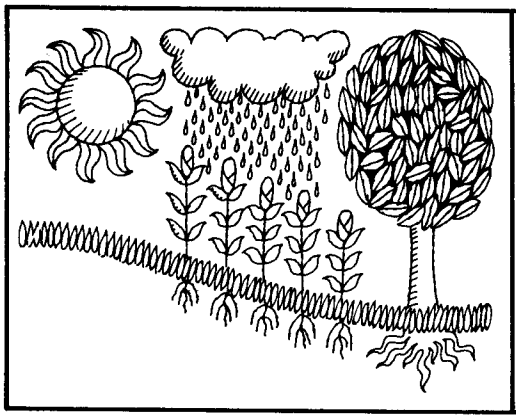
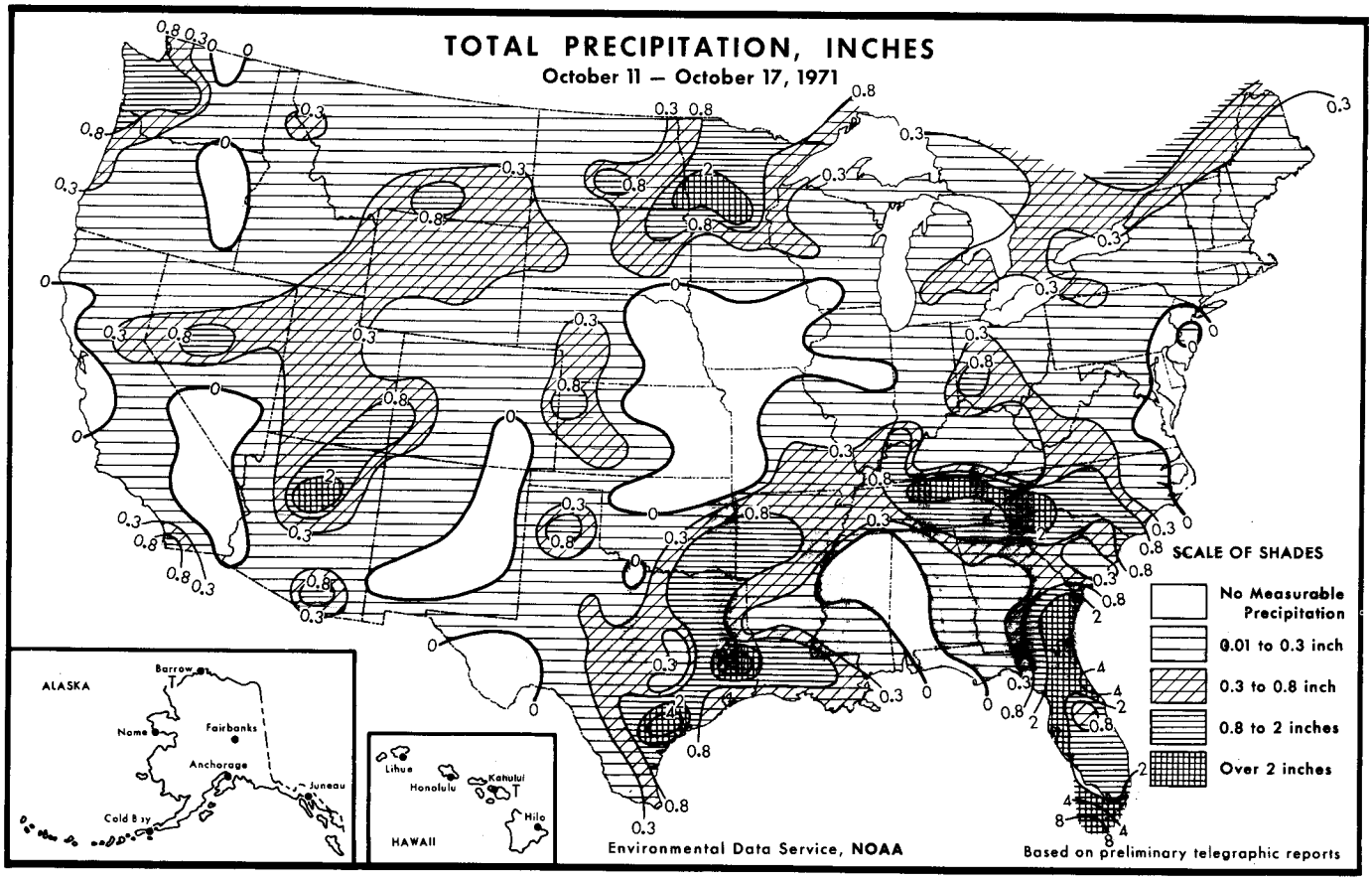


Weekly Weather & Crop Bulletin

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

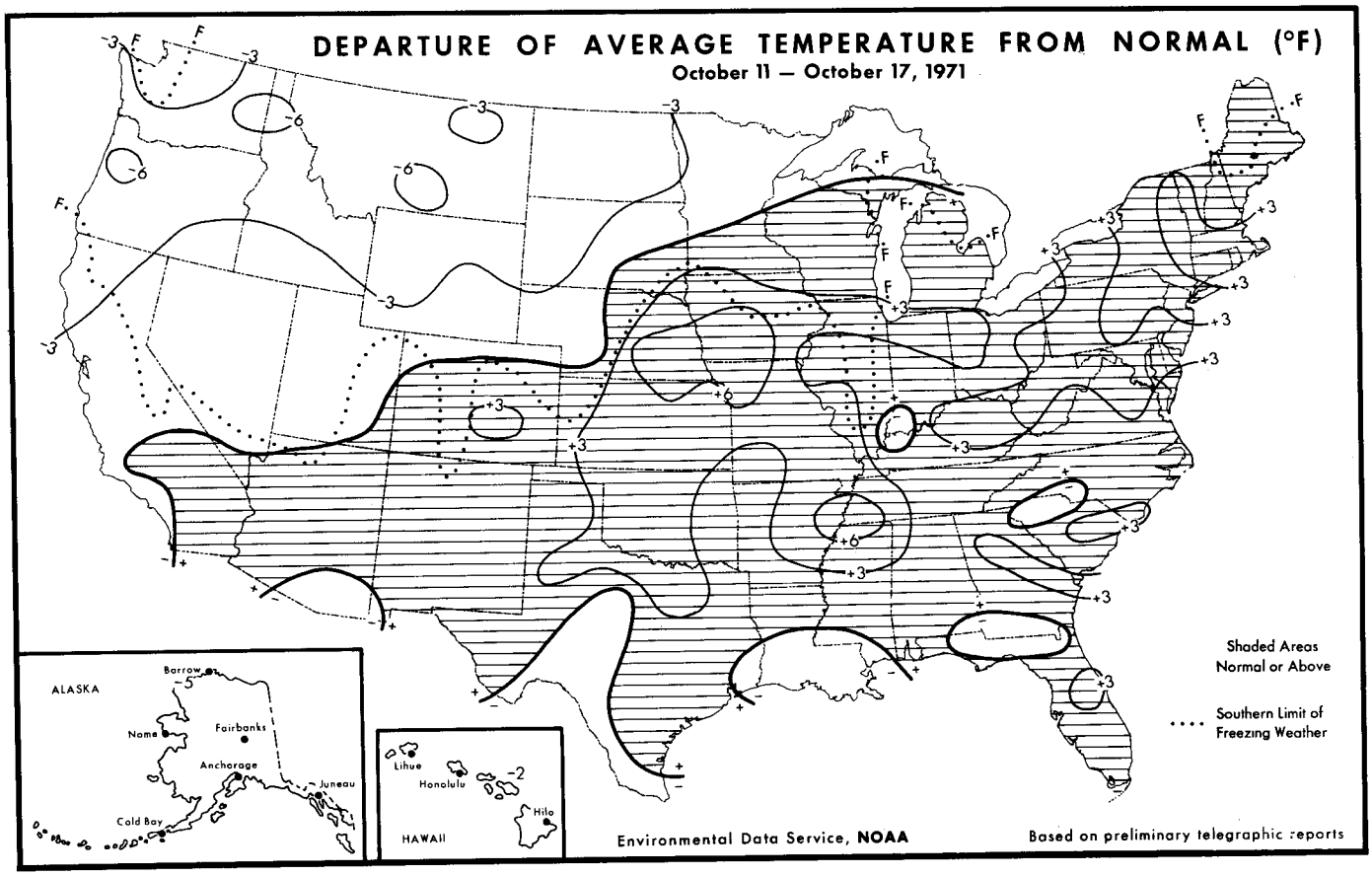
U. S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service

Volume 58, No. 42 Edited by Lucius W. Dye October 18, 1971 Washington, D. C.



HIGHLIGHTS: Typical autumn weather prevailed over most of the Nation. Heavy snow fell in parts of the West. Torrential rains fell in the Florida Keys.

PRECIPITATION: Bright sunny skies predominated over most of the Nation early in the week. The main exception was the cloud-covered Northeast. High pressure systems limited the precipitation to a few showers in opposite corners of the Nation, the Far Northwest, an area from eastern Michigan to western New York, the Southwest from southeastern Arizona to western Texas, and southern Florida. Dry weather and sunny skies prevailed most other areas. A low pressure area southwest of the Florida coast drenched southern Florida and the Keys. Over 8.50 inches of rain fell at International Airport, Key West, in the 48-hour period ending Wednesday morning. Light showers dampened the Pacific Northwest. Snow fell in the higher Rocky Mountains. On Thursday, showers were scattered from Michigan to the Ohio River. As the weekend approached, snow was falling in western Montana. The storms, centered over the Great Basin, dumped 18 inches of wet snow at Austin, Nev., Saturday and 11 inches fell at Flagstaff, Ariz., Saturday and Sunday. This was the heaviest October snowstorm in more than half a century at Flagstaff. In 1920, an October storm dumped 19 inches of snow at Flagstaff. The heavy snow and the accompanying winds slowed automobile travel in parts of the Great Basin, the Rocky Mountains, and the western Great Plains. Thunderstorms occurred in southern California and severe thunderstorms and tornadoes caused minor damage in northeastern Colorado and western Nebraska. A few persons were injured by a tornado at Wray, Colo.



TEMPERATURE: Clear, crisp, autumn weather prevailed over most of the Nation last week. The main exception was the West. Portions of Montana warmed to the 70's Wednesday afternoon and sunny southern California warmed to the upper 90's. Imperial, Calif., registered 102° Tuesday afternoon. Several surges of cool air pushed southward over the central and eastern portions of the Nation. McComb, Miss., registered 39° Monday morning and on Tuesday, Tallahassee, Fla., recorded 42°. Subfreezing weather occurred on most mornings in the high Rocky Mountains and over the nearby Great Plains on 1 or 2 mornings. Wednesday the temperature at Sydney, Nebr., plunged to a cool 23°. By midweek, the heat wave ended in northern and central California. Brisk southerly winds warmed the central Great Plains. The temperature at Des Moines, Iowa., climbed to 86° Thursday afternoon, 23° warmer than the previous day. The weekend brought cold wintry weather to the northern Great Plains. Temperatures at some stations in Montana did not rise above 32° Friday nor Saturday. The Great Basin was especially cold Sunday morning when the temperature at Austin, Nev., plunged to 15°.

Temperatures averaged below normal from Washington to central California and northeastward to northern Minnesota and above normal from southern California to Wisconsin and southward and eastward to Mexico, the Gulf of Mexico, and the Atlantic Ocean.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Corn Belt farmers made good harvest headway as clear weather prevailed. * Rains plagued farming activities in Texas. * Cotton gins started operating around the clock.

SMALL GRAINS: Weekend moisture from western Kansas and Colorado to the Canadian Border gave a big boost to fall sown grains. An increase in topsoil moisture reduced the threat of possible wind damage. Wheat prospects are good in most States, but eastern Nebraska has spotty emergence and uneven stands. Dry soils are also limiting growth in northern Montana. Kansas and Oklahoma growers seeded their last large acreages during the week, and 95 percent of the crop is now in. This is slightly ahead of schedule. Army worms and grasshoppers are damaging fields in certain areas. Wheat and oats planting resumed in northern Texas on the weekend, but planting machinery remained idle in the southern half of Texas all week. Some late seeding of grains continued in Oregon and Idaho; emerged fields are off to a good start in both States.

Seeding of grains progressed well east of the Mississippi River, but most farmers gave top priority to harvesting corn, cotton, and soybeans. Wheat seeding completion ranged from 88 percent in Illinois to just 10 percent in South Carolina. Seeded acreage needs rain in Arkansas, but wet conditions have slowed New Jersey seeding.

CORN: Fine Indian summer weather allowed Corn Belt farmers to make excellent progress in harvesting this year's large corn crop. For the second straight week, very little rain enabled farmers to work long hours in the field. The moisture content of corn continues to decline and thus opens up more fields to harvest. A light frost over the northern section of the Corn Belt aided the drying process. Harvest continues well ahead of normal. It is slightly behind last fall in the eastern Corn Belt, but is equaling last season's fast pace in the western half. Growers in Missouri, South Dakota and Kansas have over half their crop harvested, while Illinois and Iowa growers are reaching the halfway mark. The large crop is filling elevators and farm storage facilities rapidly in Illinois. The high moisture content of grain continues to slow harvesting in Wisconsin. Weekend showers gave farmers a break in the harvesting routine from Kansas to North Dakota.

Corn harvesting also made good progress through the South as the weather was ideal. Picking in Kentucky is slow as the moisture content remains high. Corn harvesting is also taking a back seat to cotton in many areas as growers are picking cotton first. Overall, harvest lags well behind last fall.

SOYBEANS: Combines moved rapidly through soybean fields during the week. Warm, dry weather allowed soybean farmers to get a large portion of their crop under cover. Harvest is a good week ahead of last year in most Corn Belt States. Another week of nice weather will see all but a few fields cut in Illinois and Iowa, the 2 leading soybean producing States. Combining of the good to excellent Illinois crop is 90 percent complete. Harvest is a little slower in Iowa, but 80 percent is out of the fields. Harvest made fair headway in the South, but the high moisture content of beans is staggering combining activity. Combining progress is behind last year's pace throughout the South. Most States have cut less than 1/4 of their acreage.

COTTON: Picking of the Texas crop resumed by the weekend. Wet fields kept machinery out of the fields early in the week. Less than 1/4 of the crop has been ginned. Harvesting is full scale in California's Imperial Valley, and pickers are moving into fields in the San Joaquin Valley. Picking is off to a slow start in Arizona, and only 13 percent of the crop is ginned. Picking in the Deep South made good progress until interrupted by weekend showers. The amount of cotton picked is well behind last season. Many gins started operating around the clock in an effort to catch up.

OTHER CROPS: Rains plagued sorghum harvesting in Texas, but under clear skies, combines began moving again by the weekend. Acreage cut is behind last year in both Texas and Oklahoma. Combining in Kansas, Nebraska, South Dakota, and Missouri is well ahead of last fall. Good weather aided Idaho potato digging and 75 percent of the crop is out of the field. Maine growers are winding up harvest with an excellent quality crop going into storage. Digging is stalled in Utah until fields dry. Sugar beet growers are busy lifting their 1971 crop. Field conditions have been favorable for digging the last two weeks. Dry bean growers are putting the finishing touches on this season's crop in Colorado and Nebraska. Muddy fields plagued peanut digging in Virginia -- field losses are also runing heavy. Threshing is also running behind in North Carolina.

Fruits and Nuts: Apple harvest is advancing rapidly from Washington to the New England States. Picking of McIntosh and other varieties is well along. Fall weather is favorable for coloring. Grape picking is active in California and New York, but is drawing to a close in Michigan. Pecans are falling rapidly in Louisiana, but are just starting to fall in Alabama. Picking started in Texas. The Oregon filbert harvest continued. Picking of oranges and grapefruit increased slightly in Florida and Texas.

Vegetables: Fall harvesting advanced at a steady rate in New Jersey and New York. A lot of New York cabbage was moving into storage or to sauerkraut plants. Cauliflower and cabbage growers were busy cutting their crop in Michigan and Oregon. Lettuce supplies are declining from the Salinas Valley, but volume should increase shortly from Arizona. Supplies are still limited from Florida. Heavy rains in the Lower Valley of Texas continue to halt planting. Very little acreage has been planted since early September. Rains have also been excessive in some Florida vegetable areas.

PASTURES AND LIVESTOCK: Pastures remain good, but are starting to show signs of their fall decline. Frost stunted the growth of grass in Northern States. An increasing number of herdsmen had to start supplemental feeding to maintain an adequate herd diet. Many herds are foraging in stubble fields and others will soon be turned out to graze in fall sown grain fields. The fall movement of cattle to market is heavy in most areas of the Nation. Many ranchers started moving hay stacks to winter feeding areas

Steve J. Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., October 17, 1971

States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure*	Total	Departure*
ALA.Birmingham. . .	67	0	T	- .7
Mobile.	71	0	T	- .7
Montgomery. . . .	69	+ 1	T	- .5
ALASKA.Anchorage. .	--	---	---	----
Barrow.	14	- 5	T	- .1
Fairbanks	--	---	---	----
Juneau.	--	---	---	----
Nome.	--	---	---	----
ARIZ.Flagstaff. . .	50	+ 2	2.4	+2.0
Phoenix	74	+ 2	.2	+ .1
Tucson.	69	- 2	1.0	- .9
Winslow	60	+ 1	.9	+ .7
Yuma.	75	0	T	- .1
ARK.Fort Smith. . .	66	+ 1	1.0	+ .2
Little Rock . . .	69	+ 5	1.6	+ .9
CALIF.Bakersfield .	69	+ 1	.1	0
Eureka.	51	- 4	T	- .7
Fresno.	64	- 2	T	- .1
Los Angeles . . .	67	- 1	0	- .1
Red Bluff	64	- 3	T	- .3
San Diego	66	0	1.4	+1.3
San Francisco . .	59	- 2	T	- .2
Stockton.	64	- 1	.3	+ .2
COLO.Denver	54	+ 1	.2	0
Grand Junction. .	59	+ 3	.8	+ .6
Pueblo.	59	+ 3	T	- .2
CONN.Bridgeport . .	60	+ 3	.1	- .7
Hartford.	58	+ 4	.3	- .4
D.C.Washington. . .	63	+ 3	T	- .7
FLA.Apalachicola. .	74	+ 2	T	- .5
Ft. Myers	79	+ 2	2.1	+1.1
Jacksonville. . .	72	0	3.8	+2.6
Key West.	81	+ 1	8.5	+7.1
Lakeland.	77	+ 2	.2	- .4
Miami	80	+ 1	2.1	- .2
Orlando	79	+ 4	.6	- .4
Tallahassee . . .	70	- 1	T	- .5
Tampa	78	+ 3	2.2	+1.5
GA.Atlanta.	67	+ 4	T	- .5
Augusta	68	+ 2	.4	0
Macon	70	+ 3	.1	- .3
Savannah.	71	+ 3	3.3	+2.7
HAWAII.Hilo	--	---	---	----
Honolulu.	--	---	---	----
Kahului	76	- 2	T	- .1
Lihue	--	---	---	----
IDAHO.Boise	50	- 3	.1	- .1
Lewiston.	48	- 5	.2	- .1
Pocatello	46	- 4	.6	+ .4
ILL.Cairo	67	+ 4	.4	- .2
Chicago	60	+ 3	T	- .6
Moline.	59	+ 3	.5	0
Peoria.	57	0	T	- .5
Rockford.	57	+ 3	.2	- .4
Springfield . . .	61	+ 3	T	- .6
IND.Evansville. . .	60	- 1	1.3	+ .8
Fort Wayne. . . .	57	+ 3	T	- .7
Indianapolis. . .	59	+ 2	.1	- .5
South Bend. . . .	58	+ 3	.1	- .6
IOWA.Burlington . .	59	+ 2	0	- .6
Des Moines. . . .	64	+ 8	0	- .5
Dubuque	55	+ 3	T	- .6
Sioux City. . . .	61	+ 5	T	- .3
KANS.Concordia. . .	65	+ 6	T	- .4
Dodge City. . . .	65	+ 5	.4	+ .1
Goodland.	56	+ 1	1.0	+ .8
Topeka.	65	+ 5	T	- .6
Wichita	65	+ 4	T	- .5
KY.Lexington. . . .	63	+ 4	.1	- .4
Louisville. . . .	63	+ 4	.2	- .2
LA.Baton Rouge. . .	69	- 1	1.3	+ .3
Lake Charles. . .	73	+ 1	1.1	+ .4
New Orleans . . .	69	- 2	.6	0
Shreveport. . . .	70	+ 1	.2	- .4
MAINE.Caribou . . .	46	+ 1	.7	- .1
Portland.	52	+ 2	T	- .7
MD.Baltimore. . . .	62	+ 4	0	- .7
MASS.Boston	60	+ 4	.1	- .6
Nantucket	57	---	T	----
MICH.Alpena	49	+ 2	.1	- .4
Detroit	55	0	T	- .6
Flint	54	+ 3	.4	- .2
Grand Rapids. . .	53	+ 1	.5	- .1
Houghton Lake . .	49	+ 1	.1	- .6
Lansing	53	0	.3	- .3
Marquette	50	0	.1	- .4
Muskegon.	53	0	.2	- .4
S.Ste.Marie . . .	46	- 2	.1	- .5
MINN.Duluth	45	- 1	.6	+ .1
Internatl Falls .	42	- 2	1.5	+1.1
Minneapolis . . .	51	+ 1	.4	+ .1
Rochester	52	+ 1	.1	- .3
St. Cloud	48	- 1	2.6	+2.2
MISS.Jackson. . . .	68	0	.1	- .3
Meridian.	69	+ 2	T	- .4
MO.Columbia	63	+ 3	.1	- .6
Kansas City . . .	68	+ 6	T	- .6
St. Louis	62	+ 3	T	- .7
Springfield . . .	63	+ 2	T	- .9
MONT.Billings . . .	45	- 6	.9	+ .6
Glasgow	45	- 2	.1	0
Great Falls . . .	44	- 4	.2	+ .1
Havre	43	- 5	.3	+ .1
Helena.	42	- 5	.1	- .1
Kalispell	40	- 5	.1	- .2
Miles City. . . .	46	- 5	.4	+ .2
Missoula.	44	- 1	.1	- .1
NEBR.Grand Island .	62	+ 7	T	- .2
Lincoln	64	+ 6	T	- .3
Norfolk	59	+ 4	T	- .2
North Platte. . .	52	- 1	.3	+ .1
Omaha	62	+ 6	0	- .4
Valentine	51	0	T	- .2
NEV.Ely	45	- 2	.1	- .1
Las Vegas	68	0	.1	- .1
Reno.	49	- 1	.4	+ .3
Winnemucca. . . .	47	- 2	.2	0
N.H.Concord	52	+ 2	T	- .6
N.J.Atlantic City .	62	+ 4	T	- .7
Trenton	61	+ 3	.1	- .5
N.MEX.Albuquerque .	60	+ 1	.2	0
Roswell	65	+ 4	T	- .2
N.Y.Albany.	55	+ 3	T	- .6
Binghamton. . . .	53	+ 2	.1	- .6
Buffalo	57	+ 5	T	- .7
New York.	62	+ 2	0	- .8
Rochester	57	+ 4	T	- .5
Syracuse.	55	+ 2	.1	- .6
N.C.Asheville . . .	60	+ 1	2.2	+1.6
Charlotte	63	- 1	1.8	+1.1
Greensboro. . . .	62	+ 1	1.2	+ .6
Hatteras.	67	+ 1	0	-1.0
Raleigh	63	+ 2	.1	- .5
Wilmington. . . .	69	+ 3	.3	- .4
N.DAK.Bismarck. . .	44	- 4	1.0	+ .8
Fargo	45	- 3	2.1	+1.8
Williston	43	- 5	.1	- .1
OHIO.Akron-Canton .	57	+ 3	T	- .5
Cincinnati. . . .	62	+ 3	.5	0
Cleveland	58	+ 4	.1	- .4
Columbus.	57	+ 2	.4	0
Dayton.	60	+ 3	.9	+ .4
Toledo.	56	+ 3	.1	- .5
Youngstown. . . .	56	+ 3	T	- .6
OKLA.Okla. City . .	67	+ 3	T	- .6
Tulsa	67	+ 3	T	- .8
OREG.Astoria. . . .	51	- 3	1.4	- .2
Burns	45	- 5	T	- .2
Medford	51	- 3	.1	- .3
Pendleton	50	- 5	T	- .3
Portland.	51	- 4	.3	- .5
Salem	49	- 6	.1	- .6
PA.Allentown. . . .	58	+ 3	0	- .7
Erie	55	+ 1	.2	- .5
Harrisburg. . . .	58	+ 1	0	- .7
Philadelphia. . .	62	+ 5	T	- .6
Pittsburgh. . . .	57	+ 3	.1	- .5
Scranton.	54	+ 2	.1	- .7
R.I.Providence. . .	59	+ 5	T	- .7
S.C.Charleston. . .	69	+ 2	T	- .6
Columbia.	69	+ 3	T	- .5
Greenville. . . .	63	- 1	2.9	+2.1
S.DAK.Aberdeen. . .	48	- 2	1.0	+ .7
Huron	50	0	.7	+ .4
Rapid City. . . .	46	- 5	.8	+ .6
Sioux Falls . . .	55	+ 3	T	- .3
TENN.Chattanooga. .	65	+ 2	.7	0
Knoxville	63	+ 1	.8	+ .2
Memphis	70	+ 6	T	- .6
Nashville	65	+ 2	.1	- .4
TEX.Abilene	66	- 2	T	- .7
Amarillo.	63	+ 1	1.5	+1.1
Austin.	73	+ 1	.1	- .5
Beaumont.	71	- 1	.6	0
Brownsville . . .	76	- 1	.4	- .4
Corpus Christi. .	76	+ 1	.9	+ .3
Dallas	73	+ 4	.8	+ .2
Del Rio	70	- 2	.2	- .3
El Paso	68	+ 2	.1	- .1
Fort Worth. . . .	73	+ 4	.8	+ .2
Galveston	75	+ 1	.7	+ .1
Houston	71	0	.5	- .3
Lubbock	67	+ 4	.3	- .2
Midland	67	0	T	- .4
San Angelo. . . .	70	0	T	- .4
San Antonio . . .	74	+ 2	1.3	+ .8
Victoria.	74	0	5.2	+4.4
Waco.	73	+ 2	.1	- .5
Wichita Falls . .	72	+ 4	0	- .7
UTAH.Blanding . . .	53	0	1.2	+ .9
Salt Lake City. .	53	0	.7	+ .5
VT.Burlington . . .	53	+ 4	T	- .7
VA.Lynchburg. . . .	61	+ 2	.2	- .4
Norfolk	64	+ 1	T	- .6
Richmond.	63	+ 4	T	- .7
Roanoke	61	+ 2	.7	0
WASH.Colville . . .	43	- 5	T	- .4
Omak.	47	- 2	0	- .2
Quillayute. . . .	49	- 3	1.5	- .9
Seattle-Tacoma. .	51	- 2	.8	- .1
Spokane	43	- 7	T	- .3
Walla Walla . . .	51	- 5	T	- .4
Yakima.	47	- 5	T	- .1
W.VA.Beckley. . . .	57	+ 2	.3	- .3
Charleston. . . .	62	+ 4	.4	- .2
Huntington. . . .	63	+ 5	.1	- .5
Parkersburg . . .	61	+ 3	.3	- .2
WIS.Green Bay . . .	51	0	T	- .4
La Crosse	53	0	0	- .5
Madison	53	+ 2	T	- .5
Milwaukee	51	0	T	- .5
WYO.Casper.	47	- 2	.4	+ .2
Cheyenne.	48	- 1	.2	0
Lander.	45	- 4	.5	+ .2
Sheridan.	45	- 4	.5	+ .2
P.R. San Juan . . .	81	+ 1	2.1	+ .9

* 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: Fair and cool early in week, then partly cloudy with increasing temperatures and unseasonably warm Wednesday through Saturday. Mostly cloudy Sunday with light rain in south and central. Temperatures for week averaged about 5° above normal. Little or no rain most sections with a few moderate showers on Sunday. Harvest made good progress as weather ideal most of week. Cotton harvest full swing. Many gins operating around the clock northern counties. About 27% harvested, 50% year ago. Corn harvest active south and central, but taking 2d priority to cotton north. About 33% crop harvested--55% year earlier. Soybean harvest slow, moisture content still too high many fields. About 42% matured, but only 9% combined. Strike at Port of Mobile creating serious storage problem as harvest reached peak. Peanut harvest virtually complete. Pecans maturing rapidly and few nuts beginning to fall. Hay harvest near completion. Feed available from pastures adequate to surplus most counties, but short few counties south and central.

ARIZONA: Temperatures above normal most of week falling to much below normal on weekend as unseasonably cold air moved into State. Precipitation accompanied the change of air mass and storm totals ranged up to more than 4.00 inches of water in White Mountains with snow at elevations above 5,500 feet. Cotton harvest underway, 13% crop ginned. Bolls maturing, opening normally, except where affected by pink bollworms or boll rot. Harvest sorghum continues active Yuma, still limited central area. Southeast continues slow, steady progress. Few fields reaching maturity. Spring-planted sugar beet harvest continues active Willcox. Alfalfa hay harvest continues limited basis. Preparation and seeding active. Emergence early plantings satisfactory. Fall lettuce making good progress Salt River Valley, Pima and Pinal County areas. Harvest to start soon. Lettuce, chili harvest Cochise County. Planting, thinning, and cultivation winter lettuce Yuma. Cantaloupe and honeydew harvest full swing. Limited lemon harvesting continued Yuma, Salt River Valley. Recent rains and cooler temperatures Salt River Valley aided fruit growth. Ranges remained fair to good. Additional precipitation may help lower elevation feed growth, higher elevation stockwater.

ARKANSAS: Weekly means in range of 1° to 10° above normal. Warm weather through midweek gave way to cooling by weekend. Near freezing temperatures at Gilbert on Thursday with Greers Ferry reporting highest of 92° same day. Precipitation least in southeast and heaviest in southwest, west-central, and east-central with amounts generally ranging from 0.50 inch to 1.50 inch latter sections except at Hope where 4.47 inches recorded. Most of rain fell over weekend. Excellent progress with harvest until showers near end period. Precipitation light principal row crop Delta Counties. Rice crop nearly all harvested. Cotton fair to good, 75% bolls open and 1/3 crop picked. Picking 1/2 finished northeast. Soybean harvest gaining momentum with 20% fields cut. Yields extremely variable. Feed grain harvest well advanced. Haying season about over. Fall-seeded crops, wheat and oats need rain. Recent showers beneficial, but general rain needed. Much additional seeding to be done after harvest other crops. Pastures short north and many central counties. Grazing mostly good south. Cattle feeding necessary driest areas and some weight losses reported.

CALIFORNIA: Warm daytime temperatures most of week, strong cooling Friday, over weekend. Maximums at interior locations 20° cooler on Friday than on Thursday. Average temperatures ranged from 4° below normal at Monterey Bay to 8° above normal in Sierra Nevadas and High Desert. Scattered light precipitation over weekend with heavy amounts at San Diego; light snow northern mountains. Land preparation for planting fall grains active, some seeding. Harvest milo and corn full swing. Rice harvest later varieties picking up. Digging sugar beets continues most areas. Windrowing and threshing dry beans continues. Cotton harvest Imperial Valley full swing. Defoliation continues San Joaquin Valley. Machines moving onto fields. Harvest applies continues. Large percentage going cold storage. Crops small, fruit sizes fairly good. Harvest grapes continues; deliveries to wineries active. Virtually all raisins rolled and boxed. Picking table variety grapes continues. Harvest large walnut crop increasing. New navel orange crop making steady growth, fruit splitting showing up. Picking lemons and grapefruit Desert slow, season just started. New grass growth started southern California. Stock movement off high elevation ranges virtually complete. Calving, lambing operations well underway southern areas. Broccoli, cauliflower shipments light Santa Maria, Salinas. Cantaloupes Westside declining, Imperial Valley active. Carrot harvest normal central coast. Sweet corn harvest active south. Sacramento Valley honeydews continue decline. Lettuce declining Salinas Valley. Onions continue decline central Joaquin Valley. Potatoes remain slow San Joaquin Valley, Salinas; to storage northern California. Sweetpotato harvest active Merced, Atwater, Livingston. Market tomato harvest moderate Oxnard, Chula Vista; harvesting greens Stockton, Modesto.

COLORADO: Clear and warm through week. General storm weekend. Light to moderate rain lower elevations; snow in mountains. Some severe thunderstorms and tornado late Sunday eastern plains. Harvest active through week. Ideal harvest weather interrupted by general precipitation over weekend. Topsoil moisture improved; threat of wind damage decreased. Winter wheat and barley 92% and 88% emerged. Condition winter wheat good to excellent. Sugar beet harvest progressing rapidly, 21% acreage dug. Harvest corn for grain 13% complete. Corn silage harvest nearly complete all areas. Sorghum for grain 25% harvested. Dry beans 95% threshed. Fall potato harvest San Luis Valley over 4/5 complete. Apple harvest 1 week from completion. Range and pasture condition fair to good. Livestock excellent.

FLORIDA: A cold front continued to push through Florida early part of the week. Temperatures were generally 2° to 3° above normal despite con-

siderable cloudiness. However, in the Panhandle, temperatures were near or above normal with a record low for the date of 43° at Pensacola on 11th. Lowest temperature for week was 35° recorded at De Funiak Springs. Rainfall amounts averaged near 2.00 inches most sections with an average of over 5.00 inches in the Keys due mainly to an 8.54-inch total set at Key West. Corn and peanut harvests continuing. Cotton and soybeans being harvested. Improved moisture aided recovery grasses with grazing rated good. Citrus tree and fruit condition good to excellent. Harvest fairly heavy grapefruit. Rains early week south Florida vegetable areas and over weekend north-central areas northward gave needed boost to topsoil moisture, but caused some damage where excessive and increased possibility disease problems. Overall field conditions good. Supplies fall vegetables still limited with several commodities just starting. Sweet corn supplies increasing Everglades. Light harvest tomatoes first November. Planting for winter harvest active.

GEORGIA: Moderate to locally heavy rains in south. Most of southeast half of State had more than 1.00 inch and several places received over 3.00 inches. Rainfall light in north with little or none in northwest and west-central sections. These areas have had very little rain in the past 4 weeks and have become quite dry. Cool at beginning of week but warmed to much above normal by midweek. Warm weather continued through weekend with only slight cooling on Sunday. Averages ranged from 4° to 7° above normal. Soil moisture mostly adequate southern half, but varying from short to very short most central and northern regions. Harvesting crops active when weather permitted. Local crops mostly good to excellent. Livestock good. Small grain planting 44% complete, corn 43% and soybeans 5%. Harvest behind last year. Peanut harvest about complete.

HAWAII: Dry weather during week throughout State. Sugar harvesting continues. Pineapple planting active. Papaya and banana production increasing. Vegetable supplies adequate. Pastures fair. Livestock fair to good.

IDAHO: Temperatures averaged near normal; however, much colder at end. Precipitation on scattered and mostly light. Isolated heavy amounts in Fremont and Lewis Counties. With favorable weather, potato, sugar beet, and apple harvest made excellent progress. Potato harvest close to 3/4 mark. Sugar beets about 1/5 dug. Apple picking entering final stages. Fall seeding small grains near completion all areas. Emerged fields off to good start. Lack moisture slowed germination some areas.

ILLINOIS: Precipitation ranged from 0.05 to 0.50 inch. Maximums were 0.50 and 0.70 inch. Temperatures ranged from 31° to mid-80's. Soil moisture short 46% respondents, adequate 54%. Wells dry some areas. Harvest reported "best we've ever had." Corn harvest 45% complete, same as last year, slightly ahead of normal. Yields and quality good to excellent all areas. Grain moisture 12% to 26%. Lodging potential problem if harvest slows. Elevator-farm storages filling fast. Soybeans 90% harvested, last year 65%. Harvest 1 to 1 1/2 weeks ahead normal. Quality-yields good to excellent most areas. Bean moisture range 12% to 15%. Winter wheat 85% sown, last year 70%. Seeding progress 2 weeks ahead normal. Wheat good to excellent stands. Moisture shortage potential problem. Grain sorghum yields and quality good to excellent. Pastures excellent 11%, good 44%, fair 30%, poor 15%. Frost reported some areas. Plowing for corn and soybeans 20% complete, slightly ahead last year and normal. Main activities corn and soybean harvest, plowing, sowing wheat.

INDIANA: Pleasant fall days but showers quite general 13th and 14th. Up to 1.00 inch rain in east-central. Elsewhere about 0.50 inch. Temperatures averaged 4° above normal. Increased through week after some high 20's and 30's on 11th and scattered frost in north. Six days suitable fieldwork. Topsoil and subsoil moisture adequate. Pastures fair to good. Corn 30% harvested, 15% average. Soybeans 50% combined, 55% average. Wheat 75% seeded, 65% average. Growing conditions good. Wheat 45% emerged, stands good to excellent. Barley 85%, rye 80% seeded, well ahead 1970. Sorghum grain 30% cut, same as average. Apples 65% picked. Tobacco 95% cut.

IOWA: Warm and dry. Temperatures 2° to 6° above normal. Extremes: 27° beginning of week to about 83° at weekend. Corn and soybean harvest progressed rapidly due favorable weather conditions. Corn harvest 40% complete, 35% last year, 5-year average only 10%. Stalk rot and ear droppage caused some concern local areas. Soybean harvest 80% complete, last year and average 55%. Harvest least advanced northeast and east-central districts. About 65% grain sorghum harvested, 55% year ago. Drought conditions still prevailing for State as whole. Topsoil moisture 75% short, 25% adequate. Almost 7 days suitable fieldwork.

KANSAS: Widespread rains western 2/3 and parts northeast. Generally 0.50 to 2.75 inches. First significant rains since early October. Temperatures averaged near normal northwest and much above seasonal elsewhere. Maxima locally lower 90's east 12th. No hard freezes although minima locally lower 30's northwest and west-central early on 13th. Fall harvest activity full swing with progress ahead average. Sorghum grain 91% mature, average 81%, 52% harvested, average 31%. Harvest problems increased by lodging. Corn 56% harvested, average 33%. Soybean harvest 49% complete, average 46%. Beet digging full swing. Fall wheat seeding 95% finished, average 93%. Most wheat good stands, weekend moisture will help growth. Some local replanting and grasshopper damage. Fall barley seeding 86% complete, average 86%. Cattle movement off grass increased seasonally with some going to feedlots. Stubble and beet fields fenced for grazing.

KENTUCKY: Unseasonably mild. Rainfall light most sections. Minimum temperatures below normall 11th and 12th but near or above normal most days. Afternoon readings seasonal or above all days. Rain less than 0.30 inch most sections, occurring on 4 days and widespread on 15th. Sunny first 4 days, mostly cloudy balance. Averaged 5.5 days in field. Soil moisture 2/3 adequate, 1/3 short. Fields firm for harvesting. No killing freeze to date. Corn 39% harvested, last year 60% and 1969 54%. Yield and quality good. High moisture content slowing harvest. Burley 22% cured, 3% stripped. Some houseburn, but quality generally good. Soybeans 24% harvested, another 54% shedding leaves. Wheat 50% seeded. Pastures excellent.

LOUISIANA: Weekly temperatures 2° to 5° above normal except near normal southeast. Warm afternoons and cool mornings until weekend when weather cloudy and humid with numerous showers and patches

of rain, heaviest central and south. Temperature extremes: 88° Lake Charles Friday and 36° Ashland last Monday. Weekly precipitation totals ranged from less than 0.25 inch portions of north to more than 1.00 inch many places central and south. Greatest 1-day total, 1.54 inches measured at Lafayette Sunday morning. Good to excellent progress fieldwork until delayed by showers near end week. Soil moisture mostly adequate; some dry localities north. Seeding small grain and winter cover crops active. Fall-harvested crops matured rapidly. Cotton picking gained momentum--65% to 70% open and 10% harvested. Combining soybeans very active, 30% complete. Rice harvest practically complete. Corn 90% harvested, sorghum grain 70%, sweetpotatoes 65%. Grinding sugarcane got underway some mills, others to start very soon. Pecans falling rapidly central and south. Pasture feed above average. Livestock condition continued good.

MARYLAND AND DELAWARE: Cool becoming warm last 5 days, averaged 1° to 3° above normal. Extremes: Mostly low 70's to low 80's, mid-30's to mid-40's. Little or no rain after 10th. Rain on 10th heavy in area from southern Maryland into northeastern Maryland and northern Delaware, most totals 1.50 to 3.25 inches. More favorable harvest progress, but still behind usual. Corn 2/3 harvested, normal about 9/10. Soybeans maturing slowly, less than 10% combined. Wheat seeding 42% done, near normal. Barley seeding slow due harvest delays.. Apple harvest active, about 90% Delicious variety picked.

MICHIGAN: Light showers, cool early, gradual warming last half period. Temperature averages normal to 1° above Upper Peninsula, 1° below normal to 2° above normal Lower Peninsula. Precipitation totals 0.25 to 1.00 inch Grand Rapids to Saginaw Bay-Thumb area, less than 0.25 inch elsewhere. Fieldwork hindered by rains and wet fields. Soil moisture adequate most areas. State averaged 4.5 days suitable fieldwork. Corn acreage 90% mature, over 25% corn for grain harvested. Silage corn harvest nearing completion. Soybean acreage over 80% mature, 30% harvested. Colored bean harvest nearing completion. Potatoes 70%, sugar beets 10% harvested. Pasture feed average, below average central, west-central and southeast. Winter wheat planting nearing completion. Early-planted wheat growth excellent. McIntosh apple harvest nearing completion; picking Jonathan and Delicious apples well along. Grape harvest nearing completion. Cabbage and cauliflower harvest progress good.

MINNESOTA: Temperatures averaged 2° below normal in northwest and 2° above normal in southwest. Highest temperature was 79°, lowest temperature was 29°. Precipitation 1.00 to 2.00 inches in north and from 2.50 to 3.00 inches in west-central and central districts. The southern district and northern part northwest district had little to no precipitation. Corn, soybean harvesting progressed well. Corn 21% picked, normal 12%, moisture 27%. Soybeans 62% combined, normal 59%, moisture 13%. Flax 95% combined, normal 90%. Potatoes 86% dug, normal 80%. Sugar beets 60% harvested, normal 49%.

MISSISSIPPI: No measurable rain most stations, elsewhere amounts mostly under 0.10 inch. A few northern stations averaged up to near 2° above normal, the remaining stations were mostly 1° to 5° below normal. Temperature extremes: 31° at D'Lo on 11th, 89° at Tunica on 16th. Over weekend: Some scattered rains with amounts less than 1.00 inch. Warmer Saturday. Soil moisture mostly short Delta, central, and southeast; elsewhere mostly adequate. Average 6 days suitable fieldwork. Corn 48% harvested, 52% mature, but not harvested. Cotton 58% opened and 24% harvested. Rice harvest completed. Soybeans 22% combined, 46% mature but not harvested. Sorghum 72% harvested. Hay crops 89% in. Cotton and corn fair to mostly good condition. Pecans mostly fair to good.

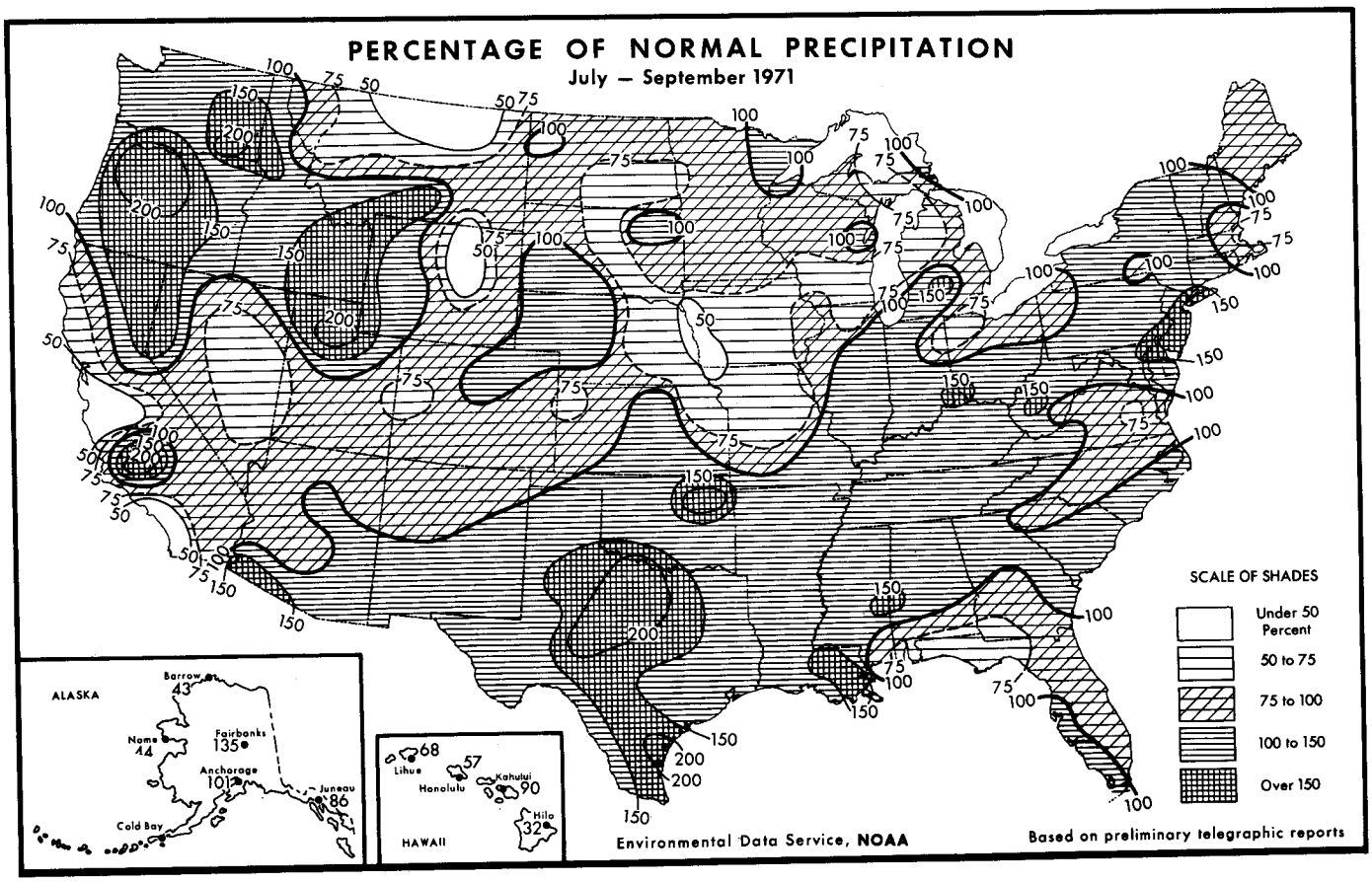
MISSOURI: An Indian smmer with warm days, cool nights, and little rainfall. Temperatures averaged 2° to 4° above normal. Cool at start with gradual warming through week. Corn 54% harvested, last year 40%, soybeans 52% combined, 3 weeks ahead last year. Grain sorghum 63% harvested, double last years at this date. Cotton 45% picked, 12% ahead last year. Fall seeding 49% complete. Pastures poor northwest, south-central, and southeast, remainder fair. Soil moisture adequate north-central, northeast and west-central, remainder State short.

MONTANA: Mild except for strong cooling Thursday through Saturday resulting in slightly below-normal average temperatures. Snow or rain late in week with up to 5 inches of snow and 1.0 inches of moisture in south-central and south-eastern divisions. Topsoil moisture short north border counties, northwestern and north-central districts, adequate other areas. Winter wheat planting virtually complete. Sugar beet lifting 30% finished. Potato digging 80% complete. Dry bean harvest virtually finished. Range cattle 75% and range sheep 80% moved from summer ranges. Marketing calves above normal. Cows, ewes, and lambs moving to market at average pace.

NEBRASKA: Statewide precipitation over weekend. Amounts generally above 0.50 inch and ranged up to 3.00 inches locally. Last week very favorable for fieldwork and harvest operations proceeded at rapid pace. Corn for grain 33% harvested, last year 40%, normal 16%. Grain sorghum harvest 75% complete, 55% last year and average 30%. Soybeans 75% harvested, last year 63%, normal 60%. Winter wheat prospects quite variable. Western areas good stands and excellent growth, eastern areas spotted emergence and uneven stands. Some eastern areas received needed precipitation early today. Topsoil and subsoil moisture less than adequate all areas except northwest, north, and southwest. Topping and digging beets full swing. Dry bean harvest virtually complete. Potato harvest continues. Feeder and stocker movement heavy. Stock fields providing increasing roughage.

NEVADA: Normal temperatures ended Friday with a sudden cold wave. Temperatures below normal in north, from 1° normal at Fallon to 7° normal at Sheldon. Snow and rain in north. Austin reported 1.50 inches precipitation. Snow from 1 inch at Virginia City to 18 inches at Austin. Ground cover of snow locally and surrounding mountains. Alfalfa seed harvest virtually complete, but potato harvest nearing completion north. Cotton harvest Pahrump Valley underway soon. Planting winter grains still underway. Movement cattle and sheep to winter ranges continues. Fall and winter range feed good.

NEW ENGLAND: Very dry week, warm and sunny. Temperatures averaged mostly 3° to 6° above normal. Unseasonably warm Friday. Freezing minima only at midweek and Monday morning. Many favored



PRECIPITATION—JULY TO SEPTEMBER 1971

Most of the July rainfall was produced by typical summer thunderstorms. Amounts ranged widely from less than 1.00 inch over most of the West to over 8.00 inches in spots in the Southeast. Rainfall over the Corn Belt ranged from less than 1.00 inch to more than 5.00 inches. Generous showers and thunderstorms occurred from southern New England to the Lower Rio Grande Valley in August. Especially heavy showers fell in southern Texas. Heavy rains flooded portions of Baltimore, Md., causing 16 drownings and millions of dollars property damage. Several tropical cyclones entered the weather pickture in September. The heaviest rain from these occurred along the Gulf of Mexico and in southern Florida. Parts of central Texas received more than 4 times the normal September rainfall.

For the 3-month period, July to September, precipitation totals ranged mostly from 50 percent to 150 percent of normal. Spots in the Northwest and in central and southern Texas received more than 150 percent of normal. Some western localities received less than half their normal rainfall.

L. W. Dye

areas, especially in south, with no freeze yet this fall. No measurable rain most areas. A few totals over 0.10 inch in extreme north. Aroostook, Maine, potato growers winding up harvest with an excellent quality crop going into storage. Picking Cortland and Delicious apples processing seasonally. Cranberries more than 3/4 harvested. Cutting silage corn and hay completed.

NEW JERSEY: Warm dry week with temperatures generally averaging from 1° to 5° above normal. Readings ranged from the mid-30's to low 80's. Rainfall sparse averaging 0.10 inch or less. Station totals varied from around 0.40 inch in Highstown-Freehold area to none in several communities. Hail stones 3/4 inch to 1 1/2 inches in diameter were reported over Monmouth County on afternoon of 14th. Weather conditions continue delay harvest corn, hay, soybeans, and potatoes. Grain seeding also behind schedule. Apple and cranberry harvests continue active. Fall vegetable harvest advancing at steady rate. Quality mostly good, but wet conditions caused some production loss.

NEW MEXICO: Showers Sunday light in south and locally to more than 0.50 inch in north. Temperatures averaged much above normal with warmest in midweek. Coolest nights early in week with freezing in some northern localities. Moisture conditions vary short to adequate. Fall-planted winter wheat good condition. Harvesting sorghum grain underway. Cotton harvest becoming more active. Cutting alfalfa for hay continues south. Ranges good condition, some ranges southwest poor. Livestock moving to market.

NEW YORK: Seasonably cool through 13th with warm dry weather on weekend. Maximums from mid-50's early week up to low 70's on 14th through 16th. Minimums 29° to 33° east-central and northern sections on 13th ranging up to mid-30's to low 40's elsewhere. Precipitation previous week end through 11th totaled 2.00 to 2.70 inches in southeast with 0.90 to 1.50 inches east of line from Binghamton to Lake Champagne. Mostly 0.30 to 0.60 inch St. Lawrence Valley and western half. No precipitation 12th through 17th. Silage corn harvest 90% complete. Grain corn harvest very active, 25% crop harvested. Harvest 3d cutting alfalfa nearing completion. Pulling and combining dry beans continues under more favorable conditions. Potato harvest progressing to satisfactory completion. Cabbage moving to storage and processors. Celery harvest declining. Apple harvest continues. Weather favorable for coloring. Delicious now being picked. Concord grape harvest full swing and over 1/2 complete. Catawba picking to begin soon. Grape harvest should be complete by early November.

NORTH CAROLINA: First snow of season some mountain peaks 11th. Rain mostly night of 15th totaled 0.25 inch to 3.00 inches averaging 1.00 inch. Temperatures averaged slightly below normal with highest in low 80's and lowest in 40's except some mountain stations below freezing with frost morning of 11th. Soil moisture declined, mostly adequate. Land preparation lagging. Flue-cured and burley harvest virtually complete. Types 11 and 12 market active; Type 13 cleanup stage. Soybeans good, harvest began. Corn generally good, nearly 1/2 harvested, compared 65% this time last year. Cotton fair to good, 27% picked, 55% year ago. Peanuts fair to good, 57% dug- 94% year ago; 43% threshed - 84% year ago. Hay crops good. Sweetpotatoes good, storing and curing in process. Apple harvest past peak. Small grain and pasture- covercrops 33% sown. Pastures good to excellent. Hurricane Ginger (September 29 to October 2) damage estimated $8 million to major crops: Corn, soybeans, peanuts, cotton; $1 million to $2 million to minor crops.

NORTH DAKOTA: Temperatures averaged near normal over State with east-central section the warmest. Precipitation ranged from 0.40 to 0.60 inch in west, 1.00 to 2.00 inches central and 1.00 to 4.00 inches east. Amounts occurred mostly over weekend. Rain October 15, 16, 17 continue to slow harvest operations Red River Valley. Flax and potato harvest nearing completion. About 3/4 soybean and 1/2 corn harvested. Sugarbeet lifting and sunflower combining made limited progress. Several good field drying days needed before harvesting operations can resume.

OHIO: Daily mean temperatures were 4° to 8° below normal on 11th and 12th. Temperature during remainder of week averaged 4° to 6° above normal. Rain entire State on 13th and over southern half on 16th. Soil moisture 10% short, 65% adequate, 25% surplus. Days suitable fieldwork 5. Harvest completion, corn for grain 40%, last year 50%,usual 15%; soybeans 60%, last year 65%, normal 55%. Potatoes 90% dug, usual 85%. Apples 50%, grapes 65%, sugar beets 30% harvested. Wheat 80% seeded, equal to last year.

OKLAHOMA: Temperatures averaged 3° to 7° above normal. Extremes: 91° and 33°. Little or no rain until showers Sunday. Rainfall amounts were generally less than 0.25 inch but heavier southwest and east-central Oklahoma. Seeding and harvesting activities progressed under clear skies. Wheat 95% seeded, little earlier than recent years, 50% up. Oats and barley about 9/10 seeded, 2/5 up. Small grain pastures available soon. Fall armyworms still problem several areas. Corn 60% picked, same year ago. Sorghum grain harvest lags, 3/10 complete, nearly 2/5 year earlier. Cotton bolls 60% open, 80% year ago, 70% 5-year average. Scattered hand picking. Peanuts 90% mature, 25% threshed. Soybeans 3/4 mature, 1/4 harvested. Surface soil moisture 70% adequate. Pastures and ranges continuing to improve.

OREGON: Mild week began sunny with cooling trend aided on west side by morning fog and 2 to 3 days of rain at close. Many temperatures averaged near normal but 3° to 7° above normal eastern half. Maxima 67° to 87°. Minima west side 33° to 45°, east side 20° to 37° except 14° at Enterprise. East side mostly dry, western valleys 0.10 to 0.60 inch, northern Cascades and coast 0.70 to 1.30 inches. Fall potato harvest full swing. Filbert harvest continues. Cutting continues broccoli, cabbage, and cauliflower. Some land preparation and fall seeding small grains. Much fall seeded acreage already up and showing good progress. Fall range and pastures continue good with open weather and normal conditions.

PENNSYLVANIA: Warm and dry. Only precipitation early in week in north and west with cold front. No measurable rain most of southern half of State. Cool early, milder midweek. Weekend cloudy, cooler, widespread fog. Temperatures near to 2° above normal north and central, 2° to 4° above normal elsewhere. Extremes: 81°, 25°. Heavy dew, foggy conditions unfavorable for fall harvest. Top soil moisture 2/3 adequate 1/3 surplus. Corn silage 90% completed, grain 30%, high moisture content. Fall plowing 3/4 finished, barley seeding nearly finished, wheat 3/4 -- good stand. Potato harvest some delay. Apple picking full swing, excellent quality. Pastures lush. Hay curing unfavorable.

PUERTO RICO: Average rainfall 2.39 inches or 0.69 inch above normal. Heavy rainshowers totaling up to 5.10 inches extended westward from eastern Luquillo Mountains. Heavy showers along south coast helped relieve drought. Soil moisture continued too low southwest Coastal Zones. Temperatures averaged 80° on coast and 74° interior divisions with an average departure of 1.3° below normal. Highest maximum 93°; lowest minimum 58°. Rains improved growing conditions for young sugarcane all non-irrigated zones. Coffee plantations continued harvest with some interruptions extreme west due heavy rainshowers. Pastures much improved south and generally good to excellent all other zones. Minor crop zones active cultivating and seeding with some minor delays due rainshowers late week.

SOUTH CAROLINA: A cold front on 10th brought only important rain. Amounts ranged from 0.50 inch in northwest to 3.00 inches in Charleston area. Minimum temperatures were in high 30's and low 40's after front passed, but the air warmed considerably by end of week. Average temperatures were 3° below normal in northwest and 1° below normal in Coastal Plain. Soil moisture short southwest Piedmont, parts of ridge; excessive north-east Piedmont. Cotton condition fair to good, bolls opening 88%, 39% harvested. Soybean condition good to excellent, 44% mature.

Sorghum harvest 40% complete. Peanuts 93% harvested. Corn harvest 65% done. Pecans fair to good condition. Apple harvest complete, except northwest Piedmont. Pastures good. Fall hay crops 89% harvested. Winter wheat 10% winter oats 16% planted, small percent emerged. Condition fall vegetables fair to good. Fall cucumber pickle harvest coastal areas near completion.

SOUTH DAKOTA: Temperatures averaged from 3° below normal in west to 6° above normal in east. Extremes ranged from 22° near Porcupine on 13th to 80° at Vermillion on 11th and near Porcupine on 13th. Precipitation fell as showers and thundershowers mostly near end of week. Amounts ranged from less than 0.10 inch southeast to over 4.00 inches northeast. Watertown reported 3.50 inches for the 24-hour period ending morning 16th with weekly total 4.03 inches. Snow in Black Hills end of week. Harvest of row crops made rapid progress. Showers few areas slowed harvest, but generally most areas over 50% complete. Some stalk breakage still reported corn and sorghum grain. Ear droppage corn generally light. Harvest row crops well ahead normal with 56% corn picked normal 17%; 78% sorghum grain harvested normal 44% and 82% soybeans combined, normal 58%. Only few late fields soybeans remain harvested. Row crop harvest running slightly behind last year's early season. Stands and growth fall seedings mostly good to excellent. Pastures fair to good with many stubble fields and fall pastures being grazed. Winter feed supplies adequate and many ranchers moving hay stacks to winter feeding areas. Calf marketings increasing.

TENNESSEE: Mild, fairly dry week with spotty very heavy showers in north-central on 16th. Precipitation generally less than 0.50 inch but LaFayette had 5.10 inches Saturday morning. Temperatures averaged 2° to 4° above normal. Warmer air moved into State Saturday. Sunday morning temperatures were 50° or higher in mountains and in upper 60's most of west. Harvest major row crops increasing rapidly. Picking good cotton crop 35% complete. Soybean combining 10% complete, about week behind previous year. Corn 40% harvested, compared 55% year ago. Tobacco stripping 25% finished. Oats and barley 80% seeded. Wheat 60% sown. Pastures continue good although some decline areas missing recent rainfall. Calf crop marketing continues. Fall apple harvest continues. Days favorable fieldwork averaged 5.5. Soil moisture supplies 52% adequate, 45% short, and 3% surplus.

TEXAS: Fair mild weather first of week followed by violent weather over weekend. Severe thunderstorms raked the Panhandle and Southern Plains with hail at Canyon and in Borger area. Torrential thunderstorm rains fell in the area of South Texas west of Corpus Christi which was still reeling from September floods. Totals of 11.00 to 20.00 inches reported west of Lake Corpus Christi. George West caught 5.80 inches within 24 hours. Victoria received 5.18 inches within 48 hours. Rain-swollen San Diego Creek near Alice was over U. S. Highway 281 bridge Early Sunday. Temperatures mild throughout week. Wet weather delayed planting and harvest during week. Harvest cotton, corn, sorghum resumed by weekend. Planting wheat, oats resumed by end week, except southern half. Wheat making excellent progress High Plains and grazing abundant. Percent harvested major crops; cotton 22, 30 last year; corn 88, 96 last year; sorghum 59, 83 last year; peanuts 40, 40 last year; soybeans 16, 22 last year. Percent planted; wheat 78, 81 last year, oats 63, 72 last year. High Plains lettuce harvest at peak with supplies expected until early November. Corrot digging regaining momentum as fields dry. Harvest most other vegetables nearing completion High Plains, but light supplies bell peppers, cabbage, potatoes, tomatoes still available. East Texas sweetpotato harvest active. In Winter Garden showers hampered harvest fall vegetables, planting winter vegetables. Early carrots, cabbage approaching maturity. Lower Valley light showers, wet fields have kept planting winter vegetables at near standstill since early September. Excessive moisture reduced yield prospects fall vegetables and created insect and disease problems. Citrus harvest gaining momentum with picking grapefruit, early oranges underway. Pecan harvest underway.

UTAH: Fair and mild weather persisted throughout week but over weekend cold front moved across State bringing heavy precipitation and local snowfall. Temperatures averaged 2° to 8° above normal but cooling over weekend. Sugar beet and potato harvest stalled until fields dry. Percent completion harvest, picking, or threshing: 85 potatoes, 90 dry beans and dry onions, 25 sugar beets, 65 apples, 95 silage corn, about 10 grain corn. Intended acreage 1972 winter wheat 90% planted. Percent livestock down from high country to valley farms and winter rangelands: 70 cattle, 80 sheep. Movement slaughter and feedlots 40% complete cattle and calves, 75% sheep and lambs.

VIRGINIA: Temperatures below normal first half and above normal second half. Generally dry except some rain over weekend in west. Most soils dry enough to support machinery. Topsoil moisture 83% adequate, surplus in southeast. Mud plagued peanut growers, field losses heavy; crop only 1/3 dug and 1/5 combined. Corn 40% harvested; soybean harvest slow. Some barn burn burley tobacco. Flue-cured marketing active. Pastures excellent. Wheat 35% sown. Eastern Shore vegetable harvest included snap beans, cucumbers, sweet potatoes, and few peppers. Apple picking behind last year.

WASHINGTON: Western Washington: Warm at beginning of period cooling near end of week with some frost. Most precipitation occurred near end of period. Harvest corn, celery, carrots, table beets, and potatoes continues. Pastures adequate. Cranberry harvest full swing. Berry growers pruning and tying canes. Calves looking good. Eastern Washington: Favorable weather with nightime frosts. Grape and apple harvests continuing. Sugar beets, potatoes, lime beans, silage corn, and alfalfa seed being harvested. Soil moisture adequate, but could be better. Pasture grasses beginning to slow as result frost. Grains emerging well and show good stands.

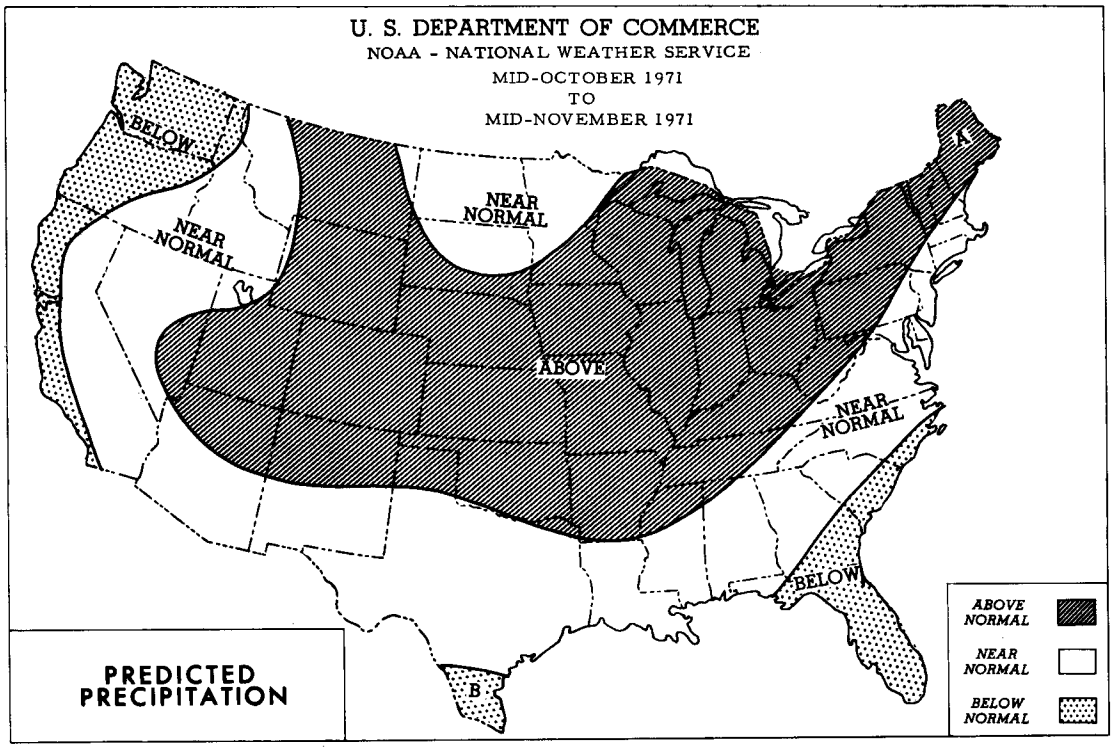
WEST VIRGINIA: Cool foggy mornings and mild sunny afternoons featured week's weather. Very light rain from weak cold fronts October 9 and 14 gave weekly totals below 0.50 inch generally. Lows in 30's October 12, 13. Relatively dry week allowed further progress corn harvest. Pastures remain good. Apple harvest active. Tobacco

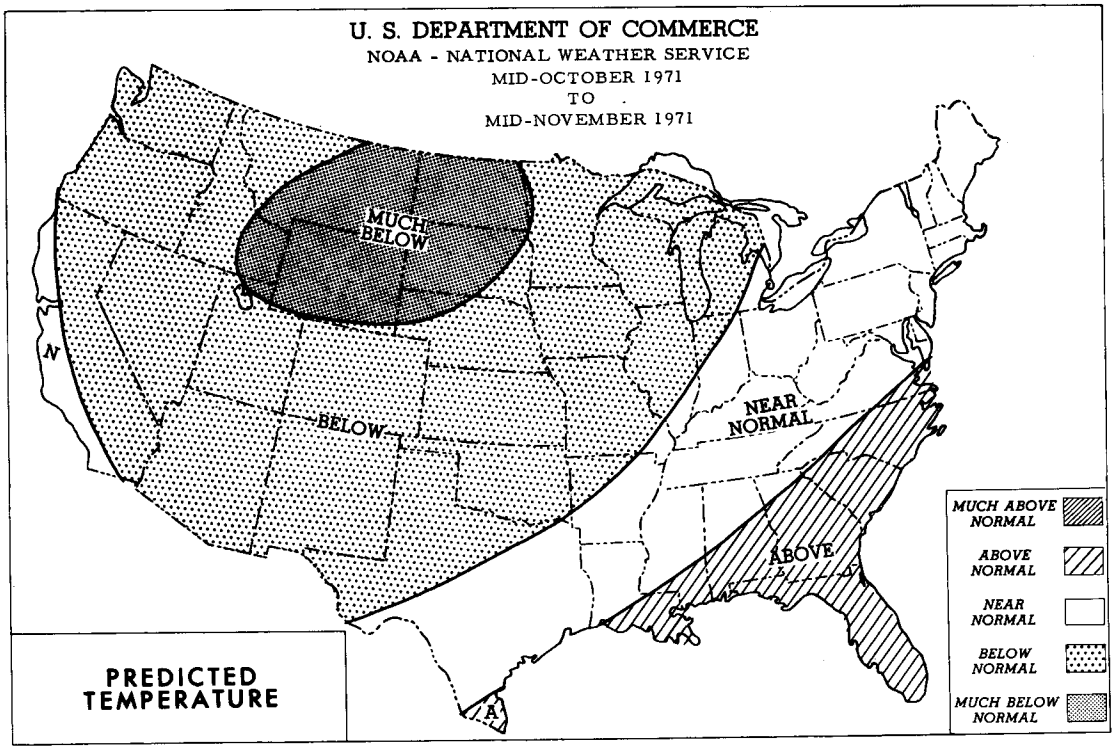
harvest virtually complete. Marketing feeder cattle continues.

WISCONSIN: Cool with light frost most areas early in period. Quite warm latter part of week with high temperatures near 80° in south over weekend. Precipitation continued light with showers mainly northwest Tuesday and in northwest over weekend. Corn harvest still rather slow due high moisture content. About 15% picked, 35% last year. Yields good except where too dry earlier. Soybean harvest also slow in starting. Potato harvest moving along under favorable weather conditions. Very good apple crop being picked. Fall plowing slowed by dry ground south and east. Soil moisture 25% short and 75% adequate.

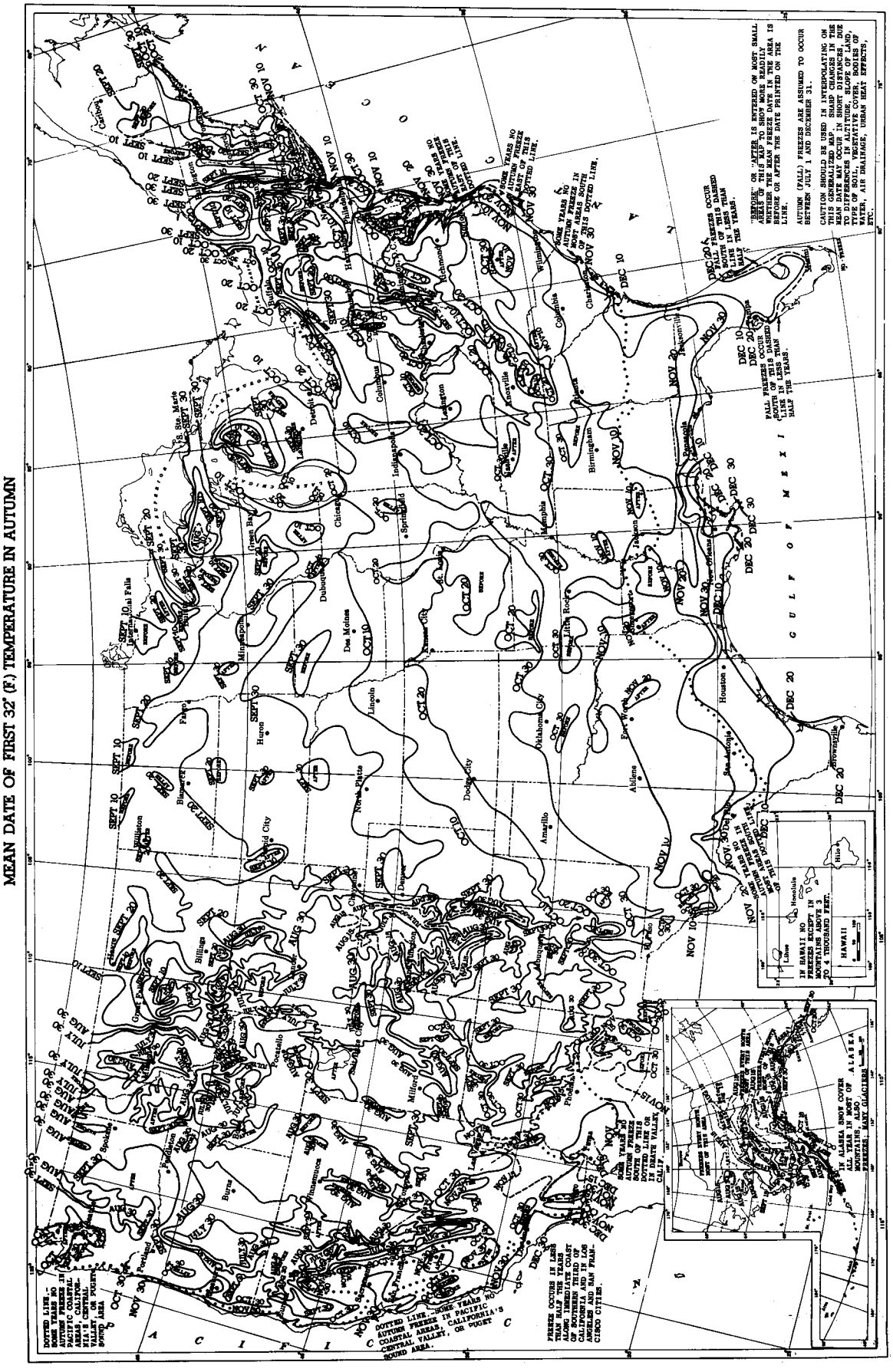
WYOMING: Light to moderate precipitation fell over northern half of State, none over southern half. Bondurant reported the most with 2.00 inches. Temperatures averaged near to 6° above normal, but cold wave covered most of State Friday. Maxima were mostly mid-70's to low 80's, with minima in 20's and low 30's. Temperature extremes: 84° at Torrington and 11° at Bondurant. Agricultural activities included harvest sugar beets, corn, and moving livestock. About 1/3 sugar beets harvested. Progress slower than last year when 45% harvested by mid-October. Harvest corn for grain started. Potato harvest virtually completed. Both surface and subsoil moisture adequate most areas.

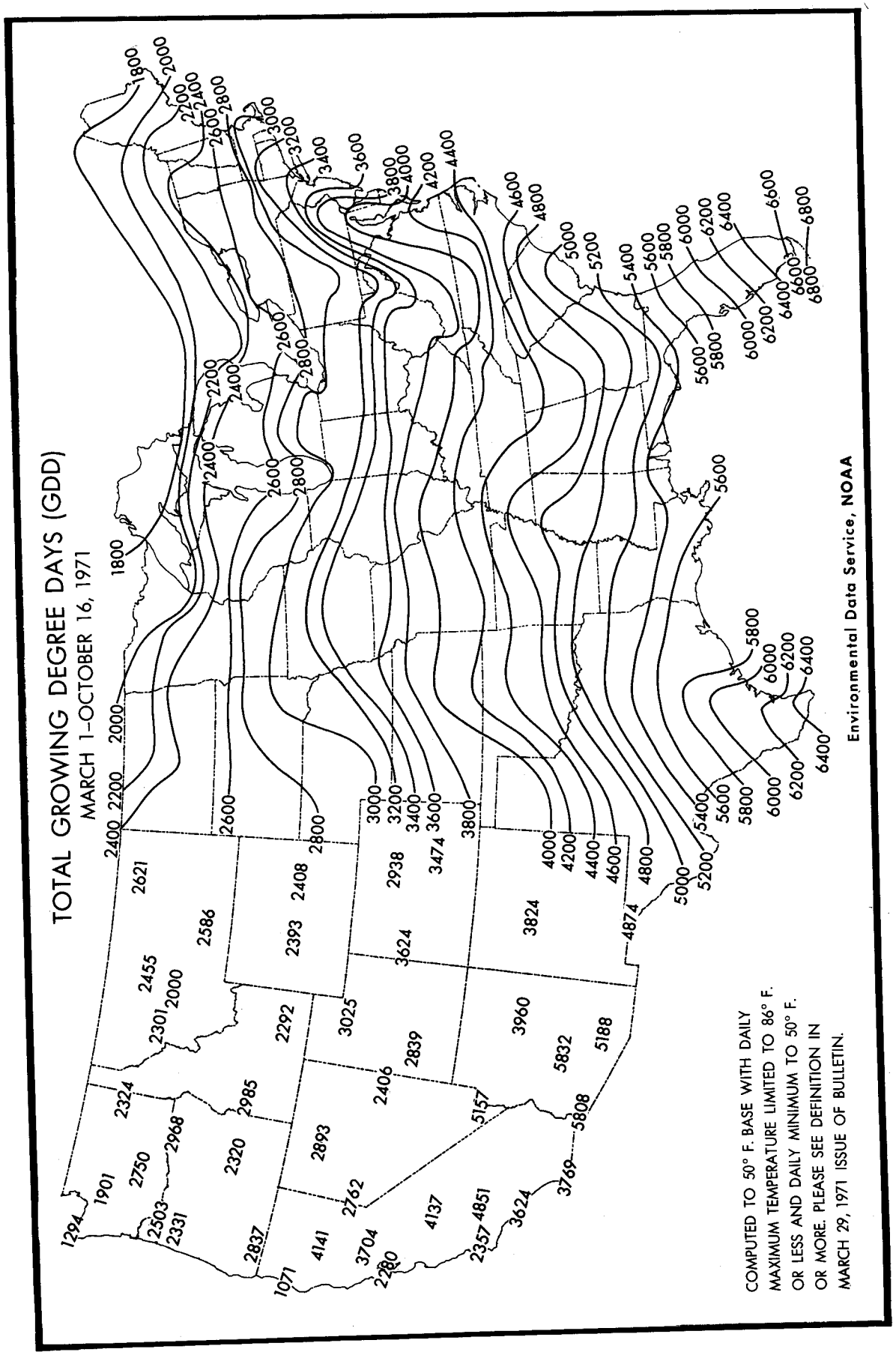
AVERAGE MONTHLY WEATHER OUTLOOK

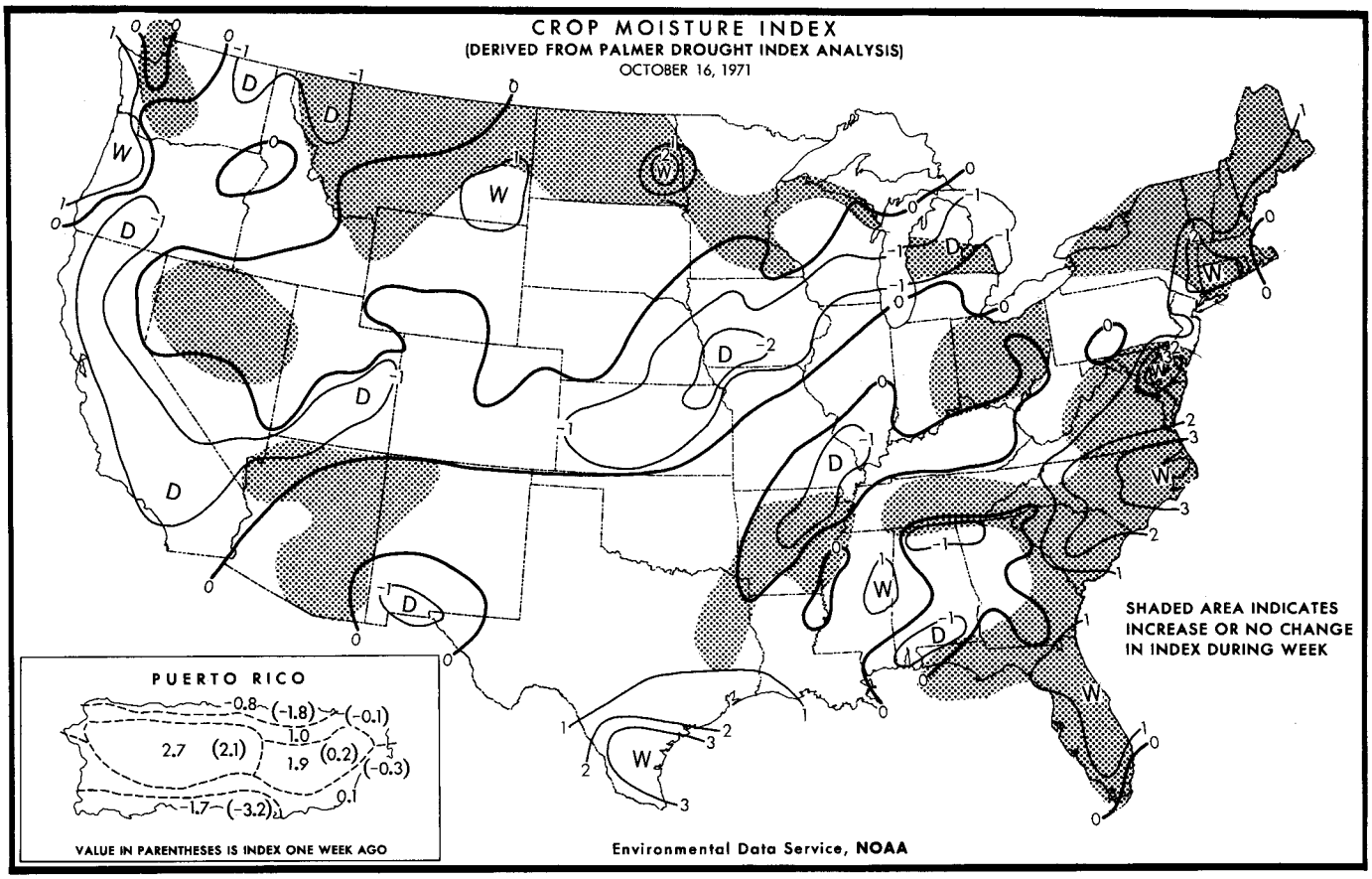




The above prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They were extracted from the Extended Forecast Division's publication "Average Monthly Weather Outlook" which contains additional information necessary for complete interpretation.


MEAN DATE OF FIRST 32° (F.) TEMPERATURE IN AUTUMN
PACIFIC OCEAN
GULF OF MEXICO
DOTTED LINE.—SOME YEARS NO AUTUMN FREEZE IN PACIFIC COASTAL AREAS, CALIFORNIA'S CENTRAL VALLEY, OR PUGET SOUND AREA.
FREEZE OCCURS IN LESS THAN HALF THE YEARS ALONG IMMEDIATE COAST OF SOUTHERN THIRD OF CALIFORNIA AND IN LOS ANGELES AND SAN FRANCISCO CITIES.
SOME YEARS NO AUTUMN FREEZE IN MOST AREAS SOUTH OF THIS DOTTED LINE.
SOME YEARS NO FREEZE EAST OF THIS DOTTED LINE.
FALL FREEZES OCCUR SOUTH OF DASHED LINE IN LESS THAN HALF THE YEARS.
IN ALASKA SNOW COVER ALL YEARS IN AREA NORTH OF THIS LINE. ALSO PERMANENT GLACIERS.
IN HAWAII NO FREEZES EXCEPT IN MOUNTAINS ABOVE 3 TO 4 THOUSAND FEET.
HAWAII
ALASKA
WHETHER OR NOT A FREEZE IS ENTERED ON MOST SMALL AREAS WILL DEPEND ON WHETHER THE MEAN FREEZE DATE IN THE AREA IS BEFORE OR AFTER THE DATE PRINTED ON THE LINE.
AUTUMN (FALL) FREEZES ARE ASSUMED TO OCCUR BETWEEN JULY 1 AND DECEMBER 31.
CAUTION SHOULD BE USED IN INTERPOLATING ON THIS GENERALIZED MAP. SHARP CHANGES IN THE MEAN DATE MAY OCCUR IN SHORT DISTANCES, DUE TO DIFFERENCES IN ELEVATION, EXPOSURE, TYPE OF SOIL, VEGETATIVE COVER, BODIES OF WATER, AIR DRAINAGE, URBAN HEAT EFFECTS, ETC.


TOTAL GROWING DEGREE DAYS (GDD)
MARCH 1-OCTOBER 16, 1971
Environmental Data Service, NOAA
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 ISSUE OF BULLETIN.



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

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.

Agricultural Climatology Service Office
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