



1872-Centennial-1972

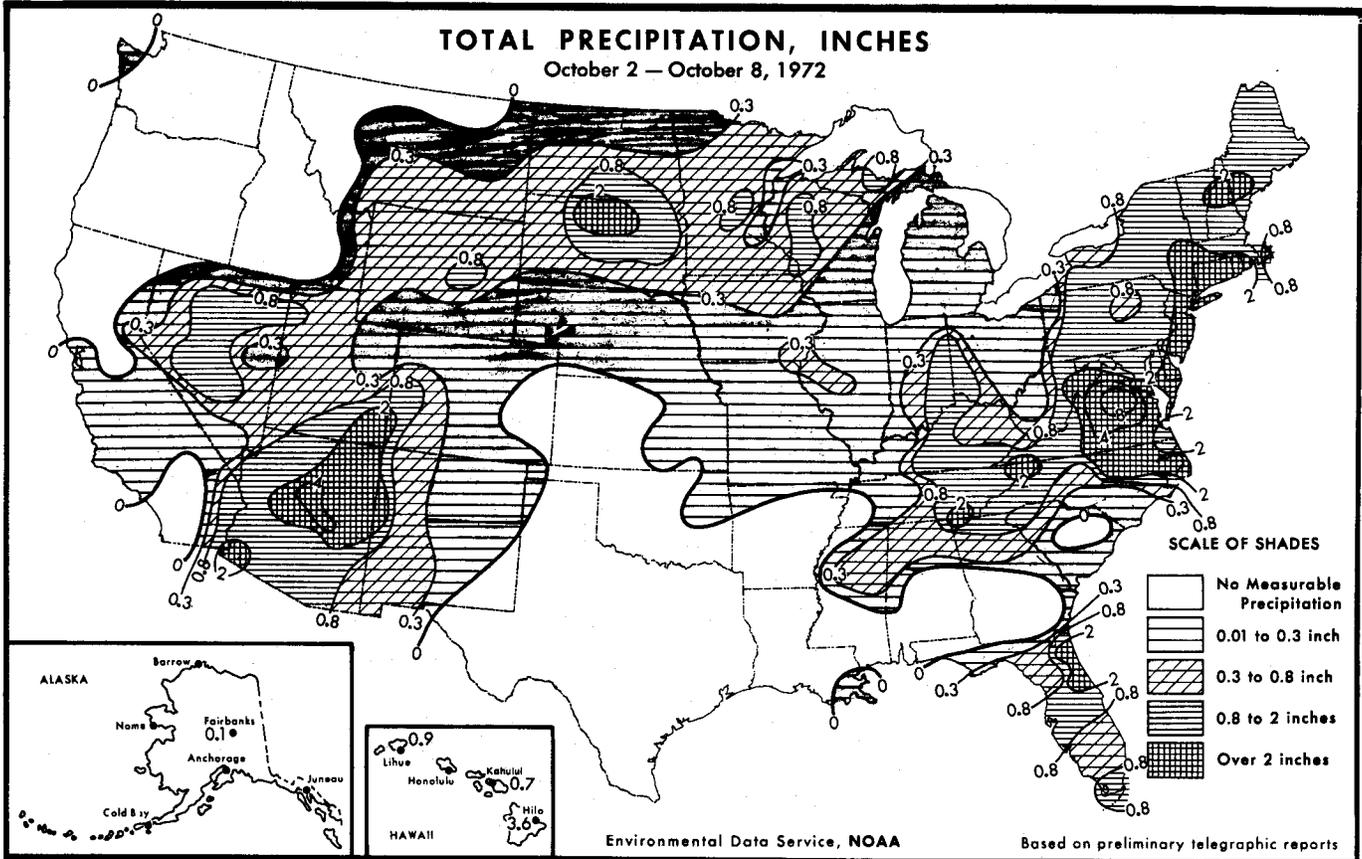
# Weekly Weather & Crop Bulletin

U. S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Environmental Data Service

U. S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service

Volume 59 No. 41

Edited by Lucius W. Dye OCTOBER 9, 1972 Washington, D. C.



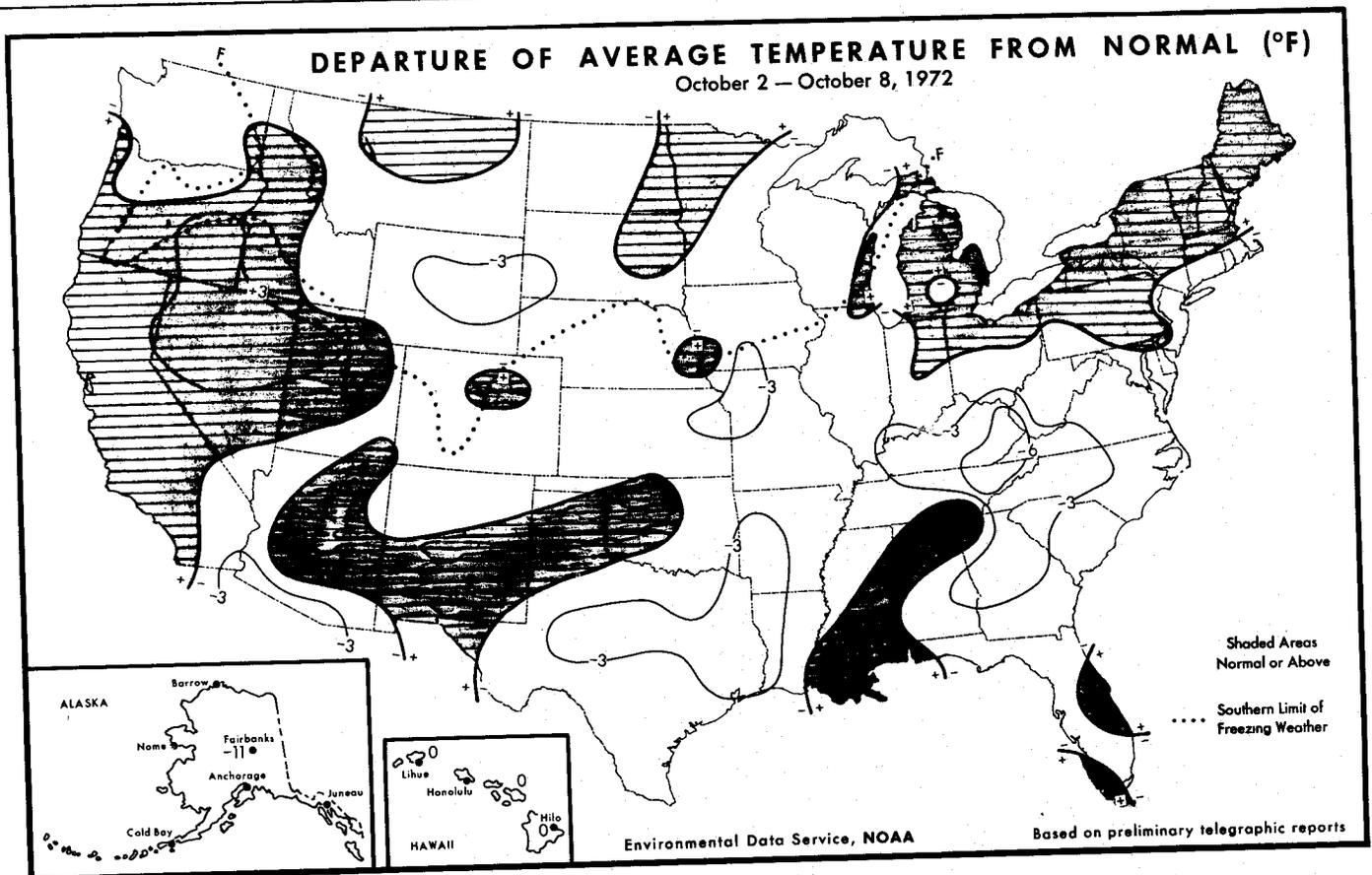
## NATIONAL WEATHER SUMMARY

**HIGHLIGHTS:** Heavy rains fell in the Southwestern Deserts and over some Atlantic Coastal States. Cool autumn weather occurred in the Northeast late in the week.

**PRECIPITATION:** A High over the Pacific Northwest and another High over the East early in the week brought widespread typical fine weather to most of the Nation. A weak low over the Upper Mississippi River Valley produced scattered showers from the Great Lakes to Tennessee and a quasi-stationary front across the Florida Peninsula set off moderate to heavy local showers. After midweek, Hurricane Joanne, about 500 miles south of San Diego, Calif., became Tropical Storm Joanne, and moved across northern Mexico. It became an extratropical Low and produced heavy rains over portions of the Desert Southwest. About

3.00 inches of rain fell in the Prescott-Flagstaff, Arizona area in 24 hours. A 4-day total at Phoenix was 1.93 inches which is more than 4 times the normal rainfall for Phoenix for the entire month of October. Sunflower, Ariz., about 50 miles northeast of Phoenix, received 5.38 inches in 4 days. The heavy rains damaged cotton but filled reservoirs. Upslope winds caused mixtures of rain, sleet, and snow on the eastern slopes of the northern Rocky Mountains.

Meanwhile, a storm intensified off the coast of North Carolina. Onshore winds brought moisture to the hill country along the middle Atlantic States. Almost 11.00 inches fell at Amelia, Va., about 45 miles southwest of Richmond. Three-day totals over interior Virginia ranged from 6.00 to 12.00 inches with slightly lesser amounts from western Maryland to North Carolina. The 3-day



intense rains caused serious flooding at Richmond, Va., on the James River and the worst flooding in the 20th Century at Petersburg on the Appomattox River. Light to moderate showers also fell over Nevada, Utah, and the northern and central Great Plains. No important rain fell in Washington, Oregon, and Idaho. A large area from western Kansas to the Rio Grande and eastward to southern Georgia received no rain or only widely scattered light sprinkles.

**TEMPERATURE:** Sunny skies prevailed over most of the Nation early in the week. Maximums Monday, October 2, ranged from the 50's and 60's in the

Northeast to the 80's and 90's in the Southwest. Phoenix, Ariz., registered 101° October 2. The Deep South was warm and muggy. Subfreezing weather occurred one or two mornings over the northern and central Rocky Mountains and eastward to the Great Lakes.

Cooler autumn weather replaced the mild weather as the weekend approached.

Weekly mean temperatures were 3° to 5° above normal over Nevada and 3° to 5° below normal over the southern Appalachians. Elsewhere, temperatures averaged very close to normal.

L. W. Dye

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Corn nearly mature in Western Corn-Belt, harvesting underway everywhere. \* Cotton harvest making good progress.

\* Soybean maturity pushed by favorable weather, harvesting in Corn-Belt behind normal.

**SMALL GRAINS:** Progress of planting the 1973 winter wheat crop continues ahead of normal in the major wheat producing States. Seeding is nearly completed in North and South Dakota, Nebraska and Colorado. In Kansas, the leading wheat producing State, farmers made good progress with 86 percent of the crop planted compared to the average of 81 percent planted. Early seeded wheat in Kansas is up to good stands and recent seedings are just emerging. Planting progress was slowed in Oklahoma due to dry weather while Texas wheat farmers advanced to 74 percent planted compared to 69 percent last year. In Colorado, winter wheat is 98 percent sown with 88 percent emerged in good to excellent condition. Seeding reached 90 percent complete in Montana. Rains improved wheat and rye fields in South Dakota but greenbugs remain a problem. Spraying is widespread in Oklahoma for grasshoppers and army worms which continue to hurt fall planted small grains. Fall seeding of small grains in most Eastern States is making slow progress.

**CORN:** The Nation's corn crop advanced closer to maturity with harvest either underway or just starting in every State. Harvesting progress is behind normal throughout the North Central States. In the Western Corn-Belt nearly all corn acreage is now mature, and harvesting is starting to move along with drier autumn weather. In the Eastern Corn-Belt, showers and cloudy weather slowed corn maturing and harvesting progress. The crop is all mature and 10 percent harvested in the leading corn producing States of Iowa and Illinois. Harvesting in Kansas and Missouri was further along at about 20 percent complete. In Indiana and Ohio, corn is about 3/4 mature with only 5 percent picked compared to an average of about 12 percent harvested. Harvesting is just getting started in Wisconsin and Michigan.

Corn picking gained momentum in the southern States. Harvesting was 81 percent complete in Texas, 33 percent complete in Alabama, and 25 percent complete in Tennessee.

**COTTON:** Cotton is rapidly maturing on the High Plains of Texas and throughout the South. Harvesting is in full swing with progress about normal, but running ahead of last year's slower than usual pace. Texas cotton harvesting is 29 percent complete compared to 20 percent last year. The crop is 25 percent picked in Arkansas, Mississippi, Louisiana and Tennessee. Gins in Arkansas were hard pressed to handle the large volume of cotton delivery. Mild sunny days aided harvesting progress in Georgia where 40 percent of the crop is picked.

The Arizona cotton crop suffered some damage from Tropical Storm Joanne as heavy rain lowered quality in several counties. Normal harvesting progress is being made in California and New Mexico.

**SOYBEANS:** A week of seasonal autumn weather with relatively light precipitation compared to recent weeks pushed the soybean crop closer to maturity. Harvesting progress in the Corn-Belt

is far behind normal because of the late maturing crop, but combining is becoming more active. The crop is all mature in the leading soybean producing States of Illinois and Iowa. Combining is 30 percent complete in Illinois compared to 88 percent complete last year. The crop is 16 percent harvested in Iowa compared to normal progress of 40 percent complete. Progress is slower in Indiana and Ohio at 10 percent harvested compared to about 40 percent normally complete.

September rains were very beneficial to late soybeans in Arkansas. Harvest of early soybeans is underway there with 5 percent combined. The crop is 15 percent cut in Mississippi and 20 percent combined in Louisiana.

**OTHER CROPS:** The sorghum grain harvest in Texas is slightly ahead of last year at 53 percent complete. Harvest is active in Oklahoma and Missouri with about 1/4 of the crop harvested while the Kansas crop is 16 percent combined. In Nebraska sorghum grain is 81 percent ripe with harvest limited to test cuttings. In North Carolina, flue-cured tobacco farmers are preparing leaves for market and burley tobacco is nearly all harvested. About 14 percent of the Kentucky burley tobacco crop is cured and ready for stripping. Peanut harvesting is about over in Georgia and South Carolina, while the crop is 46 percent harvested in Texas. Active digging continues in North Carolina and Virginia. Potato harvesting is in full swing in Idaho at 50 percent complete. The Aroostook County, Maine crop is 90 percent dug while harvesting is 67 percent done in North Dakota and Minnesota. Sugar beet harvest continues in California and is underway in Idaho and Colorado. In Texas, the second cutting of rice is 8 percent cut. About 60 percent of the Arkansas rice crop is harvested and the Louisiana harvest is finished while cutting continues in Mississippi and California.

**Fruits and Nuts:** The apple harvest continued to make good progress across the Nation. The cranberry harvest moved along well in Oregon, Wisconsin and Massachusetts. Concord grape picking is underway in New York and harvest of wine grapes continued in California. Florida citrus grove conditions are excellent, while navel oranges in California are sizing larger than normal. Pecan harvesting in Texas reached northern counties. The California walnut and almond harvest is active.

**Vegetables:** Frosts ended the growth of most tender vegetables in New England and supplies started to decrease in most Northern areas. On the Texas High Plains, lettuce and carrot harvesting continued with cabbage supplies increasing, vegetable crops are growing well in other parts of the State. In Florida, light volumes of sweet corn, cucumbers, eggplant, squash and snap beans are available. Vegetable harvesting continues in California with lettuce increasing in the San Joaquin Valley.

**PASTURES AND LIVESTOCK:** General rains from North Carolina to New England benefited pastures while grazing became short in the Deep South. Abundant rain from Tropical Storm Joanne will help dry ranges in Arizona. Marketing of cattle is increasing as pasture feed supplies begin to decline seasonally.

Arlon M. Scott  
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., OCTOBER 8, 1972

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	T	-.6	New Orleans . . .	74	0	.1	-.6	OKLA.Okla. City . .	68	+1	0	-.6
Mobile . . .	75	+1	0	-.8	Shreveport . . .	70	-3	0	-.6	Tulsa . . .	66	-2	.1	-.7
Montgomery . . .	69	-3	0	-.6	MAINE.Caribou . . .	50	+2	1.3	+ .5	OREG.Astoria . . .	57	+2	T	-1.4
ALASKA.Anchorage . .	---	---	---	---	Portland . . .	54	+1	2.0	+1.2	Burns . . .	57	+4	0	-.2
Barrow . . .	---	---	---	---	MD.Baltimore . . .	62	+1	.9	+ .2	Medford . . .	59	+1	0	-.4
Fairbanks . . .	24	-11	.1	-.1	MASS.Boston . . .	60	0	1.6	+1.0	Pendleton . . .	57	-1	0	-.3
Juneau . . .	---	---	---	---	Chatham . . .	58	-2	.5	-.5	Portland . . .	57	-1	0	-.7
Nome . . .	---	---	---	---	MICH.Alpena . . .	53	+2	.1	-.5	Salem . . .	54	-4	0	-.7
ARIZ.Flagstaff . . .	53	+2	4.7	+4.3	Detroit . . .	58	+1	T	-.6	PA.Allentown . . .	58	0	1.4	+ .7
Phoenix . . .	78	+2	1.9	+1.8	Flint . . .	57	+3	.2	-.3	Erie . . .	57	+2	.2	-.6
Tucson . . .	72	-3	1.6	+1.4	Grand Rapids . . .	56	0	T	-.6	Harrisburg . . .	62	+2	1.0	+ .3
Winslow . . .	63	0	2.8	+2.6	Houghton Lake . . .	52	0	.1	-.6	Philadelphia . . .	62	+2	1.8	+1.1
Yuma . . .	76	-4	2.2	+2.1	Lansing . . .	55	-1	T	-.6	Pittsburgh . . .	57	-1	.9	+ .3
ARK.Fort Smith . . .	65	-3	T	-.8	Marquette . . .	51	-2	1.0	+ .4	Scranton . . .	55	0	1.6	+ .8
Little Rock . . .	65	-3	T	-.7	Muskegon . . .	57	0	.1	-.5	R.I.Providence . . .	59	+1	2.1	+1.4
CALIF.Bakersfield . .	72	+1	T	-.1	S.Ste.Marie . . .	51	+1	.3	-.4	S.C.Charleston . . .	69	-1	.1	-.7
Eureka . . .	56	0	T	-.5	MINN.Duluth . . .	48	-2	.1	-.4	Columbia . . .	67	-2	T	-.6
Fresno . . .	70	+1	T	-.1	Internatl Falls . .	49	+1	.3	-.1	Greenville . . .	63	-4	1.1	+ .7
Los Angeles . . .	72	+3	0	-.1	Minneapolis . . .	53	-1	.3	-.1	S.DAK.Aberdeen . .	54	0	.9	+ .6
Red Bluff . . .	72	+2	T	-.2	Rochester . . .	53	-3	.7	+ .3	Huron . . .	54	+1	1.6	+1.3
San Diego . . .	69	+1	0	-.1	St. Cloud . . .	51	-2	1.1	+ .7	Rapid City . . .	52	-3	.7	+ .5
San Francisco . . .	66	+3	.1	0	MISS.Jackson . . .	71	0	0	-.4	Sioux Falls . . .	54	-1	.7	+ .4
Stockton . . .	70	+2	T	-.1	Meridian . . .	70	0	T	-.8	TENN.Chattanooga .	60	+3	2.1	+1.4
COLO.Denver . . .	57	+1	T	-.2	MO.Columbia . . .	63	0	T	-.8	Knoxville . . .	59	-7	1.9	+1.3
Grand Junction . . .	60	-1	.9	+ .7	Kansas City . . .	61	-5	.2	-.5	Memphis . . .	66	-2	0	-.5
Pueblo . . .	59	-2	T	-.3	St. Louis . . .	63	0	.1	-.6	Nashville . . .	63	-3	.2	-.3
CONN.Bridgeport . . .	60	0	4.3	+3.5	Springfield . . .	62	-2	T	-.9	TEX.Abilene . . .	67	-3	0	-.8
Hartford . . .	57	0	3.2	+2.5	MONT.Billings . . .	51	-3	.4	+ .1	Amarillo . . .	65	0	0	-.5
D.C.Washington . . .	63	0	.9	+ .2	Glasgow . . .	53	+2	T	-.2	Austin . . .	74	0	T	-.7
FLA.Apalachicola . .	74	-1	.4	+ .2	Great Falls . . .	54	+3	T	-.2	Beaumont . . .	71	-3	0	-.6
Ft. Myers . . .	80	+1	1.9	+ .7	Havre . . .	53	+3	T	-.2	Brownsville . . .	77	-2	0	-.9
Jacksonville . . .	73	-2	2.9	+1.4	Helena . . .	48	-2	0	-.3	Corpus Christi . .	78	0	0	-.7
Key West . . .	82	+1	.6	-.8	Kalispell . . .	47	-2	0	-.3	Dallas . . .	72	0	0	-.6
Lakeland . . .	76	-1	2.0	+1.1	Miles City . . .	52	-2	.2	-.1	Del Rio . . .	74	-1	0	-.5
Miami . . .	79	-1	1.2	-1.5	Missoula . . .	49	0	0	-.3	El Paso . . .	71	+2	T	-.2
Orlando . . .	78	+1	1.2	0	NEBR.Grand Island .	57	-2	T	-.2	Fort Worth . . .	70	-3	0	-.6
Tallahassee . . .	74	0	.1	-.6	Lincoln . . .	59	-3	T	-.4	Galveston . . .	75	-2	0	-.8
Tampa . . .	77	-1	1.5	+ .6	Norfolk . . .	56	-2	.1	-.2	Houston . . .	71	-3	0	-.9
GA.Atlanta . . .	64	-3	.4	-.1	North Platte . . .	54	-2	.2	-.1	Lubbock . . .	66	0	0	-.6
Augusta . . .	67	-3	T	-.5	Omaha . . .	60	+1	.2	-.2	Midland . . .	67	-3	0	-.5
Macon . . .	68	-3	0	-.5	Valentine . . .	54	-1	.2	0	San Angelo . . .	68	-4	0	-.5
Savannah . . .	70	-1	.1	-.6	NEV.Ely . . .	53	+3	.3	+ .2	San Antonio . . .	74	0	0	-.6
HAWAII.Hilo . . .	76	0	3.6	+1.2	Las Vegas . . .	71	-1	T	0	Victoria . . .	75	-1	T	-.9
Honolulu . . .	---	---	---	---	Reno . . .	57	+3	T	-.1	Waco . . .	71	-3	0	-.6
Kahului . . .	78	0	.7	+ .6	Winnemucca . . .	57	+5	.8	+ .6	Wichita Falls . . .	69	-2	0	-.7
Lihue . . .	78	0	.9	+ .2	N.H.Concord . . .	52	-1	1.4	+ .8	UTAH.Blanding . . .	58	+1	2.4	+2.0
IDAHO.Boise . . .	57	0	T	-.1	N.J.Atlantic City . .	60	-2	3.0	+2.2	Salt Lake City . . .	60	+3	.5	+ .3
Lewiston . . .	57	0	0	-.3	Trenton . . .	60	-1	3.0	+2.3	VT.Burlington . . .	57	+5	.8	+ .1
Pocatello . . .	52	-2	T	-.2	N.MEX.Albuquerque .	64	0	.2	0	VA.Lynchburg . . .	60	-2	4.4	+3.8
ILL.Cairo . . .	66	-1	.1	-.5	Roswell . . .	---	---	---	---	Norfolk . . .	65	-1	1.9	+1.2
Chicago . . .	59	-1	T	-.6	N.Y.Albany . . .	55	0	2.7	+2.1	Richmond . . .	62	-1	5.3	+4.6
Moline . . .	58	-1	.1	-.5	Binghamton . . .	52	-2	.8	+ .1	Roanoke . . .	58	-4	1.6	+ .9
Peoria . . .	58	-3	.2	-.4	Buffalo . . .	57	+2	.8	0	WASH.Colville . . .	52	-1	0	-.3
Rockford . . .	57	0	.1	-.6	New York . . .	61	-2	3.6	+2.8	Omak . . .	52	0	0	-.2
Springfield . . .	61	0	.4	-.3	Rochester . . .	59	+3	.7	+ .1	Quillayute . . .	52	-3	.1	-2.2
IND.Evansville . . .	59	-5	.2	-.4	Syracuse . . .	56	0	1.4	+1.4	Seattle-Tacoma . .	54	-2	T	-.8
Fort Wayne . . .	58	0	.9	+ .2	N.C.Asheville . . .	57	-5	2.0	+ .7	Spokane . . .	54	0	0	-.3
Indianapolis . . .	60	0	.5	-.2	Charlotte . . .	63	-4	.2	-.5	Walla Walla . . .	58	-2	0	-.3
South Bend . . .	58	0	.3	-.5	Greensboro . . .	59	-5	.3	-.4	Yakima . . .	54	-1	0	-.1
IOWA.Burlington . . .	60	0	.5	-.2	Hatteras . . .	68	-1	3.8	+2.8	W.VA.Beckley . . .	54	-4	.9	+ .3
Des Moines . . .	57	-3	.2	-.3	Raleigh . . .	62	-3	2.4	+1.7	Charleston . . .	59	-2	.2	-.4
Dubuque . . .	55	-1	.3	-.3	Wilmington . . .	68	-2	.1	-.6	Huntington . . .	56	-6	.4	-.1
Sioux City . . .	59	-1	.2	-.2	N.DAK.Bismarck . .	51	-1	1.1	+ .8	Parkersburg . . .	59	-2	T	-.5
KANS.Concordia . . .	61	-2	T	-.4	Fargo . . .	52	+1	.4	+ .1	WIS.Green Bay . . .	54	0	.1	-.4
Dodge City . . .	63	-1	0	-.3	Williston . . .	48	-2	T	-.2	La Crosse . . .	56	0	1.3	+ .8
Goodland . . .	58	-1	0	-.2	OHIO.Akron-Canton .	59	+2	.2	-.4	Madison . . .	54	-1	.1	-.5
Topeka . . .	60	-3	.1	-.5	Cincinnati . . .	61	0	.9	+ .3	Milwaukee . . .	56	+1	.1	-.4
Wichita . . .	64	0	.5	-.1	Cleveland . . .	59	+1	.1	-.5	WYO.Casper . . .	49	-4	.9	+ .7
KY.Lexington . . .	59	-4	.1	-.4	Columbus . . .	57	-2	.3	-.2	Cheyenne . . .	51	-1	T	-.2
Louisville . . .	61	-2	.9	+ .4	Dayton . . .	59	-1	1.0	+ .4	Lander . . .	49	-3	.6	+ .3
LA.Baton Rouge . . .	75	+2	0	-1.0	Toledo . . .	58	+1	.2	-.4	Sheridan . . .	50	-2	.4	+ .1
Lake Charles . . .	71	-3	0	-.7	Youngstown . . .	56	0	T	-.6	P.R. San Juan . . .	83	+2	1.5	+ .3

\* Departures are from 30-year means (1931-60). Based on preliminary reports

## CONDENSED STATE SUMMARIES

These summaries provide brief descriptions of condition and activities important on a national scale. Detailed reports of crop and weather conditions during the growing season are contained in State issues of Weekly Weather and Crop Bulletins published by field offices of the Statistical Reporting Service, U.S.D.A. in cooperation with NOAA Climatologists.

**ALABAMA:** Dry week. Precipitation restricted to scattered light showers north Wednesday and Wednesday night. Most of central and south received no rain. Temperatures 2° to 4° above normal until cooler weekend. Huntsville recorded State low of 38° Sunday. High for week, 89° at Mobile Thursday. Good progress with cotton crop harvest south and central counties. Showers and morning fog slowed picking in north. Almost 1/5 crop harvested, slightly ahead of last year. Harvest of corn for grain about 1/3 complete. Cotton harvest has priority. Early soybeans maturing rapidly, but only about 10% combined. Prospects for late soybeans variable due to recent dry weather. Peanut harvest practically complete with only a few scattered fields remaining to be dug. Limited amount of hay saved, cutting about finished. Pastures supplied mostly adequate grazing northern half, but grazing short remainder of State. Rains needed to improve pasture and provide moisture for fall crops.

**ALASKA:** Cold temperatures and heavy precipitation. Two stations with normal minimums of 20°, each reported a below-zero temperature. Three stations reported over 1.00 inch of precipitation for week. Above-average snowfall amounts reported from both Tanana and Matanuska Valleys. About 20% of barley and oats for grain and 30% of grain silage remained to be harvested in Matanuska Valley. A few acres of potatoes remained in the ground throughout the Railbelt. Demand for hay and straw supply better than in recent years. Some of the second crop of brome hay remains in the field, both uncut and cut but not baled.

**ARIZONA:** On October 3, a low-pressure center aloft over southern California brought moist maritime air and showers to much of State. On 4th, a southerly flow of air aloft to east of this low-pressure center continued over State bringing moist air into Arizona from Tropical Storm Joanne. This storm was located about 350 miles west southwest of southern tip of Baja California at 8:00 a.m., m.s.t., October 4. This flow of the tropical air into Arizona continued on 5th as Joanne moved to more northerly latitudes. By 10:00 a.m., 6th, the center of Joanne was located about 40 miles southwest of Rocky Point, Mexico, and moved northward into Arizona during afternoon. Although the intensity of this storm had decreased considerably by the time it entered Arizona, abundant moisture in its tropical air brought heavy showers to most of State on the 6th. Heaviest rainfall was along Mogollon Rim, in White Mountains, and at higher elevations in northern part of State. By 7th, much of moisture associated with Joanne moved out of State and only light, widely scattered showers reported at higher elevations, with only partly cloudy skies over irrigated valleys in southern part of State. Cotton crop damaged some from rain, quality lowered Yuma, Cochise, Santa Cruz Counties. In Mohave County, chemical defoliation taking place. Boll rot and pink bollworm problems in Graham County. Grain sorghum harvest delayed by rain. Fall sugar beets making good progress. Alfalfa hay harvest making normal progress. Small grain seeding active. Lettuce, carrots and cabbage making good progress Yuma areas. Fall cantaloupes

making good progress. Lettuce, other fall vegetables making good stands Salt River Valley, Pima and Pinal Counties. Harvest operations halted Cochise County wet fields. Lemon harvest continued full swing Yuma and Salt River Valley. Range conditions improved by rain, most fair to good. Western counties still short on stockwater, all other areas adequate. Cattle and calves fair to good, sheep and lambs good condition.

**ARKANSAS:** Abnormally dry weather over State with largest rainfall amount only 0.01 inch. Most sections had no measurable rainfall. Mean temperatures near normal most sections ranging from upper 60's southern part of State to low 60's extreme south. Slight warming trend through week with cooling on weekend. Highest temperature of 88° occurred several stations southern part of State on 6th. Lowest of 41° occurred at Calico Rock in north-central section on 3d and 8th and at Batesville in northeastern section on 3d. Harvest full swing and good progress. About 60% good to excellent rice crop combined, much acreage lodged and harvest slow. Gins hard pressed to take care of volume cotton delivery. Around 25% of crop picked to date. Fair to good prospects expected despite wind and rain damage late September. Improved moisture very beneficial late soybeans. Harvest early soybeans underway, but no more than 5% cut. Feed grain harvest well advanced. Late hay harvest active to bolster short supply. Seeding small grains continued, early acreage for grazing up and growing well. Fruit and vegetable season about over. Digging sweet potatoes underway. Pastures much improved most areas. Some dry areas remain and grazing still short these counties. Hay being fed few counties, but most livestock making satisfactory gains.

**CALIFORNIA:** Average temperatures 1° to 2° above normal throughout State. Exceptions 5° above normal Santa Barbara area; 6° above normal in lower Salinas Valley and near 10° above normal near Oregon border vicinity Tule Lake, freezing temperatures occurred northern mountain basins. Light precipitation northern coastal areas, northeast interior Tuesday. Southeast interior moderate precipitation. Harvest continues sugar beets, cotton, rice. Seedbed preparation continues small grains. Harvest wine grapes continues. Raisins 75% boxed. Few Thompson seedless, tokays, juice grapes moving fresh. Some apples continue picked coast. Walnuts, almonds harvest active. Harvest olives continues. Valencia oranges declining, quality fair. Color breaking navel oranges, limited harvest will begin midmonth, sizes larger than normal. Light harvest avocados, lemons, artichokes. Broccoli, cauliflower harvest continues Salinas, Santa Maria. Cantaloupe harvest beginning Imperial Valley. Central coast carrot harvest moderate volume. Celery in good volume Salinas, Santa Maria. Sweet corn movement declining south. Sacramento Valley honeydew harvest virtually complete. Salinas lettuce declining, San Joaquin Valley increasing. Harvest San Joaquin onions slowing, nearing peak north. Bell pepper moderate San Joaquin, Salinas Valleys. Tule Lake potato harvest full swing, other areas declining. Sweetpotato digging active Merced-Modesto area.

Decay showing central coast strawberries as result earlier rains. Market tomato supplies steady southern California, northern San Joaquin Valley. Cannery tomato harvest rapidly declining, mold damage showing from earlier rains. New grass growth spurred by recent rains in central and northern areas. Some snows at higher elevations, cattle movement from mountains active. Feedlots and sales yards active. Sheep flocks in alfalfa and grain stubble fields. Water supplies low. Supplemental feeding quite active. Milk and egg production about normal.

**COLORADO:** Slightly above normal temperatures over most of State all week. Moderate showers extreme southwest, light to moderate rest of mountain region. Eastern plains remain dry. Maturity corn and sorghum slowed. Surface and subsoil moisture very short to adequate over State. Seeding winter wheat 98% complete, 88% emerged in good to excellent condition. Winter barley 97% seeded, 84% emerged. Nearly all corn mature. Harvest for grain 4% complete. Corn silage harvest 95% complete. Sorghum 82% ripe, harvest for grain 3% complete. Sorghum forage 78% cut. Dry beans 91% cut, 60% threshed. Sugar beets 3% dug. Late summer potato harvest 90% complete. Fall potatoes over 1/2 dug. Third crop alfalfa 92% cut. Ranges and pastures improved, condition poor to excellent. Livestock movement to winter range continuing, condition good.

**FLORIDA:** A stationary front east-west through central Florida brought considerable rainfall early in week. Rainfall averaged 0.25 inch in Panhandle, 2.00 inches in central Florida, and 1.00 inch elsewhere. Low pressure area off Carolina Coast sent a wave of cool, dry air into northern and central Florida on weekend. Minimum temperatures on weekend dropped to 43° at Tallahassee and 61° at Tampa. Most of State averaged 1° to 2° cooler than normal. Peanut harvest nearly complete. Corn harvest progressing in north and central areas. Soybean harvest beginning. Soil moisture improved, but grazing remains fair. Preparation and seeding winter forage crops active. Citrus grove condition excellent, increasing dryness, irrigation continues, harvest increasing. A light volume of sweet-corn available in Everglades. Cucumber harvesting in west-central and north-central areas. Egg-plant harvest underway in Pompano, west-central, and north-central areas. Harvesting squash in Dade County and the north-central area. Snap bean harvest expected underway in most areas last half October. Tomato harvest expected to begin in Ft. Pierce-Pompano, southwest, and Palmetto-Ruskin areas last week October with Dade County beginning in early November.

**GEORGIA:** Moderate to locally heavy rains north and west-central, little or none most other areas. Most of State, except northern sections, continues very dry after 5 to 9 consecutive weeks of sub-normal rainfall. Typical fall weather, with mild sunny days and cool nights, arrived in State following 3 weeks of unusually warm weather. Highs in 70's and 80's and lows in 40's and 50's. Averages mostly 1° to 2° below normal. Soil moisture mostly adequate north, very short most areas of east-central, southeast, and extreme southern counties. Other areas short to adequate. Cotton mostly fair, 35% harvested. Corn fair to good, 40% picked. Soybeans poor to fair, 4% harvested. Peanut harvest practically complete. Haying active. Pecan condition fair. Pastures fair and need moisture. Cattle good condition. Small grains 24% seeded.

**HAWAII:** Progress of crops favorable. Rainfall variable and beneficial to crops. Water supply replenished in watershed areas. Harvesting of sugarcane normal. Pineapple harvesting mainly for fresh fruit market. Supply of bananas heavy but papayas light. Supply of most vegetables light. Cattle good condition with supplemental feeding. Market demand good for all classes of cattle.

**IDAHO:** Temperatures recovered from last week to average normal or slightly below. However, extreme low temperatures below freezing except in lower valleys. Precipitation limited to showers in south and east. Totals ranged from zero to 0.75 inch at Fairfield, Camas County, and 0.43 inch at Montpelier, Bear Lake County. Harvesting operations continued full swing. Rains slowed harvesting some areas south-central. Potato crop about 1/2 harvested with all areas active. Onion digging in wrap-up stages. Sugar beet digging underway eastern counties. Fall seeding of winter grains about 3/4 completed in major growing areas with about 40% emerged. Apply harvest gained momentum.

**ILLINOIS:** Week averaged about 1° below normal temperaturewise. It began cool with reports of frost, warmed during midweek, then cooled at week-end. Weekly precipitation generally totaled less than 0.50 inch although there were a few widely scattered reports of over 1.00 inch. Fall harvest starting to move along. Corn all mature, 10% harvested, behind normal and 28% in 1971. Soybeans all leaves shed, 30% harvested, well behind normal and 88% in 1971. Wet fields causing some harvesting problems. Winter wheat 1/3 seeded. Alfalfa hay 3d crop cutting complete. Pastures 93% good to excellent. Soil moisture, short 3%, adequate 57%, surplus 40%. Averaged 4.4 days suitable for fieldwork.

**INDIANA:** Scattered frost in north and east-central over weekend. Killing only in low areas. Lowest reported was 28° by Culver. Precipitation of 0.50 inch north to 2.00 inches south. Some large hail afternoon of 5th at Paoli, Shoals and St. Meinrad. Two days suitable for fieldwork with activities mostly confined to October 2 and 3. Topsoil moisture adequate to mostly surplus, subsoil moisture adequate to surplus. Wheatland 75% plowed, no progress for last 3 weeks. Wheat 25% seeded, 10% emerged. Rye 45% seeded, barley 35% seeded. Corn 80% mature, 5% harvested, 10% average. Soybeans 10% combined, 35% average. Apples 50% picked, 60% average. Tobacco 90% harvested. Pastures improved, fair to mostly good.

**IOWA:** Seasonal temperatures and subnormal to moderate precipitation. Harvesting still slowed by damp weather. Corn harvest 10% complete, same as average but behind 21% in 1971. Soybean harvest 16% complete, behind average of 40% and 50% in 1971. Over 65% winter wheat planted compared with 80% in 1970 and 1971. Grain sorghum harvested 10%. Popcorn about 20% harvested. Pasture feed 62% above average, 37% average, 1% below average. Over 4 days suitable for fieldwork. Topsoil moisture 65% adequate, 35% surplus.

**KANSAS:** Light to locally moderate precipitation eastern 1/3; no significant rain western 2/3. Weekly mean temperatures averaged 2° to 5° below normal north-central and eastern 1/3, near seasonal elsewhere. Cold front just after midweek dropped maxima to 50's and 60's on 6th. No widespread freeze. Few localities have had 1 or 2 days with minima near 30°. Row crop harvest accelerated.

Sorghum grain 62% mature, 80% last year and 69% average. Grain sorghum harvest 16% completed, 32% last year and 18% average. Corn for grain 90% mature, 95% last year, 91% average--harvest 21% completed, 39% last year, 25% average. Corn and sorghum silage harvest active. Soybeans 14% harvested, 30% last year, 23% average. Sugar beet harvest in full swing. Early-seeded small grain up to good stands, recent seedlings just emerging. Wheat 86% planted, 80% last year, 81% average. Barley 67% seeded, 56% year ago, 67% average. Cattle movement off pastures increased seasonally. Volunteer wheat provided grazing some localities.

**KENTUCKY:** Little or no rain west but showers on 4th and 5th totaled from 0.50 to 1.25 inches balance. Temperatures averaged 1° to 3° below normal. Maxima in 70's on 5 days, but early-morning readings mid-30's to mid-40's first and last days. Minor local wind damage central on 4th. Soil moisture adequate to surplus. Days favorable fieldwork averaged 3.5. About 14% burley tobacco cured and ready for stripping, but little actually stripped. Corn for grain harvesting resumed following rains, 16% completed, 26% last year. High moisture content necessitating drying. Soybean harvest 12% complete, 14% last year. About 40% shedding leaves and another 35% turning yellow. Pastures improved by rains. Fall wheat seeding 40% completed.

**LOUISIANA:** Temperatures averaged near normal north and west and 1° to 5° above normal south. Dry week with only a few showers mainly at midweek. Weather cool at beginning followed by rapid warming then slightly cooler weekend. Temperature extremes: 91° several places Wednesday or Thursday and 40° at Ashland October 2. Greatest 1-day rain total; 0.32 inch, measured Wednesday morning at Reserve. Harvest made good progress as weather almost ideal. Planting of rye grass and oats for winter pastures very active. Soil moisture generally adequate, but short in spots. Cotton 25% picked. Soybeans 20% combined. Sweet potatoes about 2/3 dug. Harvest of corn and sorghum grain nearing completion. Combining of rice virtually completed. Cutting of sugar cane for sugar just starting. Pecans falling, considerable seedlings gathered. Some last cuttings of hay made. Pasture feed average. Livestock condition good.

**MARYLAND AND DELAWARE:** Cool 2d and 3d, mild 5th and 6th, and near normal other days. Averaged near normal except 2° to 4° below normal in Garrett County area. Extremes: 70's, mid-30's to mid-40's. Rainfall on 5th to 7th, heavy in far west and in south where many totals 2.00 to 3.50 inches. Elsewhere mostly 0.60 inch to 1.25 inches. Soil moisture continued short except in far west and in south. Corn harvest increased to 32% done. Soybean maturity remains behind normal. Tobacco stripping and preparation of seedbeds reported. Red and golden delicious apples more than 50% harvested, stayman and York varieties in full swing. Sweet potatoes averaged 25% dug.

**MICHIGAN:** Seasonal weather continued until turning colder over weekend. Light to heavy frost at colder locations into southern Michigan, most minimum temperatures falling to mid-30's. Showers, scattered and light, except in western Upper Peninsula. Temperature averages: 3° above normal east to 2° below normal west Upper Peninsula, 4° above normal north to 1° below normal south-central Lower Peninsula. Precipitation totals: generally less than 0.25 inch except 0.50 to 1.00 inch western Upper Peninsula, less than 0.10 inch ex-

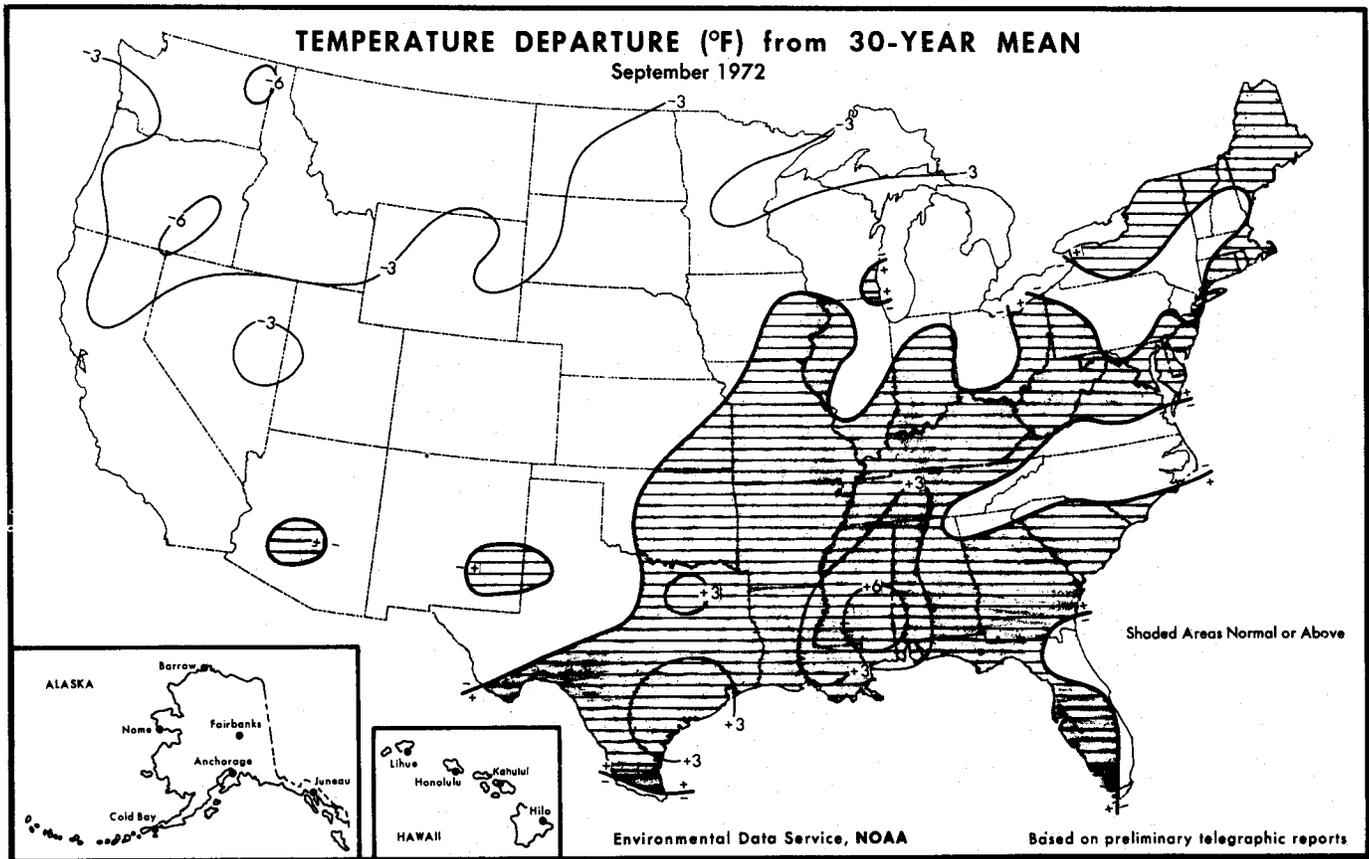
cept 0.30 inch northern Lower Peninsula. Some sleet and light snow north over weekend. Harvest of fall crops speeded up, but remained behind normal. Averaged 3.9 days suitable for fieldwork. Soil moisture adequate to surplus. Corn 57% mature compared with 80% last year and recent year average of 77%. Corn for silage 50% harvested. Grain corn harvest starting. Soybeans 20% mature compared with 50% last year. Dry bean harvest speeded up, 50% harvested. Fall potatoes 48% harvested. Sugar beet harvest underway, 5% harvested. Winter wheat 62% planted compared with over 85% previous year. Pasture feed supplies above average for this date. Picking fall apples and grapes continues active. Fall vegetable harvest well along.

**MINNESOTA:** Temperatures varied from 2° below normal in south and east to near normal in north-west and central parts of State. Extremes: 80°, 20°. The northeastern half of State was below freezing morning of 9th. Precipitation: more than 1.00 inch fell in southwest and eastern part of southeast and east-central districts. The rest of State had generally less than 0.50 inch. Surplus topsoil moisture in east continues to slow fieldwork. Moisture in remaining areas adequate except west-central district which is short. Soybean harvest made rapid progress in western and central districts. Corn harvest beginning. Stalk rot in a few fields harvested in southern districts is causing large losses. Silage corn 83% cut, normal 91%. Crops harvested: corn 8%, normal 6%; soybeans 27%, normal 39%; flax 86%, normal 84%; potatoes 65%, normal 61%; sugar beets 42%, normal 23%.

**MISSISSIPPI:** A cold front moved through Mississippi over weekend producing widespread rain with heaviest amounts over northern 2/3 of State. Amounts were generally 1.00 inch over central and northern portions of State and 0.25 inch over south. A few scattered showers midweek but totals light. Heaviest rainfall during week was at Calhoun City where 1.50 inches were recorded but Canton rain a close second with 1.42 inches. The influx of cool air kept average temperatures over State below normal ranging from around 5° below normal over north Mississippi to around 3° below normal over rest of State. Extremes: 37° at Holly Springs and Calhoun City on 1st and 93° at Wiggins on 1st. Scattered showers slowed harvesting activities in some areas, but in full swing in other areas. Soil moisture improved to mostly adequate, but southern areas continued very short to short. Days suitable for fieldwork ranged from 3 days in northeast to 6 days south. Crop conditions generally remained fair to good. Cotton 74% open, 25% harvested compared with 48% open and 8% harvested last year. About 15% soybeans harvested, same as last year, but maturity ahead of last year. Rice harvest 85% complete. Harvest of corn, sorghums, sweet potatoes and peanuts continued active. Pecan conditions mostly fair.

**MISSOURI:** Temperatures averaged near normal with minor day-to-day changes. Only light showers midweek with amounts less than 0.25 inch. Five days suitable for fieldwork. Corn 20% harvested, 41% year ago. Soybeans 18% harvested, 36% last year. Grain sorghum 25% harvested as compared to 48% a year earlier. Cotton 19% harvested, 26% year ago. Harvest slowed due to excess moisture. Fall-seeding 40% completed, about the same as last fall. Pastures fair condition. Soil moisture 32% short, 66% adequate, 2% surplus.

(Continued on page 12)



## WEATHER - SEPTEMBER 1972

**TEMPERATURE:** In general, September temperatures averaged cooler than normal from Washington and Oregon to the Great Lakes and from California to western Texas. Above-normal temperatures predominated from eastern Texas to the middle and southern Atlantic Coast.

Cold fronts moved southward from Canada into the northern Great Plains early in September. As they continued southward to the Gulf of Mexico, they brought cool pleasant weather to the central and eastern portions of the Nation. Early morning temperatures dropped to the 30's and 40's over the northern Great Plains and to freezing or lower in the higher Rocky Mountains. Big Piney, Wyo., registered 25° on September 7. Temperatures along the Gulf of Mexico ranged generally from the 70's in the early mornings to the 90's in the afternoons. The Southwest continued hot. Blythe, Calif., recorded 109° on September 5 and the mercury at Catulla, Texas climbed to 102° on the 6th and 7th. The second week of September brought early autumn temperatures to much of the eastern half of the Nation. Minimum temperatures fell to the 40's as far south as Virginia.

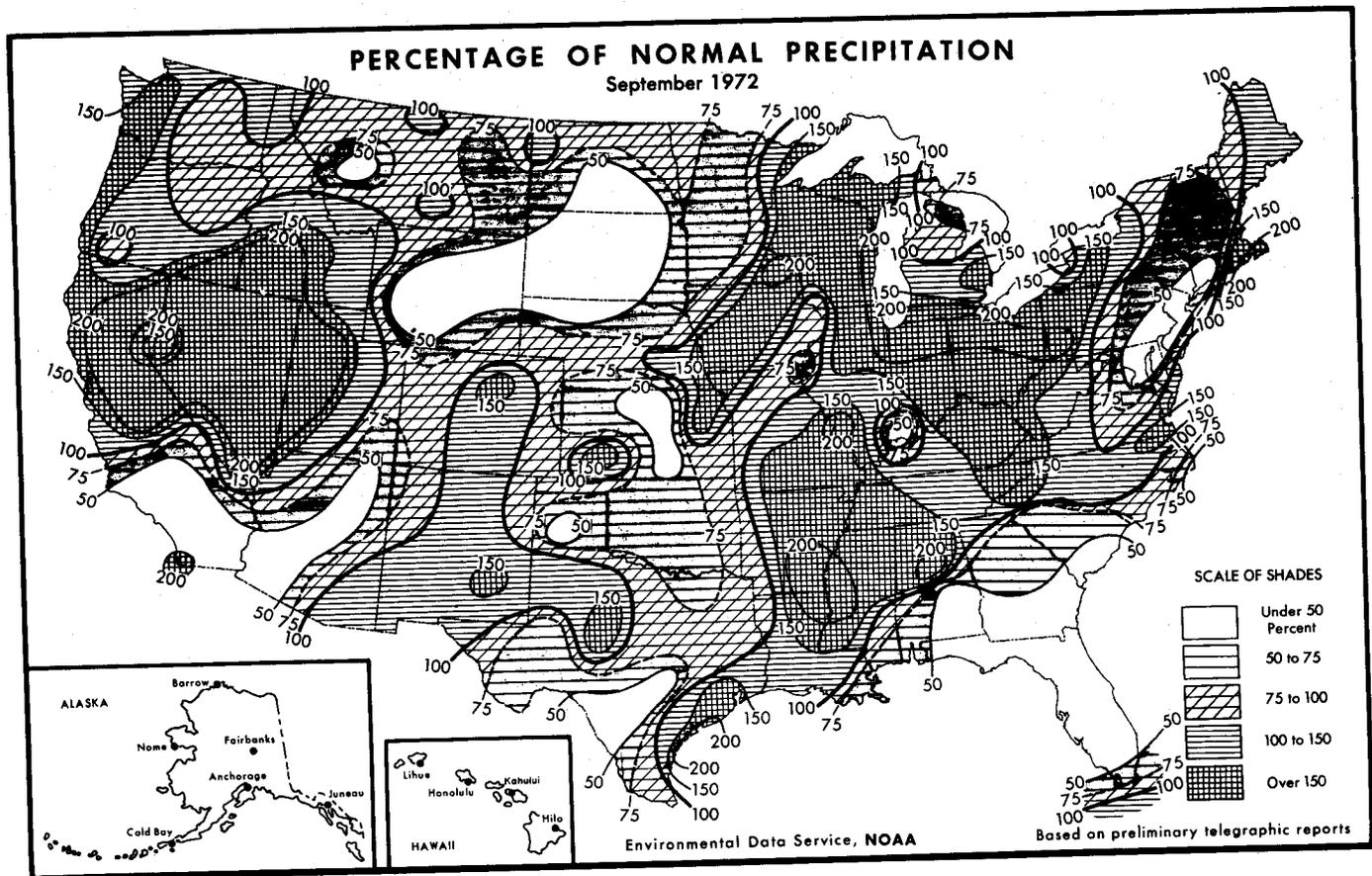
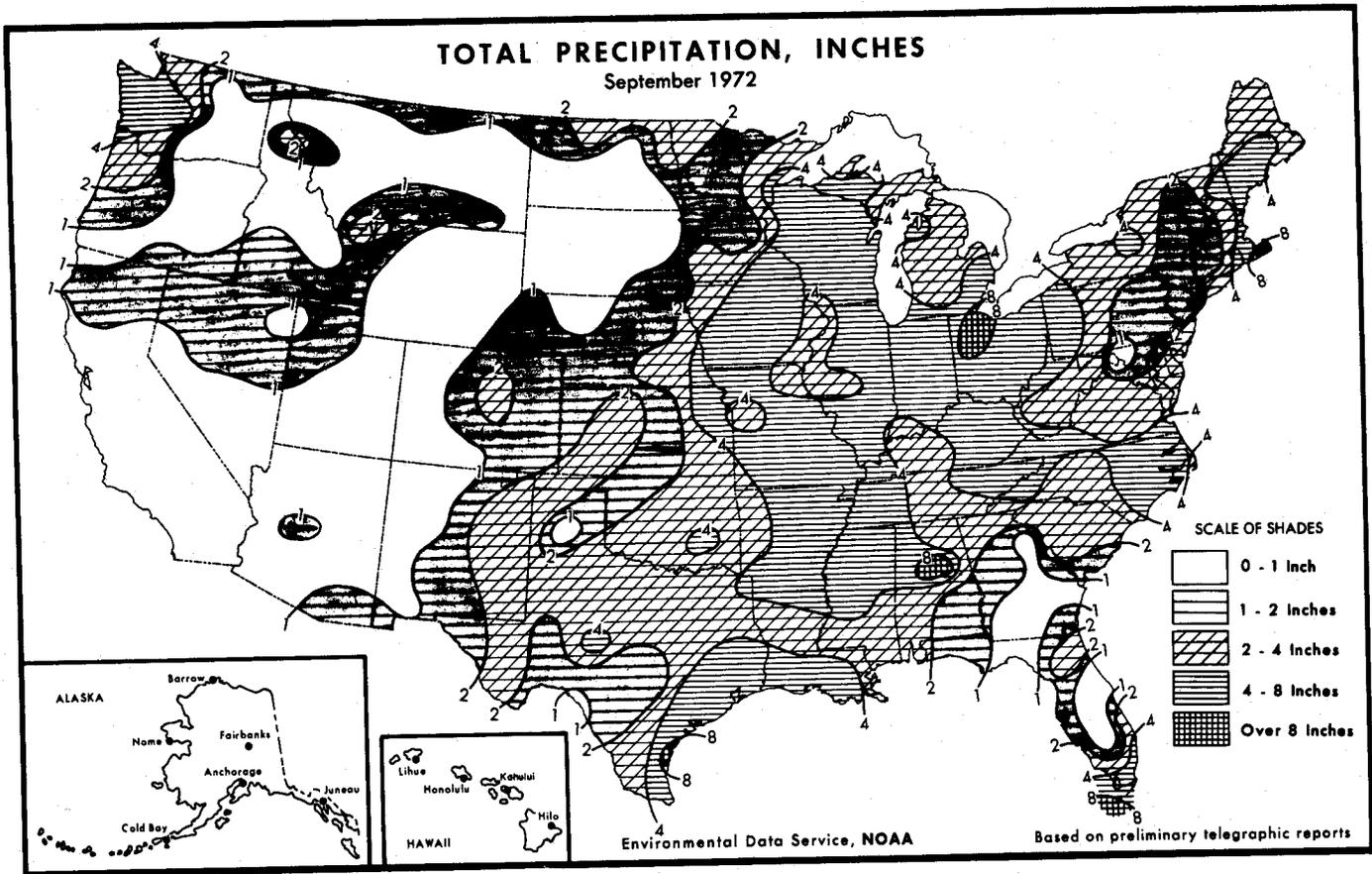
Two Highs dominated the weather at midmonth. One of the Highs was centered over the northern Great Plains. It dropped early morning temperatures into the 40's from Montana to Michigan and held afternoon temperatures in the 60's and 70's in the vicinity of the Great Lakes. Another High was spread over the eastern third of the Nation. It brought warm humid air northward from the Gulf of Mexico. Afternoon temperatures in the tropical air ranged mostly in the 80's and 90's. Omaha, Nebr., registered 97° on the 17th. Elsewhere in the central Great Plains, afternoon temperatures reached the 90's. The Deep South was also warm but the higher humidity made the air feel sticky. Warming continued over the central Great Plains into the third week of September.

Grand Island Nebraska registered 100° on the 18th and Aberdeen, S. Dakota recorded 98° on the 19th. A quick change to cooler weather occurred over the northern and central Great Plains in the third week of the month. Jamestown, N. Dak., registered the following daily maximum temperatures from the 19th to the 21st: 94°, 70°, and 60°. Temperature changes in the South were less drastic. The last few days of September were, in general, cold and dry in the Northwest, mild and dry in the Southwest, cold and damp in the Northeast, and warm and humid in the Southeast.

**PRECIPITATION:** A cold front pushed into the northern Great Plains early in September. The leading edge of the cold air set off showers and thunderstorms. Light rain fell in the cold air behind the front. Heavy rains, 2.00 to 4.00 inches in 24 hours, fell in east-central Kansas on September 1 and 2 causing substantial flooding along Gypsum Creek, Turkey Creek, and the tributaries of the lower Smoky Hill River. Flooding also occurred in south-central New Mexico due to the heavy showers in that area. Meanwhile, Tropical Storm Carrie dumped heavy rain over eastern Massachusetts - 8.00 inches southwest of Hyannis Port and over 5.00 inches at Chatham in 6 hours. Showers and thunderstorms, some heavy, occurred about the middle of the first week of September from the southern Great Plains to the middle and southern Atlantic Coast. Near the end of the first week, light showers splattered the Texas Panhandle, northeastern Kansas, and nearby parts of Nebraska, Iowa, and Missouri. Heavy rains splashed down in Illinois and Indiana.

Shortly before midmonth a slow-moving front stretched from a Low Centered near Hudson Bay, across Lake Superior to the central Great Plains, and westward to

(Continued on page 12)



Temperature and Precipitation Data for SEPTEMBER 1972

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 . . .	76	0	8.1	+4.8	New Orleans . . .	80	+2	3.3	-1.7	OKLA. Okla. City . . .	76	+2	2.0	-1.0
Mobile . . .	82	+4	3.3	-3.0	Shreveport . . .	80	+1	2.1	- .2	Tulsa . . .	76	+2	3.0	-1.0
Montgomery . . .	79	+2	1.6	-2.4	MAINE. Caribou . . .	54	0	3.9	+ .4	OREG. Astoria . . .	58	0	4.7	+1.6
ALASKA. Anchorage . . .	---	---	---	---	Portland . . .	59	0	4.3	+ .8	Burns . . .	52	-7	.5	- .0
Barrow . . .	---	---	---	---	MD. Baltimore . . .	70	+2	1.2	-2.1	Medford . . .	61	-3	.5	- .1
Fairbanks . . .	---	---	---	---	MASS. Boston . . .	66	+1	5.9	+2.4	Pendleton . . .	61	-3	.2	- .4
Juneau . . .	---	---	---	---	Chatham . . .	66	---	10.8	---	Portland . . .	61	-1	3.1	+1.5
Nome . . .	---	---	---	---	MICH. Alpena . . .	55	-1	2.6	-1.0	Salem . . .	58	-5	2.1	+ .7
ARIZ. Flagstaff . . .	57	-2	.8	- .8	Detroit . . .	63	-2	3.4	+1.0	PA. Allentown . . .	65	0	1.3	-2.5
Phoenix . . .	85	+2	.3	- .4	Flint . . .	61	-1	4.5	+1.6	Erie . . .	61	-2	5.4	+1.8
Tucson . . .	79	-1	1.1	+ .1	Grand Rapids . . .	62	0	4.0	+1.0	Harrisburg . . .	66	-1	1.4	-1.4
Winslow . . .	69	-2	.2	- .7	Houghton Lake . . .	57	0	2.7	- .2	Philadelphia . . .	69	+2	1.1	-2.1
Yuma . . .	85	-1	0	- .4	Lansing . . .	60	-2	2.7	+ .1	Pittsburgh . . .	65	+1	5.4	+2.9
ARK. Fort Smith . . .	76	+1	3.5	-1.1	Marquette . . .	55	-2	5.3	+2.0	Scranton . . .	62	-1	1.6	-1.4
Little Rock . . .	75	+2	6.4	+3.2	Muskegon . . .	62	-1	3.3	+ .2	R.I. Providence . . .	65	+2	7.3	+3.8
CALIF. Bakersfield . . .	76	-2	T	- .1	S. Ste. Marie . . .	53	-3	3.3	- .5	S.C. Charleston . . .	77	+1	1.8	-4.0
Eureka . . .	56	0	1.1	+ .5	MINN. Duluth . . .	50	-4	5.3	+2.4	Columbia . . .	75	0	2.5	-1.8
Fresno . . .	72	-2	.3	+ .2	Internat'l Falls . . .	51	-2	1.7	-1.2	Greenville . . .	---	---	2.2	-1.7
Los Angeles . . .	72	0	T	- .2	Minneapolis . . .	58	-2	2.0	- .4	S. DAK. Aberdeen . . .	60	-1	.3	-1.1
Red Bluff . . .	72	-4	1.5	+1.1	Rochester . . .	58	-3	7.1	+4.0	Huron . . .	61	-1	.3	-1.2
San Diego . . .	69	-1	.4	+ .2	St. Cloud . . .	55	-4	1.6	- .8	Rapid City . . .	59	-3	.2	- .8
San Francisco . . .	63	-1	.3	+ .1	MISS. Jackson . . .	82	+6	5.0	+2.5	Sioux Falls . . .	60	-2	1.8	- .8
Stockton . . .	71	-2	.7	+ .5	Meridian . . .	81	+5	2.6	- .7	TENN. Chattanooga . . .	72	-2	3.2	+ .1
COLO. Denver . . .	62	-1	2.1	+1.0	MO. Columbia . . .	71	-2	5.1	+1.2	Knoxville . . .	72	0	4.7	+2.2
Grand Junction . . .	68	0	.7	- .2	Kansas City . . .	71	0	2.7	- .6	Memphis . . .	76	+2	5.5	+2.7
Pueblo . . .	67	0	1.1	+ .3	St. Louis . . .	70	0	6.2	+3.4	Nashville . . .	76	+3	3.7	+ .8
CONN. Bridgeport . . .	67	+1	2.0	-2.0	Springfield . . .	71	+1	6.4	+2.5	TEX. Abilene . . .	75	-1	3.2	+1.1
Hartford . . .	64	+1	1.8	-1.9	MONT. Billings . . .	55	-5	1.3	+ .1	Amarillo . . .	69	-3	.7	-1.2
D.C. Washington . . .	71	+1	1.3	-2.5	Glasgow . . .	54	-3	.7	- .3	Austin . . .	82	+3	1.6	-1.8
FLA. Apalachicola . . .	81	+2	.6	-7.9	Great Falls . . .	54	-3	.9	- .3	Beaumont . . .	79	0	6.5	+1.8
Ft. Myers . . .	83	+2	2.3	-6.2	Havre . . .	53	-3	1.2	+ .2	Brownsville . . .	80	-1	4.2	- .8
Jacksonville . . .	78	-1	2.6	0	Helena . . .	51	-5	1	- .9	Corpus Christi . . .	84	+3	9.5	+5.1
Key West . . .	83	+1	8.7	+2.0	Kalispell . . .	51	-4	.8	- .2	Dallas . . .	82	+4	2.1	- .7
Lakeland . . .	81	+1	.8	-5.8	Miles City . . .	56	-5	.7	- .3	Del Rio . . .	81	+2	.9	-2.1
Miami . . .	80	-1	5.1	-4.4	Missoula . . .	51	-4	1.7	+ .7	El Paso . . .	73	-2	1.6	- .5
Orlando . . .	82	+1	.4	-6.8	NEBR. Grand Island . . .	65	0	2.5	+ .3	Fort Worth . . .	81	+3	2.4	- .1
Tallahassee . . .	79	+1	.1	-5.4	Lincoln . . .	63	-2	1.7	- .6	Galveston . . .	83	+3	7.9	+2.8
Tampa . . .	81	0	1.3	-5.6	Norfolk . . .	63	-2	1.7	- .6	Houston . . .	83	+4	7.9	+3.0
GA. Atlanta . . .	75	+2	1.9	-1.4	North Platte . . .	61	-3	1.5	- .2	Lubbock . . .	71	0	3.0	+ .6
Augusta . . .	76	+1	2.6	- .4	Omaha . . .	65	-1	4.5	+1.9	Midland . . .	73	-2	1.1	- .7
Macon . . .	77	+1	1.8	-1.0	Valentine . . .	61	-1	.5	- .8	San Angelo . . .	78	0	5.3	+2.6
Savannah . . .	77	0	.4	-4.9	NEV. Ely . . .	54	-4	1.8	+1.2	San Antonio . . .	82	+3	1.4	-2.1
HAWAII. Hilo . . .	76	0	5.2	-3.3	Las Vegas . . .	78	-2	.6	+ .3	Victoria . . .	83	+4	6.0	+1.8
Honolulu . . .	81	+2	T	- .1	Reno . . .	57	-2	.3	+ .1	Waco . . .	81	+2	2.6	- .2
Kahului . . .	79	+1	.9	- .3	Winnemucca . . .	57	-2	.7	+ .4	Wichita Falls . . .	77	0	2.2	- .1
Lihue . . .	79	+1	2.0	- .1	N.H. Concord . . .	58	-1	2.6	-1.2	UTAH. Blanding . . .	---	---	---	---
IDAHO. Boise . . .	59	-4	1.1	+ .7	N.J. Atlantic City . . .	68	+1	3.7	+ .4	Salt Lake City . . .	64	0	1.4	+ .9
Lewiston . . .	60	-4	.8	- .1	Trenton . . .	---	---	---	---	VT. Burlington . . .	59	+1	1.7	-1.6
Pocatello . . .	56	-4	1.1	+ .5	N. MEX. Albuquerque . . .	68	-2	1.0	0	VA. Lynchburg . . .	69	0	3.1	- .3
ILL. Cairo . . .	74	+1	5.1	+2.1	Roswell . . .	71	+1	3.3	+1.5	Norfolk . . .	72	-1	6.9	+2.7
Chicago . . .	65	-1	5.8	+3.1	N.Y. Albany . . .	61	-1	2.0	-1.6	Richmond . . .	70	0	3.4	- .3
Moline . . .	67	+2	3.3	0	Binghamton . . .	60	0	2.0	-1.0	Roanoke . . .	68	-1	4.8	+1.5
Peoria . . .	66	0	5.2	+2.1	Buffalo . . .	63	+2	3.1	0	WASH. Colville . . .	53	-6	1.3	+ .4
Rockford . . .	63	-1	6.5	+3.0	New York . . .	68	-0	1.7	-2.2	Omak . . .	55	-4	.5	- .1
Springfield . . .	69	+1	4.0	+1.1	Rochester . . .	64	+2	3.8	+1.3	Quillayute . . .	53	-4	6.9	+2.2
IND. Evansville . . .	71	+1	1.3	-1.6	Syracuse . . .	64	+2	4.1	+1.3	Seattle-Tacoma . . .	55	-5	4.1	+2.0
Fort Wayne . . .	65	0	6.8	+4.1	N.C. Asheville . . .	69	+1	5.3	+2.5	Spokane . . .	55	-6	.9	+ .1
Indianapolis . . .	68	+1	5.7	+2.5	Charlotte . . .	73	0	3.8	+ .3	Walla Walla . . .	62	-4	.7	- .1
South Bend . . .	63	-1	7.7	+4.6	Greensboro . . .	71	+1	3.7	0	Yakima . . .	57	-4	.1	- .3
IOWA. Burlington . . .	67	+1	2.1	-1.1	Hatteras . . .	74	0	2.7	-3.2	W.VA. Beckley . . .	64	0	3.7	+ .6
Des Moines . . .	65	0	5.5	+2.6	Raleigh . . .	70	-1	5.8	+1.9	Charleston . . .	69	+1	3.6	+ .7
Dubuque . . .	---	---	2.6	-1.1	Wilmington . . .	---	---	6.7	+ .4	Huntington . . .	---	---	---	---
Sioux City . . .	64	-2	2.6	- .1	N. DAK. Bismarck . . .	57	-2	.3	- .9	Parkersburg . . .	69	+1	5.0	+2.3
KANS. Concordia . . .	68	-2	1.0	-1.7	Fargo . . .	57	-2	1.2	- .3	WIS. Green Bay . . .	60	-1	5.8	+2.9
Dodge City . . .	68	-2	2.5	+1.0	Williston . . .	53	-4	1.3	- .2	La Crosse . . .	61	-1	6.7	+3.2
Goodland . . .	64	-2	.7	- .5	OHIO. Akron-Canton . . .	65	+1	6.5	+3.9	Madison . . .	59	-2	5.3	+2.0
Topeka . . .	69	0	4.9	+1.9	Cincinnati . . .	69	0	4.2	+1.5	Milwaukee . . .	61	+1	7.6	+4.9
Wichita . . .	71	0	1.3	-1.9	Cleveland . . .	64	+1	4.9	+2.0	WYO. Casper . . .	57	-3	.4	- .5
KY. Lexington . . .	70	+1	4.3	+1.5	Columbus . . .	65	-1	5.1	+2.4	Cheyenne . . .	57	0	1.0	- .1
Louisville . . .	72	+2	4.2	+1.6	Dayton . . .	66	-1	4.6	+2.0	Lander . . .	57	-2	.1	- .9
LA. Baton Rouge . . .	82	+5	4.1	+ .6	Toledo . . .	62	-1	8.1	+6.0	Sheridan . . .	59	0	.9	- .3
Lake Charles . . .	80	+1	5.8	+1.8	Youngstown . . .	61	-2	4.4	+1.5	P.R. San Juan . . .	---	---	---	---

\* Departures are from 30-year means (1931-60). Based on preliminary reports

Heating Degree Days (Base 65° F.)

SEPTEMBER 1972

ALA. Birmingham . . . . .	9	MAINE, Caribou . . . . .	326	OKLA. Okla. City . . . . .	23
Mobile . . . . .	0	Portland . . . . .	190	Tulsa . . . . .	19
Montgomery . . . . .	2	MD. Baltimore . . . . .	16	OREG. Astoria . . . . .	230
ALASKA, Anchorage . . . . .	--	MASS. Boston . . . . .	51	Burns U. . . . .	394
Barrow . . . . .	--	Chatham . . . . .	--	Medford . . . . .	178
Fairbanks . . . . .	--	MICH. Alpena . . . . .	292	Pendleton . . . . .	165
Juneau . . . . .	--	Detroit . . . . .	113	Portland . . . . .	153
Nome . . . . .	--	Flint . . . . .	139	Salem . . . . .	239
ARIZ. Flagstaff . . . . .	241	Grand Rapids . . . . .	126	PA. Allentown . . . . .	69
Phoenix . . . . .	0	Houghton Lake . . . . .	242	Erie . . . . .	144
Tucson . . . . .	0	Lansing . . . . .	173	Harrisburg . . . . .	25
Winslow . . . . .	10	Marquette U . . . . .	305	Philadelphia . . . . .	22
Yuma . . . . .	0	S. Ste. Marie . . . . .	348	Pittsburgh . . . . .	63
ARK. Fort Smith . . . . .	14	MINN. Duluth . . . . .	440	Scranton . . . . .	125
Little Rock . . . . .	8	Internatl Falls . . . . .	412	R. I. Providence . . . . .	64
CALIF. Bakersfield . . . . .	0	Minneapolis . . . . .	218	S. C. Charleston . . . . .	0
Eureka U. . . . .	269	Rochester . . . . .	219	Columbia . . . . .	0
Fresno . . . . .	2	St. Cloud . . . . .	297	Greenville . . . . .	--
Los Angeles U . . . . .	0	MISS. Jackson . . . . .	4	S. DAK. Aberdeen . . . . .	176
Red Bluff . . . . .	11	Meridian . . . . .	5	Huron . . . . .	172
Stockton . . . . .	0	Vicksburg U . . . . .	--	Rapid City . . . . .	194
San Diego . . . . .	0	MO. Columbia . . . . .	43	Sioux Falls . . . . .	195
San Francisco . . . . .	75	Kansas City . . . . .	37	TENN. Chattanooga . . . . .	10
COLO. Denver . . . . .	107	St. Louis . . . . .	29	Knoxville . . . . .	9
Grand Junction . . . . .	31	Springfield . . . . .	40	Memphis . . . . .	12
Pueblo . . . . .	56	MONT. Billings . . . . .	311	Nashville . . . . .	10
CONN. Bridgeport . . . . .	45	Glasgow . . . . .	338	TEX. Abilene . . . . .	13
Hartford . . . . .	82	Great Falls . . . . .	331	Amarillo . . . . .	48
D. C. Washington . . . . .	--	Havre . . . . .	360	Austin . . . . .	0
FLA. Apalachicola . . . . .	0	Helena . . . . .	418	Beaumont . . . . .	0
Ft. Myers . . . . .	0	Kalispell . . . . .	414	Brownsville . . . . .	0
Jacksonville . . . . .	0	Miles City . . . . .	277	Corpus Christi . . . . .	0
Key West . . . . .	0	Missoula . . . . .	400	Dallas . . . . .	3
Lakeland U. . . . .	0	NEBR. Grand Island . . . . .	116	Del Rio . . . . .	0
Miami . . . . .	0	Lincoln . . . . .	--	El Paso . . . . .	3
Orlando . . . . .	0	Norfolk . . . . .	145	Fort Worth . . . . .	3
Pensacola U . . . . .	0	North Platte . . . . .	169	Galveston U. . . . .	0
Tallahassee . . . . .	0	Omaha . . . . .	117	Houston . . . . .	0
Tampa . . . . .	0	Valentine . . . . .	165	Lubbock . . . . .	23
GA. Atlanta . . . . .	3	NEV. Ely . . . . .	321	Midland . . . . .	19
Augusta . . . . .	0	Las Vegas . . . . .	0	San Angelo . . . . .	3
Macon . . . . .	1	Reno . . . . .	249	San Antonio . . . . .	0
Savannah . . . . .	0	Winnemucca . . . . .	255	Victoria . . . . .	0
IDAHO, Boise . . . . .	222	N. H. Concord . . . . .	223	Waco . . . . .	4
Lewiston . . . . .	180	N. J. Atlantic City . . . . .	28	Wichita Falls . . . . .	8
Pocatello . . . . .	281	Trenton U . . . . .	--	UTAH, Blanding R . . . . .	--
ILL. Cairo U . . . . .	17	N. MEX. Albuquerque . . . . .	14	Salt Lake City . . . . .	110
Chicago . . . . .	93	Roswell . . . . .	13	VT. Burlington . . . . .	212
Moline . . . . .	80	N. Y. Albany . . . . .	154	VA. Lynchburg . . . . .	20
Peoria . . . . .	87	Binghamton . . . . .	173	Norfolk . . . . .	4
Rockford . . . . .	119	Buffalo . . . . .	113	Richmond . . . . .	17
Springfield . . . . .	58	New York . . . . .	37	Roanoke . . . . .	33
IND. Evansville . . . . .	26	Rochester . . . . .	92	WASH. Colville . . . . .	349
Fort Wayne . . . . .	86	Syracuse . . . . .	98	Omak . . . . .	--
Indianapolis . . . . .	36	N. C. Asheville . . . . .	8	Quillayute . . . . .	379
South Bend . . . . .	112	Charlotte . . . . .	3	Seattle-Tacoma . . . . .	245
IOWA, Burlington . . . . .	77	Greensboro . . . . .	9	Spokane . . . . .	292
Des Moines . . . . .	112	Hatteras R. . . . .	0	Walla Walla U. . . . .	146
Dubuque . . . . .	--	Raleigh . . . . .	9	Yakima . . . . .	258
Sioux City . . . . .	116	Wilmington . . . . .	--	W. VA. Beckley . . . . .	74
KANS. Concordia . . . . .	68	N. DAK. Bismarck . . . . .	256	Charleston . . . . .	14
Dodge City . . . . .	70	Fargo . . . . .	261	Huntington . . . . .	--
Goodland . . . . .	117	Williston U . . . . .	380	Parkersburg U. . . . .	12
Topeka . . . . .	59	OHIO. Akron-Canton . . . . .	84	WIS. Green Bay . . . . .	180
Wichita . . . . .	46	Cincinnati U . . . . .	27	Madison . . . . .	188
KY. Lexington . . . . .	20	Cleveland . . . . .	95	Milwaukee . . . . .	133
Louisville . . . . .	16	Columbus . . . . .	377	WYO. Casper . . . . .	251
LA. Baton Rouge . . . . .	0	Dayton . . . . .	63	Cheyenne . . . . .	248
Lake Charles . . . . .	1	Toledo . . . . .	134	Lander . . . . .	245
New Orleans . . . . .	0	Youngstown . . . . .	154	Sheridan . . . . .	303
Shreveport . . . . .	6				

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

(Weather continued from page 8)

another Low centered in northern Utah. Scattered showers and a few thunderstorms, some heavy, rumbled in the vicinity of the front. Especially heavy rains fell in eastern Nebraska and western Iowa. Storm totals exceeding 5.00 inches were common in that area; some locations received more than 10.00 inches on the evening of September 17 and in the early morning of the 18th. One of the largest totals was 21.00 inches at Earling, Iowa. The continued heavy rains in Shelby County, Iowa, caused record river stages along the west and east forks of the Nishnabotna River. The heavy rains in Nebraska, Iowa, Kansas, and Missouri caused important rises on the main stem of the Missouri River. Much rain fell on saturated soil where it was not needed. Frontal thunderstorms continued in the third week of September. A storm in the Pacific Northwest brought rain to the coastal areas and nearby hills and snow in the higher Cascades. Stampede Pass, Wash., measured 5 inches of snow on the ground on the morning of the 18th. About 5.00 inches of rain September 20 and 21 drenched Duluth, Minn. Hail and high winds occurred in Minnesota and Wisconsin. While a band of frontal thunderstorms moved across the Great Plains, air mass thunderstorms dotted the Deep South in the hot sultry air that covered that region.

Northeasterly upslope winds produced heavy snow over portions of Montana on September 24 and 25. Miles City measured 13 inches on the ground on the morning of the 25th. Heavy rains fell at Charles City, Iowa, and at Poplar Bluff, Mo. Mixtures of rain and snow slicked the roads and highways in parts of Idaho and Nevada. Near the end of the month, showers and thunderstorms occurred along a front that stretched from the southern Great Plains to New England and in the warm humid air that lay over the Deep South. The areas that received only light rains in September were the Desert Southwest, southern Georgia, and parts of Florida.

L. W. Dye

(Continued from page 7)

**MONTANA:** Temperatures generally mild except for slight cooling midweek. Temperatures averaged 2° to 3° below normal in south-central and southeastern regions and 1° to 3° above normal elsewhere. Precipitation confined to extreme south midweek with amounts around 0.30 inch. Topsoil moisture generally adequate except short portions southwest. Subsoil moisture short to adequate northwest, north-central, and southwest; adequate elsewhere. Winter wheat seeding 90% complete. Potatoes 60% harvested, good prospects. Corn silage harvest virtually complete, flaxseed 80% harvested, dry beans 90%, sugar beets 20%. Cattle and sheep each 60% moved from summer ranges. Stockwater supply adequate. Winter pasture good to excellent eastern 1/3 and southcentral, fair to good elsewhere.

**NEBRASKA:** Generally dry week with temperatures averaging 1° to 3° below normal. 32° or lower freezes in low spots of east and south on September 30, with a general freeze east on 7th. A dry, pleasant weekend. Silage harvest, early corn and sorghum harvest were main farm activities. Frost helped dry crops for harvest. Corn development advanced to 94% mature, compared to 99% normal. Stalk rot still reported, but loss has been minimal. Sorghum 81% ripe compared to 85% normal and 97% last year. Harvest limited to test cutting for checking moisture. Soybeans 80% ripe, slightly behind normal 85%. Wheat planting 99% complete compared to 95% normal and 91% last year. Dry bean, hay harvest in final stages. Fall potato harvest 50% complete, sugar beet harvest just started.

**NEVADA:** Temperatures averaged 1° to 4° above normal except extreme south which averaged 2° below normal. Moderate to locally heavy precipitation. Hawthorne 1.70 inches; Winnemucca, 1.50 inches; and Yerington, 1.16 inches. Flash flooding in Las Vegas and Lake Mead area on October 4. Inclement weather delayed final week of alfalfa seed harvest. Third cutting alfalfa hay continues in western areas. Planting winter grains continues. Cattle and sheep remain in generally good condition with movement from summer to fall and winter ranges active.

**NEW ENGLAND:** Large daily temperature ranges first half of week, then small ranges until much colder at close. Week averaged from near to 2° above normal in south and 2° to 5° above normal in north. Week very dry and sunny until major rainstorm, principally on October 7, which was followed by few widely scattered light showers in south and some heavier showers in north. Some snow at higher elevations in north. Precipitation totals generally 1.00 to 3.00 inches, but some up to 4.00 inches or more in Connecticut and Massachusetts. Harvest corn for silage at peak, many fields still immature. Aroostook County, Maine, potato crop about 90% dug, mainly russets for processing left. McIntosh apple harvest about over, now picking Delicious and Cortlands. Cranberry picking close to 75% complete, excellent harvesting weather. Frosts ended growth most tender vegetables. Pastures providing good grazing for date.

**NEW JERSEY:** Excessive rainfall Friday evening through Saturday evening averaged 2.80 inches over northern counties and about 3.50 inches over rest of State. Storm totals generally ranged upward from 2.00 inches with Toms River reporting 5.25 inches. There was some flooding of streets and highways, no severe damage. Some minor wind damage in connection with the storm. Temperatures averaged very near seasonal normals. Soil moisture supplies adequate to surplus after heavy weekend rains. Frost reported in practically all areas on morning of 10th. Potato harvest rapidly nearing completion. Good progress made with apple and cranberry harvests. Fall vegetable harvest light to moderate. Small grains being seeded, early seedings are progressing nicely.

**NEW MEXICO:** Showers, mostly Wednesday through Friday, with 1.00 to 2.00 inches western localities and mostly traces in eastern Plains. Temperatures averaged 3° to 7° above normal with seasonally warm nights. Warmest at beginning of week, then cooling till warming on weekend. Soil moisture short to adequate. Cotton harvesting active south. Limited hand picking north. Grain sorghum good, harvesting in scattered areas. Winter wheat, barley stands good. Broomcorn pulling, baling active. Fourth and 5th alfalfa cuttings underway. Lettuce harvest, Hatch and Los Lunas areas, remains active. Peanut, potato harvest underway. Pecan crop good.

**NEW YORK:** Warm through midweek with maximums upper 60's to mid-70's daily from 3d through 6th. Steady cooling trend on weekend. Minimums low 30's eastern valleys on 2d and generally 35° to 40° Upstate on 8th; otherwise nights mild. Weather sunny and dry through 5th. Coastal storm on 6th and 7th with precipitation 3.00 to 4.00 inches extreme southeast. Poughkeepsie, 3.40 inches. Elsewhere totals 2.00 to 2.60 inches Upper Hudson Valley and east-central Plateau

decreasing to 0.80 inch extreme west with 1.00 to 1.50 inches most of interior Upstate. Corn silage harvest continued. Limited harvest of grain corn started. No general freeze yet, allowing late corn a chance to reach full maturity. Third cutting alfalfa hay continued with quality excellent. Dry bean harvest progressed well. Harvest of potatoes on Long Island about 60% complete while Upstate around 2/3 finished. Orange County onion harvest virtually ended. In central and western areas onions nearly all topped and most of crop in storage. Celery harvest still active. Cutting of cauliflower continued in full swing. Iceberg lettuce harvest finished. Harvest of snap beans, sweet corn, and tomatoes nearly finished. Concord grape harvest got underway. Apple harvest progressed satisfactorily. In Hudson Valley, McIntosh harvest about completed while Delicious ready for harvest.

**NORTH CAROLINA:** Temperatures averaged slightly below normal. Light freeze some mountain areas first few mornings of October. Lowest in 40's other areas. Rain 5th and 6th, mainly mountains and northeast. Rains helped soybeans and pastures, but slowed peanut and corn harvests. Peanut digging moved at brisk pace when fields dried, some nuts threshed. Corn harvest widespread, 60% harvested. Cattlemen busy making silage. Cotton farmers defoliating plants--picking slowed by rain. Rains interrupted small grain planting, but moisture will facilitate germination. Soybean leaves starting to yellow--combining still few weeks off. Flue-cured tobacco farmers preparing leaves for market. Burley tobacco nearly all barned. Pastures providing lush fall grazing. Hog cholera threatening swine industry.

**NORTH DAKOTA:** Sunny and mild first half of week. Rain on 5th followed by below-freezing temperatures morning of 6th. Variable temperatures and windy periods remainder of week. Temperatures averaged near normal. Rainfall totals varied from none to 1.70 inches, highest south-central and light in north. Scattered showers continue to delay harvesting operations. Small grain harvest virtually complete, except durum wheat in northwestern counties. Lifting sugar beets about 1/4 complete. Potatoes 2/3 dug. Over 3/4 flax combined. Fall planting rye and winter wheat nearly complete. Corn picking and soybean harvest underway.

**OHIO:** Low temperatures this week ranged from the mid-30's to the low 60's while the highs ranged from the low 50's to upper 70's. Below freezing temperatures occurred on October 1 (30° lowest reported) and October 10 (27° lowest reported.) Rain on 4th to 7th. Amounts generally light to moderate; however, Cincinnati Abbe recorded 0.90 inch and Dayton had 0.86 inch. The relatively dry conditions should ease the wet conditions that prevailed in parts of northern Ohio. Harvesting and seeding fall grains limited by intermittent showers and overcast skies along with already wet fields. Soil moisture supplies 26% adequate, 74% surplus. Corn for grain 3/4 mature and safe from frost, last year virtually all was mature. Less than 5% corn for grain harvested, against 20% in 1971 and normal 15%. Corn silage harvest 60% complete. Soybeans 60% mature, behind average of 75%. Less than 10% soybean crop harvested, last year 40% harvested. Potato crop 60% dug while harvest of apples and grapes about 1/4 complete. Sugarbeet harvest slow, less than 5%

lifted, normally 20% out. Fall seeding winter wheat and rye slow, 20% winter wheat in ground. Last year 65% complete. Pasture good to excellent.

**OKLAHOMA:** Little or no precipitation. Temperatures averaged from 1° above normal Panhandle, west-central, and central to 4° below normal south-central and southeast. Wheat seeding near completion over much of State, progress slowed past week due to dry weather. Army worms continue to hurt small grains across State. Spraying widespread for army worms and grasshoppers. Barley and oats averaged 3/4 seeded. Cotton crop 5% harvested, most mature. Earliness of harvest prompted extra use of chemical defoliant. Scattered frost spurred late season hay harvest many northern areas. Grain corn harvest 2/5 completed Panhandle, 1/2 completed elsewhere. Grain sorghum harvest in Panhandle underway, 1/5 completed. Southwestern corn borers still prevalent Panhandle area. Soybean crop 1/10 harvested 1/2 mature. Pecan crop still rated poor most localities. Native pastures beginning to slow due to cool nights and dry weather. Grazing short west, supplemental feeding continues several areas. Fall cattle marketing increasing as pastures decline and prices improve.

**OREGON:** Warm dry days all week with cooler nights at close. Weekly temperatures averaged near normal northeast to 7° above normal south-central. Freezing minima east of Cascades down to 19°, 30° to 32° southwestern valleys. Maxima 69° to 91°. Fall seeding continued except Columbia Basin counties where soil moisture is inadequate. Haying completed in all but eastern counties where final cutting being put into stacks. Sweet corn harvest rapidly coming to a close. Potato harvest now underway all areas. Onions continuing and sugar beet harvest just getting underway. Pear harvest completed. Apples continue at Hood River. Filbert harvest getting into full swing and cranberries being harvested. Sheep put on stubble and perennial grass seed fields. Cattle continue to come in from range.

**PENNSYLVANIA:** Fair, pleasant early in week. Maxima 60's and 70's, minima upper 30's to near 50°. Cloudy midweek with light rain. Heavier rains Friday and Friday night as coastal storm moved northward. Temperatures in 50's and 60's. Clearing, windy, and cooler Sunday. First snow flurries of season early Monday in higher elevations. Weekly temperatures near normal north-central, 1° to 3° above normal elsewhere. Rainfall 1.00 to 2.00 inches eastern 1/3 and parts of west, over 0.75 inch near Lake Erie, 0.50 to 1.00 inch elsewhere. Topsoil moisture 58% adequate and 42% short. This is the first time since mid-August that over 1/2 moisture reported adequate. Corn for ensilage 2/3 complete. Corn for grain 1/2 dented and 1/3 mature. Winter barley 85% seeded, winter wheat 55% seeded. Fall potato harvest 2/3 completed. Apple picking in full swing, grapes for processing underway.

**PUERTO RICO:** Heavy showers and thundershowers continued for 3d consecutive week with about same distribution over the Island. Highest weekly total in eastern, central and western Cordilleras with 7.23 inches, 5.67 inches, and 5.32 inches, respectively. Light hail and ice pellets reported in north-central slopes. A drier area of less than 1.00 inch extended from south-central coast

into central interior. Temperatures averaged 81° to 82° on coast and 77° interior zones with mean departure of 1.0 degree below normal although a strong trend toward higher temperatures occurred by end of week. Highest maximum 95°, lowest minimum 59°. Agricultural drought in southern zones now only mild and easing rapidly. Some western and eastern fields too wet; otherwise crop moisture conditions normal all other zones. Young sugar cane and ratoons developing well, but field work some areas slowed by rains. Coffee harvesting operations on schedule except few zones western-interior delayed by rains. Pastures good to excellent all zones except fair in some south-central where more rains needed. Fertilizing and cultivating continued. Minor crops abundant on market including various root crops, vegetables, bananas and plantains.

**SOUTH CAROLINA:** Rain at beginning of week and on 5th brought drought relief to dry northwest. Largest amounts in mountains and Upper Piedmont where 1.00 to 10.00 inches fell. Very little on Coastal Plain. Average temperatures ranged from 4° below normal in northwest to 2° below normal in south. Cotton 76% open bolls and 17% harvested. Last year 80% open bolls and 21% harvested. Corn 61% harvested, compared with 54% last year. Soybeans fair to good condition, 56% turning, 31% leaves shedding, 11% matured compared to 27% mature last year. Peanuts 86% harvested, 78% last year. Apples 84% harvested, 90% last year. Pecans poor condition. Pastures fair, winter small grains 37% planted. Fall hays 74% harvested, 82% last year. Fall vegetables poor condition.

**SOUTH DAKOTA:** Weekly temperatures averaged from 2° below normal to 4° above normal. Extremes ranged from 22° near Marcus on 6th to 88° near Porcupine on 4th. Most precipitation fell as general rain on 5th and 6th, with a few scattered showers earlier in week. Amounts were extremely variable, with totals of nearly 3.00 inches in parts of north-central and about 0.10 inch in portions of southwest. McLaughlin reported 2.35 inches on 5th with a weekly total of 2.81 inches. Most other areas of State reported from about 0.50 inch to 1.50 inches. Rains improved soil moisture conditions. Most winter wheat and rye fields improved substantially by rain, but some areas could still use more moisture. Greenbugs remain a problem in many winter wheat and some rye fields. Moisture will aid late fall plowing. Harvesting becoming quite general, some delay by rain. Harvest stage of completion: corn 14%, normal 16%, year earlier 32%; sorghum 15%, normal 36%, year earlier 58%; and soybeans 23%, normal 41%, year earlier 57%. Pasture and range condition good most areas where not over-grazed. Fire hazard reduced. Livestock good, marketings about normal. Preparations being made for winter.

**TENNESSEE:** Moderate to heavy rains on Cumberland Plateau and eastern sections at midweek. Otherwise little or no rain. Temperatures averaged below normal, with greatest negative departures extreme southeast. Daily extremes ranged from low 80's on 2 or more days in west to upper 30's in mountains on 8th. No damaging frost. Cotton 20% harvested, only a couple of days behind average. Corn harvest at 25% complete remains one week behind normal. Soybean harvest should gain momentum next week. Tobacco stripping underway. Over 10% of burley and nearly 5% of dark-fired and dark-aircured stripped. Pastures improved for 2d consecutive week.

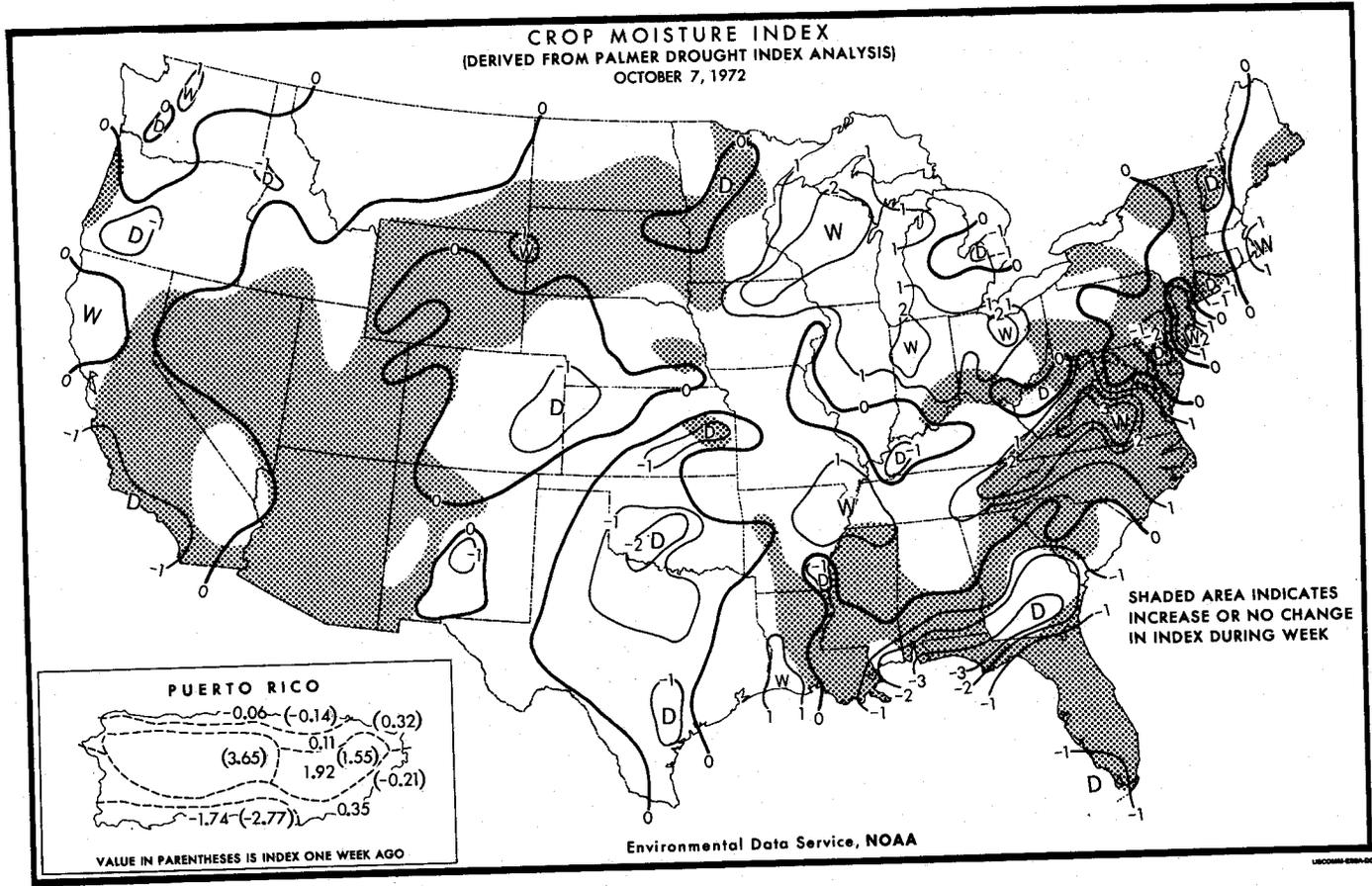
**TEXAS:** Mild, dry weather prevailed throughout the week all sections of State. Planting small grain continues at rapid pace generally ahead of last year's schedule. Farmers in Blacklands dry planting much acreage, farmers on Coast waiting for dry weather to plant. Early stands wheat, oats providing light grazing East Texas. Harvest of cotton, corn, sorghum, peanuts making good progress. Harvest of these crops complete in southern half. Cotton rapidly maturing on High Plains. Moisture content in sorghum and corn too high for peak harvest. Major crops percent harvested: Cotton 29, last year 20; corn 81, last year 81; sorghum 53, last year 48; soybeans 1, last year 7; peanuts 46, last year 31; rice 2d cutting 8; wheat 74, last year 69; oats 56, last year 51. On High Plains, lettuce and carrot harvest continues. Light supplies of peppers and tomatoes remain available. Cabbage supplies increasing. In Trans-Pecos, bell pepper and tomato harvest continues. In East Texas, digging of sweetpotatoes resuming as fields dry out. In San Antonio-Winter Garden, spinach planting remains active. Cucumber movement light. Cabbage and carrots making good growth. Tomato setting fruit well as result of cooler weather. In Coastal Bend, cucumber harvest in full swing. In Lower Rio Grande Valley, planting fall vegetables continues. Tomatoes beginning to set. Pecan harvest has reached most North Texas counties. The 1972-73 citrus crop continues to make good growth.

**UTAH:** General precipitation most of State. Accumulated amounts generally moderate but locally heavy. Some stations in drought-plagued southeast received largest weekly totals so far this year. Average temperatures ranged from a few degrees below normal to a few degrees above normal. Soil temperatures, at 4-inch depth, ranged from upper 50's Cache Valley, to low 60's Salt Lake City and Richfield, and low 70's St. George. Soil moisture in dryland crop and ranges currently rated adequate in north, short in central and south. Potato harvest in main southern areas now 40% completed, good yields reported. Dry onions in Box Elder, Weber, and Davis counties, 90% harvested. Picking near failure apple crop in progress, 20% or less of 1971 and 1970 crops. Corn for grain harvest just started, but harvest of corn for silage 90% completed. Sugar beet harvest started most areas with good prospects. Movement from high summer ranges to valley ranches and range lands 45% completed for cattle and 65% for sheep. Movement of livestock to slaughter market and feed lots 20% completed for cattle, 60% for sheep and lambs. Planting winter wheat for 1973 crop about 90% completed.

**VIRGINIA:** Temperatures near or below normal. Showers and thundershowers Wednesday to Friday with flooding in central Virginia. Fieldwork mostly early in week. Small grain seeding behind last year. Oats 40% sown, barley 37% and wheat over 15%. Corn silage harvest active in north and west of mountains. Corn picking active in Upper-Tidewater and Upper-Piedmont. Peanuts 5% combined. Pastures improved. Feeder cattle marketing active. Vegetable harvest included cabbage, snap beans, cucumbers, and sweet potatoes. Apple picking lagging.

**WASHINGTON:** Western Washington: Warm, sunny days and occasional frosty nights dominated week. Crops harvested: squash, sweet and silage corn, lettuce, celery, grapes, potatoes, pumpkins, and cranberries. Caneberries have been collected.

(Continued on back page)



INDEX DECREASED DURING WEEK  
(Unshaded Areas)

INDEX INCREASED OR DID NOT CHANGE DURING WEEK  
(Shaded areas)

**INDEX**

- ABOVE 3.0 SOME DRYING, BUT STILL EXCESSIVELY WET.
- 2.0 to 3.0 MORE DRY WEATHER NEEDED, WORK DELAYED.
- 1.0 to 2.0 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS.
- 0 to 1.0 FAVORABLE FOR 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 EXCEPTIONALLY DRY, MOST CROPS ABOUT RUINED

**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 ABOVE NORMAL, 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 EXCEPTIONALLY DRY.

The map above is based on weekly areal mean values of temperature and precipitation for 350 climatological divisions. Weather during previous weeks has been taken into account through successive weekly computations of both topsoil and subsoil moisture. The map shows recent crop moisture conditions; i.e., areas in which crops have been hindered by abnormal dryness or wetness, and areas where moisture conditions have been favorable.

This is a generalized picture; local variations caused by the occurrence or absence of heavy rain or by soil differences are not shown. Shallow rooted crops and crops in areas with poor soils are likely, on occasion, to suffer more than indicated. Conditions may be better than shown in areas having exceptionally good soils.

The legend applies primarily to growing rather than matured vegetation. Interpretation of the

effects on crops and native vegetation must, therefore, take account of the stage of growth as well as the status and trend of moisture conditions. The trend is indicated by the shading which denotes areas where the index did not decrease below its value of a week previous; i.e., conditions did not become noticeably drier during the week. A trend toward drier occurred in the unshaded regions. The lines show the crop moisture situation according to the computed index values which may be interpreted using the legends above. One legend applies to the unshaded areas, the other to the shaded. Centers of relative maximum and minimum index values are marked for easier recognition - W for wet and D for dry. In irrigated regions the index values merely reflect departures from ordinary irrigation requirements.



# FIRST CLASS MAIL

Total Annual Subscriptions: \$5.00 in U.S. and possessions, \$6.50 including domestic airmail, \$11.25 including foreign airmail. For December through March issues only, \$1.50, \$2.00 with domestic airmail, \$3.50 with foreign airmail. Make checks payable to Department of Commerce, NOAA.

Publication of this bulletin began in 1872 as the Weekly Weather Chronicle. It is now issued under general authority contained in the Act of January 12, 1895 (44 USC 213), 53d Cong., III. Sess. Quotation or reproduction of this material is encouraged. Please give credit to this publication and, in case of special articles, to authors.

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

(Washington continued from page 14)

**Eastern Washington:** Fair days help apple harvest, but frosty nights encouraged watercore to develop. Crops harvested: alfalfa seed, beans, sugarbeets, grapes, potatoes, field corn and some 4th cutting alfalfa. Winter wheat seedings are progressing well except in the south and some western areas where lack of moisture is a problem.

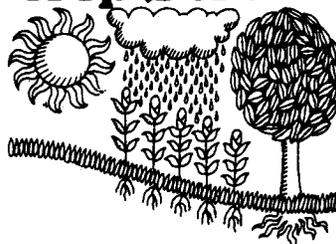
**WEST VIRGINIA:** Coastal storm dropped large amounts of rain October 5 and 6 southern and eastern parts of State with some local flooding. Mathias reported over 6.00 inches those 2 days. Cold air pushed across from the northwest October 7 and brought cool sunny weather October 8 and 9. Light frosts October 1 and 2, heavy frost October 10 in several locations were first of season. Soil moisture 11% short, 66% adequate, and 23% surplus. Weather favored fieldwork, 4 days. Harvest 2d and 3d cuttings hay progressing slowly. Corn harvested for grain underway, 15% picked compared to 30% last year. Potatoes 85% dug. Tobacco 90% harvested, winter wheat 35% seeded.

**WISCONSIN:** Temperatures averaged near normal. Mild weather early in week was balanced by cooler than normal conditions latter half. Extremes ranged between upper 70's in southwest on Monday, October 2, and 20's Sunday night and Monday morning. The northwest half of State received some rain early in week and again about midweek. Amounts generally ranged between 0.50 and 1.00

inch. Fieldwork continued slow northwest, some work done southeast. About 1/3 of silo filling completed, last year nearly all done at this time. A little early corn picked and some high moisture corn ensiled. Still trying to cut 2d and 3d crop hay. A few northern farmers trying to salvage oats and straw. Soybeans shedding leaves. Potato digging continued slow due to rain and wet ground. Last sweet corn picked. Cranberry harvest moving along well. Pastures good to excellent but soft. Soil moisture 75% surplus and 25% adequate.

**WYOMING:** Light to moderate showers statewide. Alva reported the most moisture with 1.15 inches. Temperatures averaged near normal. Maxima mostly low to mid-70's west of Divide and Upper Platte Drainage; high 70's to low 80's elsewhere. Minima mostly teens to low 20's west of Divide. 20's east. Temperature extremes: 82° at La Grange and 5° at Bondurant. Wyoming agricultural activities included harvesting corn for grain, harvesting sugar beets, working and shipping livestock. About 25% of sugar beets pulled. Sugar content averages slightly over 16%. Some delay in harvest due to rain and snow. Corn for grain 10% harvested. Winter wheat prospects good. Livestock moving to market about same time as last year with calves and lambs weighing about 5% heavier. Winter grazing prospects good. Soil moisture supplies short to adequate.

## Weather & Crop Service



**1872-Centennial-1972**

U.S. Department of Commerce  
U.S. Department of Agriculture