

WEEKLY WEATHER AND CROP BULLETIN

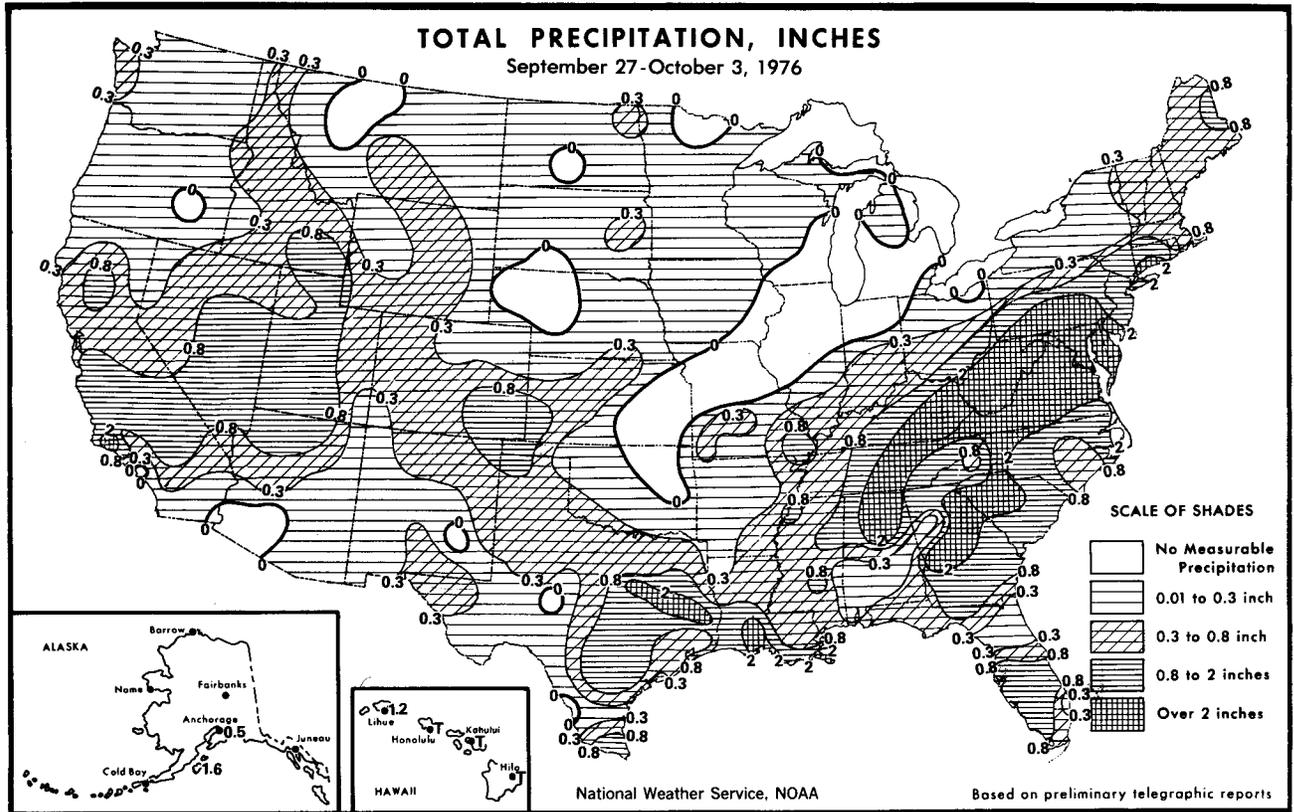
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National Weather Summary

For the Week of September 27 to October 3

HIGHLIGHTS: Rains dominated the week's weather picture. Flash flood alerts and activity prevailed along the western coast States and in the Atlantic Coast States. Frost and freeze warnings occurred in several states, while snow moved into Colorado's higher elevations.

A large high pressure center over South Dakota spread cool air across the Nation's interior on Monday. The advancing cool air activated showers and thundershowers along the Atlantic and Gulf Coasts and in the southern Plains States.

During the day, snow fell in some of the higher Colorado elevations. More than 6 inches accumulated at Wolf Creek Pass and around 5 inches at La Veta Pass.

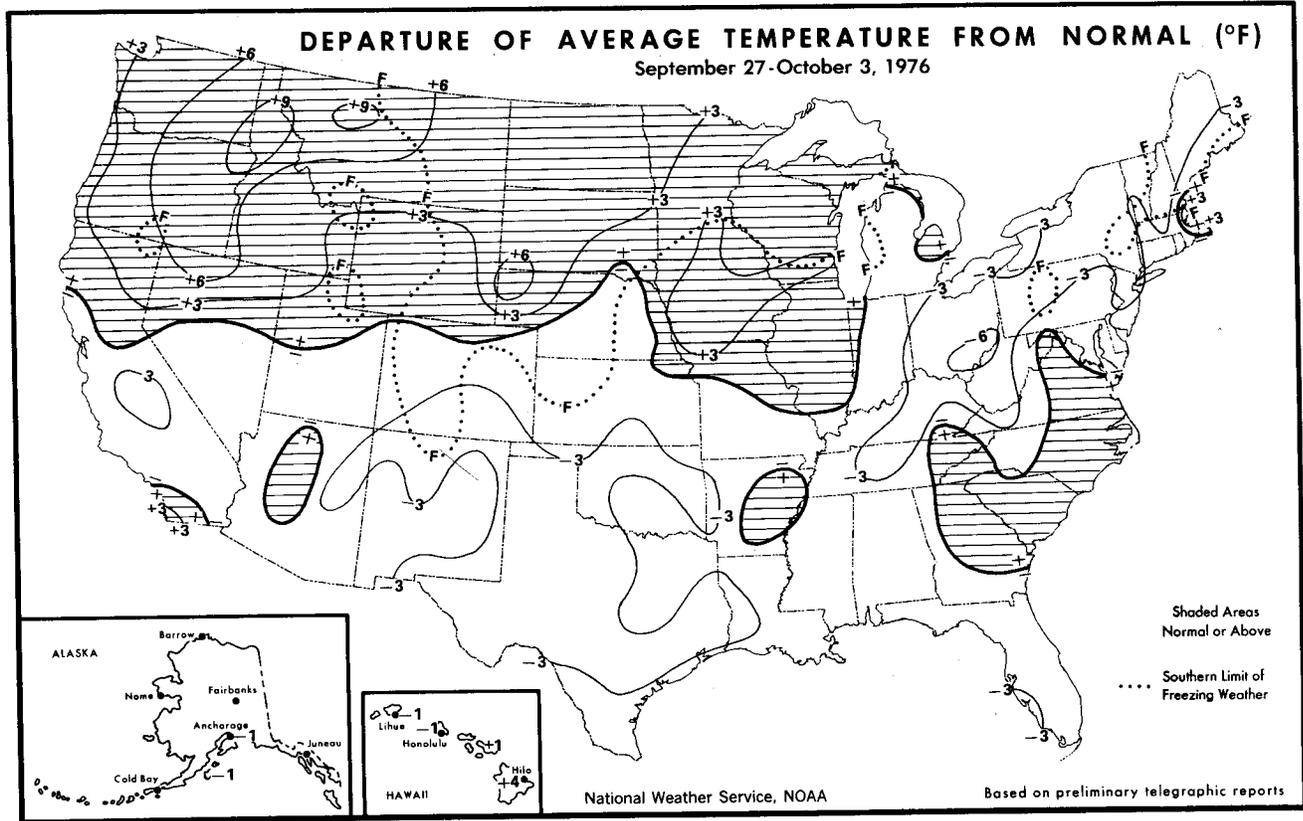
The showers and cool air mass held afternoon temperatures in the 40's over parts of eastern New Mexico and northwestern Texas. Severe weather

included a thunderstorm, with golf-ball sized hail, near Prescott, Ark.

Another weather system off the Pacific Coast activated a few showers in western Oregon and northern California. Temperatures in the Northwest ranged in the 70's and 80's.

Tuesday morning temperatures made new record lows, as the high pressure system cooled the Nation's midsection. Sioux Falls, S. Dak. recorded a mere 24°, while readings ranged from the mild to upper 20's and the 30's across the upper Great Lakes area and into the northern and central Plains.

Two low pressure centers combined to cause showers and a few thundershowers in California. A few widely scattered showers extended across central and southern Nevada, southwestern Utah, and northern Arizona. Showers and thundershowers also moved over the lower Mississippi Valley and



along the eastern Gulf and southern Atlantic Coasts.

Northwestern Ohio and sections of western Pennsylvania received frost warnings for Tuesday night.

Dawn broke Wednesday to temperatures in the 30's and 40's over most of the northern half of the Nation the central Rockies, and northwestern Texas. Temperatures plunged into the 20's and 30's in Vermont, the Adirondack Mountains, and some portions of the central Rockies. Notable lows included Bradford, Pa. 26°; Portland, Maine 31°; Salina, Kans. 34°; and Amarillo, Tex. 42°.

A low pressure system just off the southern California coast produced rains which necessitated area flash flood watches. Locally heavy rains totalled more than 4 inches at Lake Isabella, about 30 miles northeast of Bakersfield.

Showers and thundershowers also pushed from the middle Mississippi Valley to the lower Ohio Valley, eastward through the Carolinas, the southern Appalachians, the southern Atlantic Coast States, and southward to the Gulf Coast.

Sunny skies and cool temperatures greeted most of the Nation on Thursday morning. Readings in the 20's and 30's dominated the northern part of the country, while 70's and 80's prevailed in the southern section.

As the day progressed, cloudiness slowly increased along the west coast. Rain and drizzle prevailed over southern New England, the middle Atlantic States, and the Appalachians, as showers and thundershowers extended into the Carolinas

and the Florida peninsula. Millville, N.J. reported about 1 1/2 inches of rain in a 6-hour period, while Tampa, Fla. received just over 1 inch.

The temperature at North Platte, Neb. rose from a morning low of 33° to an afternoon high of 88°, while Phoenix, Ariz. scored 101° for the Nation's high.

Storms converged on the southwestern sector of the Nation on Friday and caused flash flood alerts. As tropical storm Liza moved over northern Mexico, she spread additional moisture into the southwestern U. S. Santa Barbara, Calif. reported almost 2 1/2 inches in a 6-hour period, while Ely, Nev. noted about 1/2 inch for the afternoon. A heavy snow watch was posted for Colorado's higher elevations. Besides moist weather in the West, a few showers lingered over New Jersey, Maryland, and the interior of California.

The weekend brought much rain and flash flood watches and activity in the far western States as well as the Atlantic Coast States. A summery weather pattern continued over the Nation's mid-section. Kansas City, Mo. reported a record high temperature of 95° on Saturday, as other warm readings prevailed over eastern Kansas, western Missouri, eastern Oklahoma, and parts of Arkansas.

Winter weather returned to the western third of the U.S. on Sunday, as a cold front moved into the country from Canada. The Colorado Rockies noted snow accumulations of up to 6 inches, while freeze warnings prevailed in Montana and Idaho.

National Agricultural Summary

For the Week of September 27-October 3

HIGHLIGHTS: Winter wheat seeding advanced under clear skies throughout most of the Great Plains. Frost extended into a few States but most crops reached maturity without serious damage. Farmers made good progress harvesting soybeans, corn and sorghum, except in Texas and several eastern States where rains hampered harvest operations.

SMALL GRAINS: Winter wheat seeding for the 1977 crop year advanced to the halfway point with good progress for the current period but lagged the pace of previous years because of earlier slow progress. At this time last year 57% of the crop was in the ground and on the average 60% is usually planted. In the western North Central States, which includes Kansas, planting stood at 53% complete and also lagged 1975's 66% and 64% average. Minnesota farmers planted only 71% of their crop compared to 99% in 1975 and 98% average. Kansas growers reached 50% complete, far behind last year's 65% and the 60% average. Among the western North Central States, only Nebraska farmers at 85% complete exceeded their 80% average but fell short of 1975's 90%. In the South Central States, which includes both Oklahoma and Texas, planting advanced to 41% complete only a few points behind 1975's 47% but well behind the 58% average. Oklahoma growers reached 43% complete, only one point behind last year and 8 points behind the average. Although some areas were slowed by rain, Texas wheat producers planted 40% of their crop. Last year Texas growers had 52% of the crop in the ground and normally 67% was planted.

CORN: Harvest of the United States corn crop advanced to 21% complete surpassing last year's 19% and the 17% average. Combining advanced the most in the western North Central and South Atlantic States.

In the eastern North Central States, harvesting stood at 9% complete equalling the average but short of 1975's 14%. At 10% complete, Ohio farmers matched last year and the average. Wisconsin farmers also hit 10% ahead of 1975's 3% and 1% average. Illinois farmers at 12% complete split the difference between 1975's 17% and 10% average. Harvest in the western North Central States reached 22% exceeding 1975's 15% and the 14% average. Iowa farmers reached 16% complete, 5 points ahead of last year. Minnesota and South Dakota growers also far surpassed most recent years.

COTTON: Development of the Nation's cotton crop lagged the average in most States. Notable exceptions included Mississippi and South Carolina. Boll development exceeded last year and the average in Mississippi, but harvest stood at 4% compared with 3% in 1975 and 10% average. Louisiana cotton growers reached 6% complete. In Texas, rain and wet fields slowed picking which reached only 10% complete, less than half 1975's 21% and also short of the 17% average. Hail caused extensive damage in the Texas southern high plains and cool weather also slowed cotton development. Growers defoliated throughout the Cotton Belt.

SOYBEANS: The United States soybean harvest reached 35% complete, surpassing both 1975's 23% and the 21% average. The North Central States of Illinois, Wisconsin, Minnesota, Iowa and South Dakota led the pace. Combining in the eastern North Central States at 42% shot 8 points ahead of last year and doubled the 21% average. Wisconsin harvest hit 10% compared with 1% in 1975

and a zero average. Illinois farmers combined 63% of the crop compared with 49% last year and 25% average. In the western North Central States, farmers harvested 47% of the 1976 crop more than double the 22% of last year and average. Iowa farmers combined almost 3 times 1975's rate. In Missouri, harvest reached the quarter mark surpassing 1975's 14% and 13% average. The Minnesota harvest more than doubled from last year.

OTHER CROPS: The Nation's sorghum harvest advanced to 43% complete short of last year's 46% but 10 points ahead of the 33% average. In Texas, harvest progressed slowly attaining 64% completion, lagging 1975's 67% but surpassing the 57% average. The Kansas sorghum harvest reached the quarter mark ahead of 1975's 20% and significantly beating the 10% average. Nebraska farmers combined 30% of the crop short of last year's pace of 45% but double the 15% average.

Louisiana farmers combined 95% of the rice crop, ahead of the 92% average. In Mississippi, harvest reached 44% complete compared with 48% last year and the 43% average. The Arkansas rice harvest, at 43%, fell short of last year's 67%.

Irish potato harvest advanced rapidly in Maine, but an unusual amount of water damage was evident. In Idaho, potato harvest hit 23%, more than double 1975's 11%.

Peanut harvesting was underway in all the major producing states but lagged the progress of recent years except in Mississippi. Georgia growers dug 75% of the crop and threshed 65% but normally 92% were dug and 84% threshed. A rain-slowed Texas harvest reached 36% complete compared with 55% last year and average. Oklahoma farmers just got started, with 2% of the crop harvested matching last year but short of the 6% average.

Tobacco harvest was nearly complete in the major producing States. Tennessee producers stripped 20% of the burley crop compared with 15% last year and 5% average. In Kentucky, 11% of the tobacco was cured and ready for stripping.

FRUITS AND NUTS: Apple harvest was very active in the Nation's major fruit regions. New York growers harvested concord grapes. In California, growers suffered substantial raisin losses, some losing the entire crop. Bunch rot and slip skins damaged wine grapes. Citrus harvest continued in Texas and Florida. Rain helped California citrus.

VEGETABLES: Frost killed most tender vegetables in New York. In Florida, cooler weather helped set and size fruit on cucumbers, eggplants, squash, peppers and tomatoes. In California, heavy rains delayed vegetable harvests and damaged some crops. Texas growers harvested a wide variety of vegetables.

PASTURES AND LIVESTOCK: Rains improved pastures in Texas and the eastern part of the United States. Elsewhere grasslands provided inadequate amounts of forage. Cattlemen moved herds from summer ranges. Fall calving began in California and Washington. Cattle were in good condition although in some areas they were already on a winter feeding schedule because of poor grazing conditions.

CORRECT Vol. 63, NO. 39 page 4, Dubuque, Iowa precipitation depart should read -1.0 .

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., October 3, 1976

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	0	2.4	+1.7	La.Baton Rouge . . .	72	-2	.6	-.1	Youngstown . . .	55	-3	T	-.6
ALA.Mobile . . .	72	-2	.3	-.8	Lake Charles . . .	72	-3	1.0	+ .1	OKLA.Okla. City . . .	66	-2	.1	-.7
ALA.Montgomery . . .	71	-1	T	-.8	New Orleans . . .	74	-1	.4	-.5	Tulsa . . .	66	-3	T	-.9
ALASKA.Anchorage . . .	41	-1	.5	0	Shreveport . . .	70	-3	.1	-.6	OREG.Astoria . . .	59	+3	.3	-.7
ARIZ.Flagstaff . . .	53	0	.5	+ .1	MAINE.Caribou . . .	45	-4	.8	0	Burns . . .	59	+3	T	-.1
ARIZ.Phoenix . . .	80	+1	T	-.1	Portland . . .	52	-2	.4	-.3	Medford . . .	65	+3	T	-.3
ARIZ.Tucson . . .	75	-1	.1	-.1	MD.Baltimore . . .	62	-2	3.0	+2.4	Pendleton . . .	66	+3	T	-.1
ARIZ.Winslow . . .	61	-3	.1	-.1	MASS.Boston . . .	65	+5	.6	-.1	Portland . . .	62	+3	.1	-.1
ARIZ.Yuma . . .	81	-1	T	0	Chatham . . .	58	-1	1.7	-.1	Salem . . .	61	+3	.1	-.5
ARK.Fort Smith . . .	66	-4	.1	-.7	MICH.Alpena . . .	52	0	0	-.6	PA.Allentown . . .	58	-1	1.3	+ .6
ARK.Little Rock . . .	69	+1	.1	-.7	Detroit . . .	58	-1	T	-.5	Erie . . .	55	-1	2.1	+1.5
CALIF.Bakersfield . . .	72	-1	.5	+ .5	Flint . . .	58	+1	0	-.5	Harrisburg . . .	60	-2	1.4	+ .8
CALIF.Eureka . . .	58	+2	.1	-.3	Grand Rapids . . .	57	-1	0	-.7	Philadelphia . . .	55	-4	1.1	+ .5
CALIF.Fresno . . .	65	-5	1.8	+1.7	Houghton Lake . . .	52	-1	.1	-.6	Pittsburgh . . .	55	-3	1.1	+ .5
CALIF.Los Angeles . . .	70	-1	0	0	Lansing . . .	56	-1	T	-.6	Scranton . . .	56	-3	.4	-.3
CALIF.Red Bluff . . .	71	0	.8	+ .7	Marquette . . .	55	+1	0	-.7	R.I.Providence . . .	72	+1	1.2	+ .2
CALIF.San Diego . . .	73	+5	T	0	Muskegon . . .	56	-1	T	-.7	S.C.Charleston . . .	71	+1	2.3	+1.5
CALIF.San Francisco . . .	63	0	.6	+ .5	S. Ste. Marie . . .	52	+3	T	-.8	Columbia . . .	67	0	1.2	+ .4
CALIF.Stockton . . .	69	0	.6	+ .5	MINN.Duluth . . .	52	+2	0	-.6	S.D.Aberdeen . . .	58	+4	.1	-.3
COLO.Denver . . .	57	-1	.1	-.2	Internat'l Falls . . .	59	+3	T	-.5	Huron . . .	56	0	.5	+ .1
COLO.Grand Junction . . .	60	-2	.3	+ .1	Minneapolis . . .	56	+1	.2	-.4	Rapid City . . .	60	+4	T	-.3
COLO.Pueblo . . .	57	-4	1.0	+ .8	Rochester . . .	55	-1	.2	-.3	Sioux Falls . . .	57	+1	.1	-.4
CONN.Bridgeport . . .	61	-1	3.0	+2.4	St. Cloud . . .	71	-1	.4	-.2	TENN.Chattanooga . . .	66	-1	1.3	+ .5
CONN.Hartford . . .	57	-1	1.0	+ .3	MISS.Jackson . . .	69	-2	T	-.6	Knoxville . . .	71	+4	1.8	+1.2
D.C.Washington . . .	64	-2	2.7	+2.1	Meridian . . .	64	0	T	-1.0	Memphis . . .	69	0	.2	-.4
FLA.Apalachicola . . .	75	0	.6	-.9	MO.Columbia . . .	64	-1	0	-.9	Nashville . . .	63	-4	1.7	+1.1
FLA.Daytona Beach . . .	75	-2	.3	-1.3	Kansas City . . .	65	0	.1	-.5	TEX.Abilene . . .	67	-5	.2	-.4
FLA.Ft. Myers . . .	76	-4	1.9	+ .2	St. Louis . . .	64	-1	.3	-.7	Amarillo . . .	60	-5	.5	+ .1
FLA.Jacksonville . . .	74	-1	.3	-1.2	Springfield . . .	59	+5	.4	+ .1	Austin . . .	72	-3	1.3	+ .5
FLA.Key West . . .	82	0	.8	+ .6	MONT.Billings . . .	57	+4	.1	0	Beaumont . . .	72	-3	.7	-.3
FLA.Lakeland . . .	77	-1	1.7	+ .3	Glasgow . . .	62	+9	0	-.2	Brownsville . . .	77	-2	1.3	+ .2
FLA.Miami . . .	79	-1	.6	-1.6	Great Falls . . .	60	+7	0	-.2	Corpus Christi . . .	76	-2	T	-1.0
FLA.Orlando . . .	77	-1	.6	-.8	Havre . . .	60	+6	T	-.2	Dallas . . .	67	-5	.2	-.4
FLA.Tallahassee . . .	73	-2	.9	-.3	Helena . . .	55	+7	.1	-.2	Del Rio . . .	73	-3	.1	-.6
FLA.Tampa . . .	76	-2	1.3	+ .3	Kalispell . . .	60	+5	T	-.1	El Paso . . .	66	-4	.4	+ .2
FLA.W.Palm Beach . . .	80	0	.1	-2.3	Miles City . . .	60	+5	T	-.2	Fort Worth . . .	72	-1	.5	-.2
GA.Atlanta . . .	68	-1	.5	-.5	Missoula . . .	58	-8	.1	-.1	Galveston . . .	76	-1	.9	-.1
GA.Augusta . . .	71	+1	.5	-.1	NEBR.Grand Island . . .	60	-1	.1	-.4	Houston . . .	71	-5	.3	-.7
GA.Macon . . .	73	+1	3.8	+3.2	Lincoln . . .	59	0	.2	-.3	Lubbock . . .	62	-5	.7	+ .1
GA.Savannah . . .	73	+1	.9	-.1	Norfolk . . .	56	-1	T	-.4	Midland . . .	67	-4	.2	-.2
HAWAII.Hilo . . .	79	+4	T	-1.9	N.Platte . . .	63	+3	.1	-.5	San Angelo . . .	69	-4	T	-.6
HAWAII.Honolulu . . .	79	-1	T	-.2	Omaha . . .	59	+3	0	-.3	San Antonio . . .	71	-5	1.1	+ .3
HAWAII.Kahului . . .	79	+1	T	-.1	Valentine . . .	51	-1	1.5	+1.4	Victoria . . .	74	-3	1.1	+ .1
HAWAII.Lihue . . .	62	+4	1.2	+ .1	NEV.Ely . . .	73	-2	.7	+ .7	Waco . . .	73	-2	1.6	+ .9
IDAHO.Boise . . .	68	+10	.4	+ .2	Las Vegas . . .	59	+3	.3	+ .2	Wichita Falls . . .	69	-3	.4	-.3
IDAHO.Lewiston . . .	57	+3	1.8	+1.7	Reno . . .	60	+6	.4	+ .3	UTAH.Blanding . . .	56	-2	.2	-.1
IDAHO.Pocatello . . .	62	-2	.7	0	Winnemucca . . .	52	-3	.4	-.2	Salt Lake City . . .	61	+2	.5	+ .3
ILL.Cairo . . .	64	+2	T	-.7	N.H.Concord . . .	61	-1	1.6	+1.0	VT.Burlington . . .	51	-3	.4	-.2
ILL.Chicago . . .	82	+2	T	-.8	N.J.Atlantic City . . .	59	-4	1.4	+ .8	VA.Lynchburg . . .	64	0	4.1	+3.4
ILL.Moline . . .	82	+1	T	-.7	Trenton . . .	59	-4	1.4	+ .1	Norfolk . . .	69	+2	1.3	+ .5
ILL.Peoria . . .	60	+1	0	-.8	N.MEX.Albuquerque . . .	62	-3	.1	-.1	Richmond . . .	66	+1	2.8	+2.1
ILL.Rockford . . .	64	+1	T	-.8	Roswell . . .	64	-2	T	-.4	Roanoke . . .	62	-2	2.2	+1.4
ILL.Springfield . . .	64	0	.7	+ .1	N.Y.Albany . . .	54	-3	.1	-.6	WASH.Colville . . .	60	+7	.2	0
IND.Evansville . . .	58	-2	T	-.6	Binghamton . . .	52	-4	.2	-.5	Omak . . .	61	+5	.1	-.4
IND.Ft. Wayne . . .	60	-2	.5	-.1	Buffalo . . .	55	-2	.1	-.6	Quillayute . . .	55	+1	.5	-1.4
IND.Indianapolis . . .	59	0	0	-.7	New York . . .	61	-3	1.1	+ .5	Seattle-Tacoma . . .	61	+4	.2	-.4
IND.South Bend . . .	63	+2	0	-.8	Rochester . . .	55	-3	.2	-.4	Spokane . . .	62	+8	T	0
IOWA.Burlington . . .	64	+4	.3	-.3	Syracuse . . .	54	-4	.1	-.5	Walla Walla . . .	68	+7	.3	0
IOWA.Des Moines . . .	60	+3	0	-.9	N.C.Asheville . . .	63	+1	.7	-.1	Yakima . . .	63	+6	T	-.1
IOWA.Dubuque . . .	59	0	.1	-.4	Charlotte . . .	66	-2	1.6	+ .9	W.Va.Beckley . . .	54	-5	2.8	+2.1
IOWA.Sioux City . . .	63	0	.5	-.1	Greensboro . . .	64	-1	1.5	+ .7	Charleston . . .	58	-5	4.0	+3.4
KANS.Concordia . . .	63	-1	.3	-.1	Hatteras . . .	72	+2	2.2	+1.0	Huntington . . .	59	-4	2.4	+1.8
KANS.Dodge City . . .	57	-2	.1	-.2	Raleigh . . .	68	+2	.3	-.4	Parkersburg . . .	57	-6	1.8	+1.2
KANS.Goodland . . .	64	0	T	-.7	Wilmington . . .	72	+1	.3	-.8	WIS.Green Bay . . .	56	+1	T	-.6
KANS.Topeka . . .	63	-3	T	-.8	N.DAK.Bismarck . . .	57	+4	T	-.2	La Crosse . . .	60	+2	.1	-.6
KANS.Wichita . . .	59	-5	1.9	+1.4	Fargo . . .	58	+5	.1	-.2	Madison . . .	58	+3	0	-.7
NY.Lexington . . .	63	-1	.6	0	Williston . . .	57	+5	.1	-.1	Milwaukee . . .	60	+3	T	-.6
NY.Louisville . . .	63	-1	.6	0	OHIO.Akron-Canton . . .	56	-3	T	-.6	WYO.Casper . . .	55	+1	.5	+ .3
					Cincinnati . . .	59	-4	.6	+ .1	Cheyenne . . .	54	0	T	-.2
					Cleveland . . .	56	-4	T	-.6	Lander . . .	55	+2	.1	-.2
					Columbus . . .	57	-3	.4	-.1	Sheridan . . .	56	+3	.4	+ .1
					Dayton . . .	57	-5	.5	0	P.R.San Juan . . .	82	+1	2.5	+1.2
					Toledo . . .	56	-3	T	-.5					

Based on 1941-70 normals.

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State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by SRS State offices in cooperation with the National Weather Service, NOAA.

ALABAMA: Warm temperatures and scattered rainfall. Cooler 30th. Weekend clear and dry with moderate temperatures. Rainfall ranged from 2.72 in. to none. Greatest amounts in north and central with scattered light amounts in south.

Fieldwork: 4.5 days suitable. Soil moisture short to adequate. Major activities included harvesting corn and peanuts, defoliating cotton and preparing machinery for harvest. Cotton fair to good, 36% with bolls open, 41% 1975, 50% average. Corn 48% harvested, 33% 1975, 29% average. Soybeans maturing slowly, 30% reported mature, 39% 1975, 38% average. Peanut harvest advancing, 58% combined, 65% 1975, 81% average. Seeding small grains 23% complete, 26% 1975.

ARIZONA: Light showers; over 0.50 in. northwest and central mountains. Temperatures 1° above normal to 7° below.

Rainy weather slowed field operations most crops. Rains halted cotton picking southwest, central. Yields good, high humidity conducive to boll rot possibly reducing quality. Harvest grain sorghum delayed. Early sugarbeet fields good stands. Alfalfa hay baling delayed, some rain damage stacked hay. Rains slowed cucumber harvest, lettuce thinning. Quality cantaloups adversely affected wet conditions. Lettuce planting continues. Lemon harvest increasing. Oranges, grapefruit sizing normally. Showers improved range conditions, desert ranges still dry. Stock water adequate higher elevations, short to adequate desert. Livestock mostly good condition, hay and grain supplies adequate.

ARKANSAS: Temperatures from 1° above to 4° below normal. Extremes: 94 and 37°. Rainfall general, about 0.50 in.

Soybean harvest 5% complete, 6% last year. Beans still in field mostly fair. Considerable cotton defoliant applied. Open bolls 52% of acreage, 55% year ago. Harvest 4% complete, 10% last year. Rice 43% harvested, 67% year ago. Sorghum harvest 71% complete, 65% year ago. Wheat 14% planted, 21% last year. Additional moisture needed. Hay shortage caused additional sorghum stubble to be baled. Pastures short except where adequate moisture received.

CALIFORNIA: Temperatures 1 to 2° above normal except in San Joaquin Valley and central coast where average 1° below normal. Precipitation latter half of week except in southeastern interior. Largest amounts along coastal areas and San Joaquin Valley.

Rains stopped fieldwork San Joaquin Valley and desert areas. Damage to alfalfa hay, dry beans, cotton. Harvest corn, milo, beans, rice, hay delayed by cool, damp weather. Planting small grain started. Rains increased damage to most crops. Date quality continues to decline. Insects damage figs. Raisin loss substantial, many growers lost entire crop, damage continues. Bunch rot, slip skins increase wine grapes. Rains benefited citrus. Heavy rains caused harvest delays and damage in lettuce, celery, carrots, brussels sprouts, tomatoes, bell peppers, cantaloups. Some cantaloup, canning tomato acreage lost. Rains improved condition rangeland many areas. Grass seed that germinated earlier expected to continue growth and reach maturity. Rains stabilized stock water supplies. Cattle good condition, calving begun.

COLORADO: Widespread precipitation 27th. Snow 12 in. higher elevations east Continental Divide. Light to moderate precipitation mountains weekend. Temperatures 3 to 8° below normal beginning warming seasonal 1st.

Winter wheat seeding 88%, 93% 1975, 90% average. Emergence 71%, 65% 1975, 64% average. Grain sorghum 39% ripe, 30% 1975. Corn mature 91%, 89% 1975, 81% average; harvested 3%, 4% 1975. Silage harvested 87%, 96% 1975, 85% average. Dry beans threshed 63%, 59% 1975, 56% average. Alfalfa 4th cutting 33%. Range and pasture condition fair. Topsoil moisture adequate, subsoil short.

FLORIDA: Temperatures near normal until 30th, below normal remainder of week. Rainfall mostly moderate ranging from less than 0.10 in. to over 3.00 in.

Soil moisture mostly adequate but a few dry spots Panhandle. Corn harvest final stages. Peanut harvest active Panhandle. Soybean harvest beginning. Sugarcane good condition, harvest for seed continues. Land preparation for planting winter grazing and small grains active. Pecan prospects improved slightly. Pastures continue to provide mostly fair to good grazing, except some Panhandle, north central areas poor to fair. Excess growth some pastures cut for hay. Ranchers making good progress getting winter pastures seeded. Cattle, calves good condition. Citrus condition excellent. Moisture adequate, very little irrigation. Color break on grapefruit and oranges, harvest accelerating. Planting continues active most crops. Cooler temperatures last week beneficial to setting, sizing fruit on older cucumber, eggplant, squash, pepper, and tomato plantings. Sweet corn harvest well underway. Light harvest eggplant, squash, pole beans.

GEORGIA: Temperatures 1° above normal. Scattered showers until 29th, then dry. Rainfall variable, averaging 1.00 in.

Soil moisture extremely variable. Southern half adequate to excessive, northern half mixed. Fieldwork: 4.0 days suitable. Cotton mostly fair to good, 51% open. Peanuts mostly fair to good, 76% dug, 65% threshed, last year 85% and 75%, average 92% and 84%. Corn fair to mostly good; 60% harvested, last year 42%, average 31%. Hay, soybean and pasture condition fair to good. Apples good, harvest very active. Wheat 10% planted, rye 15% seeded. Pecans mostly fair to good. Cattle fair to mostly good. Hogs good condition.

HAWAII: Hot, humid weather continuing. Most areas dry. Light showers mainly higher elevations and windward areas. Irrigation continues heavy.

Vegetable supplies adequate. Banana supplied heavy. Pineapple increasing moderate to heavy. Sugar harvesting steady. Pastures leeward dry, windward getting dry.

IDAHO: Extremes: 88 and 29°. No precipitation most areas.

Crops harvested 1976, 1975: Winter wheat 100%, N.A.; potatoes 23%, 11%; barley 90%, 95%; spring wheat 90%, 95%. Planted: Winter wheat 50%, N.A.; barley 45%, 25%. Emerged: Winter wheat 31%, N.A.; barley 20%, 20%.

ILLINOIS: Temperatures 1 to 3° below normal north, near normal south. Precipitation tract

north, up to 0.75 in. south.

Corn 12% harvested, 17% 1975, 10% average; most advanced south; corn moisture high many areas. Soybeans 63% combined, 49% 1975, 25% average; most advanced central and east. Grain sorghum 10% harvested. Winter wheat 20% seeded, 33% 1975, 29% average. Pastures 11% good, 42% fair, 43% poor, 4% failure. Soil moisture 83% short, 17% adequate. Fieldwork: 4.5 days suitable.

INDIANA: Near normal weather except very light showers, if any, north, about 0.30 in. central, and 0.60 in. south. Temperatures ranged from 34 to 88°.

Fieldwork: 4 days suitable. Topsoil moisture short to mostly adequate, subsoil moisture short to adequate. Corn exceeded 5% harvested, about average. Corn 90% mature, 1975 80%, average 70%. Soybeans 20% combined, 1975 15%, average 15%. Soybeans 90% shedding leaves. Wheat land 70% plowed, 1975 75%, average 80%. Wheat and barley 15% seeded, rye 20% seeded. Pastures improved, poor to fair.

IOWA: Temperatures 2 to 4° above normal while precipitation near normal southwest to well below normal elsewhere. Scattered showers early with warmer temperatures latter part of week.

Dry with additional rain need. Fieldwork and harvest slowed early week due to wet conditions some areas. Virtually all corn and soybeans mature with harvest ahead of previous years. Yields of harvested fields highly variable due to dryness during growing season. Some corn chopp- ing continues due to lack of hay and pastures. Corn condition 3% excellent, 39% good, 45% fair, 13% poor. Corn acreage harvested 16%, 10% 1975. Soybean condition reported at 1% excellent, 45% good, 47% fair, 7% poor. Soybeans virtually all mature; harvest 58%, 20% 1975. Winter wheat seeded 54%. Topsoil and subsoil moisture short. Rains helped pasture conditions but still short. Livestock in good condition as supplemental feeding continues.

KANSAS: Temperatures near normal. Precipitation limited 0.75 in. southwest early week and north central.

Pasture condition improved slightly, greening up in west but short. Good progress in wheat seeding, 50% planted, 65% last year, 60% average. Early wheat greening up in west. Corn 90% mature, same as last year, 85% average; 25% harvested, 30% last year, 20% average. Sorghum 75% mature, 70% last year, 55% average; 25% harvested, 20% last year, 10% average. Soybeans harvested 10% complete, same as average.

KENTUCKY: Temperatures couple degrees below seasonal normal. Rain except for 1st and week- end. Rainfall averaged around 1.00 in. in west and central, and 2.00 in. in east with locally heavier amounts.

Soil moisture adequate; drier in west, sur- plus moisture in mountains. Fieldwork: 3.0 days suitable. Main activities included corn, soybeans, and hay harvest, fall plowing and small grain seeding. Corn 17% harvested, soybeans 11% harvested but 21% still with green leaves. To- bacco harvest practically complete, curing nicely with minor houseburn. About 11% tobacco cured and ready for stripping. Fall wheat seeding 21% complete.

LOUISIANA: Temperatures 3 to 4° below normal. Extremes: 95 and 44°.

Soil moisture short to adequate. Fieldwork: 5 days suitable. Cotton condition fair; open bolls 66%, harvested 6%. Rice 95% harvested, 92% average. Soybeans fair to good condition, 77% turning color, 57% dropping leaves; 19% harvested, 16% year ago. Sugarcane good, 91% planted, 70% last year. Corn 87% harvested, 82% year ago. Sorghum 90% ripe; 70% harvested, 47% year earlier, 64% average. Sweetpotatoes fair to good, 62% dug, 48% last year. Hay, pastures, livestock fair.

MARYLAND AND DELAWARE: Temperatures near normal; highs slightly above and lows slightly below normal. Precipitation moderate to heavy, well distributed. Weekend rainy and cool.

Corn harvest slowed by rain. Corn for grain 35% completed; 40% 1975, 32% average. Corn for silage 85%; 80% 1975, 82% average. Soybeans 35% shed leaves; 48% 1975, 35% average. Tobacco harvest nearly complete. Wet weather hindering stripping and curing. Apple harvest halved, red and golden delicious at peak. Seeding of small grains active. Oats 60%, barley 50%, rye 30%, wheat 20%.

MICHIGAN: Extremes: 18 and 88°. Killing frost 28th. Precipitation very light, ranging from 0 to 0.06 in.

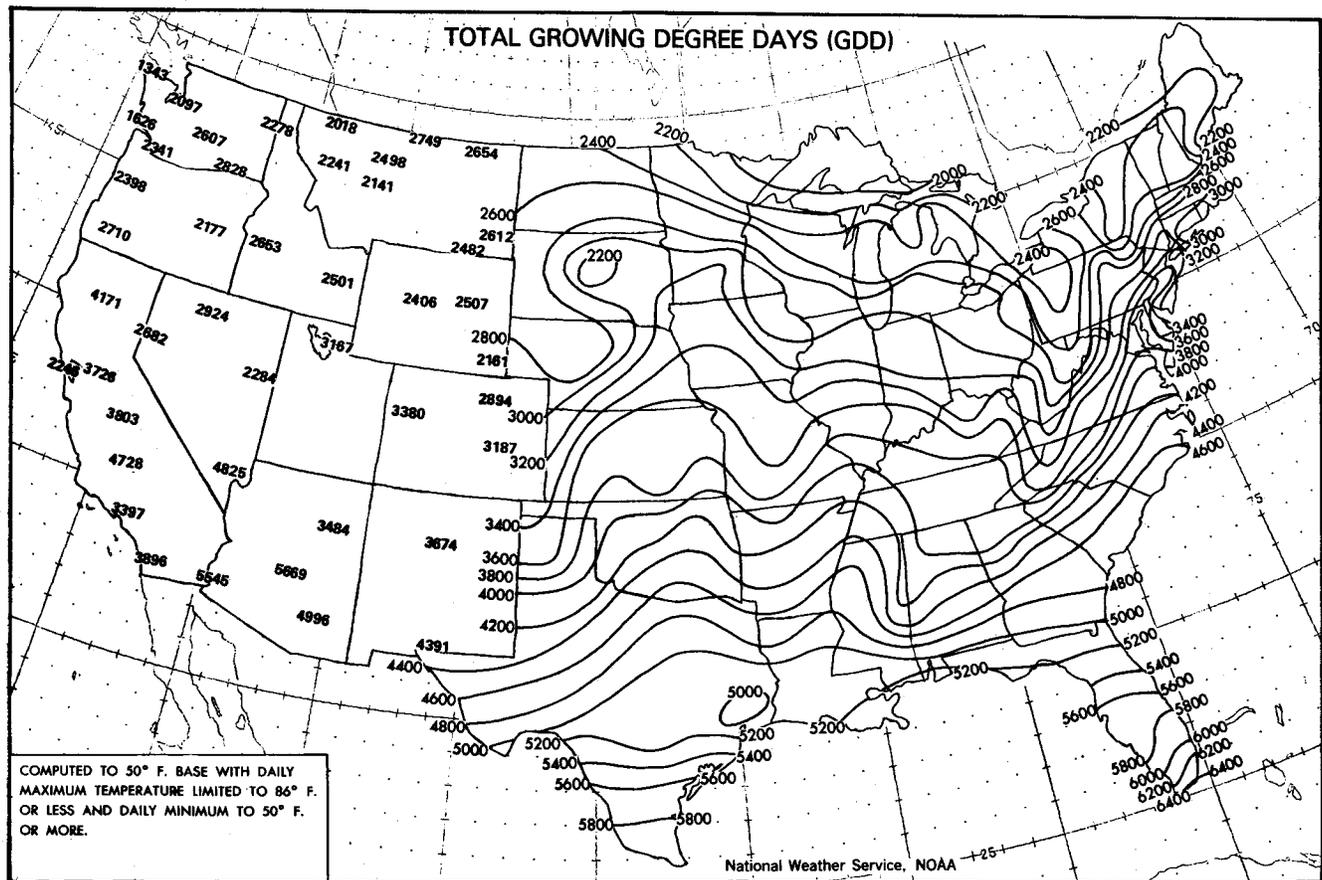
Soil moisture short. Grain corn 5% harvested. Silage 80% cut. Winter wheat 50% planted. Dry beans almost 90% harvested. Soybean harvest almost 15% complete. Potatoes about 65% dug. Third cutting hay 80% complete, 50% last year. Pasture feed below normal. Fall apple picking advancing well. Grape harvest progressing, but low yields. Sweet corn and tomatoes all but done. Cauliflower almost 50% cut. All other vegetables progressing well.

MINNESOTA: Temperatures 2 to 4° above normal. Week began cold with frost then rapid warming by midweek. Extremes: 93 and 23°. Precipita- tion only traces to 0.10 in. central and north 0.10 to 0.30 in. portions of south. Growing season departures 7.00 in. to 11.00 in. below normal.

Good week for harvest. Rapid progress. Top- soil, subsoil moisture supplies very short. Corn 27% picked, 1975 6%, normal 6%; moisture content 24%, 1975 28%, normal 29%. Corn silage 98% cut, 1975 95%, normal 86%. Soybeans 72% combined, 1975 35%, normal 28%; moisture content 11%, 1975 12%, normal 14%. Harvested: Flax 97%, 1975 90%, normal 87%; potatoes 80%, 1975 62%, normal 62%; sugarbeets 8%, 1975 9%, normal 19%; sunflowers 58%, 1975 1%, normal 13%. Seeded: Winter wheat 71%, 1975 99%, normal 98%; rye 57%, 1975 99%, normal 98%.

MISSISSIPPI: Temperatures near normal.

Extremes: 41 and 95°. Soil moisture very short to short south, short to adequate elsewhere. Fieldwork: 4.8 days suitable. Cotton 83% open bolls, 74% 1975, 52% average; 4% harvested, 3% 1975, 10% average. Soybeans 69% shedding, 45% 1975; 35% mature, 11% 1975; 8% harvested, 5% 1975, 10% average. Rice 87% ripe, 83% 1975; 44% harvested, 48% 1975, 43% average. Corn 46% harvested, 27% 1975, 29% average. Sorghums 74% harvested, 47% 1975, 55% average. Hay crops 91% harvested, 85% 1975, 84% average. Peanuts 67% harvested, 66% 1975, 56% average. Sweetpotatoes 50% harvested, 47% 1975, 48% average. Winter wheat 33% planted, 33% 1975. Oats 29% planted, 36% 1975. Cotton and soybeans in fair condition. Rice and corn in fair to good condition.



MISSOURI: Temperatures 1 to 2° above normal east Ozarks and Bootheel, 1° below normal northwest prairie, normal elsewhere. Precipitation 1.00 in. north and 0.50 in. elsewhere.

Fieldwork: 5.0 days suitable. Soybeans 78% mature, 56% 1975; 25% harvested, 14% 1975, 13% normal. Soybeans poor to fair. Corn 92% mature, 96% 1975; 45% harvested, 46% 1975, 25% normal. Grain sorghum 83% mature, 86% 1975; 34% harvested, 46% 1975, 24% normal. Cotton 27% bolls open, 97% 1975, 50% normal. Cotton poor to fair. Winter wheat 16% seeded, 28% 1975. Plowing for spring crops 10% completed, 17% 1975. Pastures poor. Soil moisture supplies short.

MONTANA: Warm, dry weather with cool, frosty nights. Temperatures well above normal. Sharp cooling over weekend, with rain or snow. Some heavy at times over southwest and south central. Topsoils dry east of the Continental Divide.

Winter wheat condition fair, about 90% seeded. Some delay due to moisture shortage. Significant wheat stored on ground north. Sugarbeet harvest 10% done. Corn silage and dry bean harvest over 90% complete. Potato harvest starting west, about 20% complete statewide. Almost 40% cattle and sheep moved from summer ranges.

NEBRASKA: Temperatures 10 to 21° below normal first, above normal remainder. Precipitation light with heaviest south central and southeast.

Topsoil moisture short 60% and adequate 40%. Subsoil moisture supplies 94% short and 6% adequate. Wheat 85% seeded, normal 80%, 1975 90%. Corn 90% mature, normal and 1975 90%; 15% harvested for grain, same as normal and 1975. Sorghum 90% ripe, 75% normal and 95% 1975; 30% harvested, 15% normal, 45% 1975. Soybeans 80%

mature, 60% normal and 80% 1975; 30% harvested, same as normal and 1975. Dry bean harvest nearly complete. Sugarbeet harvest underway. Alfalfa hay 60% of fourth cutting harvested. Pasture and range feed supplies short. Cattle being moved to stalk fields. Supplemental feeding on short pastures.

NEVADA: Mild wet weather. Numerous thunder-shower totals about 0.50 in. north, over 1.00 in. south. Temperatures a few degrees above normal north and near normal south.

Fair progress potato digging. Alfalfa hay 3d cutting continued north and west. Sixth cutting continued southern valleys. Most cotton bolls open. Livestock moving off summer ranges.

NEW ENGLAND: From 0.50 to 1.50 in. rain slowed harvest until midweek. Temperatures normal.

Aroostook County, Maine potato harvest progressed rapidly. Yields good, but unusual amount water damage. Corn silage yields high, much corn immature. Apple and cranberry harvests continue. Pumpkins and squash available in volume.

NEW JERSEY: Temperatures 1 to 5° below normal with frost in central and northern sections 29th. Extremes: 31 and 79°. Rainfall 1.70 in. north, 1.45 in. central and 1.90 in. south. Soil moisture, in percent of field capacity, averaged 96% north, 86% central and 91% south. Soil temperature averaged 56° north, and 64° south.

Rains very beneficial to late crops. Harvest active. Cabbage and lettuce volume increasing. White potatoes about 80% harvested. Sweet-potato harvest general. Apple and cranberry harvest continue active. Harvest of corn for grain and soybeans will resume as fields dry.

Fall planted grain and cover crop conditions improved by rain. Seeding continues.

NEW MEXICO: Rain all sections with heaviest amounts northern mountains and northeast but also substantial south central mountains.

Soil moisture short to adequate. Range and livestock fair north, fair to good south. Cotton fair to good, 20% open, light harvest activity. Alfalfa generally good, fourth cut complete south, fifth cut 20 to 90% complete south. Irrigated grain sorghum fair to good, complete in dough stage, light harvest in few areas. Corn good, ensilage harvest continued. Winter wheat, barley seeding advanced rapidly. Irrigated 90% planted, 80% emerged and acceptable stand. Dryland 90% planted, 50% emerged and acceptable stand. Onion planting started Mesilla Valley.

NEW YORK: Temperatures 3° below to 2° above normal. Extremes: 74 and 20°. Widespread frost. Rainfall under 0.50 in. except 1.00 to 3.00 in. Lower Hudson Valley.

Harvest slowed by wet conditions. Corn silage 25% in. 3d cutting alfalfa 70%. Potato harvest continues all areas. Killing frost some areas finished tender vegetables. Harvest continues for hardy vegetables. Apple harvest on schedule. Grape harvest continues with concords now underway.

NORTH CAROLINA: Temperatures near normal. Precipitation above normal.

Fieldwork: 3.7 days suitable. Soil moisture mostly adequate. Soybeans mostly fair. Pastures mostly fair to good. Corn for grain 67% harvested; 48% 1975, 50% average. Corn for silage 90% cut. Burley tobacco 92% harvested, 89% 1975. Peanuts 15% dug, 8% threshed, 24% dug 1975, 9% threshed 1975, 25% average threshed. Very little cotton harvested, behind normal progress. Sorghum grain 45% harvested, 22% 1975. Sweetpotatoes 33% dug, 31% 1975. Apples 57% picked, 69% 1975, 58% average. Wheat less than 10% planted, 14% 1975, 19% average.

NORTH DAKOTA: Temperatures 3 to 7° above normal. Extremes: 93 to 23°. Precipitation ranged 0.51 in. below normal to 0.01 in. above normal. Weekend above normal temperatures with scattered showers or thundershowers with high winds 3d.

Potato digging nearing completion. Sugarbeet lifting about 10% complete with stockpiling to begin next week. Winter wheat and rye seeding nearing completion. Ranges and pastures poor.

OHIO: Showers 27th, locally heavy rainfall.

Crops good to excellent condition, most mature and safe from frost. Rain slowed active harvest. Corn harvested less than 10%, same as last year and normal; virtually all mature. Soybeans harvested 20%, same as last year and normal. Beans 70% mature, same as average. Corn silage 75%, same as last year, 70% normal. Apples coloring well, 40% picked, on schedule. Grapes harvested, 55% good crop. Processing tomatoes virtually complete. Potato vines drying, 70% dug, 65% normal. Sugarbeets lifting just started, behind schedule, sugar content good. Fall acreage planted: Wheat 30%, 25% 1975, 35% average; barley 60%, rye 40%, both on schedule. Moisture adequate for good germination. Pasture condition fair to good. Soil moisture mostly adequate. Fieldwork: 4.0 days favorable.

OKLAHOMA: Temperatures averaged from 1 to 5° below normal. Precipitation ranged from 0.18 in.

east central to 1.11 in. Panhandle. Weekend very warm with scattered light rains.

Topsoil moisture adequate. Subsoil moisture short to adequate. More rains needed mostly central and southeast. Wheat good condition, 43% planted, normal 51%, and 44% 1975. Oats and barley good condition. Oats 27% planted, normal 42%, and 53% 1975. Barley 16% planted, normal 32%, and 37% 1975. Corn good condition, 43% harvested, 37% normal, and 35% 1975. Sorghum fair to good condition, 24% harvested, 18% normal, and 25% 1975. Cotton fair condition, excessive heat caused premature opening of bolls in some areas, 39% bolls open, 50% normal, and 29% 1975. Peanuts fair condition, 2% harvested, 5% normal, and 14% 1975. Soybeans good condition, 2% harvested, 6% normal, and 2% 1975. Pasture and range fair to good condition. Livestock mostly good condition.

OREGON: Temperatures 2 to 10° above normal. Extremes: Mid 80's, mid 40's west; high 80's, mid 30's east. Precipitation scattered and light.

Fall soil preparations and seedings continue. Corn for silage harvest continues. Early apple harvest beginning. Sweet corn picked, crop late. Onion harvest continues. Filberts dropping more rapidly. Nut size good but crop later than normal. Potato harvest beginning in later areas. Ranges and pastures in excellent condition although some drying reported. Cattle and sheep in excellent condition out of summer ranges.

PENNSYLVANIA: Cloudy with rain and drizzle beginning and last half of period central and east. Mostly dry and sunny northwest. Rainfall from less than 0.10 in. northwest increasing to 1.00 to 2.00 in. central areas and to 2.00 to 5.00 in. south central. Temperatures 1 to 6° below normal. Extremes: 77 and 26°.

Fieldwork: 4.0 days suitable. Soil moisture adequate to surplus. Activities: Sowing wheat and barley; making hay; harvesting ensilage corn; picking apples. Potatoes 69% dug, last year 58%. Tobacco 97% cut, last year 92%. Ensilage corn 56% harvested, 55% in 1975. Corn 8% dough, 51% dent, 36% mature, 5% harvested; 47% mature in 1975. Fall plowing 70%, last year 59%. Barley sown 77%. Wheat sown 50%. Alfalfa third cut 90%, fourth cut 60%. Quality of hay mostly fair. Feed from pastures average to above. Apple harvest active.

PUERTO RICO: Island rainfall 1.84 in. or 0.03 in. below normal. Temperatures about 80° on coasts and 74° interior. Extremes: 93 and 58°.

Weather favorable for development sugarcane, ratoons and new plantings although more rains still needed some areas. Good weather for ripening coffee bean. Harvest slowed by heavy rains western interior. Tobacco seedbeds developing well. New plantings made. Good recuperation pastures due recent rains. Planting and fertilizing main activities. Planting pumpkins, corn, vegetables and sweetpotatoes. Abundance of bananas on market.

SOUTH CAROLINA: Temperatures warmer than normal, daytime highs in 80's, lows in 60's. Cooler late week. Extremes: 90 and 46°. Rainfall above normal most areas.

Rains slowed field activities. Corn, sweetpotato, sorghum, fall hay, peanut harvests underway. Cotton defoliation, harvest underway. Some soybeans cut for hay. Crop conditions: Poor to fair - pecans; fair - cotton, soybeans; fair to good - livestock, pastures, fall vegetables. Corn harvested 80% 1976, 69% 1975, 59% average.

Peanuts harvested 24% 1976. Cotton open bolls 72% 1976, 69% 1975, 69% average. Soybeans leaves turning 34% 1976, 39% 1975, 46% average. Soybeans shedding leaves 14% 1976, 22% 1975, 18% average. Sweetpotatoes harvested 30% 1976. Winter grazing planted 38% 1976, 39% 1975, 37% average.

SOUTH DAKOTA: Temperatures averaged 4° below to 9° above normal. Extremes: 18 and 94°. Scattered showers but little precipitation, up to 0.50 in. Moisture deficiency in east ranges from 6.00 to 13.00 in.

Harvesting of row crops in full swing. Excellent harvesting weather. Corn for grain harvest 30% complete, 1975 11%, normal 15%. Grain sorghum 50% harvested, 1975 26%, normal 26%. Soybean harvest 70% complete, 1975 27%, normal 29%. Sunflower harvest past half-way point. Alfalfa seed harvest making rapid progress. Below average yields for all crops. Fall seeded grain stands vary in condition, depending on amounts of precipitation received. Large shipments of hay continue to move into State to supplement cattle feed. Haystacks being moved for winter feeding.

TENNESSEE: Rains of 0.50 to 1.00 in. with heavier amounts middle and east. Temperatures normal.

Rains halt farm activities mostly east half. Fieldwork: 3.1 days suitable. Soil moisture adequate. Pastures improving. Corn harvest in full swing, 25% harvested, 23% last year, and same as average. Corn 85% mature but high in moisture, 85% last year, 83% average. Cotton 20% open boll stage, 40% last year, 55% average. Cotton crop much behind normal. Soybeans 15% mature, 13% last year, 17% average. Burley tobacco 20% stripped, 15% last year, 5% average. Fall plowing 65% completed, 65% last year, 70% average. Wheat 35% seeded, 30% last year, 35% average.

TEXAS: Rain, heaviest 27th, 28th. Coastal sections received 0.50 in. above normal. Temperatures 2 to 6° below normal; averages 68° in Panhandle to 77° along coast.

Rain, wet slow fieldwork. Cotton development on plains slowed by cool. Cotton harvest 10% complete, 21% 1975 and 17% average. Hail caused extensive damage on southern High Plains. Boll weevils continue northern Low Plains, where defoliation begun. Sorghum harvest 64% complete, 67% 1975 and 57% average. Moisture content low. Corn harvest slowed, 45% complete, 61% 1975, 63% average. Fields most areas good. Peanut harvest continues slow, but should move ahead rapidly as weather permits. Wheat most areas growing well, stands some areas up 4.0 in. Armyworms most areas. Planting, 40% complete, behind 52% 1975 and 67% average.

Lower Rio Grande Valley early lettuce emerged. Disease in some tomato, bell pepper fields. Citrus harvest continues. Elsewhere harvests of peas, greens, sweetpotatoes, tomatoes, okra, watermelon, cucumber, bell pepper, cabbage, carrot active.

Screwworms, ticks continue central, south. Stomach worms in scattered herds of sheep, goats on Edwards Plateau, otherwise, livestock good. Ranges good to average. Soil moisture adequate.

UTAH: Moderately heavy thunderstorm activity in south, scattered light precipitation in north. Precipitation generally near normal to slightly below. Temperatures ranged from 4° below to 5° above normal.

Corn for silage harvest 65% completed. Third

crop alfalfa harvest 75% completed. Winter wheat plantings 75% completed. Apple harvest 15 to 20% completed. Sugarbeet harvest started 27th some areas. Onion and potato harvest underway. Fall and winter range feed prospects poor to good depending on locality.

VIRGINIA: Temperatures near normal under mostly cloudy skies. Extremes: 86 and 38°. Rainy conditions widespread. Rainfall almost 2.00 in. and ranged from less than 0.50 in. to 3.95 in.

Fieldwork: 3.0 days suitable. Topsoil moisture adequate. Corn for grain 40% harvested. Corn silage harvest active. Soybean harvest 4% complete. Peanut digging 12% complete, 2% combined. All tobacco harvest virtually complete. Pasture condition improved. Small grain seeding progress: Wheat 12% barley 29%, oats 31%.

WASHINGTON: West: Temperatures 5° above normal west, 4° elsewhere. Precipitation 1.20 in. below normal on coast to 0.40 in. subnormal in northeast.

Most grain crops harvested. Some sweet corn being harvested. Pasture and hay seeding. Pear harvest ongoing.

East: Temperatures 4° above normal in central basin and 8° above elsewhere. Precipitation from 0.20 in. below normal central basin to 0.40 in. below normal eastern slopes.

Apple harvest underway. Golden nearly complete. Reds 25 to 30% complete. Seeding winter wheat, early stands emerging. Harvesting barley, oats, wheat, corn silage, beans, potatoes, alfalfa seed, sugarbeets. Cattle coming off ranges to hay and wheat fields. Fall calving started.

WEST VIRGINIA: Temperatures below normal. Precipitation above normal. Amounts up to 6.00 in. reported. Farmwork: 3.1 days suitable. Clipping pasture, filling silos and seeding small grains most active. Soil moisture adequate. Burley tobacco 93% harvested. Potatoes 91% dug, 3% ahead of 1975 and 8% above average. Second haying 92% complete, 1% below average. Third haying 75%. Pastures fair to good condition.

WISCONSIN: Temperatures 2° above normal. Cool beginning but warming to record highs in 80's and 90's 1st and 3d. No rain except light sprinkles 27th. Sunny, warm indian summer weather until late 3d when clouds developed west.

Soil moisture short. Subsoils powder dry several feet down. Fire danger high in woods. Trees in full color and leaves dropping. Very little fall plowing possible; 8% done, 1975 and normal 15%. Some farmers trying chisel plowing or field digging. Winter wheat up where moisture to germinate. Corn and soybean harvests underway. Corn for grain 10% harvested, 1975 3%, normal 1%. Moisture content low, yields variable but down from last year and normal. Silo filling completed most farms, tonnage below 1975 but more acreage cut for silage. Soybeans 10% harvested, 1975 1%, normal none. Moisture level low in beans. Little green chopping of hay any more this season, cows on full winter feed. New seedings need rain. Fall pasture mostly for exercise. Frost finished vegetables except root crops and cabbage. Potato harvest going well in dry soils. Cranberry harvest hampered by low water supplies to flood bogs.

WYOMING: Temperatures slightly above normal all but southeastern corner where just slightly below. Precipitation below normal.

Soil moisture short but best conditions in

five weeks. Corn 66% mature, 14% picked. Dry bean harvest behind previous years 67% combined. Sugarbeet digging 13% completed and potatoes 55% harvested. Winter wheat plantings 77% emerged.

Livestock winter grazing prospects mostly good and livestock weights running about same as last year.

World Weather and Crop Update

HIGHLIGHTS. Rains aided spring planting in Australia, as shower activity increased in Java, Sri Lanka, and Tamil Nadu, India. Rains favored fall-sown crops and forage throughout much of Europe and the USSR but hampered harvesting. Hurricane Liza caused extensive loss of life, property, crops and livestock in northwest Mexico, yet it enhanced soil moisture and the poor storage water situation. Rains eased drought stress in Colombia and Central American countries. Showers activity increased in parched northeast Brazil.

ASIA. Timely rains fell coast to coast across southern Australia and buoyed hopes for spring-sown crops and forage. The rain helped winter wheat, now jointing, that survived the prolonged drought. India's southwest monsoon appeared wrapped up for this season with very little activity since September 7. Crop prospects slipped. Seasonal showers increased in Tamil Nadu and Sri Lanka and eased the critically dry situation. Java also received showers to help relieve dry conditions. Burma experienced favorable weather this summer and anticipates good rice production.

In the Peoples Republic of China (PRC), showers fell in the dry northeast and were quite frequent south of the South China Mountains. Moisture remained short elsewhere in the south and increased dependence on irrigation. Most of the winter wheat region of Szechwan and the North China Plain had adequate soil moisture to establish good crop stands.

EUROPE. Rainy weather in Europe aided pastures, late maturing beets and fodder roots, emergence of fall-sown crops, and fall tillage activities, especially in Iberia and the northwest. However, rains harassed harvesting operations. Rains were particularly detrimental to grapes and dried fruit. Somewhat drier weather assisted harvests

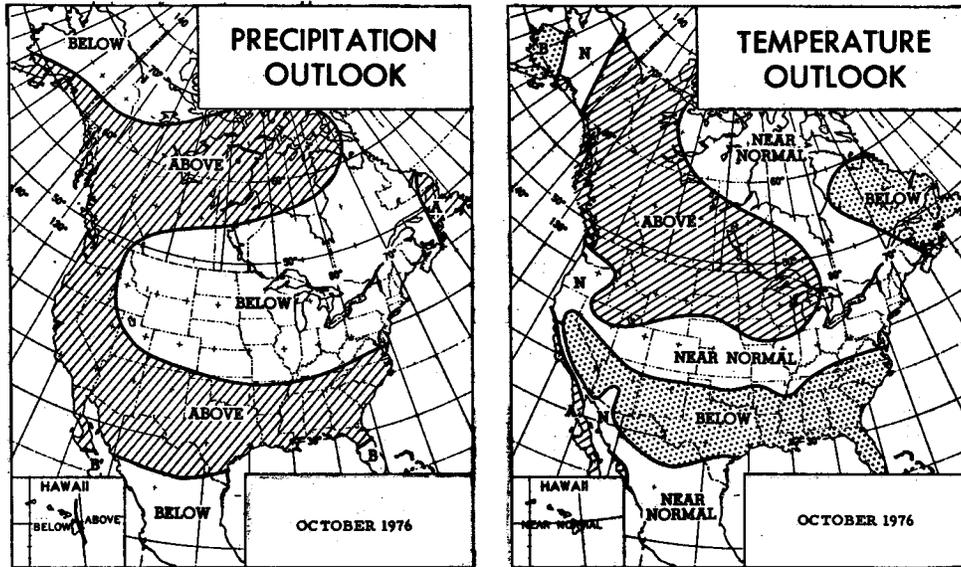
of corn and other crops in the Balkan region.

USSR. Grain harvest ended in most areas, although rain and snow hampered completion in parts of western Siberia. The tempo increased for gathering of cotton, corn for grain, sugarbeets, sunflowers, hemp, and potatoes. High moisture content made the task of drying and cleaning seed material difficult. Late ripening crops delayed plowing of winter fallows. Showers in southern latitudes encouraged emergence of winter cereals, much the opposite of last season's erratic stands due to dry soils. Frosts advanced southward and temperatures in northeast Siberia dipped to zero.

AFRICA. Generous rain fell in Morocco, timely for start of winter wheat. Showery weather favored spring planting in South Africa. West Africa's monsoon performed weaker than usual June-August, especially in the west where Mauritania and Senegal received only 30 to 40 percent of normal rainfall.

AMERICAS. Hurricane Liza caused heavy loss of life and considerable damage to property and crops in Baja California, Sinaloa, Sonora, and Chihuahua, Mexico. The heavy rains improved soil moisture and water supplies and broke much of the region's long drought. Tropical storm Madeline contributed to substantial rainfall in drought-stressed areas of Colombia and Central America. The rains stopped decline of cotton, pastures, and sugarcane and stimulated planting delayed by low soil moisture. Showers finally touched northeastern Brazil and provided hope for crops, if not an actual end to the drought. Pastures prospered in much of Canada, however, the Prairie Provinces need rain for pastures and fall tillage.

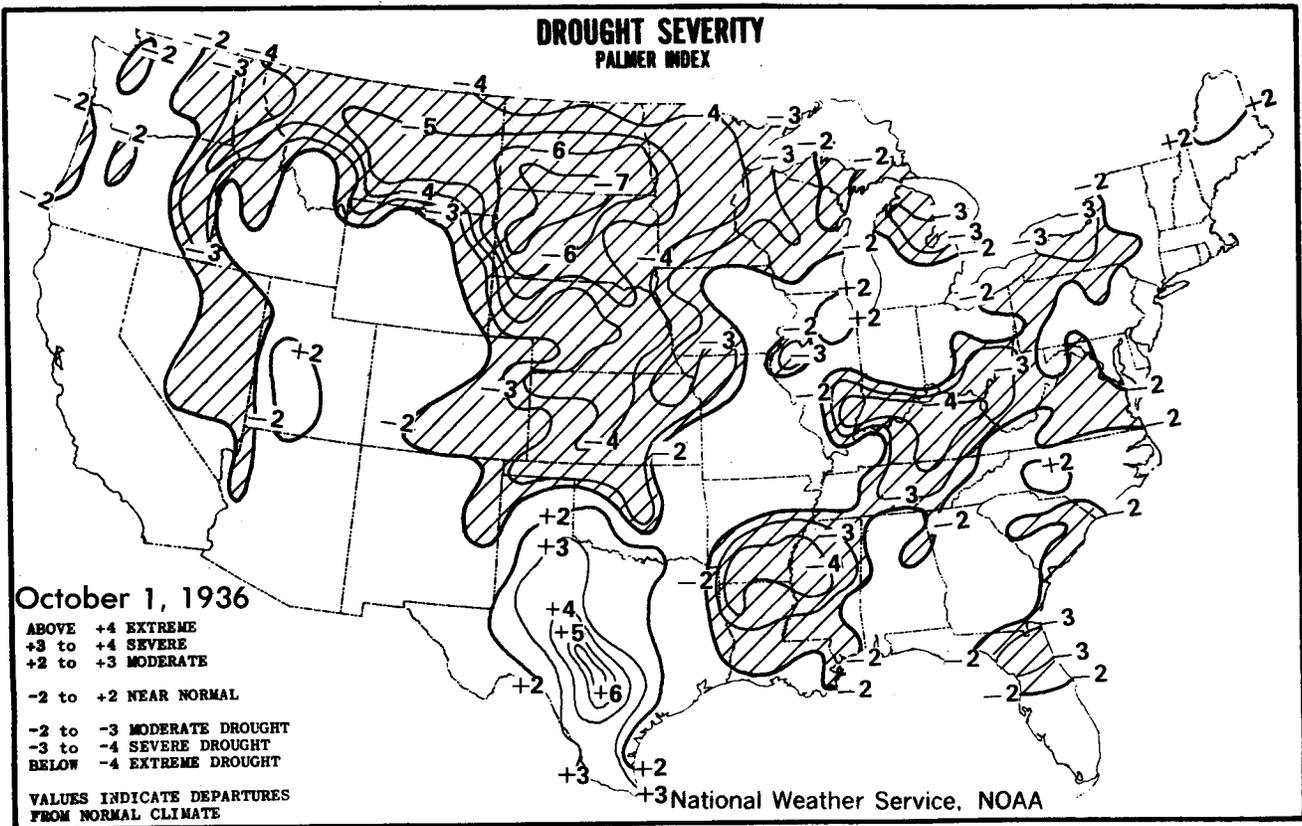
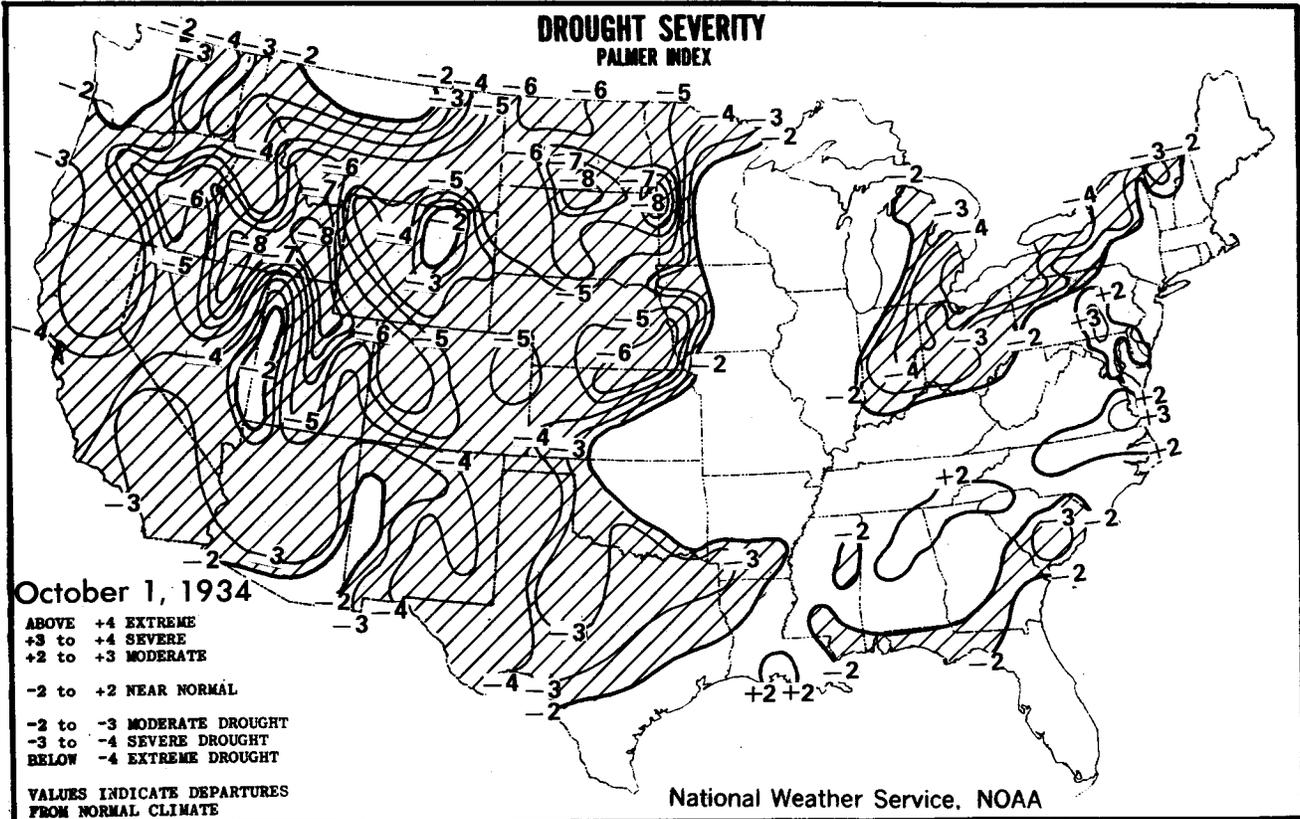
Average Monthly Weather Outlook

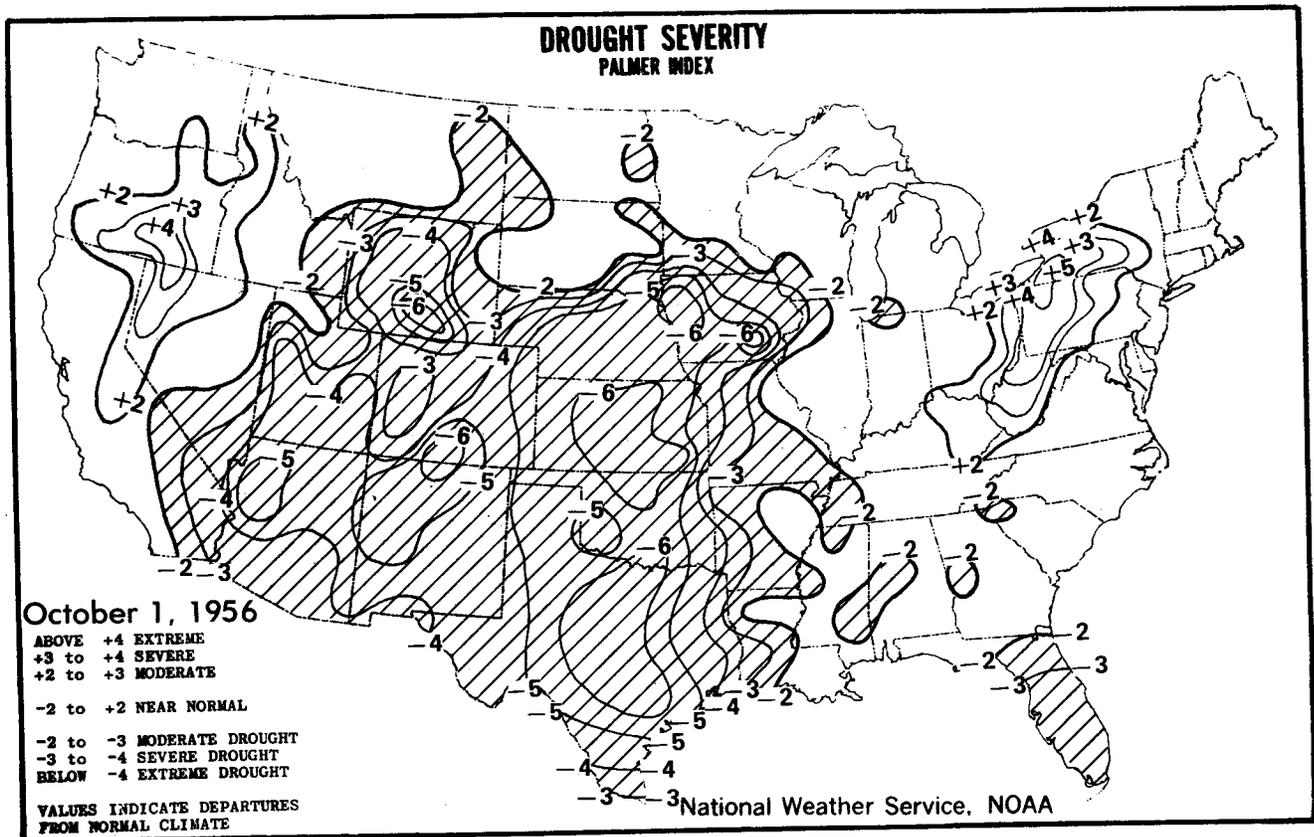
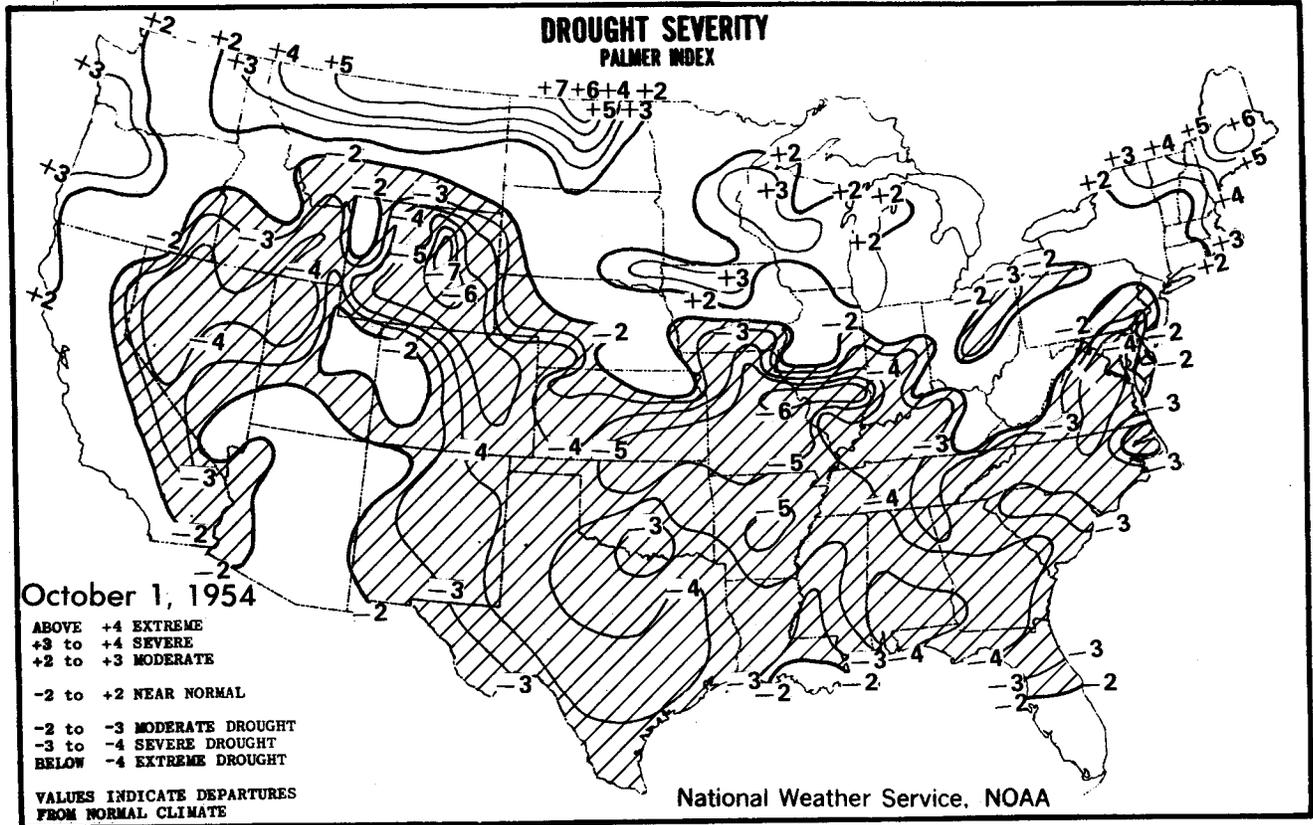


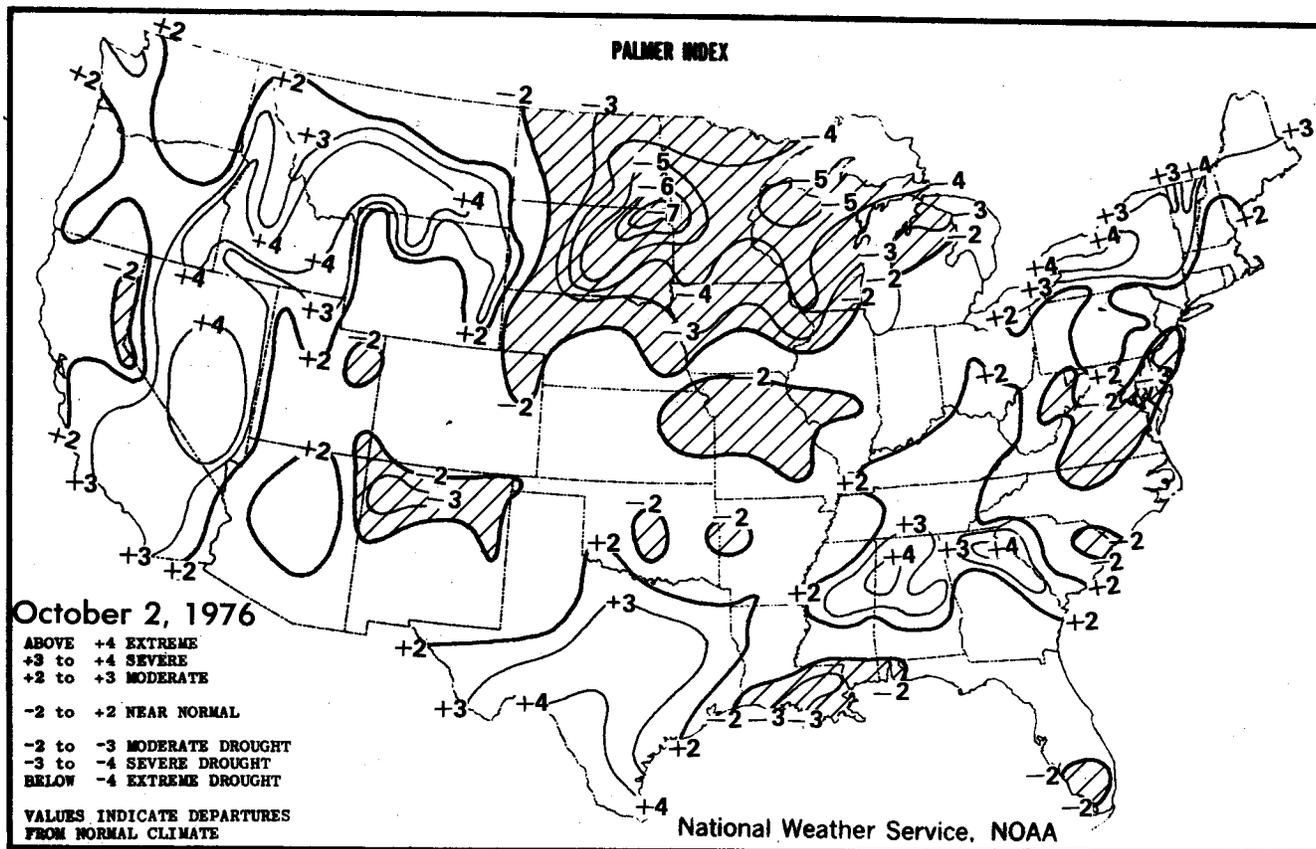
Heating Degree Days (Base 65° F.)
September 1976

ALA. Birmingham	7	MAINE, Caribou	405	OKLA. Okla. City	19
Mobile	0	Portland	228	Tulsa	18
Montgomery	0	MD. Baltimore	34	OREG. Astoria	128
ALASKA, Anchorage	521	MASS. Boston	55	Burns U.	154
Barrow	976	Chatham	93	Medford	48
Fairbanks	583	MICH. Alpena	270	Pendleton	31
Juneau	427	Detroit	133	Portland	47
Nome	591	Flint	189	Salem	98
ARIZ. Flagstaff	229	Grand Rapids	185	PA. Allentown	101
Phoenix	0	Houghton Lake	296	Erie	183
Tucson	0	Lansing	210	Harrisburg	80
Winslow	39	Marquette U	293	Philadelphia	42
Yuma	0	S. Ste. Marie	349	Pittsburgh	159
ARK. Fort Smith	20	MINN. Duluth	310	Seranton	155
Little Rock	6	International Falls	383	S. I. Providence	122
CALIF. Bakersfield	0	Minneapolis	152	S. C. Charleston	0
Eureka U.	258	Rochester	225	Columbia	0
Fresno	5	St. Cloud	250	Greenville	11
Los Angeles U	0	MISS. Jackson	0	S. DAK. Aberdeen	165
Red Bluff	0	Meridian	3	Buron	173
Stockton	0	MO. Columbia	43	Rapid City	132
San Diego	0	Kansas City	45	Sioux Falls	142
San Francisco	79	St. Louis	24	TENN. Chattanooga	11
COLO. Denver	142	Springfield	41	Knoxville	19
Grand Junction	41	KENT. Billings	131	Memphis	0
Pueblo	106	GLAWG. Glasgow	185	Nashville	31
CONN. Bridgeport	59	Great Falls	144	TEX. Abilene	11
Hartford	118	Havre	146	Amarillo	59
D. C. Washington	11	Helena	219	Austin	0
FLA. Apalachicola	0	Kalispell	244	Beaumont	0
Pt. Myers	0	Miles City	140	Brownsville	0
Jacksonville	0	Missoula	231	Corpus Christi	0
Key West	0	NEBR. Grand Island	95	Del Rio	0
Lakeland U.	0	Lincoln	83	El Paso	7
Miami	0	Norfolk	108	Fort Worth	43
Orlando	0	North Platte	178	Galveston U.	0
Daytona Beach	0	Omaha	61	Houston	0
Tallahassee	0	Valentine	151	Lubbock	30
Tampa	0	NEV. Elko	245	Midland	0
GA. Atlanta	10	Las Vegas	0	San Angelo	0
Augusta	0	Reno	116	San Antonio	10
Macon	0	Winnemucca	81	Victoria	0
Savannah	0	N. H. Concord	234	Waco	0
IDAHO, Boise	76	N. Y. Atlantic City	71	Wichita Falls	0
Lewiston	14	Trenton U.	58	UTAH, Blanding R	0
Pocatello	143	N. MEK. Albuquerque	35	Salt Lake City	37
ILL. Cairo U.	7	Roswell	18	VT. Burlington	254
Chicago	88	N. Y. Albany	196	VA. Lynchburg	34
Moline	123	Binghamton	241	Norfolk	0
Peoria	106	Buffalo	180	Richmond	15
Rockford	174	New York	36	Roanoke	46
Springfield	84	Rochester	173	WASH. Colville	142
IND. Evansville	27	Syracuse	179	Osak	---
Fort Wayne	121	N. C. Asheville	83	Quilleyute	207
Indianapolis	79	Charlotte	5	Seattle-Tacoma	79
South Bend	139	Greensboro	19	Spokane	74
IOWA, Burlington	102	Hatteras R.	1	Walla Walla U.	22
Des Moines	76	Raleigh	7	Yakima	61
Dubuque	180	Washington	0	W. VA. Beckley	151
Sioux City	108	N. DAK. Bismarck	193	Charleston	39
KANS. Concordia	56	Fargo	227	Huntington	76
Dodge City	48	Williston U	203	Parkersburg U.	85
Goodland	121	OHIO, Akron-Canton	171	WIS. Green Bay	255
Goodland	45	Madison U	72	Madison	236
Topoka	38	Cleveland	150	Milwaukee	124
Wichita	38	Columbus	118	WYO. Casper	199
KY. Lexington	64	Dayton	121	Cheyenne	224
Louisville	29	Lake Charles	0	Lander	184
LA. Baton Rouge	0	New Orleans	161	Sheridan	166
Lake Charles	0	Youngstown	180		
New Orleans	0				
Shreveport	0				

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







THE PALMER AND CROP MOISTURE INDICES

The Palmer Index was designed to evaluate the scope, severity, and frequency of prolonged periods of abnormally wet or dry weather. For this purpose it works reasonably well. However, it does not provide a measure of the current status of agricultural drought; i.e. the effects of short periods of very dry weather. For this reason the Crop Moisture Index was developed to respond rapidly to changes in the soil moisture situation and take into account only those moisture aspects which affect vegetation and field operations.

If one is interested in the overall soil moisture situation, which will integrate the effects of the past weather over weeks and even months, the Palmer Index provides the best evaluation. However, if one is interested in the availability of moisture to meet current demands, the Crop Moisture Index is the most useful. For example, a recent rain might have replenished the soil sufficiently to meet the current demands. However if the Palmer Index is highly negative, one can interpret this to mean that the overall soil moisture situation is very poor.

HISTORICAL PERSPECTIVE

In the April 6 and July 7, 1976 issues of the Bulletin, the drought situation as of April 1 and July 1 of selected serious drought years (1934, 1936, 1954 and 1956) was described. The situation as of October 1 of each of these years is shown on pp.12-13 of this issue. The current situation

is shown in the map above.

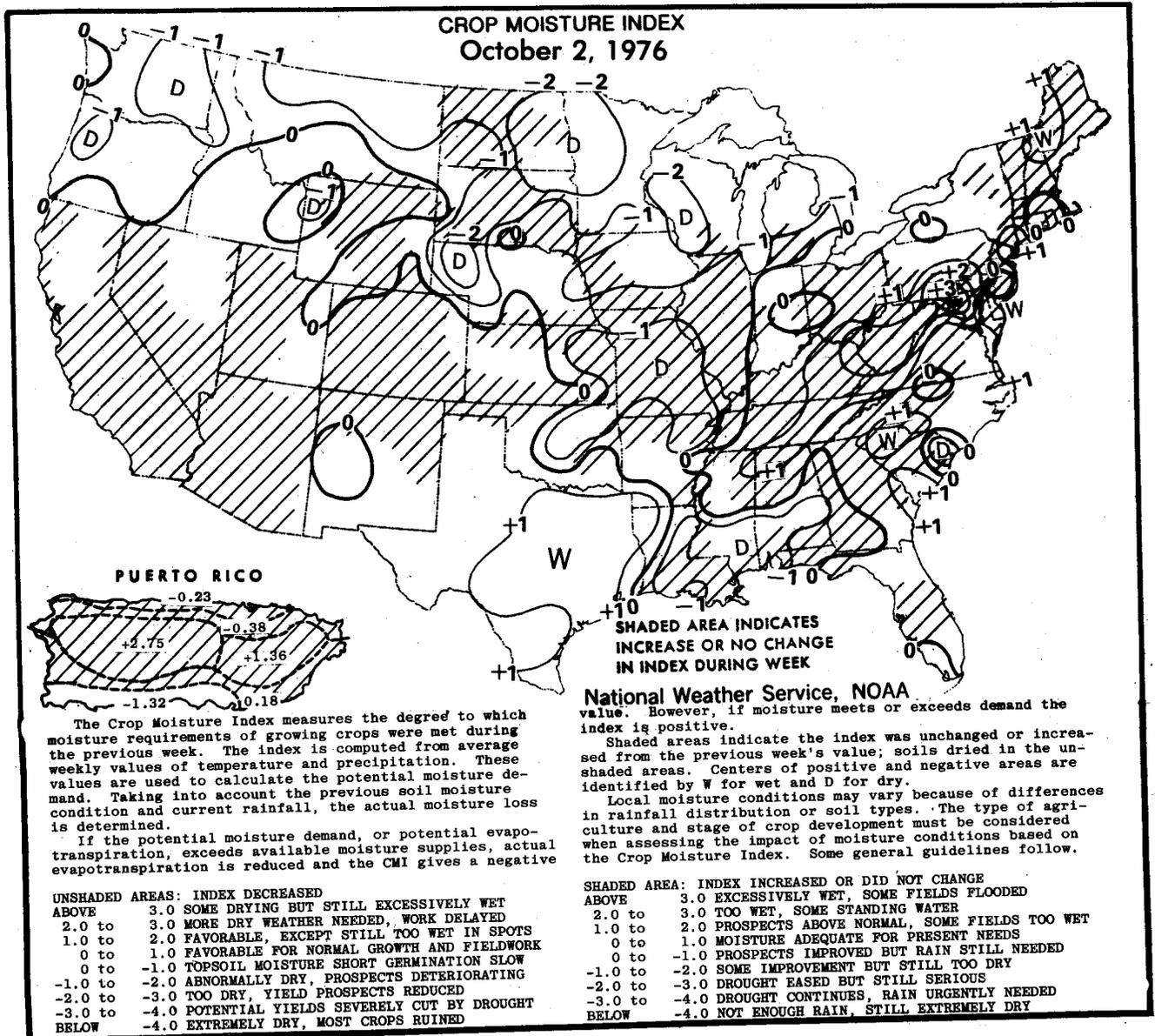
The most severely affected areas in 1976 include the eastern Dakotas, Minnesota, northern and western Iowa, eastern Nebraska and parts of Missouri. Looking at previous years the current situation is very similar to 1936 although not as widespread. In 1936 the drought situation intensified greatly between July 1 and October 1, similar to 1976.

In 1934 the serious drought covered the entire western half of the United States on October 1 despite a marked improvement of the moisture situation during the late summer months. Also the far western States were exceptionally dry while 1976 has been unusually wet except in California.

The entire southern half of the U.S. experienced serious drought in 1954. Most of the improvement that occurred during the last half of summer occurred in the northern portions of the drought area. In 1976 considerable drought damaged occurred because of dry conditions that developed in July and August, particularly along the Lower Mississippi Valley.

The serious drought of 1956 was concentrated in the western portions of the United States. The most severely affected areas was the southern Great Plains. The intensity and coverage of the drought changed very little between July 1 and October 1.

Many parts of the United States suffered from some severe drought in 1976. However, the extent and degree of damage on a national scale was not as serious as the impact of the droughts of 1934, 1936, 1954 and 1956.





FIRST CLASS MAIL

HARVESTING PROGRESS

Percent of Acreage Harvested
 (As of October 3)

	SOYBEANS		
	1976	1975	Avg.
Ala.	1/	1/	1/
Ark.	5	6	1/
Ga.	1/	1/	1/
Ill.	63	49	25
Ind.	20	15	15
Iowa	58	20	1/
Kans.	10	1/	10
Ky.	11	1/	1/
La.	19	16	1/
Mich.	15	1/	1/
Minn.	72	35	28
Miss.	8	5	1/
Mo.	25	14	13
Nebr.	30	30	30
N. C.	1/	1/	1/
Ohio	20	20	20
S. C.	1/	1/	1/
Tenn.	1/	1/	1/
U. S.	35	23	21

These 18 States produced 96% of the Nation's soybeans in 1975.

	CORN		
	1976	1975	Avg.
Ga.	60	42	31
Ill.	12	17	10
Ind.	5	1/	1/
Iowa	16	10	1/
Kans.	25	30	20
Ky.	17	1/	1/
Mich.	5	1/	1/
Minn.	27	6	6
Mo.	45	46	25
Nebr.	15	15	15
N. C.	67	48	50
Ohio	10	10	10
S. Dak.	30	11	15
Wis.	10	3	1
U. S.	21	19	17

These 14 States produced 89% of the Nation's corn in 1975.

	SORGHUM		
	1976	1975	Avg.
Kans.	25	20	10
Mo.	34	46	24
Nebr.	30	45	15
Okla.	24	25	18
S. Dak.	50	26	26
Tex.	64	67	57
6-States	43	46	33

These 6 States produced 90% of the Nation's sorghum grain in 1975.

PLANTING PROGRESS

Percent of Acreage Planted
 (As of October 3)

	WINTER WHEAT		
	1976	1975	Avg.
Colo.	88	93	90
Ill.	20	33	29
Kans.	50	65	60
Mont.	90	1/	1/
Nebr.	85	90	80
Ohio	30	25	35
Okla.	43	44	51
S. Dak.	1/	1/	1/
Tex.	40	52	67
U. S.	50	57	60

1/ Data not available