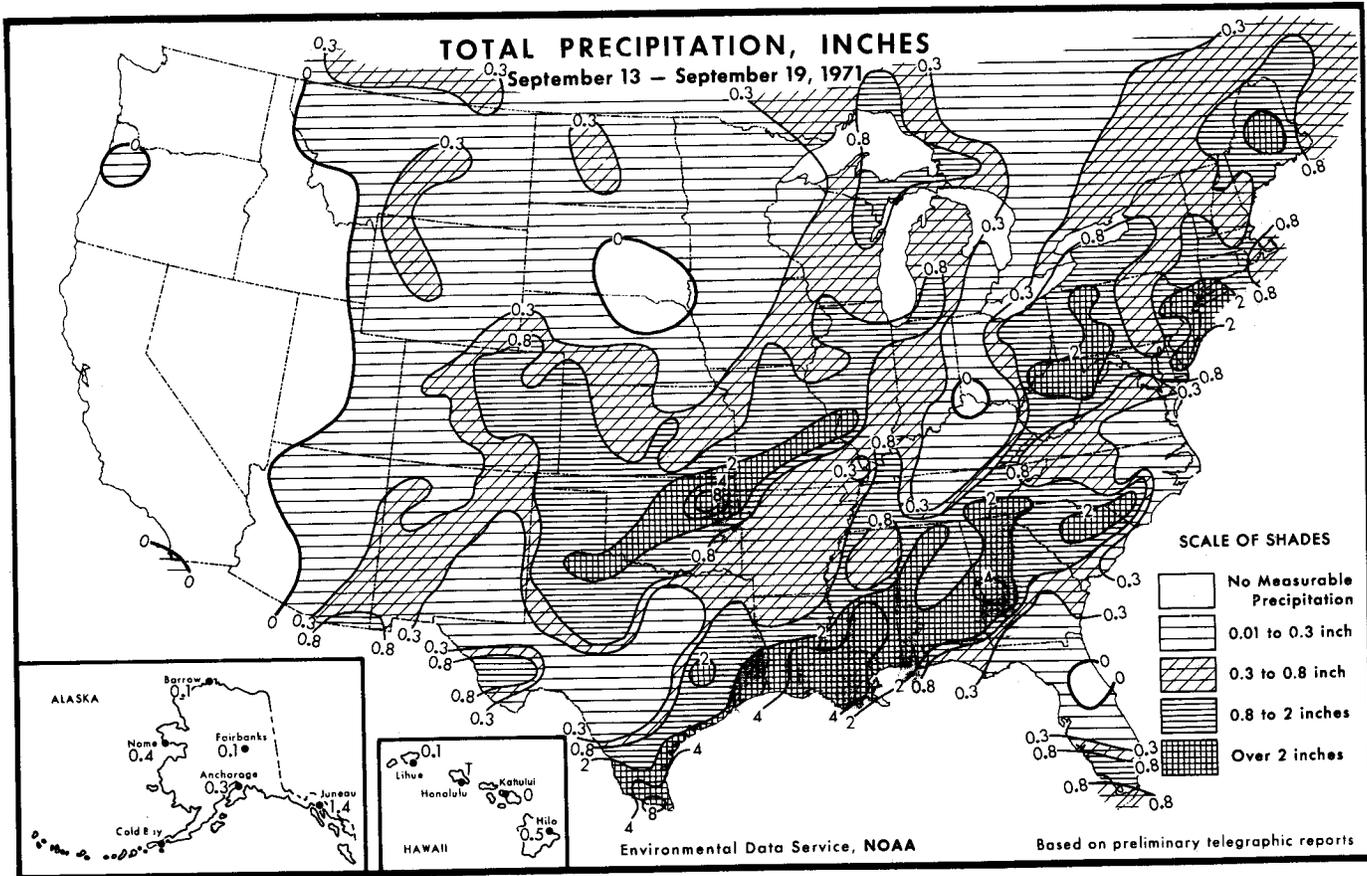


Weekly Weather & Crop Bulletin

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NATIONAL WEATHER SUMMARY

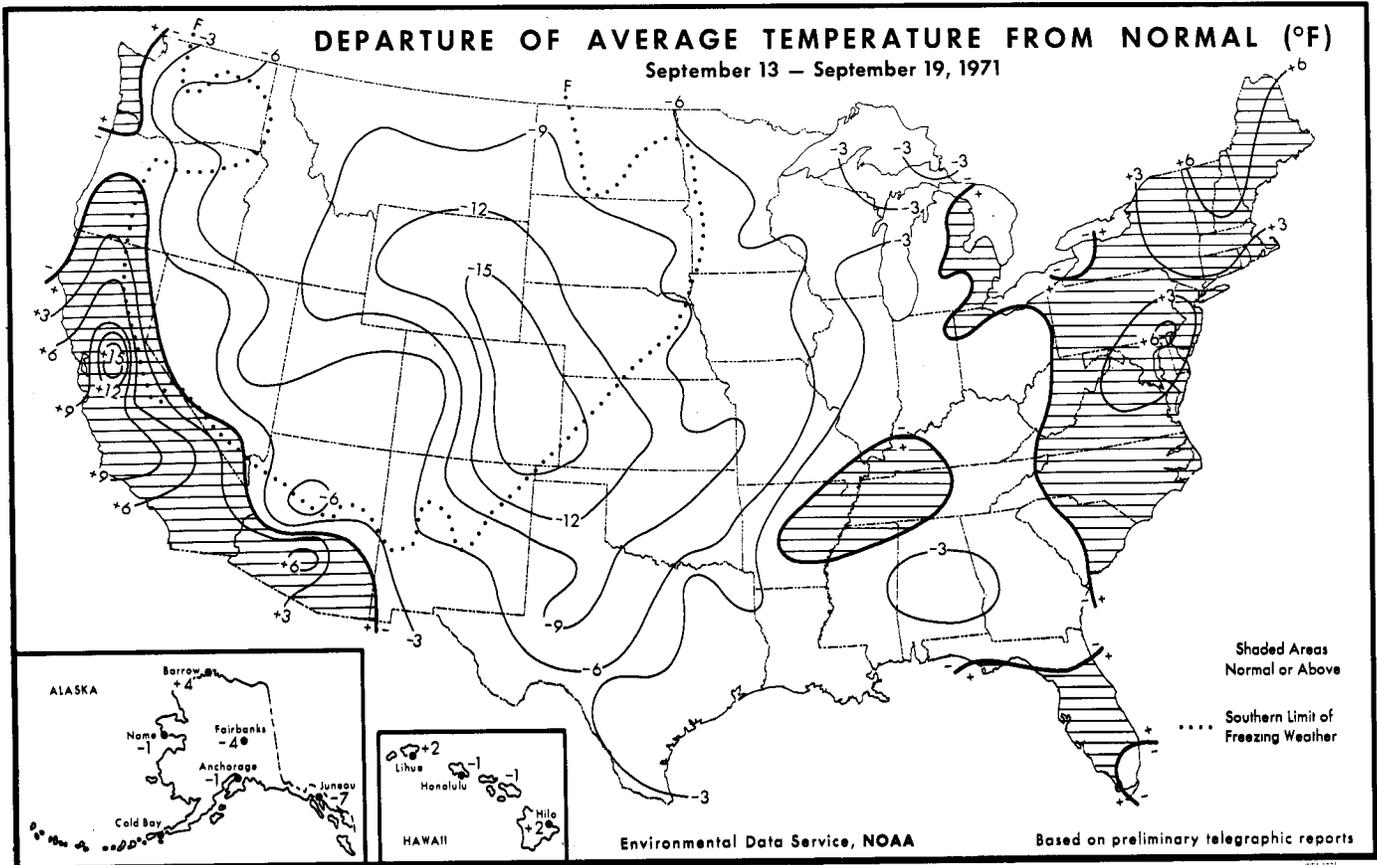
HIGHLIGHTS: The coolest weather of the season came to the Rocky Mountains and parts of the Great Plains. The heaviest rains fell in southern Texas and parts of the Deep South.

PRECIPITATION: Numerous showers and thunderstorms occurred from the Ohio River Valley to the Northeast Monday, September 13. Rain and fog covered New England. Scattered showers and thunderstorms also occurred in southern Texas and in central Florida. A few thunderstorms also dotted the mountains in the Southwest. Elsewhere fair skies persisted. Strong winds downed trees and power lines in the Williamsburg, Mass., vicinity Monday afternoon. Heavy rains in the Philadelphia, Pa., area Tuesday caused flash flooding along Chester Creek. Several persons were drowned, dozens injured, and hundreds of families were forced from

their homes. Local flooding occurred in the Tulsa, Okla., area Tuesday morning after 5.76 inches of rain fell in 6 hours. More heavy rains at Tulsa Thursday brought the September 1971 total to 13.83 inches setting a new record for September. The previous record for the entire month is 12.04 inches which fell in September 1936. The September normal is 4.01 inches.

Hurricane Edith slammed into the Louisiana coast Thursday accompanied by heavy rains and a few tornadoes. A tornado at Baton Rouge, La., shattered glass at a school and damaged several buildings at a shopping center. Showers and thunderstorms occurred Thursday along a front from Oklahoma to New Jersey. At Johnstown, Pa., winds gusted to 95 m.p.h. accompanied by hail 1/4 inch in diameter.

Heavy snow fell along the eastern slope of



the Rocky Mountains late in the week. By Friday evening the snow had accumulated to 14 inches at Boulder, Colo., and by Saturday morning 15.3 inches had fallen at Denver. Although this is an unusual amount for so early in the season, it does not establish a new record. In September 1936, Denver received 19.4 inches of snow in 24 hours. The weight of the snow on the trees, which were still in full foliage at Denver, caused considerable limb breakage.

Weekend precipitation included scattered amounts from the Rocky Mountains to the Great Plains, light to heavy showers along a front which stretched from Michigan to the Lower Mississippi River Valley, heavy rains in Mississippi from the remnants of Hurricane Edith, and light to moderate rains from the Appalachian Mountains to the Atlantic coast.

TEMPERATURE: Hot summer weather prevailed over mid-America early in the week. Polar air pushed into the northern Rocky Mountains and northern Great Plains dropping temperatures sharply. Valentine, Nebr., warmed to 95° Monday but no higher than 65° Tuesday. By Thursday morning, subfreezing temperatures occurred in spots from Oregon to the Dakotas and as far south as

Alamosa, Colo., where 28° occurred. Big Piney, Wyo., registered 19° Thursday morning. Maximum temperatures remained in the 50's and 60's from the Dakotas to Upper Michigan Wednesday and Thursday. The Deep South had remained hot and humid until Wednesday when Jackson, Miss., registered 89°. The highest temperature at Jackson Thursday was 72°.

The Far Southwest continued hot with temperatures reaching 100° or higher every afternoon. Imperial and Blythe, both in California, recorded 113° Tuesday afternoon. San Francisco, Calif., registered 103° Tuesday. This is the warmest September temperature of record for San Francisco.

A large High centered over the northern Great Plains brought the coldest weather of the season to much of the Great Plains. The temperature at Denver, Colo., climbed to only 35° in the warmest part of the day Friday and Sunday morning the mercury at Leadville, Colo., plunged to 9°. Weekly average temperatures over much of the Rocky Mountains and the central Great Plains were 10° to 15° below normal. In contrast, spots in the San Joaquin Valley in California averaged 15° warmer than normal.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Good rains to aid wheat planting in Southern Great Plains. * Corn picking increased. * Rains from Tropical Storm Edith halt crop harvesting in the South.

SMALL GRAINS: Ground-soaking rains covered Kansas, Colorado, Oklahoma, and Texas giving a big boost to 1972 small grain prospects. Moisture is now adequate for seeding. The generally 1 to 2 inches of rain that fell increased moisture supplies, thus seeding of fall grains should be extremely active this week. Seeding so far this fall is behind schedule. Germination should be good. In Kansas only 14% of the wheat crop is seeded, and more rain is needed in the dry north-central area. Seeding of winter wheat made good headway in Nebraska and the Dakotas', but topsoil is extremely dry in the eastern half of these States. Fall seeding is well underway in Idaho, but Montana growers are nearly a week behind. Tropical storm Edith stopped planting for a few days in the South.

Farmers in the far North are still working on getting in the last of the grain crops. Showers in northern Minnesota slowed spring wheat harvest -- 70 percent is in. Unharvested grain is sprouting in Oregon's Willamette Valley.

CORN: The first frost of the season hit the northwest quarter of the Corn Belt. Temperatures dipped into the low 30's as far south as Iowa and Nebraska. Only minor crop damage occurred due to the advanced maturity of the corn in this area. Generally the frost was an aid to speeding maturity. Picking gained momentum on many Corn Belt farms as the moisture content of the grain reached safe storage levels. In Illinois picking is most advanced in the southwest portion of the State; about 7 percent of the Illinois crop is under cover. A dry sunny week also aided picking in Iowa, where 5 percent of the crop is in. Most of the Corn Belt crop is safe from frost damage. Silo filling was extremely active as very little rain and cool temperatures led to good working conditions.

Wet fields and high humidity continue to plague corn harvesting from Georgia to New Jersey. Picking is a good week behind schedule. Rains from tropical storm Edith halted corn harvesting from Texas to Alabama late in the week. Stalk rot is causing concern in many States as damp weather conditions continue to hold. Winter weather made its presence felt in Colorado where heavy snowfall downed corn in some areas of the State. Picking is limited in California.

SOYBEANS: It was a dry week in the North-Central States and soybean combining became more widespread. Soybean combines really started to move in Illinois, and 20 percent of the crop was in storage by the weekend -- well ahead of last year. Most soybean fields in the Corn Belt continue to sport a yellow color as ripening is rapid.

More heavy rains returned to the South, with some damage to the crop occurring in southern Louisiana. Tennessee growers are also faced with a lodging and weed problem. Combining is off to a slow start in the South, and dryer fields will be needed before harvest can become full scale.

COTTON: Early week sunshine was favorable for cotton development, but tropical storm Edith dumped more moisture on the already-wet South. Rain and high winds damaged the crop in southern Louisiana parishes. Rank growth, insects, and

boll rot continue to concern growers throughout the South. Defoliation is widespread in an attempt to limit boll rot. Some cotton was hand-picked during the week, but machine harvest will not be general until early October. Crop maturity and amount picked are behind last season. Only 15 percent of the Texas crop is out of the fields. Cotton growers in the South would like to have some of California's hot dry weather. Harvest increased in California's Desert area as temperatures soared to 100° and not a drop of rain fell.

OTHER CROPS: Widespread rains halted sorghum harvesting in the Southern Great Plains. Combining in Texas is nearing the halfway mark, but only 9% of the Kansas crop is in the bin. The North Carolina flue-cured tobacco harvest is complete, with growers preparing leaves for market. Wet weather and high humidity are causing curing problems in many States. Rapid peanut harvesting is causing unloading difficulties at many Georgia buying stations. Rains interrupted digging from Texas to Virginia. A combination of frost and chemicals has killed all the potato vines in Idaho, and digging is rapid. Soggy fields have hindered digging of the New Jersey crop. Tropical Storm Edith caused considerable lodging to the Louisiana sugarcane crop, some cane is broken and harvest will be difficult. Dry weather is also needed to allow Louisiana sweetpotato growers to resume digging. In contrast, dry fields are aiding flaxseed harvesting in North Dakota. Rice combining is in the wrap-up stage in Texas, with the Louisiana crop damaged from Edith's strong winds.

Fruits and Nuts: Scorching California temperatures bleached the apples and burned outer fruit. McIntosh apples are coloring slowly in the Northeast, but picking is underway. Crushing of grapes for wine was well underway in the Central Valley. Grape growers in Michigan and New York also increased harvesting. The pecan crop is good in Georgia and South Carolina, but the spread of scab is on the rise. High winds blew native pecans to the ground in southern Louisiana. Grapefruit picking progressed in Florida, where orange groves are in excellent shape.

Vegetables: Supplies of fall vegetables are increasing along the Atlantic coast, but wet fields are hindering harvesting. Heavy rains slowed celery and onion harvestors on the muck soils in Orange County, New York. Supplies of summer vegetables are declining. Vegetable supplies are normal from the Pacific Coast States. Rains slowed harvesting and hail damaged some lettuce on the High Plains of Texas. Cooler temperatures slowed fall vegetable growth in Texas.

PASTURES AND LIVESTOCK: Heavy rains improved the outlook for fall pastures from the Southern Great Plains to New England. Pastures in Texas continue to green-up, but army worm damage is on the rise. Livestock herds in the South continue to feed on lush pastures. The grass is not quite so green in the northern Corn Belt where dry soils prevail. It was a dry week in the West, but cool temperatures prevented range deterioration. Fall marketing continues slow in the West. Ranchers in California, South Dakota and Wyoming started moving some herds to fall ranges.

Steve J. Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., September 19, 1971

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 . . .	74	- 3	1.9	+1.1	New Orleans . . .	76	- 2	5.8	+4.6	OKLA, Okla. City . .	65	- 9	2.5	+1.8
Mobile . . .	77	- 1	2.4	+ .9	Shreveport . . .	76	- 3	.6	+ .1	Tulsa . . .	65	- 9	9.8	+8.8
Montgomery . . .	74	- 4	2.3	+1.4	MAINE, Caribou . . .	59	+ 5	1.5	+ .6	OREG, Astoria . . .	61	+ 3	0	-.7
ALASKA, Anchorage . .	47	- 1	.3	-.3	Portland . . .	62	+ 3	1.9	+1.1	Burns . . .	53	- 6	0	-.1
Barrow . . .	35	+ 4	.1	-.1	MD, Baltimore . . .	73	+ 4	.7	0	Medford . . .	67	+ 3	0	-.1
Fairbanks . . .	40	- 4	.4	-.2	MASS, Boston . . .	68	+ 3	1.0	+ .2	Pendleton . . .	58	- 6	0	-.1
Juneau . . .	42	- 7	1.4	-.2	Chatham . . .	66	---	.6	---	Portland . . .	63	- 0	0	-.4
Nome . . .	41	- 1	.4	-.2	MICH, Alpena . . .	57	+ 1	.4	-.5	Salem . . .	61	- 2	.1	-.2
ARIZ, Flagstaff . . .	53	- 6	.1	-.3	Detroit . . .	65	+ 2	T	-.6	PA, Allentown . . .	69	+ 4	2.0	+1.2
Phoenix . . .	89	+ 6	T	-.2	Flint . . .	62	+ 1	.2	-.5	Erie . . .	62	- 1	1.8	+ .9
Tucson . . .	82	+ 1	.3	+ .1	Grand Rapids . . .	62	0	1.1	+ .3	Harrisburg . . .	71	+ 4	.5	-.2
Winslow . . .	67	- 4	T	-.2	Houghton Lake . . .	57	0	.3	-.4	Philadelphia . . .	73	+ 6	1.8	+1.0
Yuma . . .	90	+ 4	0	-.1	Lansing . . .	60	- 2	.7	+ .1	Pittsburgh . . .	66	+ 1	1.5	+ .9
ARK, Fort Smith . . .	70	- 5	.7	-.2	Marquette . . .	56	- 2	1.2	+ .4	Scranton . . .	65	+ 2	1.1	+ .4
Little Rock . . .	75	+ 1	.3	-.5	Muskegon . . .	61	- 2	.4	-.3	R.I, Providence . . .	72	+ 9	1.2	+ .4
CALIF, Bakersfield . .	87	+10	0	0	S. Ste. Marie . . .	52	- 4	1.2	+ .3	S.C, Charleston . . .	77	+ 1	T	-1.4
Eureka . . .	57	0	0	-.1	MINN, Duluth . . .	50	- 4	.1	-.6	Columbia . . .	77	+ 1	3.0	+2.0
Fresno . . .	80	+ 6	0	0	Internat Falls . . .	49	- 4	.1	-.6	Greenville . . .	71	- 2	1.6	+ .7
Los Angeles . . .	79	+ 6	0	-.1	Minneapolis . . .	55	- 5	T	-.6	S.DAK, Aberdeen . .	53	- 8	T	-.3
Red Bluff . . .	83	+ 7	0	-.1	Rochester . . .	54	- 7	.1	-.7	Huron . . .	52	-10	T	-.4
San Diego . . .	74	+ 4	T	0	St. Cloud . . .	52	- 7	T	-.6	Rapid City . . .	49	-12	.1	-.1
San Francisco . . .	72	+ 8	0	-.1	St. Louis . . .	67	- 3	2.0	+1.4	Sioux Falls . . .	54	- 8	0	-.7
Stockton . . .	82	+ 9	0	-.1	Springfield . . .	63	- 8	2.9	+2.0	TENN, Chattanooga .	73	- 1	3.2	+2.5
COLO, Denver . . .	46	-16	1.6	+1.3	MO, Columbia . . .	63	- 7	1.7	+ .7	Knoxville . . .	71	- 2	1.3	+ .7
Grand Junction . . .	60	- 3	.1	-.1	St. Louis . . .	67	- 3	2.0	+1.4	Memphis . . .	74	+ 1	.1	-.6
Pueblo . . .	52	-15	1.0	+ .8	Springfield . . .	63	- 8	2.9	+2.0	Nashville . . .	67	- 9	1.3	+ .7
CONN, Bridgeport . . .	71	+ 4	2.2	+1.3	MONT, Billings . . .	49	-11	.1	-.2	TEX, Abilene . . .	60	-12	1.0	+ .5
Hartford . . .	71	+ 5	1.4	+ .5	Glasgow . . .	49	- 7	.3	+ .1	Amarillo . . .	77	- 3	.2	-.8
D.C, Washington . . .	75	+ 5	1.1	+ .2	Great Falls . . .	48	- 9	.1	-.2	Austin . . .	75	- 3	3.2	+2.1
FLA, Apalachicola . .	80	0	.2	-2.0	Havre . . .	79	+24	.1	-.2	Beaumont . . .	72	-10	6.6	+4.7
Ft. Myers . . .	81	- 1	1.4	-.7	Helena . . .	46	-10	.2	0	Brownsville . . .	79	- 2	4.0	+2.7
Jacksonville . . .	79	- 1	.2	-1.6	Kalispell . . .	47	- 8	T	-.3	Dallas . . .	76	- 2	T	-.7
Key West . . .	84	+ 1	.7	-.9	Miles City . . .	50	-11	.3	+ .1	Del Rio . . .	75	- 5	.1	-.5
Lakeland . . .	81	+ 1	0	-1.6	Missoula . . .	48	- 7	T	-.3	El Paso . . .	71	- 4	T	-.2
Miami . . .	81	- 1	.9	-1.3	NEBR, Grand Island .	56	- 9	.4	-.2	Fort Worth . . .	74	- 5	T	-.6
Orlando . . .	82	+ 1	0	-1.8	Lincoln . . .	59	- 9	.1	-.6	Galveston . . .	78	- 3	3.0	+1.6
Tallahassee . . .	76	- 2	.1	-1.2	Norfolk . . .	55	-10	T	-.6	Houston . . .	76	- 2	1.7	+ .7
Tampa . . .	81	0	.3	-1.3	North Platte . . .	52	-12	.6	+ .2	Lubbock . . .	64	- 7	1.8	+1.2
GA, Atlanta . . .	71	- 2	2.8	+2.0	Omaha . . .	58	- 7	T	-.6	Midland . . .	67	- 9	.4	0
Augusta . . .	75	- 1	1.9	+1.2	Valentine . . .	52	-10	T	-.3	San Angelo . . .	71	- 7	1.3	+ .7
Macon . . .	77	0	.8	+ .2	NEV, Ely . . .	51	- 7	0	-.1	San Antonio . . .	78	- 1	.2	-.7
Savannah . . .	79	+ 2	.6	-.8	Las Vegas . . .	80	0	0	-.1	Victoria . . .	77	- 2	1.6	+ .6
HAWAII, Hilo . . .	78	+ 2	.5	-1.5	Reno . . .	59	0	0	-.1	Waco . . .	77	- 2	T	-.7
Honolulu . . .	78	- 1	T	-.3	Winnemucca . . .	57	- 2	.6	-.4	Wichita Falls . . .	71	- 7	1.0	+ .4
Kahului . . .	78	- 1	0	-.1	N.H, Concord . . .	65	+ 6	.6	-.4	UTAH, Blanding . . .	60	- 3	.1	-.2
Lihue . . .	80	+ 2	.1	-.4	N.J, Atlantic City . .	70	+ 2	1.6	+ .8	Salt Lake City . . .	56	- 8	0	-.1
IDAHO, Boise . . .	56	- 7	0	-.1	Trenton . . .	72	+ 5	3.0	+2.2	VT, Burlington . . .	64	+ 6	.6	-.2
Lewiston . . .	57	- 7	0	-.2	N.MEX, Albuquerque . .	63	- 7	.4	+ .2	VA, Lynchburg . . .	70	+ 1	.2	-.6
Pocatello . . .	50	-10	0	-.1	Roswell . . .	64	- 6	T	-.5	Norfolk . . .	74	+ 1	T	-1.0
ILL, Cairo . . .	71	- 1	.1	-.6	N.Y, Albany . . .	65	+ 3	1.5	+ .6	Richmond . . .	72	+ 1	0	-.9
Chicago . . .	65	- 1	.8	+ .1	Binghamton . . .	62	+ 3	.6	-.1	Roanoke . . .	70	0	.4	-.4
Moline . . .	61	- 4	.8	0	Buffalo . . .	63	- 1	1.0	+ .3	WASH, Colville . . .	51	- 9	T	-.2
Peoria . . .	62	- 5	.8	0	New York . . .	72	+ 1	2.7	+1.8	Omak . . .	54	- 5	T	-.1
Rockford . . .	62	- 2	.7	-.1	Rochester . . .	66	+ 3	.9	+ .3	Quillayute . . .	57	0	0	-1.1
Springfield . . .	65	- 3	.8	0	Syracuse . . .	65	+ 3	1.7	+1.0	Seattle-Tacoma . . .	60	0	0	-.5
IND, Evansville . . .	70	0	.5	-.2	N.C, Asheville . . .	67	- 1	1.5	+ .9	Spokane . . .	53	- 8	.1	-.1
Fort Wayne . . .	65	0	T	-.7	Charlotte . . .	73	0	1.5	+ .7	Walla Walla . . .	59	- 7	0	-.2
Indianapolis . . .	66	- 1	.5	-.2	Greensboro . . .	71	0	1.0	+ .1	Yakima . . .	54	- 8	0	-.1
South Bend . . .	63	- 1	.8	0	Hatteras . . .	76	+ 1	T	-1.5	W.VA, Beckley . . .	65	+ 1	1.3	+ .6
IOWA, Burlington . . .	60	- 6	.6	-.3	Raleigh . . .	72	+ 1	T	-1.0	Charleston . . .	69	+ 1	3.3	+2.6
Des Moines . . .	59	- 6	.3	-.3	Wilmington . . .	76	0	T	-1.5	Huntington . . .	64	- 4	.5	-.2
Dubuque . . .	58	- 4	.8	-.2	N.DAK, Bismarck . . .	51	- 8	.5	+ .3	Parkersburg . . .	67	- 1	3.6	+3.0
Sioux City . . .	57	- 9	T	-.7	Fargo . . .	52	- 7	.2	-.1	WIS, Green Bay . . .	57	- 4	1.0	+ .3
KANS, Concordia . . .	58	-11	.2	+ .5	Williston . . .	48	- 9	.1	-.2	La Crosse . . .	56	- 6	.5	-.3
Dodge City . . .	58	-13	.9	+ .4	OHIO, Akron-Canton . .	63	- 1	1.9	+1.3	Madison . . .	59	- 2	.6	-.2
Goodland . . .	51	-15	1.4	+1.1	Cincinnati . . .	69	0	0	-.7	Milwaukee . . .	60	- 1	.6	-.1
Topeka . . .	63	- 6	.6	-.1	Cleveland . . .	64	0	2.1	+1.3	WYO, Casper . . .	45	-15	.1	-.2
Wichita . . .	62	- 9	.5	-.3	Columbus . . .	65	- 1	.5	-.1	Cheyenne . . .	43	-16	.7	+ .4
KY, Lexington . . .	69	- 1	.1	-.5	Dayton . . .	64	- 3	T	-.7	Lander . . .	46	-13	.6	+ .3
Louisville . . .	69	- 1	.1	-.5	Toledo . . .	64	0	T	-.5	Sheridan . . .	47	-12	.1	-.2
LA, Baton Rouge . . .	76	- 2	5.5	+4.4	Youngstown . . .	63	0	1.5	+ .8	P.R. San Juan . . .	---	---	---	---
Lake Charles . . .	78	- 1	3.0	+2.1										

* 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: Heavy rains accompanied Tropical Storm Edith over all the State Thursday night and Friday. Amounts averaged 1.00 to 2.00 inches. No rain during the first part of week. Temperatures averaged little below normal due considerable cloudiness and rain which began Thursday, the 16th, and ended on Saturday in south and Sunday in north. Crops favored with open weather early week. Farming activities halted by rain Thursday and Friday. Almost 1/4 cotton open, compared with 2/5 year ago. Insect controls continue late cotton, while few early fields being defoliated. Light picking underway, boll rot problem many fields. Maturity corn for grain near 70%, 85% a year ago. About 10% crop harvested. Soybeans developing favorably, about 3% yellowing and a few fields matured. Many fields weedy. Peanut harvest about 75% complete. Growers still under pressure to get remainder crop under cover. Tomato, pepper, and sweet-potato harvest continues north. Large quantities hay cut early week, but several cuttings caught by rain. Much of crop over matured. Pastures providing surplus grazing.

ALASKA: Precipitation below average all areas except Kodiak. Temperatures near or slightly above normal. Coldest temperature was 29° in Tanana Valley. Cumulative growing degree days below average Matanuska Valley, near or above normal Tanana and Kenai Peninsula. Harvest potatoes high gear Tanana and Matanuska Valleys. Small grain harvest underway Tanana Valley, yields fair, but high moisture content requiring grain drying. Grain harvest in Matanuska Valley and Kenai Peninsula delayed due late maturity. Grain may be harvested for hay some cases. Potato harvest Matanuska Valley continues with good crop prospects.

ARIZONA: Temperatures ranged well above normal all sections early in week, generally normal to below normal all sections by weeks end. Freezing temperatures noted higher mountain valleys north and east on 16th and 19th. Heavy showers noted north-central mountains and southeast on 16th through 18th, elsewhere generally dry. Cotton harvesting on limited basis Yuma, central areas. Few bales picked southeast. Leaf perforators causing damage Yuma. Pink bollworm populations building up many areas. Harvest early-planted sorghum continues Yuma area, begun central. Fields southeast moving rapidly toward maturity. Field preparations fall-planted sugar beets continued central. Alfalfa hay harvest continues limited basis. Many fields southeast badly infested with caterpillars and being harvested prematurely. Planting fall lettuce central and west areas. Lettuce harvest Cochise County expected to begin late September. Fall cantaloupes making good progress central, western areas. Limited lemon harvest Yuma area. New crop citrus good condition Yuma and Salt River Valley. Continued improvement ranges. Dry spots still exist. Cattle fair to good. Calves averaging lighter than normal due to earlier drought.

ARKANSAS: Warm days and mild nights, sharply cooler weekend. Weekly means 1° to 4° below normal, from mid-60's to mid-70's. Daily ex-

tremes: 43° to 102°. Showers near weekend with 1.00 inch or more rain to northwest and east-central. Lightest southwest. Heaviest 2.37 inches at Fayetteville. Cotton maturing rapidly, most early fields cutting out, bottom crop opening freely. Defoliation underway. Machine harvest increasing, although major effort expected to start about October 1. Rice combining increasing, peak should be reached early October. Early soybeans maturing rapidly. Late plantings suffering from lack moisture. Localized showers beneficial, some irrigating. Combining grain sorghums active. Planting small grains continues, need rain. Pastures supplying normal feed. Feeding hay driest localities. Cattle good, except some weight loss occurring where feed extremely short.

CALIFORNIA: One of hottest weeks of year, especially coastal and mountain areas. All time September maximums equaled or approached at mid-week many locations. Average temperatures 6° to 10° above normal except northern tier of counties, and 10° warmer than last week. High temperatures hastened crop maturity. Cotton harvest increased desert. Defoliation started San Joaquin Valley. Rice harvest increasing. Harvest field corn, milo still limited. Cutting dry beans widespread. Limited planting small grains. Temperatures over 100° caused minor crop damage, bleaching color apples, some burning outer fruit, grape foliage dehydration. Crushing early wine variety grapes well underway Central Valley. Laying Thompson seedless for raisins continues. Packing Thompsons for table use nearing completion. Clingstone peach harvest near completion. Picking prunes continues, but past peak. Knocking almonds continues with good crop indicated. Valencia orange harvest active. Avocado harvest continues. Drying ranges caused increased livestock movement and supplemental feeding. Livestock condition good, water supplies adequate. Poultry mortality up. Egg and milk production suffered. Broccoli-cauliflower Salinas-Santa Maria increased slightly. Cantaloupes Westside harvest continues, volume decreasing. Central Coast carrot harvest normal. Honeydews, Sacramento Valley decreased slightly. Southern California sweet corn continues active. Salinas, Santa Maria, lettuce active. Onions, bell peppers, moderately active San Joaquin and Central Coast areas. Potato harvest slow all areas. Strawberry harvest increased account warm weather. Market tomatoes King City very active.

COLORADO: Much colder from general storm last half week. Near record lows for so early in season. In 20's many lower elevations. Below 10° in mountains. Record heavy snows from 6 inches to 1 or 2 feet along and near eastern slopes. Lighter snows other mountain areas. Moisture 0.83 to 1.00 inch southeast and central mountains, 0.50 to 2.00 inches northeast. Lighter other areas. Snow and cold temperatures damaged crops. Snow mountain areas and eastern plains. Substantial amounts front range. Heavy snowfall some areas downed corn. Killing freeze to crops evident most areas except southeast. Precipitation improved moisture supplies. Now adequate for fall grain seeding. Field activity progressed well early in week. Winter wheat and winter barley 73% and 56% seeded.

Dry beans 65% acreage cut, 22% threshed. Corn development reached 96% past dough, and 41% mature. Corn silage harvest 41% complete. Grain sorghum 76% turned color and 29% ripe. Forage sorghum 50% harvested. Late summer potato harvest 3/4 complete. San Luis Valley digging halted end week. Range and pasture conditions improved slightly.

FLORIDA: Summer weather returned to Florida. Temperatures averaged near or below normal due to unsettled weather early part of week. By mid-week temperatures had climbed back to slightly above normal with daytime highs in low 90's. Considerable sunshine with only widely scattered showers prevailed later part of week. Rainfall averaged near 0.50 inch in north Florida increasing southward to near 2.00 inches in south Florida. Only scattered showers in Keys. Heaviest rain for week 3.94 inches in Avon Park, 3.13 inches at Lake Placid, and 3.06 inches at St. Leo. Harvest corn, peanuts and hay active. Continued clear weather needed sugarcane growth. Ample supply good grass. Cattle and calves mostly good. Marketing active. Citrus grove condition excellent. Few areas excessive moisture; no damage. Grapefruit harvest slowly progressing. Planting snap beans, cabbage, celery, sweet corn, eggplant, peppers, tomatoes, lettuce, other leafy and fall vegetables continues as wet soils permit. Some replanting and spots transplanting necessary many fields. Spraying active and generally effective in controlling disease problem.

GEORGIA: Rainfall mostly light until Friday when remnants Tropical Storm Edith brought moderate to heavy amounts to northern and central sections. Storm totals exceeded 4.00 inches at a few places and generally 1.50 to 3.00 inches over the northwestern 2/3 of State. Light rainfall welcome change coastal area. Cool at beginning of week but above normal temperatures returned Wednesday and continued through remainder of period. Averages ranged slightly below normal in west to 1° or 2° above normal other areas. Soil moisture mostly adequate. Crops and livestock mostly good to excellent. Final hay making active where weather permitted. Land preparation underway winter grazing and small grains. Small grains 11% planted. Crop harvest major activity. Corn 7% picked. Peanuts 85% dug and 70% threshed. Rapid harvest causing some unloading difficulty at buying points. Cotton harvest behind normal at 4% complete. Insect control still active. Rank growth causing concern. Soybeans progressing well. Apple harvest underway north. Pecan crop good, but scab still present.

HAWAII: Weather dry and humid. Showers light, mainly in higher elevations. More rain needed to ease dry conditions. Sugarcane harvesting on schedule. Production to date above last year. Picking pineapples declining seasonally. Supplies locally grown fruits and vegetables adequate. Imported mainland staples at low level because west coast shipping tieup. Dry weather affecting low elevation pastures. Cattle fair to good.

IDAHO: Temperatures fell below normal at end of week resulting in a weekly average 3° to 7° below normal. Stanley, Upper Salmon River Valley, recorded low temperatures 15th to 17th of 13° to 16°. New Meadows, Adams County; Fairfield, Camas County; and Teton, Teton County; northeast, recorded low temperatures on 17th of 18° to 19°. Frost most widespread Upper Snake River

Valley where low temperatures averaged 26° to 33°. Scattered frost higher valleys elsewhere. Only precipitation was 0.12 inch at Porthill on northern border. Harvesting late-season crops full swing. Corn silage, dry bean, potato, hop and fruit, onions, and alfalfa seed harvesting all active. Fall seeding well underway. Frosts or chemicals have killed potato vines. Some alfalfa and grain yet unharvested. Percentage crops harvested are: silage, 30; onions, 75; alfalfa seed, 50; hops, 50; dry beans, 50.

ILLINOIS: Precipitation ranged from none most of northwest to 1.50 inches in west-southwest. Northeast continues dry and temperatures ranged 42° at Antioch to 102° at Waterloo. Average 3° below normal. Soil moisture 67% short, 33% adequate. Some farm wells and ponds low. Illinois corn crop 95% mature, 7% harvested. Harvest most advanced southwest district. Most harvested grain quality good. Dry weather caused some poor kernel development few areas. Root worms, corn borers caused lodging some areas. Nearly all soybean crop yellow, 70% shedding, 20% combined. Quality variable. Ninety percent 3d crop alfalfa hay cut. Pastures 8% excellent, 14% good, 42% fair, 36% poor. Winter wheat seeding 5% complete. Seeding progressing slowly. Six days suitable fieldwork. Main activities corn and soybean harvesting, filling silos, plowing, baling hay.

INDIANA: Extended warm period broken by coolness after midweek. Temperatures 1° to 3° lower than normal except south and east. Daily highs in 80's till midweek, then 60's and 70's. Rain early and late in week. Amounts ranged from 0.50 to over 2.00 inches. Rainfall statewide. Sunshine, low humidity, and good drying early part of week, then cloudy damp. Six days suitable. Topsoil and subsoil moisture rated mostly adequate. Corn harvest underway, nearly 5% comple; about 55% mature, 45% last year. Only 5% crop has not reached dough or later stages. Soybeans 5% combined, same as average, 55% crop turning yellow, 40% shedding leaves. Wheat 10%, rye 30%, barley 25% seeded. Silos 55% filled, 50% last year. Tobacco 30% cut, behind 55% last year. Apples 45% picked. Pastures mostly fair to good.

IOWA: Temperatures 6° to 8° subnormal. Continued dry west, near normal rainfall southeast. Scattered light frost north and west. Dry sunny conditions accelerated crop maturity. Corn and soybean harvest started. Three days suitable for fieldwork. Corn 85% mature, 5% acreage harvested. Corn condition; 8% excellent, 62% good, 28% fair and 2% poor. Soybeans 5% harvested. Condition; 4% excellent, 51% good, 42% fair, and 3% poor. Over 70% soybeans shedding leaves, about same as year ago, 70% mature. Winter wheat 50% seeded. Third cutting alfalfa nearing completion. Topsoil moisture 85% short and 15% adequate.

KANSAS: Widespread significant rains most of State. Generally 0.50 to 1.50 inches. Locally over 2.00 inches southeast. First statewide rains since late July. Weekly mean temperatures averaged much below seasonal, generally 5° to 15° below normal over State. First freezing weather of fall season locally northwest portion 19th, minimum of 32° at Goodland, lowest temperature of record for so early in season that location. Widespread rains improved surface moisture conditions for fall seeding wheat. More moisture needed, especially north-central area. Wheat 14% seeded, 10 year average 22%. Fall crops maturing rapidly. Sorghum grain 31% mature, 9% harvested,

nearly same as last year, but well ahead normal. Corn 92% dented, 64% mature; compared with averages of 84% and 59%. Corn grain harvest 14% complete, average 9%. Soybean harvest getting underway, 6% combined to date. Dry bean harvest continued. Pasture feed supplies fair, recent rains improved prospects. Cattle movement running slightly ahead seasonal pattern.

KENTUCKY: Sunny 14th and 15th. Rain somewhere in State other days, showers most numerous 16th. Rainfall spotty, weekly totals variable from none to 2.32 inches, heaviest in east. Warming, then cooler after 15th. From 16th on, early-morning readings mild and near or above normal, but afternoon readings below seasonable. Fieldwork 4.5 days. Soil moisture adequate. Corn harvest starting, 4/5 corn mature enough to escape freeze damage. Stalk rot causing concern; many stalks dead and field loss could be high. Corn 5% harvested, 44% mature, but not harvested. Burley tobacco 70% cut, same as last year. Dark tobacco 3/4 cut. Weather too wet and humid for ideal housing and curing. Soybeans 60% safe from freeze damage, near 1/5 shedding leaves, harvest underway. Fall wheat 11% seeded. Pastures good to excellent.

LOUISIANA: Hurricane Edith, which moved inland about 20 miles east-southeast of Cameron around 8 a.m. on Thursday, September 16, dominated weather. Storm center passed rapidly northeast and east-northeast and into Mississippi near McComb by 2 p.m. Property damage widespread but minor. Several tornadoes in advance of center. Most destructive cut intermittent 7-mile-wide path through fashionable eastern section of Baton Rouge. Edith dumped 4.00 to 8.00 inches of rain near path. No known deaths due directly to Edith. Numerous injuries but few serious. Weekly temperatures averaged normal to 2° below normal. Daily extremes were 96° Oakgrove Tuesday; 57° Leesville Tuesday, Winnfield Friday. Cool air slowly pushing eastward across State over weekend lowered maximum temperatures north into 60's and 70's Sunday. Weekly precipitation locally less than 1.00 to more than 3.00 inches north and mostly 2.00 to more than 6.00 inches central and south. Greatest 1-day rain total 6.42 inches at Opelousas. Moderate fieldwork early week, activity halted Thursday all areas, except northwest, by rains accompanying Edith. Sugarcane damage extensive from high winds and most unharvested rice down. Some rain and wind damage to soybeans and cotton southern parishes. Considerable sugarcane acreage lodged severely, some cane broken. Harvest will be more difficult and some tonnage lost. Rice harvest 90%, corn 60% complete. Some cotton defoliated, light picking continued. Digging sweetpotatoes 35% complete, dry weather needed. Many native pecans blown from trees south-central. Most improved varieties not in Edith's path. Pasture conditions above normal. Livestock good.

MARYLAND AND DELAWARE: Warm and humid, 2d week with heavy rainfall. Temperatures averaged 3° to 5° above normal. Daytime temperatures slightly above normal, nighttime 6° to 9° above normal. Extremes: 80's, mid-50's to mid-60's. Heaviest rainfall, up to 8.50 inches, in northeastern Maryland, northern Eastern Shore and northern 1/3 of Delaware. Least, generally less than 0.30 inch southern Maryland and Allegany County. Elsewhere 0.50 to 3.00 inches. Wet fields slowed fieldwork. Soil moisture adequate to surplus. Corn for grain harvest week behind last year, but about

normal. Silage harvest also slow. Soybeans still growing, maturity delayed. Tobacco harvest 95% done, high humidity causing curing problems. Harvest fall snap beans, lima beans, and peppers continues slow. Peach harvest complete, red and golden delicious apple harvest nearing peak.

MICHIGAN: Mild early, much cooler after midweek. Light showers mid-period, rain as period ended. Temperature averages 4° below normal west to 3° above normal east Upper Peninsula, 2° below normal northwest to 2° above normal southeast Lower Peninsula. Frost low pockets north after midweek. Precipitation totals 0.50 to 1.50 inches central and east upper Peninsula, northwest and southwest to east-central Lower Peninsula with 0.25 to 0.50 inch remaining areas. Good progress harvesting fall crops and wheat seeding. Soil moisture short major areas. State averaged 5.8 days suitable fieldwork. Corn maturing early, 45% mature. Corn for silage over 1/2 harvested, corn for grain harvest started. Dry beans over 60% harvested. Soybeans maturing rapidly, over 60% acreage shedding leaves or more mature. Sugar beets developing well. About 40% 3d cutting hay made. Pasture feed supplies below average Lower Peninsula, average Upper Peninsula. Over 15% winter wheat acreage planted. Harvest winter apples started and fresh market grapes active. Fall vegetable harvest active.

MINNESOTA: Temperatures averaged 8° below normal in southwest to 4° below normal in northeast. Extremes: 87°, 26°. Temperatures below freezing or near freezing at various locations across State latter half of period. Little to no precipitation except light showers across north and very south-east counties, generally less than 0.30 inch. Corn and soybean harvest beginning southern areas. Grain combining slowed northwest showers. Corn fair to good; 70% mature, 47% normal; 1% harvested and normal. Silage corn cut 56%, normal 41%. Soybeans fair; 34% mature, 27% normal; 3% combined. Small grains harvested; winter wheat 70%, normal 71%. Hay and grain stubble 55% plowed. Potatoes 19% harvested, normal 20%.

MISSISSIPPI: Weekly rainfall totals less than 1.00 inch lower Delta and northern 1/3; remainder of State, due to Tropical Storm Edith, had totals up to 6.00 inches; a 1-day amount of 5.33 inches at D'Lo measured Friday morning. On Thursday, Tropical Storm Edith caused minor damages, several tornadoes with no death nor injuries. Temperature averages ranged from 4° below normal to normal. Weekly temperature extremes: 50° and 96°. Over weekend mostly fair and cool except some rain Sunday or Monday, Rolling Fork measured 2.01 inches this Monday morning. Soil moisture generally adequate north, mostly surplus south. Average 3 1/2 days suitable fieldwork. Corn 66% mature, 15% harvested. Cotton 15% opened, less than 1% picked. Soybeans 10% mature, 1% harvested. Rice 66% mature, 16% harvested. Sorghum 44%, hay crops 71% in. Corn, cotton, pecans fair to good condition. Hay crops, soybeans, rice, pastures, and livestock mostly good.

MISSOURI: Strong cold front crossed State Thursday September 16, dropping temperatures 20° ending an extended period of hot dry weather. Temperatures for week ranged from 7° below normal north to 3° above normal southeast. Scattered frost may have occurred along Upper Missouri River Monday morning September 20, as St. Joseph reported 33°. Rain soaked all but the northwest section of State beginning Thursday and continued

throughout weekend. Most areas received over 1.00 inch. Corn good, 71% matured, 13% harvested, 14% last year; Soybeans good, 61% turning color, 35% last year; 8% harvested, 1% year ago. Grain sorghum 63% matured, 44% last year; 15% harvested. Cotton good condition, bolls 33% open, 38% open last year. Soil moisture 70% short, 29% adequate, 1% surplus.

MONTANA: Warm Monday, cool remainder week, temperatures averaging 6° to 11° below normal. Hard freeze throughout State 18th with minimum temperatures in the teens and 20's. Widespread rain and snow Thursday and Friday central and east amounts averaging about 1/4 inch. Topsoil moisture short northern 2/3. Winter wheat planting nearly week behind normal, 35% complete. Second cutting alfalfa hay 95% stacked. Corn silage harvest 60% complete and dry beans 50% harvested. Potato digging just getting started. Cattle and sheep good condition. Range livestock 35% moved from summer ranges. Grasshopper damage light to moderate to fall pastures and ranges.

NEBRASKA: Very cold week with first freezing temperatures of fall in northwest half of State. 0.50 inch to an 1.50 inches moisture in southwest and southern Panhandle; very little elsewhere. Harvesting getting underway some areas with moisture content of grain few fields either near or at safe storage levels. Corn 70% mature, sorghum 45% ripe, and soybeans 20% mature. Precipitation west slowed dry bean harvest. About 60% wheat planted, but only Panhandle and portions southwest have adequate topsoil moisture. Livestock generally good.

NEVADA: Normal temperatures except 4° below normal in northeast. Sudden drop in temperatures end of week with first freeze many counties in north. No precipitation. Alfalfa seed harvest continues active all major producing areas. Cutting alfalfa hay still most active farm activity ranging from 2d cutting northern high valleys to 6th cutting southern valleys. Most western and central areas 3d cutting hay continues. Livestock and ranges generally good.

NEW ENGLAND: Second week in row quite warm and humid. Daily maxima near normal. Week averaged mostly 3° to 8° above normal due to very mild nights. Rain almost daily somewhere. Accumulations little or none after September 14 except some heavier showers on 17th. Weekly totals varied from 0.25 to 1.50 inches and averaged about 0.80 inch except in western Connecticut where totals ranged from 1.50 to 3.50 inches. General harvest fall crops active. McIntosh apples coloring slowly due to warm, humid nights. Cranberries need rain, coloring slow. Potato digging active Aroostook, Maine. Prospects spotty due wide variation precipitation. Supplies summer vegetables declining steadily. Volume fall vegetables increasing with some squash going into storage.

NEW JERSEY: Warm and humid with temperatures averaging from 2° to 6° above normal. Readings ranged from upper 50's to mid-80's. Rainfall extremely variable with station totals ranging from less than 0.20 inch at New Brunswick to nearly 2.90 inches at Belvidere. North Jersey averaged 1.40 inches while central and southern counties averaged about 1.00 inch for week. Soil moisture adequate to excessive. Harvest fall vegetable crops underway. Last week's

storm caused additional crop damage, especially poorly drained fields. Tomato harvest about complete. Some seeded acreage still producing. Weather has put potato harvest well behind schedule. Apple supplies increasing. Cranberry harvest underway. Silage making delayed due wet fields. Preparation and seeding small grains behind schedule. Pastures making excellent growth.

NEW MEXICO: Scattered light showers becoming widespread and heavier on Friday and Saturday with a few local 1.00 inch showers. Some snow higher elevations of north. Seasonal temperatures first part of week but unseasonably cold Friday. Temperatures in 90's first of week dropped to below freezing on weekend in north. Moisture improved. Near freezing north weekend. Damage unknown. Wheat and Barley plantings almost complete. Alfalfa harvesting, broomcorn pulling continuing. Limited cotton hand picking started southern areas. First bale ginned Eddy County. Ranges fair to good. Livestock good.

NEW YORK: Second week of above-normal temperatures with nights especially warm. Minimums mid-50's to mid-60's Upstate except mid-40's to low 50's on 19th. Precipitation on 13th and 14th totaled 2.60 to 3.10 inches New York City and Lower Hudson Valley, decreasing to 0.60 inch eastern Long Island. Elsewhere totals mostly 1.00 to 2.00 inches. Total precipitation since July 29th in New York City 19.95 inches, compared with normal of about 8.50 inches. Corn mostly good condition, but continues to mature slowly. Dry bean harvest began some areas, but generally delayed wet weather. Alfalfa 3d cutting continues as weather favorable for regrowth. Winter wheat being planted. Early week rains slowed potato digging Long Island. Upstate potato growers beginning to move Katahdins into storage. Abundant rains Orange County slowed celery harvest, and curtailed harvest late onion fields. Wet conditions central and western onion sections delaying fieldwork. Steady supplies snap beans and sweet corn expected through September. Cauliflower supplies increasing. McIntosh harvest underway limited basis. Peach harvest well over half complete. Harvest concord grapes for "cold press" continues.

NORTH CAROLINA: Temperatures averaged near normal. Showers each day but most rain on or near weekend. Totals variable 0.25 inch to 6.00 inches, mostly 1.00 to 2.00 inches. Heaviest western Piedmont and adjoining slopes. Soil moisture increased to mostly adequate. Coastal region short in pockets. Flue-cured tobacco harvest complete and leaves being prepared for market. Burley harvest continued. Cotton mostly good. Corn unchanged. Soybeans and peanuts mostly good, little change past 2 weeks. Hay and pastures show little change, mostly good. Planting small grains underway. Full week fieldwork reported. Some labor shortages.

NORTH DAKOTA: Temperatures averaged 5° to 10° below normal over State except in east where temperatures averaged 3° to 6° below normal. Below freezing end of week at Williston. Precipitation ranged from 0.10 inch to 0.30 inch over State with central and southeast receiving least. Combining small grains nearing completion, except for northern part. Flax harvest

over 1/2 complete. About 3/4 winter wheat and rye acreage planted. Potato harvesting under-way and some sunflowers ripe.

OHIO: Cloudy cool week. Weekly mean temperature generally 2° to 4° below normal. Showers State every day but 14th. Heavier showers northeast on 13th and extreme southeast on 16th. Five days favorable fieldwork. Topsoil moisture 35% short 65% adequate. Corn crop 60% mature and 5% harvested. Last year, 70% mature and 10% harvested. Corn silage harvest 60% complete. Soybean crop 25% mature, last year 45%. Soybean harvest 5% complete, ahead normal but behind last year. Potatoes 55% dug. 60% tobacco cut. Winter wheat acreage 15% planted. Rye 30% planted.

OKLAHOMA: Best statewide rains of year ranging from 0.75 inch southeast to 2.60 inches west-central. Southwest and north-central received 2.40 inches. Temperatures unseasonably warm first of week turning cooler midweek and unseasonably cool over weekend. 32° Panhandle Friday. General weekend rains increased soil moisture supplies and will improve conditions late row crops and seeding, germination small grains. Row crops generally late, but continue mostly fair to good. Nearly 1/5 wheat acreage seeded, 1/4 year ago. Corn nearly all mature, 1/5 picked, 1/3 year ago. Sorghum grain 1/2 mature, 3/4 year earlier, 13% harvested, 17% year ago. Cotton crop late, only 10% bolls open, 40% year ago. Small acreage picked. Peanut crop 1/4 mature. Some acreage dug. Soybeans 1/4 mature, harvest continues north-east. Pastures mostly fair to good, but prospects expected to improve.

OREGON: Dry windy week with cooling trend in eastern half, warming trend in west. Temperatures averaged 3° to 9° above normal southern 1/3 of State, near normal elsewhere, except 3° to 6° below normal north central and northeast. Minima 22° to 44° eastside, 41° to 51° west side. Maxima 75° to 94° with 100° at Brookings, equalling 58-year record. Western part smoky last 2 days from forest fires. First of week showers totaling 0.10 to 0.50 inch limited to north coast and Willamette Valley. Grain harvest virtually complete northeast. Approaching completion other areas. Unharvested wheat sprouting Willamette Valley. Land preparation, fertilizing and seeding active. Alfalfa seed harvest active. Grass seeds approach completion. Red clover seed harvest beginning. Winter pear harvest underway Hood River. Early fall and late summer apples being harvested. Peach and blackberry harvests continue. Cranberry harvest expected about 2 weeks. Cole crops, bean, and sweet corn harvests continue. Unprotected potato vines frosted down Deschutes County. Onion harvest continues, storing begun. Fall pastures good growth. Livestock on irrigated pastures, hay and crop aftermath.

PENNSYLVANIA: Mild wet week with disastrous floods southeast. Heavy showers several areas Monday, over 4.00 inches southwest mountains causing local flash flooding. In extreme southeast, rains of up to 6.00 to 12.00 inches during September 10 to 14 period resulted in severe local flooding. Thirteen persons lost their lives and damage is in excess of \$7.5 million. Squall line Thursday spanned 2 apparent tornadoes, with hail and strong winds over much of State. No reported injuries and minimal damage. Weekly rainfall mostly 1.00 to

4.00 inches, except less than 1.00 inch parts of northeast and south-central. Temperatures 1° to 3° above normal west, 3° to 5° above normal east. Fieldwork delayed by rain. Silo filling 1/3 completed. Some corn lodged from high winds and stalk rot. About 3/4 corn crop denting. Fall potato harvest delayed by wet weather. Excessive moisture cracking peaches and tomatoes. Tomatoes or processing nearing end. Sweet corn harvest peaked. Some grapes picked Erie County. Pastures improved. Tobacco nearing end.

SOUTH CAROLINA: Showers beginning end of week brought amounts ranging from none to 3.50 inches. The north-central and west-central divisions averaged over 1.00 inch. The south and the outer Coastal Plain were driest with only about 0.20 inch. Average temperatures of 73° in north to 77° in south were normal for period. Cool spell brought midweek temperatures to low 50's. Walhalla had 47° on 14th. Soil moisture adequate all areas, except short Piedmont. Cotton condition fair to good, hand picking continues, preparing for mechanical harvest. Bolls opening 55%. Soybeans good to excellent, corn earworms major concern, 96% setting pods, 22% mature. Corn good to excellent, 95% matured, 24% harvested. Sorghum good to excellent, 22% harvested. Peanut harvest active all producing areas. Pecans fair to good, but scab problem increasing. Apples good to excellent, harvest 67% complete. Hay crops, pastures good. Planting cover crops, winter grazing some areas. Fall vegetables fair to good, light harvest cucumbers.

SOUTH DAKOTA: Cold dry week. Temperatures averaged from 6° to 13° below normal. Extremes in lower elevations ranged from 26° at Oral on 17th to 97° at Philip on 13th. A low of 28° on 4 days in a row at Brookings. Little or no precipitation most areas of State with greatest amounts of about 0.25 inch. Light snow in Black Hills last half of week. Frosts most areas during week. Some damage to late fields row crops, but generally frosts aided maturing row crops quickly. Much corn cut for silage. Some root worm and corn borer damage, with ear droppage and lodging. Corn picking began southeast. Nearly 90% corn safe from frost. Harvest grain sorghum early with over 10% harvested. About 85% soybeans shed leaves and few farmers begun harvest. Seeding winter wheat 80% complete. Topsoil moisture shortages still exist. Livestock marketings slow. Pasture varies from poor to good. Some movement cattle to fall pastures.

TENNESSEE: Mostly sunny and warm 1st half of week. Cloudy and cooler with occasional rain and showers 2d half. Average temperatures near normal. Rainfall generally light, until generous amounts in southeast on weekend. Good crop prospects, but dry open weather needed west for cotton, other row crops. Cotton 25% open, corn 60% mature, but full-scale harvest not expected until October. Soybeans mostly good prospects, some loss expected from lodging and weeds. Tobacco 90% harvested. Lespedeza about 70% cut, slightly behind year earlier. Pasture, hay crops good condition. Percent small grains seeded; oats and barley 25% and wheat 15%. Soil moisture; 70% adequate, 23% short, and 7% surplus. Days favorable fieldwork averaged 4.3.

TEXAS: Good ground-soaking rains fell throughout most of State following and unusually cold air masses that swept into Texas Friday. An exception to the heavy rains was the area from about Dallas southwestward to Del Rio. On morning of 20th, Lubbock, Abilene, Midland, El Paso, and Austin reported lowest temperature of record for so early in season. Cold wet weather covered State, stopping planting and harvesting operations. Hail damage sustained by several counties High Plains. Cold weather delayed maturity cotton, sorghum on High Plains. Ranges, pastures greening up, but army worm damage increased. Light hay cutting left East. Percent harvested major crops: cotton 15, 21 last year; corn 63, 72 last year; sorghum 47, 55 last year; peanuts 18, 22 last year; rice 98, 96 last year. Percent planted fall crops: wheat 42, 42 last year; oats 19, 33 last year. High Plains vegetable harvest slowed by showers. Some lettuce damaged by hail. Cool temperatures slowed growth fall vegetables. Carrot digging light. Pepper harvest at peak with light supplies cucumbers, tomatoes, cabbage, cantaloupes, watermelons, potatoes, onions from High Plains. Sweet potato harvest becoming active East Texas. Heavy rains interrupted planting winter vegetables all South Texas areas. Permanent damage fall-winter vegetables all South Texas areas. Permanent damage fall winter vegetables from excessive moisture expected to be light, but some replanting winter vegetables probable. Most fall vegetables expected to make good recovery from rains. Cool temperatures beneficial for early-planted winter vegetables. Planting winter vegetables expected to be active as fields dry. Citrus prospects enhanced by rains. Harvest oranges underway. Pecans maturing nuts.

UTAH: Except for few isolated very light showers, no precipitation. Average temperatures ranged from 1° to 5° above normal most sections, but dropped to 2° to 6° below normal northern mountains and along Wasatch front. First killing frost hit some colder areas northern Utah and western desert. Though temperatures were cool, harvest weather ideal. Winter wheat 60% planted. Percent crops harvested: 70 3d crop alfalfa hay, 25 field corn; 10 potatoes, 40 dry onions, 90 sweet corn, 80 alfalfa seed, 80 peaches, and 15 apples. Cattle and sheep starting move down from high country. Some calves and lambs being shipped to market.

VIRGINIA: Temperatures below normal at beginning, otherwise normal to above. Scattered showers at beginning mainly in west and again over weekend. Harvest slowed by wet fields and high humidity. Corn harvest behind schedule. Yields poor to excellent, depending seed type. Corn silage harvest prospects excellent. Farmers spraying to control Mexican bean beetles and corn ear worms. Tobacco harvest later than usual. Flue-cured tobacco 85% cut. Fire-cured 80%, burley and sun-cured 65%. Flue-cured markets opening September 20th. Few peanuts dug. Prospects good. Pastures excellent. Snap beans, cucumbers and few sweetpotatoes moving from Eastern Shore. Apples maturing later than usual. Harvest red and golden Delicious beginning Winchester area.

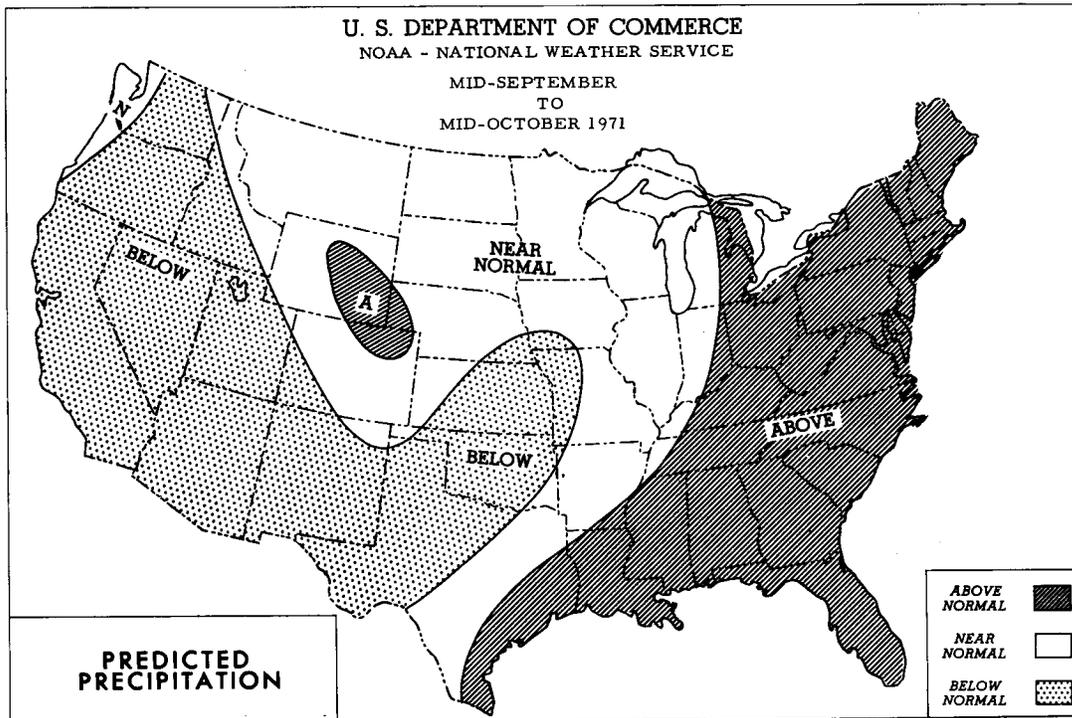
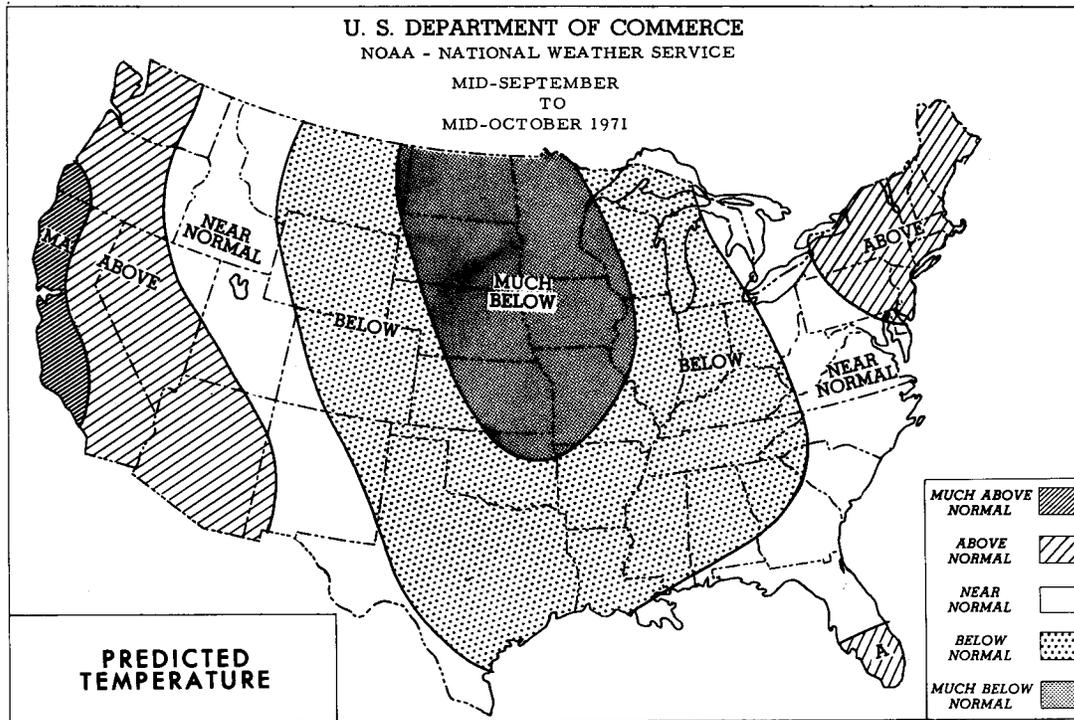
WASHINGTON: Western Washington: Warm and dry with windy periods. Harvest sweet corn active with cucumbers, lettuce, and cauliflower continuing. Greening pastures increased. Blackberry season nearly complete. Eastern Washington: Dry and cool with occasional windy periods. Soil moisture still good. Wheat harvest nearing completion. Apple picking beginning early orchards. Potatoes, lima beans, tomatoes, hops, and peppers still being harvested. Hay, silage corn, and mint harvests continuing. Fields being prepared for seeding. Grape harvest expected to begin soon.

WEST VIRGINIA: Cool air interacting with hurricane-induced moisture from south produced exceptionally heavy amounts of rain during week. Heaviest amounts fell September 12 and 13. Over 5.00 inches weekly total at Philippi, Barbour County. Some schools and roads closed north central sections early week. September 15 only rainless day. Rainy weather held farm activities at low level. Days suitable for fieldwork, 2.6. Main activities filling silos, harvesting tobacco. Reported soil moisture: 2% short, 41% adequate, and 57% surplus. Tobacco over 1/2 harvested. Hay harvest almost completed. Pastures benefitted from heavy rain.

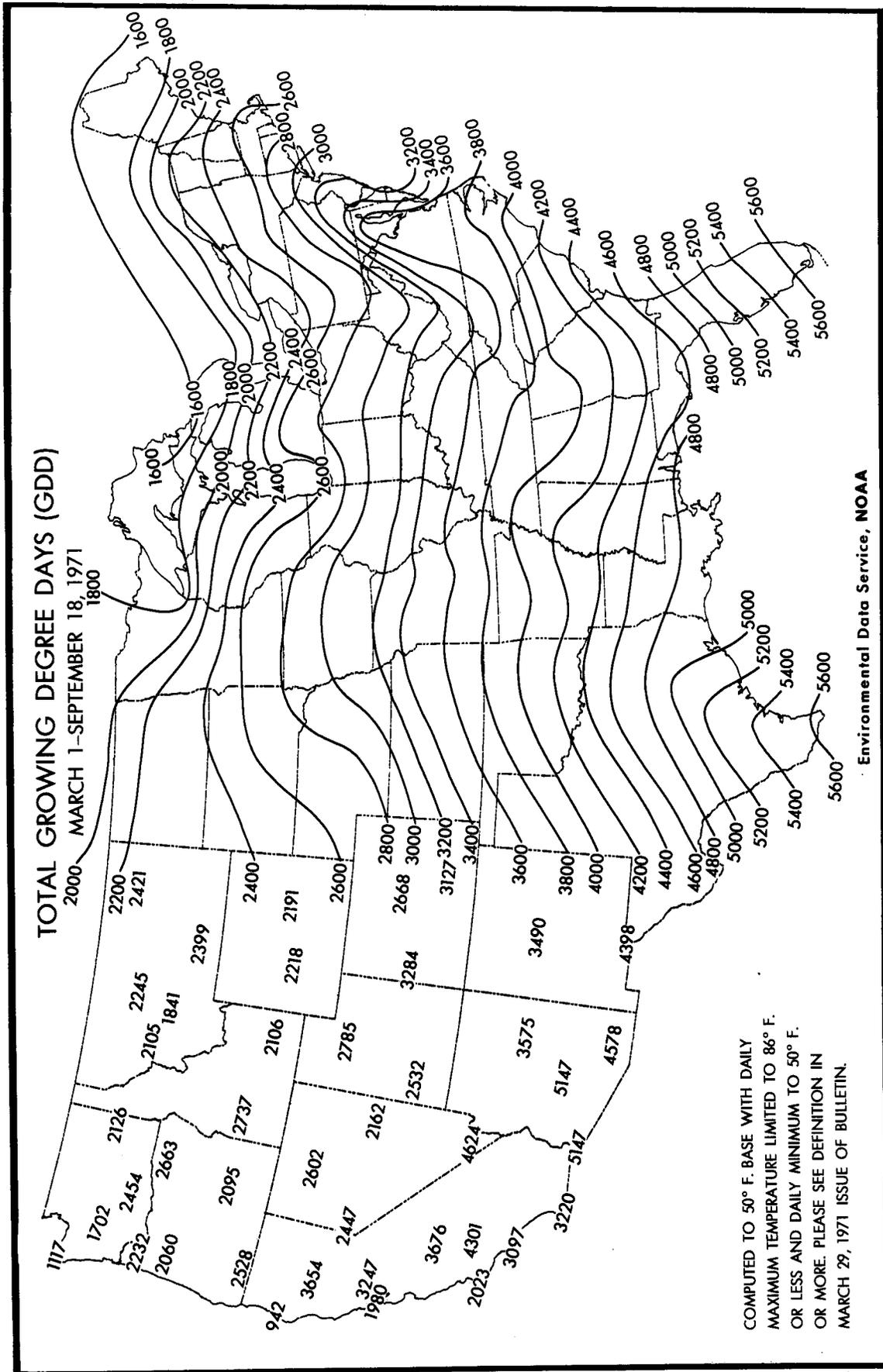
WISCONSIN: Week began very warm but Wednesday cold began causing average temperatures of 4° below normal for State. No precipitation until weekend when about 0.50 an inch was averaged across State. Silo filling continuing at increasing rate with yield and quality good. Most corn safe from frost, except extreme north. Corn harvest underway south. Haying in 2d and 3d cuttings. Pastures poor dry southeast. Fall plowing began. Soybeans look very good. Tobacco nearly finished with good crop. Vegetable crops finishing up. Potatoes continue being dug. Soil moisture on short side many areas.

WYOMING: Temperatures averaged below normal as cold air covered State from Tuesday on. Moderate to heavy snow Thursday and Friday over southeast, damaging trees and crops. Hecla reported most moisture with 1.07 inches. Maxima mostly 80's southwest half, high 80's to mid-90's northeast half. Minima mostly 5° to 25° west of Divide, 25° to 35° east. Extremes: 97° at Deaver and Sheridan Field Station and 5° at Big Piney. Main agricultural activities harvesting dry beans and corn silage and moving livestock. Weather brought fieldwork to standstill. Nearly 30% dry beans combined. About 45% corn silage cut. Recent precipitation improved range conditions and soil moisture supplies. Surface soil moisture adequate most areas. Ranchers moving livestock off higher ranges with winter feed prospects good. Most livestock producers expect to winter about same amount of stock as year ago.

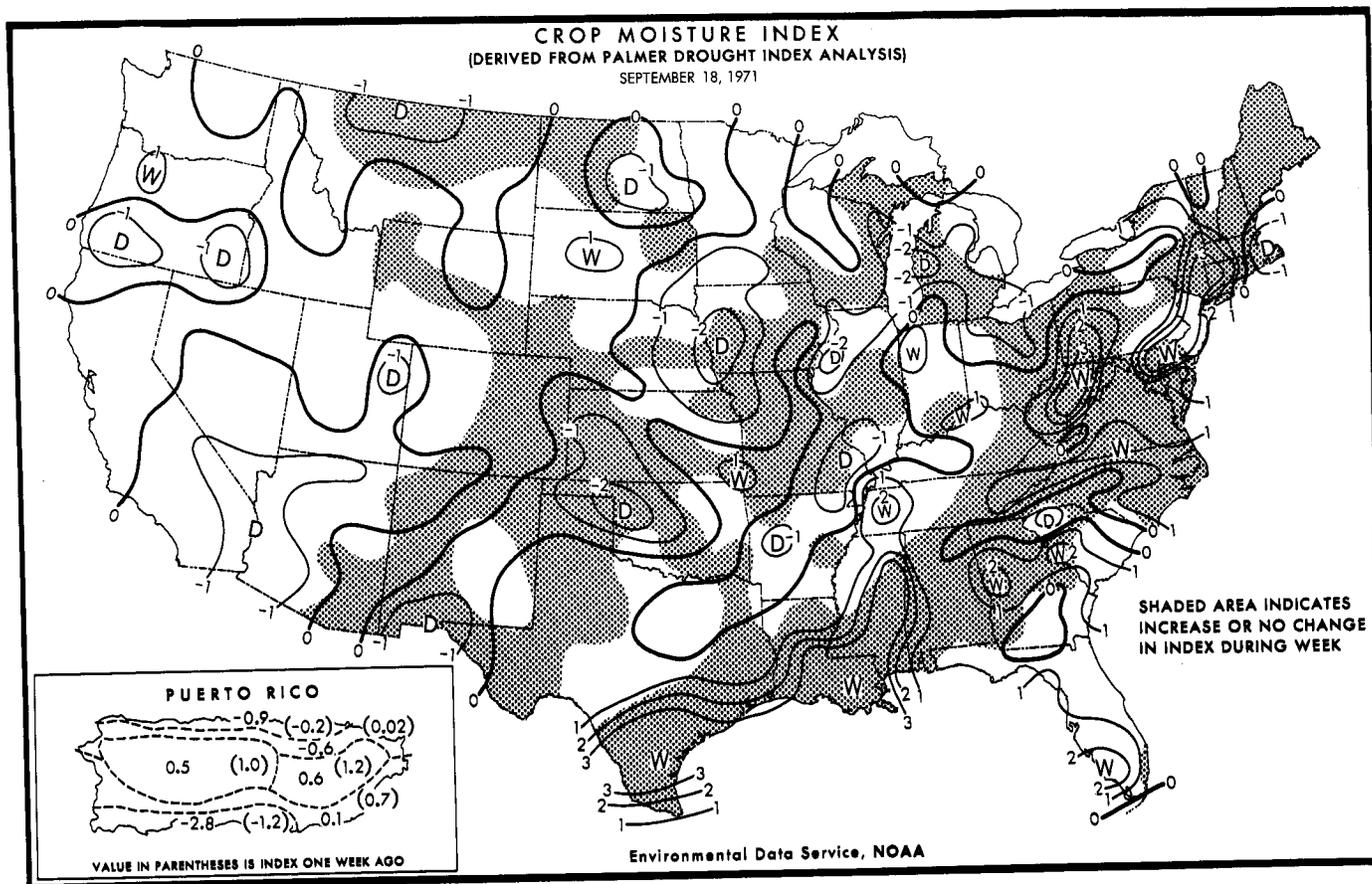
AVERAGE MONTHLY WEATHER OUTLOOK



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



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



INDEX DECREASED DURING WEEK
(Unshaded Areas)

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

INDEX

ABOVE 3.0 SOME DRYING, BUT STILL EXCESSIVELY WET.
 2.0 to 3.0 MORE DRY WEATHER NEEDED, WORK DELAYED.
 1.0 to 2.0 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS.
 0 to 1.0 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK.
 0 to -1.0 TOPSOIL MOISTURE SHORT, GERMINATION SLOW.
 -1.0 to -2.0 ABNORMALLY DRY, PROSPECTS DETERIORATING.
 -2.0 to -3.0 TOO DRY, YIELD PROSPECTS REDUCED.
 -3.0 to -4.0 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT.
 BELOW -4.0 EXCEPTIONALLY DRY, MOST CROPS ABOUT RUINED

INDEX

ABOVE 3.0 EXCESSIVELY WET, SOME FIELDS FLOODED.
 2.0 to 3.0 TOO WET, SOME STANDING WATER.
 1.0 to 2.0 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET.
 0 to 1.0 MOISTURE ADEQUATE FOR PRESENT NORMAL NEEDS.
 0 to -1.0 PROSPECTS IMPROVED, BUT RAIN STILL NEEDED.
 -1.0 to -2.0 SOME IMPROVEMENT, BUT STILL TOO DRY.
 -2.0 to -3.0 DROUGHT EASED, BUT STILL SERIOUS.
 -3.0 to -4.0 DROUGHT CONTINUES, RAIN URGENTLY NEEDED.
 BELOW -4.0 NOT ENOUGH RAIN, STILL EXCEPTIONALLY DRY.

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

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

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

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

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Washington, D.C. 20250

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