

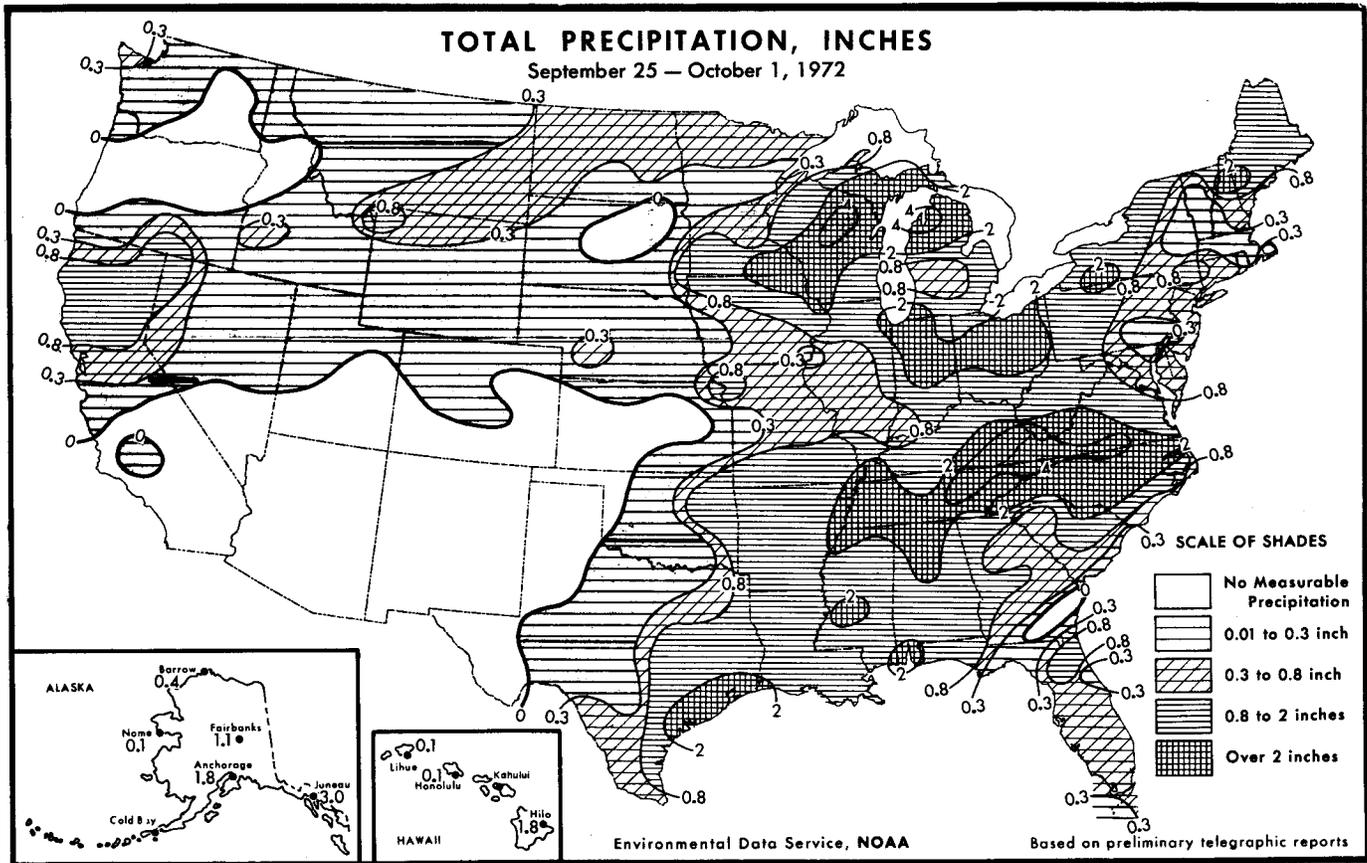
# Weekly Weather & Crop Bulletin

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## NATIONAL WEATHER SUMMARY

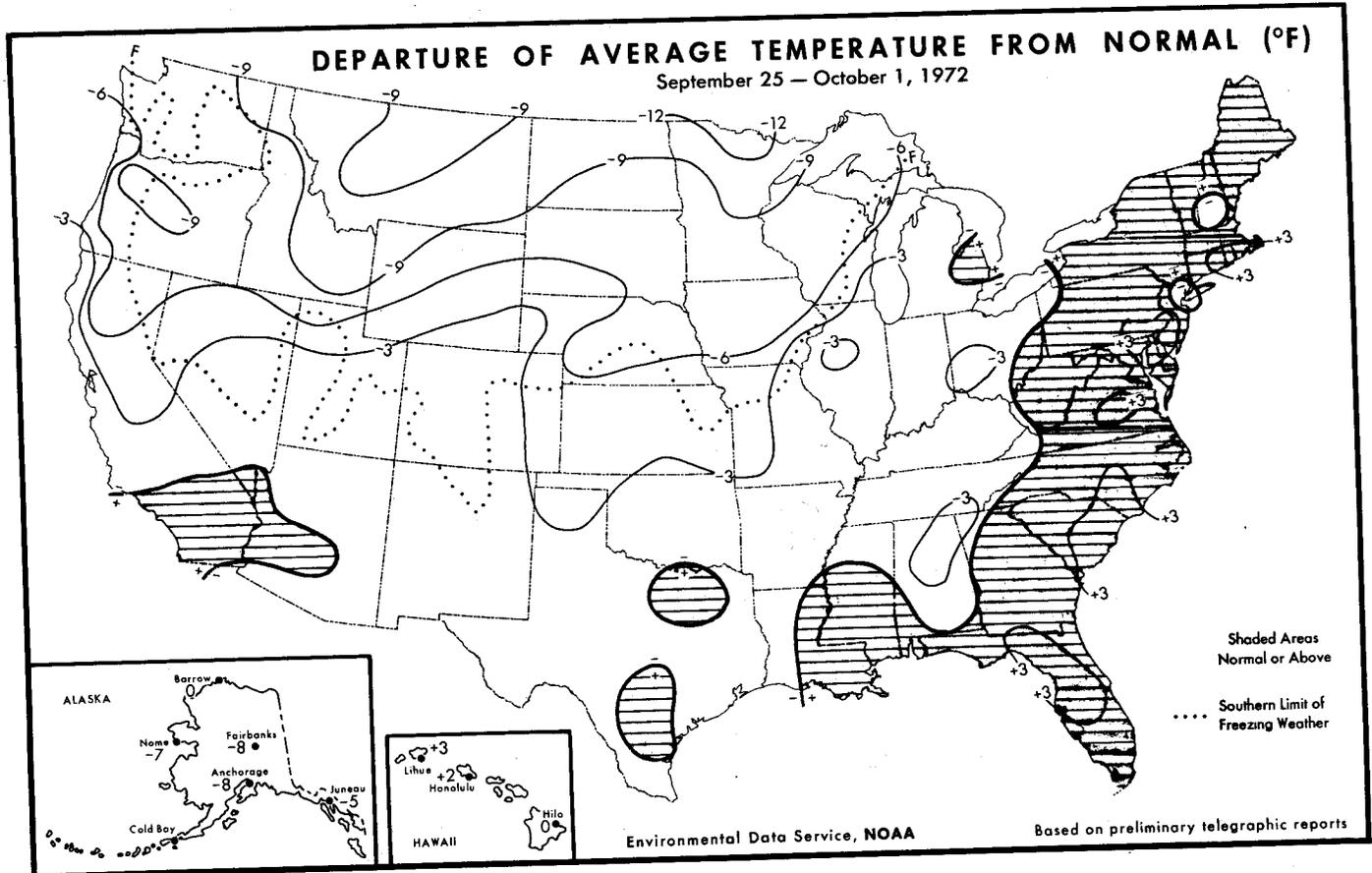
**HIGHLIGHTS:** Frontal and air mass rains fell over the eastern half of the Nation. By the weekend, autumn temperatures had advanced far southward over the East but summer lingered over the Great Plains.

**PRECIPITATION:** Northeasterly upslope winds produced heavy snow over portions of Montana late Sunday, September 24 and early Monday morning. By 6:00 a.m., m.s.t., Monday, snow had accumulated to 3 inches at Butte, 4 inches at Livingston, and 13 inches at Miles City, all in Montana. Heavy rains fell along a front that stretched from the Great Lakes to a Low centered over the Texas Panhandle. From Sunday night to 3:00 a.m., Monday, about 5.00 inches had fallen at Charles City, Iowa. Up to 4.00 inches soaked Poplar Bluff, Mo. Cold rain and snow fell late Tuesday over portions of Idaho and Nevada. Some drifting occurred and

icy mixtures slicked the roads and highways making traveling difficult and hazardous.

At midweek, the eastern portion of the front stretched from the southern Great Plains to New England. Showers and thunderstorms occurred along the front and in the warm humid air that lay over the Deep South. Port Arthur, Texas, received 3.04 inches of rain in 2 hours early Wednesday evening. Showers also dotted northern California. The weekend brought widespread rains over the eastern half of the Nation mostly in connection with the cold front moving over the area and in the warm humid air that lay south and east of the front.

No rain fell from southern California and extreme southern Nevada to the western edge of the southern Great Plains. Totals were generally less than 1.00 north of this dry area. Over the eastern half of the Country, totals ranged mostly



from about 0.50 inch to 2.00 inches. Tennessee, North Carolina, and portions of neighboring States received from 2.00 to 5.00 inches of rain last week.

**TEMPERATURE:** Early in the week, a Low was centered over the Texas Panhandle. A front extended north-eastward to the Great Lakes; another front extended westward to Utah. The western portion of the front separated cold dry air north of the front from mild dry air south of the front. Cold damp air lay north of the eastern portion of the front and warm humid air covered the South. A large High was centered off the Virginia Coast. A smaller High was centered over southern Saskatchewan. The eastern High pumped warm summer weather far northward along the Atlantic Coast. Martinsburg, W. Va., registered 91° Tuesday afternoon and maximums in the 80's were common as far north as southern New England. In contrast, Canadian air was responsible for the autumn weather over the Intermountain Region, the northern Rocky Mountains, and the northern Great Plains. Big Piney, Wyo., registered 10° Monday morning, September 25. On Tuesday morning, temperatures in the 20's were common over Montana, Wyoming, and nearby portions of neighboring States. Clear skies and, in some places, the snow cover were ideal for rapid night-

time radiation of heat. Some sharp temperature contrasts existed along the front that stretched across the Great Plains. At noon, Monday, the temperatures at Norfolk and Omaha, both in Nebraska were 49° and 82° respectively. By Tuesday morning the mercury at Omaha had plunged to 44°.

A quick warmup occurred over the central Rocky Mountains and the central Great Plains at midweek. The mercury at Denver, Colo., climbed from 38° Wednesday morning to 86° in the afternoon. The corresponding temperatures at Hill City, Kans., were 47° and 87°, respectively. Summer heat continued over the Deep South reaching 90° or higher each afternoon at spots in Georgia and Florida. Mild temperatures continued over the Great Plains over the weekend. Pierre and Huron, S. Dak., registered 82° Sunday afternoon. In the East, the cold front continued its advance southward. Minimums dropped to the 40's and 50's over the Carolinas Sunday morning.

Most of the Nation averaged cooler than normal. The main exception was the eastern seaboard which ranged from 1° to 4° above normal. Temperatures from Washington and Oregon to the Great Lakes averaged from 6° to 10° cooler than normal for late in September.

L. W. Dye

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** 1973 winter wheat crop planting ahead of normal. \* Corn and soybeans in Corn-Belt maturing slowly, harvesting delayed by wet weather. \* Potato digging active from Idaho to Maine.

**SMALL GRAINS:** Some North Dakota wheat farmers were still struggling this week against rain and snow, to harvest the remaining fields of durum and hard wheat. Farmers in the Southern Great Plains States took advantage of the cool, dry weather and continued seeding the 1973 winter wheat crop briskly ahead of the normal pace.

Almost 3/4 of the crop is sown from Texas to Nebraska. Kansas, the leading wheat producing State, made excellent planting progress with 66 percent seeded compared to an average of 50 percent. Surface moisture in Kansas is mostly adequate and early planted wheat has emerged to good stands. In Montana, 75 percent of the winter wheat crop is planted and germination is mostly fair to good due to adequate topsoil moisture.

Several weeks of wet weather in the East North Central States have slowed the progress of fall plowing and winter wheat planting is considerably behind normal. In Illinois and Ohio, seeding this week was at a standstill with only 15 percent of the winter wheat sown compared to a normal of 25 percent.

**CORN:** A week of cool, wet weather over most of the Corn-Belt slowed maturity of the Nation's corn crop and prevented farmers from making much headway in harvesting. Prospects remain good to excellent. Heavy rains from Wisconsin to Ohio saturated fields and halted outdoor work. Michigan's corn crop, plagued by weeks of wet weather, is only 39 percent mature compared to a normal of 65 percent and Ohio's crop is 50 percent mature compared to 80 percent normally mature. The corn crop is much further along in the leading producing States of Iowa and Illinois with 90 percent mature and safe from frost. Harvesting is about on schedule in Iowa at 10 percent picked and in Minnesota at 4 percent complete while picking is behind in Illinois and most other Corn-Belt States.

Corn picking remained active throughout the South although showers limited progress.

**COTTON:** Cool weather for the second straight week slowed maturity of cotton on the High and Low Plains of Texas, but harvesting made good progress at 27 percent complete compared to 19 percent last year. About 65 percent of the bolls are open across the South, but showers hampered picking from Eastern Oklahoma and Texas to the Atlantic Ocean. Picking is gaining momentum as the crop continues to mature. The crop is 10 percent harvested in Arkansas and 14 percent complete in Mississippi. Tennessee cotton harvesting is behind normal at 15 percent complete.

Harvest of the California and Arizona cotton crops are progressing normally. The second picking is underway in the Yuma, Arizona area.

**SOYBEANS:** The Nation's soybean crop continued to make slow progress toward maturity in the North Central States and cool, wet weather kept harvesting practically at a standstill. The outlook continues for a good to excellent crop. In the leading producing State of Illinois, the soybean crop is 3/4 mature and 10 percent is com-

bined compared to last year's 45 percent combined. The Iowa soybean crop is the most advanced at 85 percent mature, but only 5 percent has been harvested compared to a normal of 15 percent combined. Only 35 percent of the soybeans in Ohio are mature compared to an average of 60 percent mature by this time and harvest is just beginning.

In the southern States, the soybean crop is progressing about on schedule but harvesting of early maturing acreage was interrupted by showers. In Louisiana, the crop is 10 percent harvested, while combining just began in Arkansas. The Mississippi crop is 8 percent combined. Dry weather has hurt late soybeans in Alabama and a few badly damaged fields have been cut for hay.

**OTHER CROPS:** Harvest of grain sorghum in Texas made good progress with 48 percent combined. The Kansas crop at 41 percent mature needs several weeks of good weather to realize full potential. Grain sorghum in Nebraska is in very good condition with 52 percent ripe while rains slowed combining in Missouri. Some stripping of tobacco started in Kentucky where houseburn damage is mostly light. In Virginia, flue-cured tobacco is 97 percent cut and other types are 90 percent cut. General frosts killed Idaho potato vines and harvest is in full swing with about 25 percent complete in the southwest and 15 percent dug elsewhere. Over 1/2 the potato crop is dug in Maine, North Dakota and Minnesota. Good quality potatoes are moving into storage in Washington and the Tulalake, California harvest is increasing. Rice harvesting in Arkansas lags at 50 percent complete and much remaining acreage has lodged. Wet weather slowed the dry bean harvest in Michigan to 33 percent completion while cutting progressed normally in California and Colorado.

**Fruits and Nuts:** Apple picking continued in full swing on most Northern fruit farms. Most of the crop has good size and color. A shortage of apple pickers caused problems in New England and Oregon. Grape harvest continues active in New York, but rains stopped the harvest along the north coast of California. The Valencia orange harvest is active in California, but splitting of the new naval orange crop continues to be a problem. The 1972-73 Texas citrus crop is making good growth with recent rains, while the Florida citrus area needs rain. The harvest of Texas pecans is running 3 to 4 weeks earlier than normal while rains halted the harvest of almonds and walnuts in northern California.

**Vegetables:** Planting of late fall and winter vegetables made good progress in Arizona, Texas and Florida, while wet weather plagued the Michigan and Wisconsin vegetable harvest. Lack of a frost permitted the southern New England vegetable harvest to continue. In Washington, the harvest of lettuce, carrots and cabbage continues active. Lettuce harvest continues in California and is underway in Arizona and Texas. Most fall vegetables in Florida are growing normally.

**PASTURES AND LIVESTOCK:** Pastures in the eastern part of the Nation have improved with another week of general rains. Conditions vary from excellent in the North Central States to fair in the south. Rain benefited ranges in Northern California and Washington. Marketing of fall calves is increasing.

Arlon M. Scott  
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., OCTOBER 1, 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 . . .	69	- 4	2.7	+2.0	New Orleans . . .	77	+ 1	1.2	+ .1	OKLA, Okla. City . .	68	- 1	.2	- .5
Mobile . . .	76	+ 1	2.5	+1.3	Shreveport . . .	72	- 3	1.1	+ .5	Tulsa . . .	69	- 1	1.8	+ .9
Montgomery . . .	74	- 2	.9	+ .1	MAINE, Caribou . . .	50	0	.8	0	OREG, Astoria . . .	52	- 5	.1	-1.0
ALASKA, Anchorage . .	35	- 8	1.8	+1.3	Portland . . .	57	+ 1	.3	- .5	Burns . . .	46	- 9	0	- .2
Barrow . . .	26	- 0	.4	+ .3	MD, Baltimore . . .	68	+ 4	.3	- .4	Medford . . .	55	- 6	.2	- .1
Fairbanks . . .	30	- 8	1.1	+ .9	MASS, Boston . . .	65	+ 2	.1	- .6	Pendleton . . .	54	- 7	0	- .2
Juneau . . .	42	- 5	3.0	+1.1	Chatham . . .	62	- 2	.7	---	Portland . . .	54	- 6	T	- .6
Nome . . .	31	- 7	.1	- .4	MICH, Alpena . . .	51	- 2	2.1	+1.3	Salem . . .	49	-11	0	- .5
ARIZ, Flagstaff . . .	54	- 1	0	- .3	Detroit . . .	58	- 1	1.3	+ .7	PA, Allentown . . .	63	+ 2	.3	- .5
Phoenix . . .	80	+ 1	0	- .1	Flint . . .	59	+ 2	1.2	+ .6	Erie . . .	57	- 1	2.5	+1.6
Tucson . . .	75	- 3	0	- .2	Grand Rapids . . .	58	0	.7	+ .1	Harrisburg . . .	66	+ 3	.2	- .4
Winslow . . .	65	- 2	0	= .1	Houghton Lake . . .	52	- 1	2.6	+1.9	Philadelphia . . .	67	+ 4	.3	- .4
Yuma . . .	82	- 1	0	- .1	Lansing . . .	55	- 3	.7	+ .1	Pittsburgh . . .	63	+ 3	1.0	+ .4
ARK, Fort Smith . . .	69	- 2	1.6	+ .8	Marquette . . .	48	- 7	2.2	+1.4	Scranton . . .	60	+ 1	.4	- .4
Little Rock . . .	69	- 1	1.4	+ .7	Muskegon . . .	58	- 1	.8	+ .2	R.I, Providence . . .	65	+ 5	.2	- .6
CALIF, Bakersfield . .	72	- 1	T	- .1	S. Ste. Marie . . .	47	- 5	1.5	+ .5	S.C, Charleston . . .	77	+ 4	.1	-1.1
Eureka . . .	55	- 1	.9	+ .6	MINN, Duluth . . .	42	-10	.2	- .4	Columbia . . .	75	+ 3	1.1	+ .3
Fresno . . .	69	- 3	0	- .1	Internatl Falls . .	37	-12	.4	- .1	Greenville . . .	71	+ 1	.6	- .2
Los Angeles . . .	73	+ 2	0	- .1	Minneapolis . . .	49	- 7	.6	+ .2	S. DAK, Aberdeen . .	50	- 6	T	- .3
Red Bluff . . .	66	- 7	.9	+ .7	Rochester . . .	49	- 8	2.2	+1.8	Huron . . .	50	- 7	T	- .3
San Diego . . .	69	0	0	- .1	St. Cloud . . .	46	- 9	.4	0	Rapid City . . .	51	- 6	.1	- .1
San Francisco . . .	63	- 1	.3	+ .2	MISS, Jackson . . .	75	+ 2	2.6	+2.1	Sioux Falls . . .	50	- 7	.9	+ .5
Stockton . . .	65	- 5	.6	+ .5	Meridian . . .	74	+ 1	1.6	+1.0	TENN, Chattanooga . .	66	- 4	1.4	+ .7
COLO, Denver . . .	57	- 2	T	- .3	MO, Columbia . . .	63	- 2	.4	- .4	Knoxville . . .	67	- 1	3.1	+2.5
Grand Junction . . .	62	- 1	T	- .2	Kansas City . . .	63	- 5	.1	- .6	Memphis . . .	69	- 1	3.7	+3.1
Pueblo . . .	61	- 2	T	- .2	St. Louis . . .	66	+ 1	.4	- .2	Nashville . . .	69	0	1.5	+ .9
CONN, Bridgeport . . .	65	+ 2	.4	- .4	Springfield . . .	64	- 3	1.4	+ .5	TEX, Abilene . . .	70	- 2	T	- .7
Hartford . . .	62	+ 3	.6	- .2	MONT, Billings . . .	46	-10	.5	+ .2	Amarillo . . .	65	- 3	0	- .4
D.C, Washington . . .	68	+ 2	.6	- .1	Glasgow . . .	44	- 8	T	- .2	Austin . . .	76	0	.9	+ .2
FLA, Apalachicola . .	79	+ 2	.2	-1.0	Great Falls . . .	47	- 7	.1	- .1	Beaumont . . .	74	- 2	2.8	+2.1
Ft. Myers . . .	83	+ 3	.5	-1.2	Havre . . .	44	- 8	T	- .2	Brownsville . . .	78	- 2	.8	- .3
Jacksonville . . .	77	0	.8	- .9	Helena . . .	44	- 8	T	- .2	Corpus Christi . . .	79	0	1.5	+ .6
Key West . . .	83	+ 2	.1	-1.4	Kalispell . . .	41	-10	.2	- .1	Dallas . . .	77	+ 3	.4	- .3
Lakeland . . .	81	+ 2	.2	- .9	Miles City . . .	45	-11	.6	+ .4	Del Rio . . .	76	- 1	.3	- .3
Miami . . .	81	0	.4	-2.0	Missoula . . .	42	- 9	T	- .3	El Paso . . .	70	- 1	0	- .2
Orlando . . .	82	+ 4	.4	-1.0	NEBR, Grand Island .	55	- 6	.3	0	Fort Worth . . .	75	+ 1	.1	- .5
Tallahassee . . .	79	+ 3	.1	- .8	Lincoln . . .	56	- 8	.3	- .2	Galveston . . .	76	- 2	4.0	+2.8
Tampa . . .	82	+ 3	.4	- .8	Norfolk . . .	53	- 7	.2	- .2	Houston . . .	74	- 1	3.1	+2.1
GA, Atlanta . . .	72	+ 2	.7	+ .1	North Platte . . .	52	- 7	.6	+ .3	Lubbock . . .	68	0	0	- .6
Augusta . . .	75	+ 2	.4	- .2	Omaha . . .	55	- 6	.2	- .2	Midland . . .	70	- 2	.2	- .3
Macon . . .	75	+ 1	1.5	+1.0	Valentine . . .	52	- 5	.1	- .2	San Angelo . . .	73	- 1	.2	- .4
Savannah . . .	77	+ 3	T	- .8	NEV, Ely . . .	51	- 2	T	- .1	San Antonio . . .	77	+ 1	.2	- .6
HAWAII, Hilo . . .	76	0	1.8	- .3	Las Vegas . . .	75	0	T	- .1	Victoria . . .	76	- 1	3.1	+2.2
Honolulu . . .	81	+ 2	.1	- .2	Reno . . .	52	- 4	.8	+ .7	Waco . . .	74	- 1	1.1	+ .5
Kahului . . .	---	---	---	---	Winnemucca . . .	51	- 4	.2	+ .1	Wichita Falls . . .	72	- 1	.1	- .6
Lihue . . .	81	+ 3	.1	- .4	N.H, Concord . . .	55	- 1	.3	- .4	UTAH, Blanding . . .	58	- 1	0	- .3
IDAHO, Boise . . .	51	- 8	.3	+ .2	N.J, Atlantic City .	66	+ 2	.7	0	Salt Lake City . . .	56	- 4	.1	- .1
Lewiston . . .	53	- 6	0	- .3	Trenton . . .	66	+ 3	.5	- .2	VT, Burlington . . .	56	+ 2	.2	- .5
Pocatello . . .	46	-10	.2	0	N. MEX, Albuquerque .	64	- 2	0	- .2	VA, Lynchburg . . .	67	+ 3	2.4	+1.7
ILL, Cairo . . .	67	- 2	2.0	+1.3	Roswell . . .	68	+ 2	0	- .4	Norfolk . . .	71	+ 2	.9	+ .1
Chicago . . .	61	- 1	3.7	+3.1	N.Y, Albany . . .	59	+ 1	.3	- .4	Richmond . . .	69	+ 3	1.6	+ .9
Moline . . .	60	- 1	1.0	+ .4	Binghamton . . .	57	+ 1	.4	- .3	Roanoke . . .	65	0	3.7	+2.9
Peoria . . .	59	- 4	.7	+ .1	Buffalo . . .	58	0	1.3	+ .6	WASH, Colville . . .	45	-10	.1	- .2
Rockford . . .	58	- 2	1.3	- .6	New York . . .	65	- 1	.3	- .5	Omak . . .	49	- 6	0	- .2
Springfield . . .	63	- 1	.5	- .2	Rochester . . .	62	+ 3	1.0	+ .4	Quillayute . . .	49	- 7	.3	-1.7
IND, Evansville . . .	64	- 2	.7	0	Syracuse . . .	59	0	1.3	+ .6	Seattle-Tacoma . . .	50	- 8	.1	- .5
Fort Wayne . . .	61	0	1.6	+ .9	N.C, Asheville . . .	67	+ 2	4.0	+3.4	Spokane . . .	48	- 9	0	- .3
Indianapolis . . .	62	- 1	2.3	+1.5	Charlotte . . .	71	+ 1	2.5	+1.7	Walla Walla . . .	56	- 7	0	- .2
South Bend . . .	60	0	2.1	+1.4	Greensboro . . .	67	0	2.2	+1.5	Yakima . . .	50	- 8	0	- .1
IOWA, Burlington . . .	60	- 2	.2	- .5	Hatteras . . .	73	+ 1	.3	- .7	W.VA, Beckley . . .	62	+ 2	2.2	+1.6
Des Moines . . .	55	- 7	.5	+ .1	Raleigh . . .	70	+ 3	3.0	+2.2	Charleston . . .	65	0	1.9	+1.3
Dubuque . . .	50	- 8	2.3	+1.7	Wilmington . . .	75	+ 3	.6	- .3	Huntington . . .	65	0	1.3	+ .7
Sioux City . . .	54	- 8	.3	- .2	N. DAK, Bismarck . .	48	- 6	.3	+ .1	Parkersburg . . .	65	+ 1	1.2	+ .6
KANS, Concordia . . .	60	- 5	T	- .5	Fargo . . .	48	- 6	.2	- .1	WIS, Green Bay . . .	51	- 6	3.0	+2.4
Dodge City . . .	61	- 5	T	- .3	Williston . . .	42	-11	.6	+ .4	La Crosse . . .	53	- 5	2.7	+2.1
Goodland . . .	57	- 5	0	- .2	OHIO, Akron-Canton .	60	0	2.1	+1.5	Madison . . .	53	- 4	1.4	+ .5
Topeka . . .	61	- 5	T	- .6	Cincinnati . . .	61	- 3	1.7	+1.1	Milwaukee . . .	57	0	1.3	+ .7
Wichita . . .	63	- 3	.1	- .5	Cleveland . . .	59	- 2	2.1	+1.5	WYO, Casper . . .	50	- 5	T	- .2
KY, Lexington . . .	64	- 2	2.0	+1.4	Columbus . . .	59	- 3	2.7	+2.1	Cheyenne . . .	53	- 2	T	- .2
Louisville . . .	76	+ 1	1.5	+ .9	Dayton . . .	59	- 4	1.1	+ .5	Lander . . .	49	- 6	T	- .3
LA, Baton Rouge . . .	67	+ 1	1.9	+1.0	Toledo . . .	58	- 1	1.8	+1.3	Sheridan . . .	46	- 8	.4	+ .1
Lake Charles . . .	74	- 3	1.4	+ .6	Youngstown . . .	59	0	1.5	+ .8	P.R. San Juan . . .	83	+ 2	1.9	+ .5

\* 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:** Temperatures 5° to 8° above normal with considerable shower activity, locally heavy, until first major cold front of season moved through State on Friday bringing sharp change to clear and cool through weekend. Scattered but beneficial heavy showers finally came to Mobile area on Tuesday and Wednesday. Anniston and Pinson cooled to 39° Sunday morning. High for week 94° at Dothan Tuesday. Showers over most of State checked deterioration of late cotton and soybeans and provided moisture for seeding fall crops. Cotton Harvest made fair progress south and central, but near standstill north due to wet fields. Corn harvest 1/4 complete, ahead of last year. Early soybeans maturing rapidly with harvest gaining momentum. Late soybeans adversely affected by dry weather. Few peanuts remained to be dug. Federal-State inspection reported 178,000 tons inspected through September 28 compared with 163,000 tons year ago. Showers curtailed hay harvest most areas. Few soybean fields damaged by dry weather cut for hay. Grazing short in many counties, but moisture should improve pastures considerably.

**ALASKA:** The Kenai Peninsula was warmer with near normal temperatures. The remainder of the agricultural areas continued to be unusually cold with below 0° temperatures reported in Upper Tanana Valley. Heavy rainfall occurred mid to late in week everywhere except central and Upper Tanana Valley, where amounts were far below average. Soil moisture supply adequate all areas of Railbelt. Silage cutting still in progress in Matanuska Valley when weather permits. Oats and barley for grain about 3/4 combined in Matanuska Valley, nearly complete Tanana Valley. Second crop brome harvest about 3/4 completed. A few acres of potatoes remain to be dug.

**ARIZONA:** Temperatures below normal most of State rising to above normal on weekend. Skies mostly clear and no precipitation. Arizona's cotton crop being harvested throughout State. Second picking underway Yuma. Grain sorghum being harvested at steady rate southwest. Alfalfa seed harvest nearing completion Yuma. Fall sugar beets progressing normally, harvesting planned mid-October. Alfalfa hay harvest making normal progress. Early lettuce, cabbage good progress Yuma area. Planting underway fall vegetables. Lettuce harvest began last week Cochise County. Thinning, weeding lettuce active Pima, Pinal Counties. Lettuce up to good stands Salt River Valley areas. Lemon harvest full swing Yuma area, accelerating Salt River Valley areas. Sizes larger than normal. Range conditions vary statewide. Northwestern ranges mostly poor. Central western desert valleys fair to poor. Higher elevation ranges eastern border good. Southeastern conditions favorable. Cattle, calves good. Sheep, lambs continue fair.

**ARKANSAS:** Locally heavy rains northeast portion of State as first major cold front of fall season moved across Arkansas late in week. Weekly totals that part of State 4.00 to 7.00 inches. Elsewhere totals generally in 1.00 to 2.50-inch range with few areas receiving less than 1.00 inch--

mainly in west-central portion and southeastern quarter of State. Widely scattered showers through week with heavier falls late in week. Little or no rain on weekend. Mean temperatures ranged from 2° above to 4° below normal with largest negative departures in south-central and west-central portions. Rather warm humid weather through week followed by much cooler and drier weather on weekend. Highest temperature of 89° recorded at several locations through southern 2/3 of State during week. Calico Rock in north-central portion recorded 35° on 30th, the lowest in State. Showers first 5 days of week limited progress of harvest especially northeast. Week ended under clear skies and continued open weather needed to minimize damage to cotton and rice. About 10% cotton picked, 60% bolls open and much picking next week weather permitting. Rice harvest lags but nearly 1/2 acreage cut. Much remaining acreage lodged, but good crop produced if it can be saved. Harvest early soybeans begun, rains will benefit late acreage. Rains greatly improved prospects for much-needed late cutting grass hay. Good stands on early-seeded wheat and oats, further seeding underway. Apple and grape harvest about over, okra also. Pastures improved, but slow recovery. Army worms requiring treatment some pastures and small grain acreage. Supplemental feeding still required few areas, but situation improving. Most cattle fair to good.

**CALIFORNIA:** First general rains northern half State on 25th to 27th. Precipitation amounts 0.50 inch or more most locations. Amounts this magnitude unusual this early in season, can occur about 1 year in 10. Cool minimums first half of week. Los Angeles Basin and around Monterey Bay few degrees above normal. Hot weather near coast 29th. First major rain of season temporarily halted most activities. Land preparation and seeding of small grains continue as conditions permit. Alfalfa and dry beans in Sacramento Valley caught by rain in windrows. Some loss expected. Planting 1973 crop sugar beets continues Imperial Valley. Harvest of 1972 crop progressing normally elsewhere. Harvest rice, dry beans, field corn, cotton, milo, and seed crops continues. Rain stopped grape harvest north coast counties. Some mold reported. Most raisins rolled and boxed, many delivered processors, quality good. Rains halted harvest almonds and walnuts northern State. Apple harvest going strong, fruit size and color good. Late peach and pear varieties being harvested. Harvest short olive crop picking up momentum. Pomegranates, figs, quince, and persimmons being harvested. Valencia orange harvest continues. Splitting continues new navel crop. Picking lemons and avocados light. Light harvest artichokes, heavy collage, moth damage. Broccoli, cauliflower continues Santa Maria, Salinas. Westside cantaloupes declining rapidly, Imperial Valley starts. Normal carrot harvest central coast. Celery active Salinas, Santa Maria. Salinas lettuce continues, Imperial Valley planting active. Onion continues San Joaquin, increasing northern California. Green pepper steady San Joaquin, Salinas, Santa Clara. Tulelake potato increasing, other areas slow. Merced-Modesto sweetpotato steady. Fresh market

tomatoes steady southern California, central valley, central Coast. Processing tomatoes declining rapidly Sacramento and northern San Joaquin Valley. Rain helped range grass growth. Fall and winter grazing outlook good, water supplies remain short. Southern California dry and parched. Livestock good. Calves coming off mountain ranges lighter than normal. Supplemental feeding continues. Sheep flocks moving into alfalfa fields. Honeybees going into overwinter stage. Fire danger down in various areas.

**COLORADO:** Warm days, cool nights all areas. Some light showers in northwest and central mountain areas, generally dry elsewhere. Unusually warm daytime temperatures allowed harvest to progress rapidly. Some scattered frost northeast. Topsoil moisture short to adequate northeast, short to very short other areas. Seeding winter wheat 96% complete, barley 91%. Emergence winter wheat 77%, winter barley 76%. Condition winter wheat excellent, limited acreage grazed eastern areas. Corn 95% dented, 86% mature. Corn silage harvest 90% complete. Sorghum 92% turned color, 69% ripe. Sorghum forage harvest 66% complete. Dry beans 86% cut, 48% threshed. Third cutting alfalfa 84% harvested. Fall potato harvest 40% complete. Late summer potatoes 79% dug. Ranges and pastures good to fair. Livestock moving to winter ranges, condition good.

**FLORIDA:** Driest September on record. Rainfall averaged 0.50 inch most sections, mainly as showers accompanying cold front which pushed into central Florida on weekend. Temperatures 2° to 3° above normal with daily highs in low 90's. Cooler air brought sharply lower temperatures to Panhandle on Weekend where Pensacola reported a high reading of 76° on Sunday. Soybean harvest underway on earlier varieties. Peanut harvest nearly over, only a few loads received late last week. Moisture needed for preparation of land for small grains. Growth of pasture grasses limited, grazing fair south Florida, poor elsewhere. Cattle and calves mostly good condition. Single case of screwworm infestation reported. Citrus area needs rain, only light showers last week. Irrigation continues, water supply sources still low. Fruit splitting still no problem. Harvest increasing, mostly grapefruit and few oranges. Sweetcorn, radishes now available in Everglades. Early eggplant, cucumbers are picking in west and north-central areas. Most fall vegetables progressing on normal schedule and will be furnishing seasonal volume during last half October.

**GEORGIA:** Rainfall varied from none in much of southeast to more than 1.00 inch parts of north and west. Most areas, except northwest, continue very dry. Savannah Airport had only 0.36 inch last month for driest September in that area in more than 100 years of record. Continued unusually warm through Friday but much cooler weekend. Lows dropped to mid-30's in mountains and to 40's and 50's remainder of State on Sunday as all areas experienced their lowest temperatures of fall. Averages for week were 1° to 4° above normal but ranged from 8° to 10° above normal early in week to that much below normal during weekend. Weekend rains improved soil moisture situation in northern and western portions. Eastern and southern areas still dry. Cotton mostly fair, harvest 23% complete. Corn mostly fair, harvest 30% complete. Peanuts 98% dug and 96% threshed, remainder of crop fair to good. Soybean condition continued poor to fair.

Seeding small grains and winter grazing well behind normal at 12% planted. Cattle condition mostly good.

**HAWAII:** Warm and dry. Heavy irrigation necessary to maintain crop growth. Insects and diseases affecting yields of some crops. Short supplies of some vegetables. Supply of bananas increasing, but papayas steady. Sugarcane harvesting normal, pineapples decreasing. Cattle condition fair to good. Pasture condition fair to poor, in need of moisture.

**IDAHO:** Freezing temperatures all areas with higher valleys dropping to 20° or lower. Lowest temperatures mid-period and again at end. Temperatures averaged much below normal throughout State. Precipitation, including some snow at higher elevations, quite variable ranging from 0.01 inch to more than 1.00 inch. Totals ranged mostly 0.10 to 0.40 inch coming first part of period north and middle and end elsewhere. Potato harvest in full swing; about 25% complete in the southwest, nearly 15% elsewhere. General frost killed vines in good shape. Onion harvest 3/4 complete. Harvest weather for beans, grains, and alfalfa not good. There are 15% of beans, 25% of alfalfa, 10% of silage corn, and a scattering of grain fields yet unharvested. Apple picking 30% complete, maturity and color are good.

**ILLINOIS:** Week began and ended cool with some midweek warming. Although week averaged within 2° of normal, temperatures ranged from the mid-80's in south at midweek to upper 30's over northern Illinois by the weekend. Precipitation well distributed with weekly totals over 2.00 inches common and a few reports over 3.00 inches in central and eastern portions of State. Crop progress and fall harvest almost at standstill because of wet fields. Corn 90% mature, 5% harvested; 1971 18% harvested. Soybean progress slow, 88% all yellow, 3/4 shedding leaves, nearly 10% combined, behind last year's 45% cut and normal. Third crop alfalfa hay 82% cut; virtually complete in 1971. Winter wheat seeding at a standstill, 15% complete. Pasture conditions improved, 91% good to excellent. Soil moisture adequate 18%, surplus 82%. Days suitable for fieldwork averaged 2.2.

**INDIANA:** Wet and cloudy week. Division precipitation averages ranged from 2.10 inches in southwest and northeast. to 4.10 inches in southeast. Spencer reported 6.70 inches. Sunny and cold over weekend. Temperatures declined to 36° at Lafayette. Very scattered light frost in central and southeast. Less than 1 day suitable for fieldwork. Wet week halted plowing. Wheat 15% seeded, 25% average. Rye 30% seeded and barley 20% seeded, both behind usual. Corn 60% mature, 65% average. Soybeans 5% combined, 15% average. Soybeans 60% shedding leaves. Tobacco 80% harvested. Apples 40% picked. Pastures improved.

**IOWA:** Cool week, wet northeast and north-central; dry to moderate rains elsewhere. Frost many localities 30th. Rain and cloudy weather slowed fieldwork, especially harvesting. Over 90% corn mature and safe from frost, about the same as average. Less than 10% of corn harvest complete, about same as last year and average of 13%. Over 85% soybeans shedding leaves, slightly less than 85% mature. Soybean harvest 5% complete, behind average of 15% and 30% in 1971. Winter wheat 42% planted compared with 60% last year. Grain sorghum 5% harvested. Over 10% popcorn harvested. Feed supplied by pastures: 64% above average, 36%

average. About 4 days suitable for fieldwork. Topsoil moisture 53% adequate, 47% surplus. Subsoil moisture 68% adequate, 30% surplus, 2% short.

**KANSAS:** Cool. Temperatures averaged 3° to 6° below seasonal. Freeze parts northeast. Minimum of 30° at Topeka. Lowest temperature of record for September and earliest freeze ever recorded at that location. Light to moderate precipitation most eastern 1/4 of State. Very dry western 3/4. Heavy rains locally southeast with few spots over 2.50 inches. Wheat seeding made excellent progress, near completion western areas; 66% seeded compared 53% last year, 50% average. Good stands early-planted wheat. Winter barley 43% seeded, 38% last year, 47% average. Surface moisture mostly adequate. Sorghum grain 41% mature, 64% last year, 50% average. Sorghum grain 8% harvested, 21% last year, 11% average. Several weeks warm weather needed to realize full sorghum production potential. Corn 75% mature, 87% last year, 81% average. Corn 12% harvested, 28% last year, 18% average. Sugarbeet digging underway. Alfalfa 4th cutting 56% complete. Pastures good. Some cattle on volunteer wheat. Cattle movement increased seasonally.

**KENTUCKY:** Rainy week, totals 0.70 inch to about 6.00 inches, heaviest south-central and southeast. Temperatures averaging about normal. Rain daily some areas until last day. Temperatures above normal until cooler weekend. Early morning readings on 1st ranged from mid-30's to low 40's. Probable tornado Morgan County afternoon of 29th; 3 minor injuries and some property damage. Rain limited outdoor activities to 2 1/2 days. Moisture beneficial for pastures and seeding cover crops but curtailed completion of tobacco cutting and silage harvest. Some stripping of tobacco started. Houseburn about 11% damage, mostly light. Corn for grain harvest curtailed, 8% complete, 15% last year. About 6% loss expected from lodging. Soybean harvest underway at 6% complete, 10% year ago. About 38% shedding leaves and another 35% turning yellow. Seeding of wheat and barley will resume as fields dry. Hay supplies about 92% of normal. Pastures improving following rain.

**LOUISIANA:** Warm, humid, showery weather continued through Friday. First cold front of fall cleared skies and dropped temperatures and humidities sharply over weekend. Temperatures averaged near normal for week in southeast and 1° to 4° below normal west and north. Temperature extremes: 95° at Bogalusa on Tuesday and 43° at Shreveport on Sunday. Precipitation ranged upward from 1.00 inch. The dry northeast received 1.50 to more than 3.00 inches and local areas in central and south, more than 4.00 inches. Greatest 1-day rain reported was 2.00 inches at Mamou on Tuesday and at Clinton on Wednesday. Fieldwork slowed by daily showers and virtually halted toward end of week. Moisture beneficial to late soybeans and sweet potatoes, but harmful for cotton. Some sugarcane and rice lodged by heavy rain and wind, but rice harvest virtually completed. Sugarcane planting nearing completion, harvest to get underway in mid-October. Cotton 70% open and 7% picked. Soybeans about 10% harvested. Sweet potatoes about 55% dug. Corn and sorghum grain 3/4 harvested. Pasture feed about average and improving. Livestock looked good.

**MARYLAND AND DELAWARE:** Warm until cool weekend, averaged 2° to 4° above normal. Extremes mostly 80's, 40's. Rainfall quite variable, mostly 0.50 inch or less except near 1.00 inch in Garrett County and southern Maryland. September

1972 temperatures averaged slightly above normal and rainfall mostly below normal to much below normal. Soils remain dry except in south. Corn harvest pushed, 23% done is nearly normal. Tobacco harvest practically done, some stripping started. Soybeans maturing slowly. Small grain seeding active. Picking delicious apples in full swing, 1/4 of crop harvested. Sweet potato harvest 15% done.

**MICHIGAN:** Near seasonal temperatures dominated Michigan's weather with significant rainfall most areas early and again middle of week. Temperature averages: 1° to 7° below normal Upper Peninsula, 1° above normal to 3° below normal Lower Peninsula with largest departures in interior section. Precipitation: 1.25 inch to 2.75 inches Upper Peninsula; 0.75 to 2.00 inches Lower Peninsula except near 0.50 inch east-central and locally over 4.00 inches northwest. Fall crops continue to mature slowly. Wet fields delaying harvest and wheat planting. Averaged 3.5 days suitable for fieldwork. Soil moisture mostly surplus. Corn 39% mature, compared with 69% last year, and recent year average of 65%. Grain corn harvest started. Corn for silage 34% harvested. About 10% soybeans mature compared with 35% last year. Dry bean harvest slowed by wet fields, 33% harvested. Fall potato harvest proceeding slowly. Wheat planting only 41% planted, 75% a year ago. Pasture feed supplies above average. Wet weather slowing apple harvest. Grapes have not yet obtained desired sugar content. Harvest of late vegetables continues at a slow pace because of wet fields.

**MINNESOTA:** Very cold week across State though very wet in southern part of State. Temperatures averaged 8° to 10° below normal. Temperatures of 32° and below across entire State morning of 30th. Extremes: 82°, 22°. Precipitation: 1.00 to 5.00 inches across southern 3 districts. Heaviest amounts in southeast districts, generally with amounts of 3.00 inches. Spring Grove received 5.45 inches which caused minor flooding on Root River. Wet weather slowed farmwork in south-central and southeast districts. Corn and soybean harvest in southern district expected to increase when weather and soil conditions permit. Corn safe from frost 86%, normal 79%; corn picked 4%, normal 3%. Corn silage cut 67%, normal 77%. Soybeans mature 58%, normal 75%; soybeans combined 8%, normal 16%. Flax combined 73%, normal 78%. Hay and grain stubble plowed 63%, normal 51%. Potatoes harvested 53%, normal 48%. Sugar beets harvested 16%, normal 14%.

**MISSISSIPPI:** Temperatures averaged 5° to 8° above normal and significant rainfall amounts most sections. Moisture from widely scattered thunder-showers throughout week. Port Gibson reported heaviest rainfall amount 5.38 inches, of which 3.52 inches measured Wednesday morning. No abnormal temperatures. An active cold front moved through State Friday evening spawning tornadoes and numerous thunderstorms. The most violent weather occurred in extreme north Mississippi. Rainfall amounts of over 1.00 inch common with frontal passage. Temperatures over the weekend plunged almost 20° from the previous week's averages. Rainfall slowed fieldwork but alleviated soil moisture shortage. Average of 3.5 days suitable for fieldwork. Cotton 64% open, 14% harvested. Nearly 8% soybean acreage combined. Harvesting corn, sorghum, peanuts, rice, sweet potatoes and hay remained active. Crops mostly fair to good.

**MISSOURI:** Pleasant fall week. Cooler at end of period. Temperatures averaged 2° above normal. The first 32° temperature in northern section Saturday morning, September 30. Rainfall plentiful with heaviest amounts in Ozarks; amounts ranged from 0.50 inch north to 1.50 inches southwest, to over 5.00 inches portions of southeast. Average 3 days suitable for fieldwork. Corn 67% matured, 13% harvested, 30% last year. Soybeans in good condition 48% mature, 61% last year, 9% harvested, 25% last year. Grain sorghum 61% mature, 15% harvested, compared to 36% harvested last year. Cotton remains mostly fair. Harvest of crops is lagging in northwest and Bootheel because of rain. Soil moisture 15% short, 65% adequate, 20% surplus.

**MONTANA:** Temperatures averaged from 6° to 11° below normal. General warming over weekend. Precipitation mostly light and below normal except southern plains where 0.30 to 0.50 inch. Winter wheat 75% planted; germination mostly fair to good, excellent some portions northwest and southeast. Topsoil moisture mostly adequate. Cattle 45% moved from summer ranges, sheep 50% moved. Calf and lamb weights normal to above normal. Most harvesting delayed by wet weather south-central and southeast. Potatoes 30% harvested, corn silage 85% harvested, flaxseed 50% harvested, dry beans 85% harvested. Sugarbeet harvest just beginning, 5% harvested.

**NEBRASKA:** Cool dry weather across Nebraska last week with hard freeze portions of northwest. On September 26, a 32° or lower freeze occurred over northwest half of State. That morning a few stations in Panhandle and north-central division reported minima 24° or lower with Agate reporting 18°. Warm spells confined to southwest on 24th and west on 27th. Dry pleasant weather statewide weekend with 32° in low spots of east and south on 30th. Cool weather during week slowed maturing of crops. Fieldwork made good progress with main activities seeding wheat, cutting ensilage, harvesting corn, and sorghum. Surface and subsoil moisture supply generally adequate. Corn in good condition; 76% mature, slightly later than normal. Root and stalk rot causing some damage. Sorghum very good; 91% turning color, 52% ripe. Soybeans very good; 77% shedding, 33% ripe, later than normal. Fall wheat seeding 94% complete.

**NEVADA:** Temperatures 2° to 4° below normal all divisions except south-central near normal. Extremes: Logandale 98° Mountain City 11°. Storm passage midweek and weekend. Light to moderate precipitation with thunderstorms and hail in north. Light to heavy rainfall in south-central; Hawthorne, 1.50 inches. None extreme south. Alfalfa seed harvest 87% completed, will be finished prior to mid-October. Hay crop 3d cutting harvested, alfalfa hay 60% completed. Rains caused some delays and slight damage to hay. Harvest of other crops underway and winter wheat being planted. One-half cotton bolls in Pahrump Valley open. Harvest small grains complete except isolated areas. Livestock generally good.

**NEW ENGLAND:** Week mild, averaging 1° to 3° above normal. Quite warm early in week with many maxima in 70's and 80's. Much colder at close with general freezing in north and at the colder spots in south on October 2. Some minima in low and mid-20's in north. Frequent light showers early in week and again September 29 to 30. Some heavier showers and a few thunderstorms in latter period. Total rainfall mostly 0.10 to

0.50 inch but some up to 1.00 inch in western sections and also in eastern Maine. Aroostook County, Maine, potato crop over 1/2 dug. Yields good on round whites, lighter on russets. Oats crop being combined. Silage corn being cut, still very immature. Apple harvest at peak, some labor shortages. Color and size good. Cranberries 1/2 harvested, color excellent, quality good. Vegetable harvest continues with no general frost in southern areas. Grazing average.

**NEW JERSEY:** Summer heat at start of week gave way to autumn chill with a general frost by morning of 2d. Temperatures ranged from upper 80's to low 30's but averaged from 1° to 5° above normal. Rainfall Wednesday through Saturday averaged 1.00 inch along coast and 0.60 inch elsewhere. Station totals varied from 0.35 inch at Newark to 1.35 inches at Long Branch. Soil moisture short in a few areas, but mostly adequate. Fall vegetable harvest moving at normal pace. Processing tomato harvest about complete. Sweet potato harvest increasing. Cooler temperatures improved apples and cranberry color. Harvest of corn for grain began. Early-planted soybeans well colored. Fall grain and cover crop seeding active.

**NEW MEXICO:** Only local traces of precipitation in south. Temperatures averaged near normal most of State except for above normal southeast. Most extreme temperatures weekend with 90° locally in south and freezing locally in north. Topsoil, subsoil moisture mostly adequate. Few short areas in west. Cotton bolls opening rapidly. Harvest to begin soon in south. Alfalfa harvest has resumed 3d to 5th cuttings. Pulling broomcorn active. Lettuce harvest active, Los Lunas and Uvas Valley areas. Ranges excellent, few dry areas in west. Livestock in good condition.

**NEW YORK:** Warming trend through 27th. Cooler on 28th and turning much cooler on weekend. Maximums in 70's to low 80's on 25th and 26th but cooling to 50's and low 60's by October 1. Minimums mostly mid-to upper 30's Upstate and low 40's coastal on 1st with general freeze in northern valleys on 28th and 1st. Showers on 29th and 30th yielded 0.80 to 1.30 inches western half and St. Lawrence Valley. Weekly precipitation light eastern half as showers mid- and late week totaled 0.20 to 0.60 inch. Corn silage harvest in full swing with about 1/2 harvested. Second cutting alfalfa virtually all harvested, some 3d cutting still underway. Pasture condition fair. Growers pulling dry beans as crop matures and weather permits. Crop condition varies from poor to good. Potato harvest active. Onion harvest nearing completion, moving to storage. Light lettuce harvest Oswego and Orange county. Danish cabbage developing satisfactorily. Harvest expected to start in 2 weeks. Long Island cauliflower increasing. Processing sweet corn and cabbage harvest continues. Grape harvest continues in Niagara and Delaware counties. Concord harvest scheduled to begin next week. McIntosh and Cortland apple harvest in Hudson Valley more than 1/2 completed. Progress in western New York not as advanced.

**NORTH CAROLINA:** Temperatures averaged above normal, some highs to 90°, mostly in 80's. Sharp cool turn over weekend. First fall frost a few mountain areas, some lows to 30° October 1 and 2. Showers becoming widespread 27th clearing from west to east 30th. Amounts variable, totaling 0.25 inch to 4.00 inches, mostly 1.00

to 2.00 inches. A few heavy local thunderstorms with small areas of very heavy rain and damaging winds 28th and 29th. Soil moisture generally adequate, some local areas short. Corn for grain about 40% harvested, remaining crop good condition. Cotton mostly fair, about 1/3 crop defoliated, picking underway southern coastal plain. Peanuts fair to good commercial areas, some light digging, spider mites necessitate spraying. Soybeans good, some weed problems, insects under control. Commercial sweet potato harvest in peak. Commercial apple harvest past halfway mark. Pastures improved, mostly good, except fair southern Piedmont. Small grain planting underway.

**NORTH DAKOTA:** Cold and wet most of week becoming sunny and mild on weekend. Snow first of week in north and west with amounts up to 8 inches in west-central areas. Precipitation totals varied from light to about 1.00 inch. Temperatures averaged 5° to 12° below normal. Rain and snow early in week halted combining northern and western areas. Some progress later in week. Durum and hard wheat combining nearing completion except some northwestern counties. Barley and oats harvest about complete. Flax and dry beans 3/4 harvested. Over 1/2 potatoes dug. Ensiling corn in full swing. Soybean harvest and sugarbeet lifting underway.

**OHIO:** Morning of 1st was coldest of season. Temperatures range from low 30's to low 40's. Lows were in 60's on 25th and 26th. On 27th to 29th lows ranged from low 40's to low 60's. On 30th, lows mostly in 40's. High temperatures from 25th to 29th ranged from mid-50's to low 80's. On 1st highs were in upper 50's to upper 60's. Rain on 25th to 30th. Northwest, north-central, and central hills still too wet while south-central still too dry. Heavy rain over most of State and cool temperatures slowed crop maturity. Moisture beneficial to dry areas south-central and southwest. Soil moisture supplies 23% adequate, 77% surplus. Less than 1 1/2 days favorable for fieldwork. Corn for grain 50% mature and safe from frost, last year 90% and normal 80%. Corn for silage harvest about 1/2 done, 75% average. Soybeans 35% mature compared to 60% average and last year 65%. Harvest started some areas, but very limited. Tobacco and potato harvest made little progress as did seeding fall grains.

**OKLAHOMA:** Precipitation averaged from a trace in Panhandle to 2.22 inches in northeast. Temperatures ranged from 4° above normal in south-central to 3° below normal in northeast. All divisions had normal or above normal temperatures except northeast. Row crops remain in fair to good condition, maturing rapidly. Scattered rains improved surface moisture, subsoil moisture declined. Wheat seeding completed Panhandle, full swing elsewhere, 2/3 completed for State. Dry soils delaying seeding progress and causing spotty germination several western areas. Army worms causing moderate to heavy damage. Seeding oats and barley about 2/5 completed. Corn for grain harvest 1/5 completed Panhandle, 1/2 completed elsewhere. Heavy infestation corn borer in Panhandle. Sorghum grain harvest just starting Panhandle and north-central, 30% completed elsewhere. Heavy bird damage some areas. Cotton crop maturing rapidly, nearly 3/4 bolls open, 1% harvested, gaining momentum as chemical defoliation increases. Heavy insect damage some southwest fields. Over 2/3 peanut crop mature, 5% harvested. Soybean crop 2/5 mature,

5% harvested. Pecan crop only poor to fair. Ranges improving but, grazing short west, supplemental feeding continues. Livestock making fair to good gains.

**OREGON:** Cool week with light to moderate rain early in period. Mornings foggy westside with cold nights east and afternoons sunny most areas. Temperatures averaged 5° to 12° below normal. Continued dry east-central border but 0.10 to 0.30 inch mostly elsewhere except 1.00 to 2.00 inches north coast, northern Cascades. Rains delayed field activities first part of week, but provided moisture needed to bring fall-seeded grains and grasses up. Land preparation, fertilizing, liming, and planting continue, weather permitting. Vegetable harvest continues with slight frost damage to sweet corn and bush beans. Harvest of potatoes, table beets, broccoli, cauliflower, and cabbage continue. Filberts are dropping, some limited harvest underway. Pear harvest nearing completion at Hood River and Medford. Apple picking well underway with a shortage of pickers at Hood River. Fall pastures and ranges improving with rain. Cattle in good condition. Calf contracting active.

**PENNSYLVANIA:** Mild early in week, cooler weekend. Maxima 70's and 80's beginning of week, 50's and 60's Sunday. Scattered frost Sunday, Monday with minima upper 20's to low 40's. Weekly temperatures near normal north, 2° to 4° above normal central and south. Precipitation mostly midweek and early weekend as frontal showers and thunderstorms. Totals 1.00 to 2.00 inches west, 0.25 to 1.00 inch east. Topsoil moisture 50% short, 50% adequate. Weekend rain helped. Fall potato digging full swing, variation in size, good quality. Corn for ensilage 1/2 completed, grain harvest barely underway, high moisture content. Corn 1/3 matured. Barley seeding 2/3 completed and wheat 1/3. Limited hay baling, pasture below average. Limited tobacco cutting. Apple picking full swing, crop size varies, good color. Processing tomatoes full swing, should wind up this week. Wine grapes picked last week, Concord grapes expected this week.

**PUERTO RICO:** Rainfall averaged 1.55 inches or about 0.45 inch below normal. Heavy showers and thundershowers continued throughout week in western, eastern and north-central portions. Increased shower activity over South Coast except small area from south-central to central interior where generally less than 0.50 inch total rainfall for week. Highest weekly total, 5.44 inches, in western Cordillera. Agricultural drought in south continued to decrease in intensity, but more rain needed to restore soil moisture storage. Some fields too wet in west. Temperatures averaged 80° to 81° on coast and 75° to 76° interior divisions with mean departure of about 2.0° below normal. Highest maximum 93°, lowest minimum 58°. Young sugar cane and ratoons developing well with fertilizing and cultivating active at most plantations. Coffee harvesting operations continued on schedule except few zones in west delayed by heavy showers. Pastures much improved islandwide especially south-central coast where more rain still needed. Minor crops report good development all zones with abundance of plantains and bananas but avocados about finished.

**SOUTH CAROLINA:** Temperatures averaged 5° above normal all sections. Rainfall averaged from 0.50 inch to over 1.00 inch except in southern division which had very little rain. Cotton 62% open bolls, 7% harvested. Last year 70% open bolls,

11% harvested. Corn 50% harvested compared with 42% last year. Soybeans fair, essentially all have set pods, 48% leaves turning, 26% leaves shedding, 9% mature compared to last year 18% mature. Peanuts 70% harvested, 58% last year. Apples 83% harvested, 81% last year. Pecans poor condition. Pastures fair condition. Winter grazing 31% planted. Fall hays 69% harvested, 79% percent last year. Fall vegetables fair condition. Harvest cucumbers Charleston -- Beaufort area.

**SOUTH DAKOTA:** Temperatures averaged from 2° below normal portions of west to 9° below normal in southeast. Extremes ranged from 19° at Oral on 26th to 88° at Philip and Oelrichs on 27th. A 22° reading at Rapid City Airport on 26th was a record low for so early in season. Precipitation light over most of State with weekly totals generally 0.10 inch or less although there were a few larger amounts in southeast and northwest. Yankton received 0.68 inch of rain on 26th. Drying weather prevailed. Frost also aided row crop maturity, but some late-planted crops were damaged. Harvesting of row crops begun with generally good yields expected. Corn 7% picked, normal 5%, last year 12%. Soybeans 8% harvested, normal 16%, a year earlier 25%. Sorghum 8% harvested, normal 18%, last year 32%. Winter rye fair, but needs rain. Winter wheat spotty due to dry weather and greenbugs. Some wheat fields being sprayed 2d time for greenbugs, with a few needing to be replanted. Wheat fields will be susceptible to blowing if winter wheat does not become established. Most pastures and ranges dry, but still contain a lot of feed, causing a fire hazard in some areas. Stockwater supplies becoming dry in southwest. Hay stacks being moved to winter feed areas. Livestock condition good. Livestock marketings consist of yearlings, spring lambs and some cows and calves.

**TENNESSEE:** Week began dry and warm, with scattered showers and continued warm through Friday. Sharp change to cooler accompanied by heavy general rains over State Friday night and Saturday. Rainfall generally 2.00 to as much as 6.00 inches, with heaviest in northeast. Weekly precipitation averages in east and Cumberland Plateau divisions heaviest since late July. With only 2.9 days suitable for fieldwork, fall harvesting delayed last week. Fifteen percent of corn and cotton acreage harvested, behind normal for both crops. Virtually all of the burley and dark-aircured tobacco harvested and dark-fired harvest 95% complete. Stripping of tobacco started some areas. Wheat 50% seeded. Oats and barley 60% seeded.

**TEXAS:** Except for heavy showers southwest Tuesday, weekly precipitation was confined to eastern half of State. Significant 24-hour totals included 4.80 inches at Brackettville and 4.98 at Sulphur Springs. A cool front brought sharply cooler nighttime temperatures and clear skies to entire State over weekend. Planting of small grains, harvesting of cotton, corn, sorghum, rice, peanuts made good progress early last week. Rain toward end of week halted outdoor activities southern and eastern areas. Much needed moisture received on Cross-Timbers, Blacklands and East Texas. Cool weather delayed maturity of cotton on High and Low Plains. Major crops percent harvested: cotton 27, last year 19; corn 71, 74 last year; sorghum 48, 46 last year; soybeans 1, 0 last year; peanuts 34, 26 last year; rice 100, 100 last year. Planting of major crops percent planted: wheat 64, last year 60; oats 43, 42 last year. On High Plains, lettuce harvest underway. Light

supplies of watermelons, cantaloupes, green peppers available. Cucumber and pepper picking continues. Carrot digging remains active. In Trans-Pecos, pepper harvest continues. Some lettuce planting continues. In East Texas, digging of sweetpotatoes slowed by rains. In Winter Garden-San Antonio area, cucumber picking is gaining momentum. Spinach planting continues. Tomatoes and peppers showing fair growth. Carrots and cabbage making good growth. In Coastal Bend, rains have hampered cucumber and squash harvest. At Laredo, tomatoes and peppers making good growth. In Lower Rio Grande Valley, planting of carrots, cabbage and lettuce continues. Some early onion seeding underway. Pecan harvest is running 3 weeks to 1 month earlier than normal. The 1972-73 citrus crop continues to make good growth and size well with recent rains.

**UTAH:** Scattered areas of light to moderate precipitation northern half of State latter part of week. Accumulated amounts of moisture generally less than 0.25 inch. Average temperatures ranged from near normal to as much as 10° below normal at a few locations along Wasatch Front. First killing frost of season some agricultural areas northwestern and west-central Utah, but damage minimal since most crops these areas harvested. Soil temperatures, at 4-inch depth, ranged from upper 50's Cache Valley, to low 60's Salt Lake City and Richfield and mid-70's St. George. Growth and harvesting progress of late crops good during week. Main activities: harvesting 3d crop alfalfa, corn silage, onions, potatoes, tomatoes, dry beans, and alfalfa seed. Fall plowing, winter wheat planting and moving livestock from summer ranges in progress. Winter wheat planting about 75% complete. Movement of cattle and sheep from summer ranges varies from starting to well along, probably nearing 1/2 mark.

**VIRGINIA:** Temperatures above normal becoming below normal over weekend. Scattered showers and thundershowers becoming widespread near end of week. Added soil moisture improved pastures and seeding conditions for fall-sown small grains. Harvest of most crops temporarily delayed. Corn for grain 22% harvested compared with 27% last year. Harvesting corn silage west of mountains, in north and Upper Piedmont. Flue-cured tobacco 97% pulled, other types 90% cut. Peanuts and soybeans maturing later than usual. A few peanuts dug. Wheat 25% sown, barley 25% and oats 14% harvested. Cabbage, sweet potatoes, cucumbers, snapbeans, and processing tomatoes. Apple picking progressed well until interrupted by rain.

**WASHINGTON:** Western Washington: Temperatures averaged 10° below normal. A rainy period ended Sunday followed by showers Tuesday. A freeze Wednesday killed or damaged foliage of more sensitive flowers and vegetables. Harvest of lettuce, carrots and cabbage continued active. Harvest of silage and sweet corn nearly completed. Shearing of Christmas trees underway. Soil preparation started for tulip bulb planting. Pastures and ranges showing some improvement and supplying adequate feed. Eastern Washington: cool and dry except for Saturday and Sunday. Minimum temperatures dropped to 20° in lower valleys Monday, Tuesday, Wednesday, and Friday. Temperatures averaged 10° to 12° below normal. Dry beans and grain corn taken from fields, while sugarbeets continued to be dug. Good quality potatoes moving into storage. Fourth cuttings haying underway. Dryland grain farmers awaiting additional moisture before completing wheat

seeding. Little or no apple damage occurred as harvest operation continued with good quality and color. Grape harvest proceeding. Fall calves reported moving to market in good numbers. Livestock in good shape.

WEST VIRGINIA: Light showers September 26 to 27, heavier cold frontal showers and thunderstorms September 26 to 30. Warm and humid most of week with highs in 80's, but much colder October 1 and 2 with light frost in some areas. Average 4 days suitable fieldwork. Soil moisture mostly adequate. Corn 35% mature, 56% dented and 9% dough. Main activities: harvesting hay, seeding winter grain, and picking apples. About 90% second cutting and 1/2 3d cutting hay completed. Potatoes about 80% harvested. Hay and pasture mostly good condition.

WISCONSIN: Cool and wet. Heavy rains Monday, Tuesday, and Thursday across much of State. Weekly totals of 4.00 inches over large area from La Crosse northeastward to Wausaw and beyond. Some overflow of Black, Trempealeau, Pine, and Kickapoo Rivers. The Wisconsin running bank full. Many fields have standing water. Some improvement late in week with clearing and good drying conditions. Frost most areas Saturday morning. Harvest conditions continue most difficult. Silo filling less than 1/3 completed, last year 3/4 done. Corn for grain mostly

safe, but has high moisture content. Some lodging and blight problems. Harvest 2d and 3d cuttings of hay continuing. Most remaining oats given up as a loss. Soybeans mostly good. Vegetable harvest continuing where possible. Large losses of potatoes, carrots, beets, lima beans, onions, and sweet corn due to heavy rains. Excellent apple and cranberry crops harvested. Pastures excellent, but being cut up by cows. Milk production continues ahead of last year in spite of fewer cows. Frost helped insect problem. Fall plowing less than 10% completed. Soil moisture 80% surplus and 20% adequate.

WYOMING: First significant seasonal snows occurred along northern portion and mountains. Temperatures averaged 3° to 13° below normal over most of State. Maxima were mostly 55° to 70° west of Divide, upper 60's to mid-80's east. Minima mostly 10° to 30° west of Divide, 15° to 30° east. Temperature extremes 90° at Torrington and 7° at Farson. Agricultural activities included harvesting corn silage, beets, potatoes, combining dry beans, working and shipping livestock. About 90% corn silage is cut. Corn for grain is 90% denting. Dry beans 90% combined. Potatoes 90% harvested with sugar beet harvest just beginning. Hay supplies adequate with quality of all alfalfa and wild hay offered for sale fair to good. Soil moisture supplies generally adequate with local areas reporting drier conditions.

## WORLD WEATHER AND AGRICULTURE

ABOVE NORMAL RAINFALL AFFECTS  
CHILE'S WHEAT PLANTING

Rainfall so far this year has been well above normal. Above normal rainfall is usually very beneficial in Chile. However the heavy rains this year have created some problems. Heavy rains in early May made planting of winter wheat and rapeseed difficult. Winter truck crops were also adversely affected by heavy rains and cold weather.

Wheat is Chile's most important crop and winter wheat normally accounts for about 65-70 percent of total wheat production. The remainder is lower yielding "intermedio" wheat and spring wheat. The lower yielding wheats are normally planted after August 1. Because of the wet weather and other factors, it is estimated that only 50-60 percent of the usual winter wheat area was sown, and some that area was damaged by flooding and heavy rains.

The yield of winter wheat per hectare in Chile has averaged 1.9 metric tons while "intermedio" wheat averaged 1.6 tons and spring wheat only 1.2 tons. The Chilean government has launched a major drive to increase spring wheat planting. However, spring wheat has always been a high risk crop because of variable rainfall during the late spring and summer months (November-March). Therefore weather conditions will play an important role in determining spring wheat yields. Favorable weather conditions are needed to make up at least part of the deficit in production created by the cut in winter wheat plantings.

## 1972 ROMANIAN AGRICULTURAL PROSPECTS

Near optimum conditions for agricultural production in Romania since late spring of this year hold promise of good yields this year. This reverses some earlier pessimistic reports based on overestimates of winter grain kill and on the uncertainties created by dry winter and early spring conditions.

The wheat harvest was nearly completed by late July. Because of frequent rains during the drying period, however, the moisture content in many fields held close to 15 percent or more at harvest. Corn ripened fast, with harvest starting in mid-August. Additional corn plantings were made after wheat harvests and other crops. Some double cropping using vegetables following wheat is being used. Vegetable production in general is exceeding expectations.

## ITALIAN FILBERT ESTIMATE RAISED

Italy reports 1972 filbert crop prospects have improved, but production will still fall below the large 1970 and 1971 crops. Filbert production is estimated at 88,000 short tons (in-shell basis), 20 percent below 1971, but well above the 1965-69 average. Unfavorable spring weather reportedly caused some damage and production is down in Sicily and Campania. Crops in Central and Northern Italy are reported good.

Foreign Agriculture  
September 11, 1972

POLISH AND CZECH GRAIN HARVEST  
REDUCED BY DELAYS, WET WEATHER

The combination of wet weather and man-caused delays has resulted in reduced yields in Poland and Czechoslovakia. Heavy rains in many areas have made harvest difficult.

This year's Polish harvest was expected to be a record one. It may still be a bumper crop, but yields will be far below expectations. The situation was most serious in the western and northern portions of the country. Early rains in the Poznan and Bydgoszcz regions (west-central and north-central) had flattened the grain, making harvest even more difficult.

Abnormally hot weather in Czechoslovakia in July resulted in the grain maturing earlier than usual. However the start of harvest was delayed and by late July heavy rains caused major difficulties in harvest.

## ERRATIC MONSOON SEASON AFFECTS INDIAN CROPS

Erratic rainfall patterns during the monsoon season over much of India has caused considerable concern and crop damage in many areas. After a late and slow start in the third week of June, monsoon activity gathered momentum around July 1 and covered practically the entire country by the 9th of July. Widespread rains occurred during the first two weeks of July over most of the country, with unusually heavy rains in the northern States of Punjab, Haryana and Himachal Pradesh.

The widespread rains in July made up for much of the earlier rainfall deficiency. Rainfall from June 1 (the normal start of the monsoon season) thru July 12 was normal to above normal over the country except for Assam and surrounding areas.

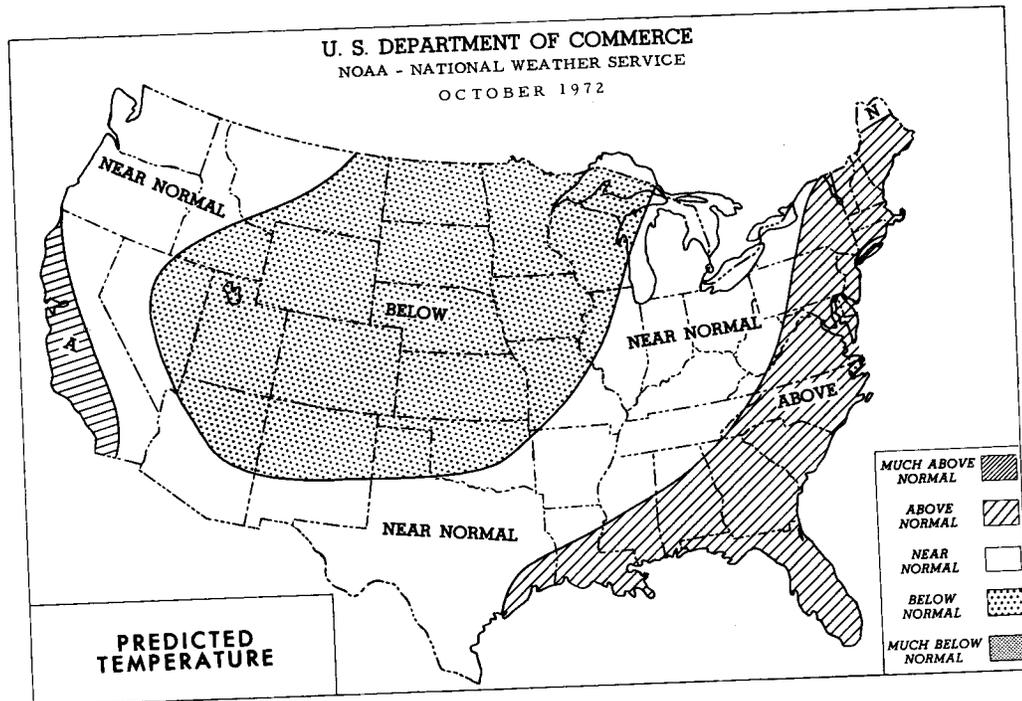
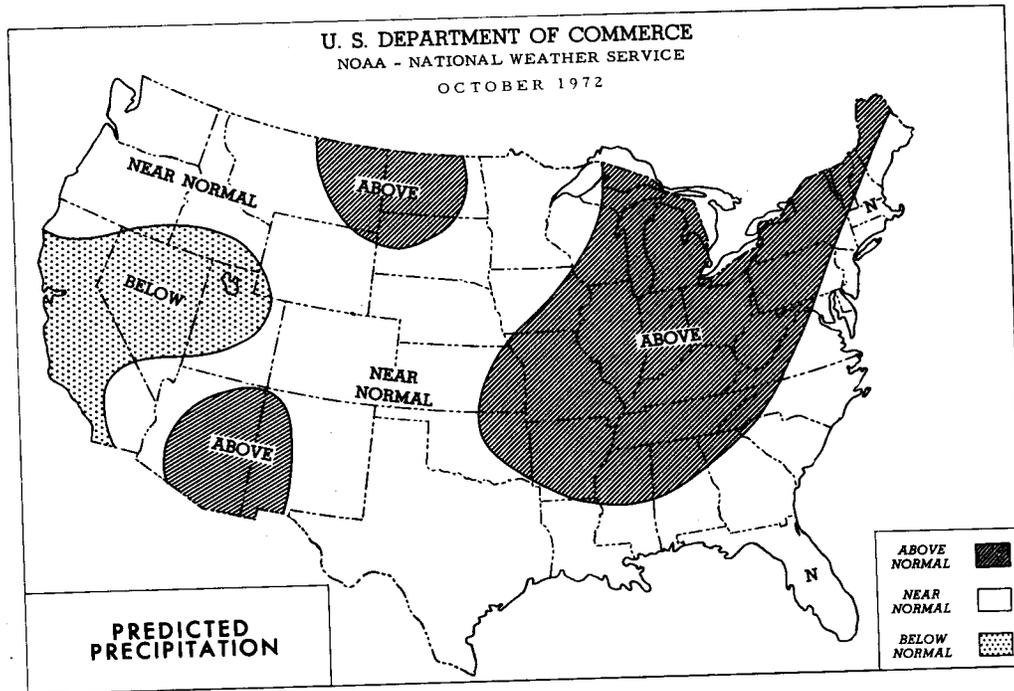
This rainy period was followed by two to three weeks of generally dry weather. The sudden break in the monsoon season caused some concern over the possibility of a not-so-good monsoon season and the effects it would have on the summer grown crops.

Fortunately the rains resumed again in August over much of northern and central India. The rains did help overcome some of the damage to kharif by the erratic June-July rainfall. They were insufficient for affecting any substantial improvement in the crop outlook in Gujarat, Maharashtra, Andhra Pradesh and Mysore. Gujarat is an important peanut producing area.

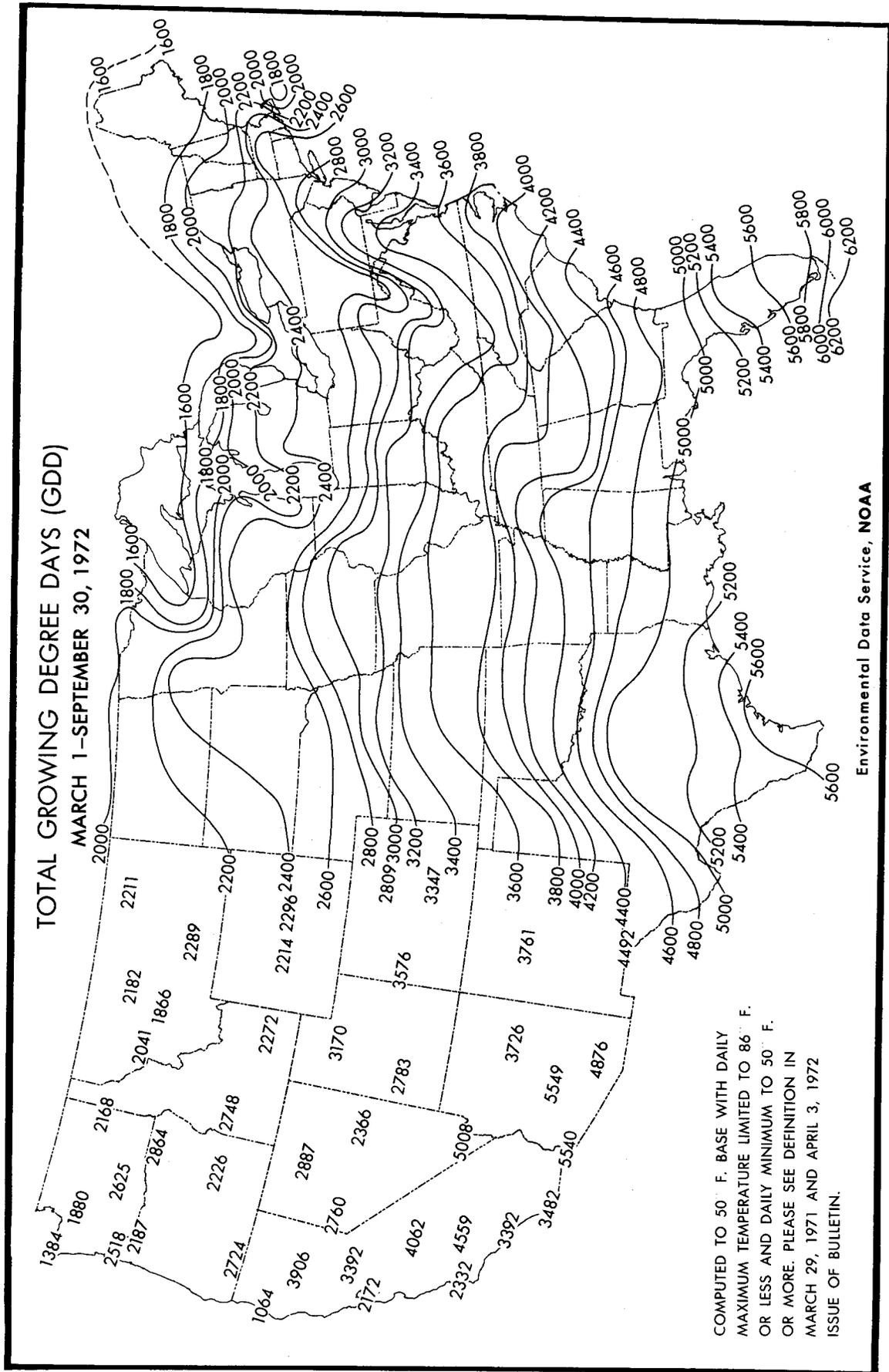
Fifty-five percent of the total kharif cereal producing area has now received normal to above normal rainfall. However, yields are not expected to be normal because of previous damage from the erratic rainfall. Prospects for late-planted kharif crops and increased sowing of rabi crops during October and November have improved with the more recent rains.

(continued on page 16)

### AVERAGE MONTHLY WEATHER OUTLOOK

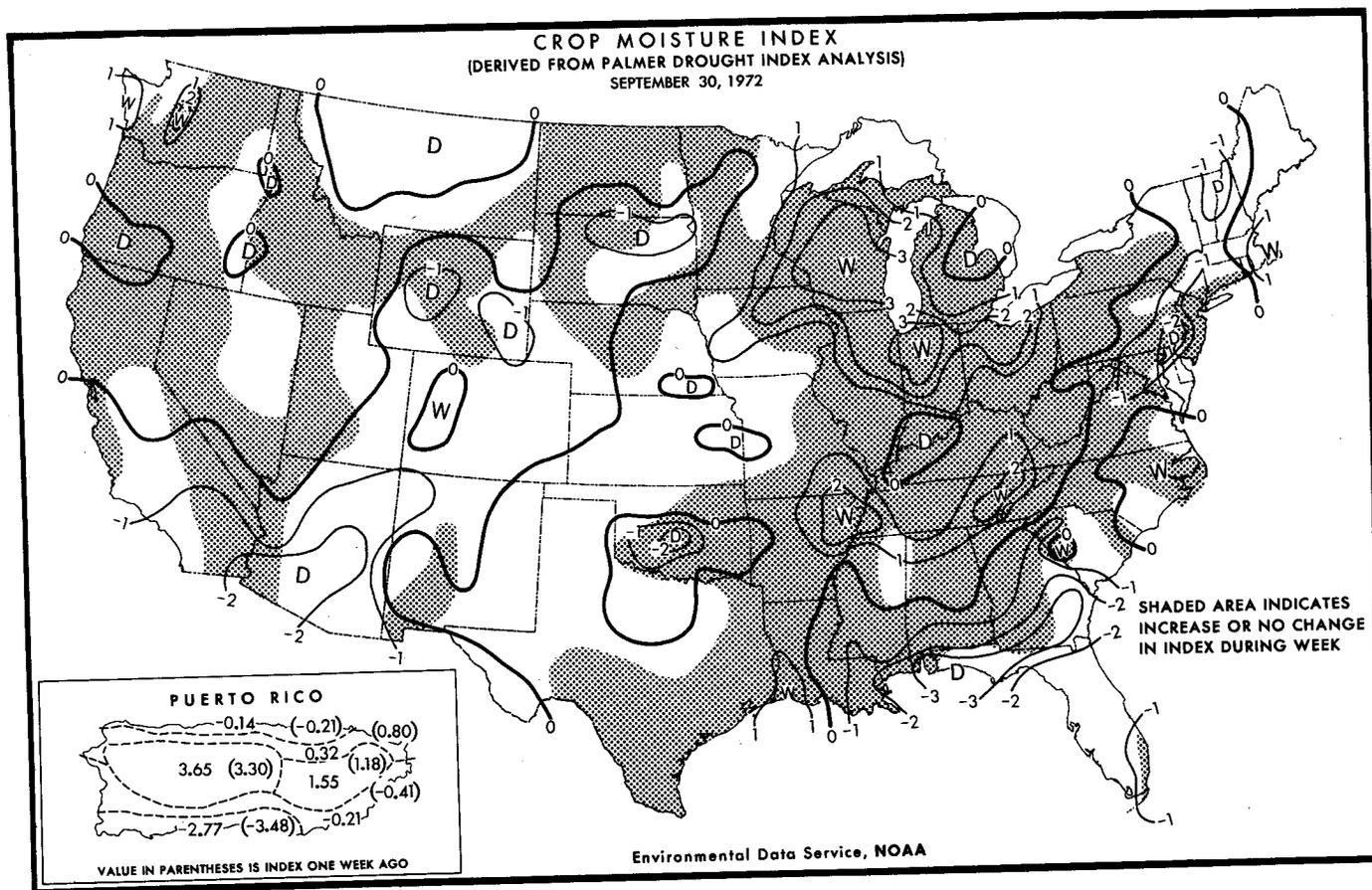


The above prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They were extracted from the Extended Forecast Division's publication "Average Monthly Weather Outlook" which contains additional information necessary for complete interpretation.



COMPUTED TO 50 F. BASE WITH DAILY  
 MAXIMUM TEMPERATURE LIMITED TO 86 F.  
 OR LESS AND DAILY MINIMUM TO 50 F.  
 OR MORE. PLEASE SEE DEFINITION IN  
 MARCH 29, 1971 AND APRIL 3, 1972  
 ISSUE OF BULLETIN.

Environmental Data Service, NOAA



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.



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(continued from page 12)

## SENEGAL PEANUT CROP THREATENED BY RAIN SHORTAGE

Below-normal rainfall through July has reduced earlier expectations of a record peanut harvest in Senegal in 1972-73. Normal light rains in June arrived before fields were prepared for sowing and were largely wasted. July rainfall was 50 to 80 percent less than the 30-year average, according to the Government of Senegal Meteorological Service.

Principal growing areas have received rain in August, but its lateness is expected to limit the size of the crop. No reliable forecast is as yet possible. However, it now appears doubtful that production will exceed last year's output of 960,000 metric tons (in-shell basis).

Foreign Agriculture  
September 18, 1972

## BOLIVIA'S 1972 COTTON BOOM FADES

Bolivia's 1972 cotton production was 71,000 bales on an area of 116,000 acres. This is 33 percent above the 1971 record of 53,000 bales, but a disappointment to farmers, who had expected a harvest of 138,000 bales. Farmers had planted only 44,000 acres in 1971.

Very adverse weather reduced yields to an average of 294 pounds per acre (compared with 421 lb. in the 1960's). Very dry weather postponed the planting season from October 20 to December 1. Heavy rainfall in April prevented maturing and fungus diseases caused rotting of the bolls.

Foreign Agriculture  
September 25, 1972

## CROP AND MOISTURE CONDITIONS HIGHLY VARIABLE IN SOUTHWESTERN USSR

Soil moisture and crop conditions range from good to excellent in Moldavia and the western Ukraine to poor at North Caucasus and the eastern Ukraine. North Caucasus and the eastern Ukraine are parched. Hot, dry winds caused wilting of some trees. Moisture conditions improve over the central Ukraine. Soil moisture is good to excellent over the western Ukraine and Moldavia except in western Kiev where light, sandy soils cause persistent problems.

Crop conditions follow pattern of soil moisture. Corn in the eastern Ukraine had turned brown by early September. Corn was in the milk-stage in the western Ukraine. Fall sowing of grains began in early September. Uneven, patchy and thin stands are commonplace because of moisture shortage. Only area generally in good shape is in Moldavia.

## USSR SUGARBEET CROP AFFECTED BY HOT WEATHER

Unusual, extreme heat this summer has caused serious difficulties for some sugarbeet growers in the USSR. According to a Soviet news article, several sugarbeet areas in the country will not be able to fulfill their quotas for marketing sugarbeets for factory use.

Prospects in the Ukraine, the major sugarbeet growing region, however, reportedly were hopeful, even though some eastern areas of the Republic were not expected to meet production plans. Sugarbeets in the more important western part of the Ukraine were said to be in good condition.

Foreign Agriculture  
September 25, 1972

R. E. Felch