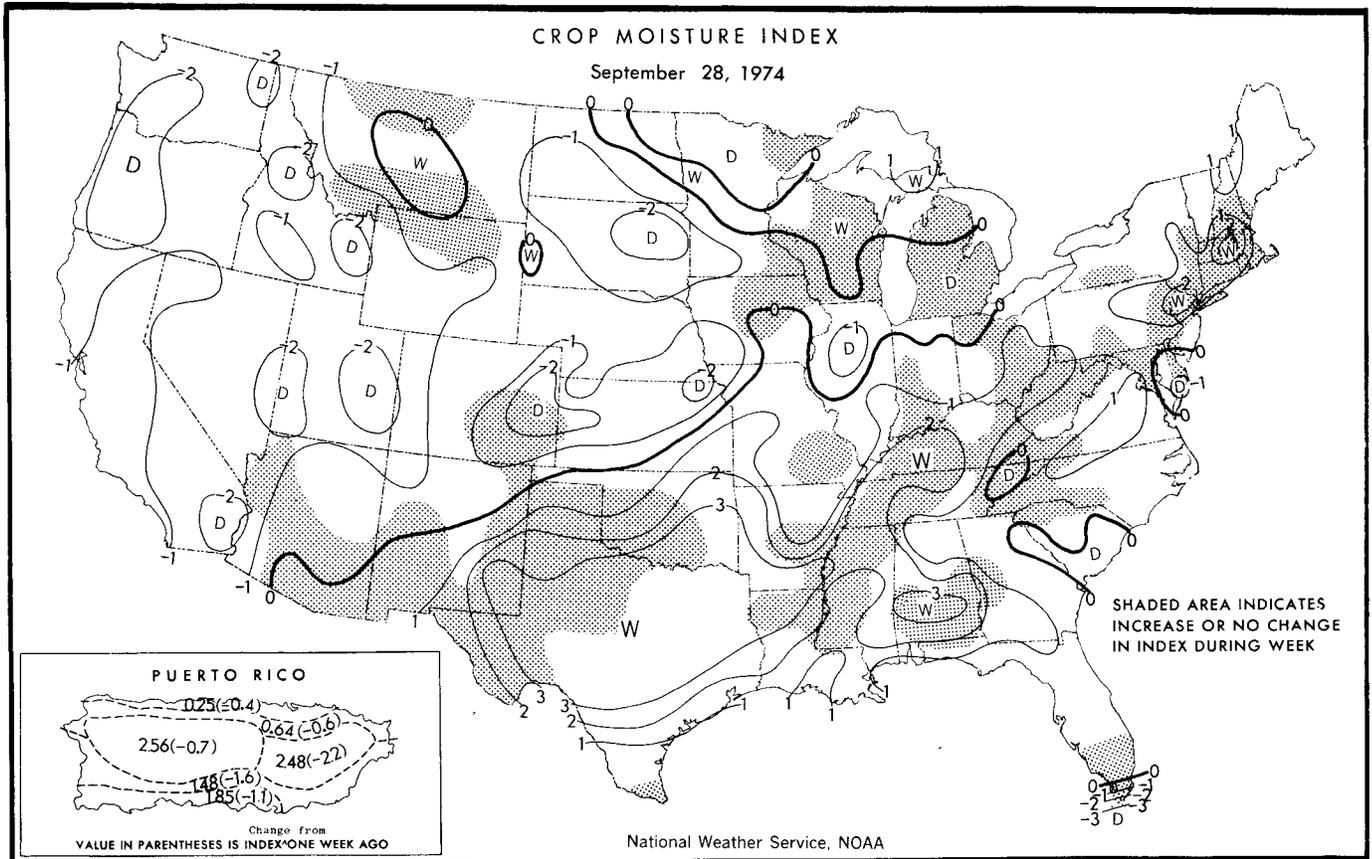


**PALMER INDEX**

The Palmer Index is simply a measure of the degree to which the weather has been abnormally dry or wet during the past several weeks or months. This spell of weather may have been going on for a long period of time, or it may have been of shorter duration. However, a short change in the weather, from dry to wet, or from wet to dry, will not affect the Index values unless the changes persist for a significant period of time. The onset of drought usually occurs more slowly than a wet spell because there is no limit to the amount of rain that can fall, but zero rain is the lower limit on the dry side.

The current map shows the results of the heavy rains that have been occurring in Texas and New Mexico. Southern New Mexico and southwest Texas have gone from drought to a severe to extreme wet spell. Other areas of the map show little change except that the dry areas of the western Plains have spread some. Most of the minor dry areas in the east have been relieved except the southern tip of Florida where severe drought exists.

Most of the current results of the drought areas of the west are poor pasture feed, shortage of stock water, lack of moisture for seeding winter grains and of fire hazard. Fire hazard is especially high in Wyoming, where some extreme drought exists. The greatest danger is reported in the Yellowstone Park area.



**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.

Agricultural Climatology Service Office  
South Building Mail Unit  
U. S. Department of Agriculture  
Washington, D.C. 20250

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