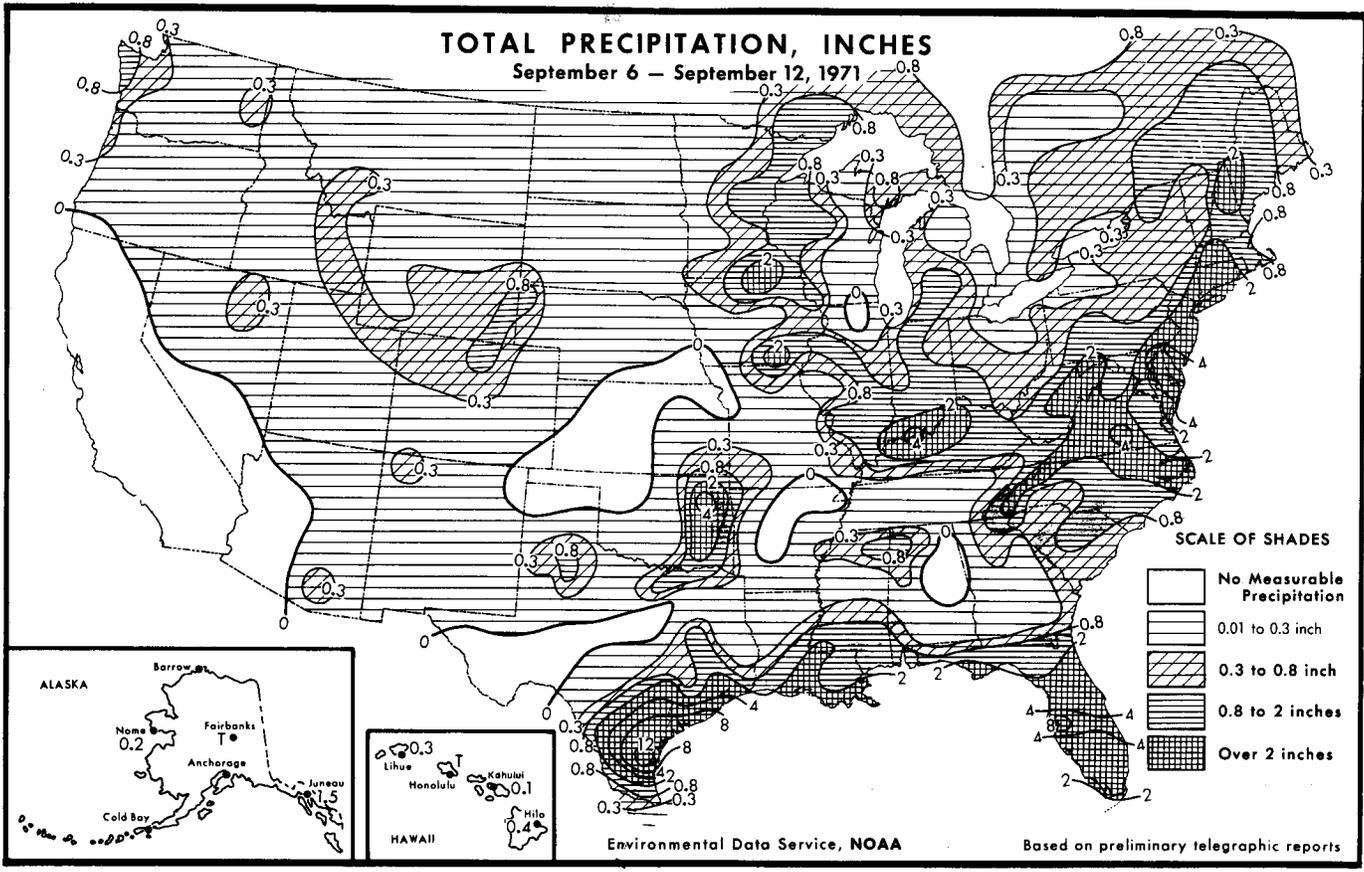


Weekly Weather & Crop Bulletin

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NATIONAL WEATHER SUMMARY

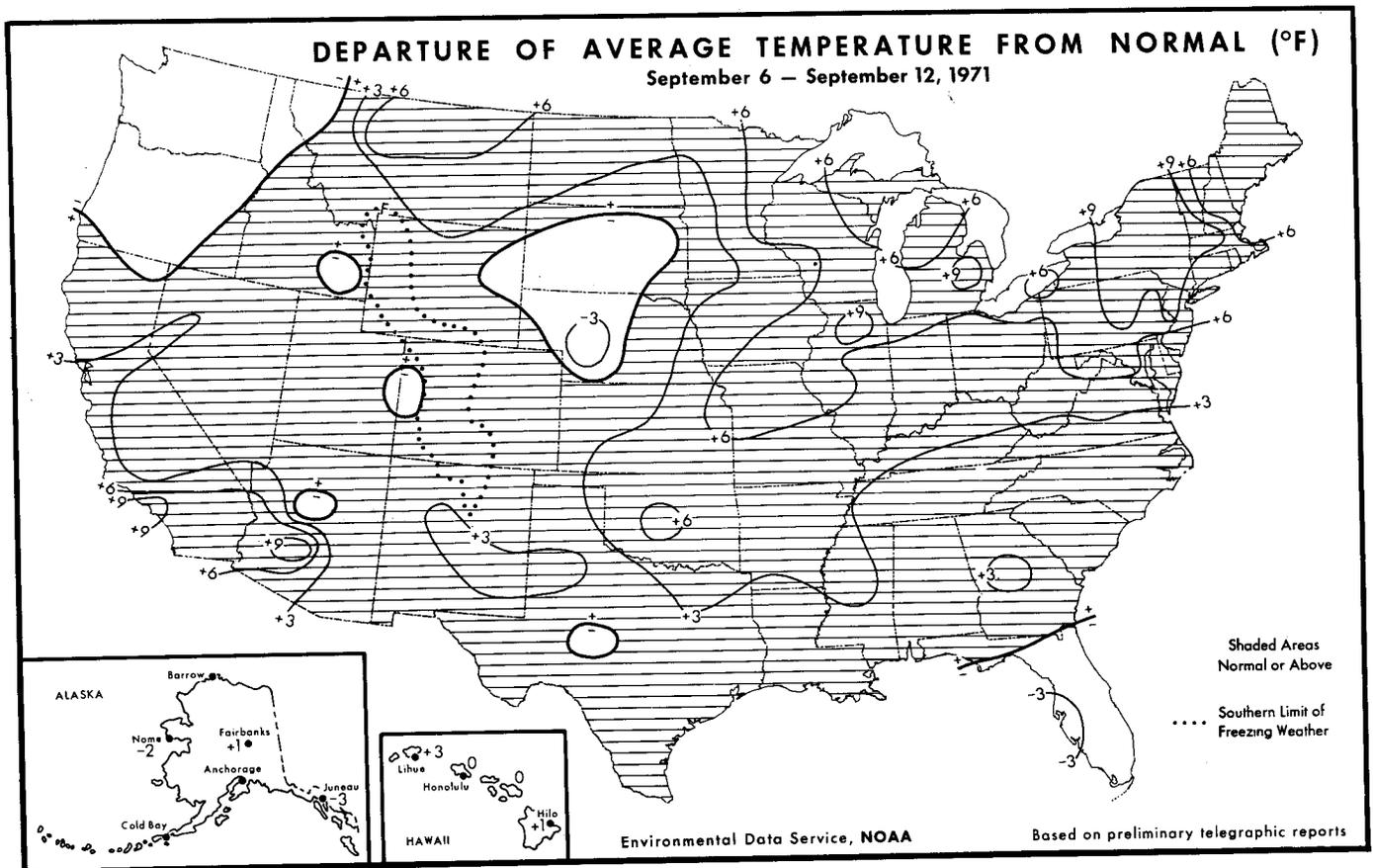
HIGHLIGHTS: Summer heat continued over much of the Nation. Hurricane Fern brought heavy rain to southern Texas.

PRECIPITATION: Early in the week, a cold front stretched from Michigan to Oklahoma. Vigorous thunderstorms occurred along the front and in the moist air ahead of the front. Most of the thunderstorms produced only small amounts of rain. A few were accompanied by strong winds, hail, and heavy rain. About midweek showers and thunderstorms dotted the northern and central Rocky Mountains and northern and central Great Plains. Mason City, Iowa, received 2.86 inches in the 24-hour period ending at 6:00 a.m. Thursday.

Five tropical cyclones entered the weather picture during the week and over the weekend. Hurricane Edith swept across the Caribbean Sea

and lashed Nicaragua and Honduras. Winds associated with Edith reached 160 m.p.h. Edith lost strength over land but regained her strength after reaching the Gulf of Mexico. Hurricane Fern with winds up to 90 m.p.h. drifted inland near Port O'Conner, Tex. Her winds diminished to about 60 m.p.h. She produced heavy rains, 4.00 to 8.00 inches at many locations, and much more at a few stations. Goliad, Tex., received 10.75 inches in the 24-hour period ending at noon, Saturday. The heavy rains caused widespread flooding.

Hurricane Ginger with 80 m.p.h. winds was a threat to shipping but remained too far at sea to affect the Continent. Tropical Storm Heidi threatened the Atlantic Seaboard Sunday, while a fifth tropical depression with 35 m.p.h. winds was moving westward near the Antilles.



TEMPERATURE: Warm sunny weather prevailed over most of the Nation. Southerly breezes brought warm humid weather northward over the eastern half of the Nation. Temperatures were mostly in the 80's and 90's. Morgantown, W. Va., registered 94° Monday afternoon. High humidity added to the discomfort of the citizens over the East. The Southwest was hotter but less humid. Temperatures in the desert regions of the Southwest approached or exceeded 100° on most days. Thermal, Calif., registered 110° Tuesday afternoon. The Far Northwest was quite comfortable with maximums in the 60's and 70's. A warming trend pushed the maximums over the central Great Plains to near 100° or higher--100° at Sioux Falls, S. Dak., 101° at Grand Island, Nebr., and 106° at Hill City, Kans., on Tuesday. Cool air poured southward over the Rocky Mountains and

Great Plains Wednesday. Denver, Colo., was about 20° cooler Wednesday than Tuesday and Pickstown, S. Dak., recorded 99° and 62° Tuesday and Wednesday afternoons, respectively. A warming trend occurred over the northern and central Great Plains late in the week. On Saturday, temperatures reached the 80's over most of the Dakotas. Williston, N. Dak., recorded 89° Saturday afternoon. The hottest temperature that has come to our attention was 120° at Palm Springs, Calif., Sunday afternoon. Weekly mean temperatures were warmer than the normals over most of the Nation. The main exception was in the Far Northwest. Most of the Great Lakes Region and the Northeast averaged more than 6° warmer than normal.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Dry weather aids harvesting in the South. * Corn picking becoming more widespread. * Winter wheat planting increasing.

SMALL GRAINS: Warm, dry weather allowed grain farmers along the Northern U. S. border to make giant strides towards wrapping up this year's harvest. The spring wheat, oats, and barley crops are 95 percent combined in Montana; about 1 week ahead of average. Oats and barley are mostly under cover in North Dakota, with spring wheat harvest moving nicely. Farmers in the northern areas of Minnesota and Wisconsin were stymied in their oat harvest by rainy weather. Showers also interrupted combining in local areas of Washington and Oregon, but overall progress was good.

Planting of the 1972 winter wheat crop made fair progress on the Great Plains during the week, but dry soils are curtailing operations in many areas. Seeding is behind last year's pace, but some acreage is emerging in South Dakota. Seeding of fall grains increased rapidly in the South as the fields dried enough to support machinery. Plowing and seeding are behind in Kentucky due to wet fields. Wheat planting moved along slow in the Corn Belt as many fields are dry. Seeding is behind schedule in Montana and Idaho. Seeding of dryland acreage in Washington was good, although some fields may need to be reseeded due to soil crusting.

CORN: Picking of corn in early-maturing fields became more widespread in the Corn Belt. However, the high moisture content of the kernels discouraged many growers; as the crop is not safe to store. If the hot, dry weather continues picking will start on most farms before October. The warm, sunny weather is accelerating corn maturity in most States. Much of this year's crop is already safe from frost. Scattered showers hit most of the Corn Belt from Iowa eastward, helping late-planted fields. The moisture came too late to benefit well developed acreage. Silo filling was making rapid headway.

The driest week since June speeded corn harvesting through the South. The warm temperatures also hastened ripening of the fine Southern crop. The earlier wet weather has led to an increasing concern about stalk rot in Kentucky. Continued heavy rains in New Jersey led to further corn damage in that State.

The spread of Southern corn leaf blight is at a standstill. Dry weather and advanced maturity are holding blight in check.

SOYBEANS: Many soybean fields in the North-central States are sporting a yellow color, as hot temperatures speeded ripening. Leaves are falling off the plants in many early-seeded fields. Pods are still filling in northern growing States, but harvesting gained some ground in the southern areas. Michigan beans are developing poorly due to the dry conditions.

A dry week aided prospects in the South and boosted harvest activity. Pods are developing well, but weeds and lodging present a problem. Many growers continue late spraying for insect control.

COTTON: After many days of rain, a dry, sunny week finally arrived in the South. As fields dried farmers resumed their insect control programs. Picking remains very light and is not expected to gain much momentum until early October. Boll rot is prevalent, especially in lowland fields. Many growers are defoliating in an attempt to limit rotting. The first bale of cotton was picked in Oklahoma and California's San Joaquin Valley. Picking is active in Arizona, but maturity is running 1 month late in the southeast area.

OTHER CROPS: Relatively dry weather allowed sorghum farmers across the Southern portion of the Country to make good harvest progress.

North Carolina tobacco harvesting is rapidly coming to a close. Growers in both the Carolinas are busy preparing leaves for market. Gathering is also past the peak in Tennessee with nearly half the Kentucky burley cut. Sunny weather started the peanut combines moving rapidly in Georgia and Alabama. Virginia growers also sampled some fields. Potato digging is underway in North Dakota, and will start this week in Maine. Digging is slow in Idaho. Katahdin shipments are active from Long Island, New York. The Michigan dry bean acreage is 40 percent combined, with Nebraska cutting well underway.

Fruits and Nuts: Apples are developing well in Washington with picking to start soon. Picking is underway, but slow, in the Northeast, as warm weather is slowing apple coloring in the New England States. Tennessee growers are also marketing their crop. West Virginia apple prospects continue good. California grape harvesting is active with growers continuing to pack Thompson's for fresh market. New crop citrus looks good in Florida and Arizona. Pecan droppage in South Carolina has been heavy.

Vegetables: Fresh market vegetable shipments are still heavy in the Northeast, but are expected to start tapering off as autumn approaches. Steady supplies of lettuce are available from Oswego County, New York, but sweet corn is about finished in Michigan and Wisconsin. Moving to the West, onion topping and pulling is active in Washington, Oregon and Idaho. California tomato picking for fresh market is slow, but picking for processing is active. Lettuce planting is active in Arizona, with thinning of early-planted fields underway. Heavy rains halted planting and damaged young plants in Florida.

PASTURES AND LIVESTOCK: Pastures in the central section of the Nation are short and deteriorated during the week. Rain showers in the Northeast quarter of the U. S. improved grass growth. Fall pastures greened from the Dakotas to the Pacific Northwest as a result of the Labor Day weekend rain. In the Southwest fall pastures are still short, but some improvement was noted in Arizona. The South remains excellent. Some fall marketing of livestock is underway, but movement is light.

Steve J. Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., September 12, 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 . . .	77	- 1	0	-.8	New Orleans . . .	81	+ 1	3.3	+2.1	OKLA. Okla. City . . .	83	+ 7	T	-.7
Mobile . . .	80	+ 1	1.1	-.4	Shreveport . . .	82	+ 1	T	-.4	Tulsa . . .	80	+ 4	4.1	+3.2
Montgomery . . .	79	0	0	-1.0	MAINE. Caribou . . .	61	+ 5	.7	-.1	OREG. Astoria . . .	58	- 1	.5	-.1
ALASKA. Anchorage . . .	---	---	---	---	Portland . . .	65	+ 4	1.6	+ .8	Burns . . .	59	- 2	T	-.1
Barrow . . .	---	---	---	---	MD. Baltimore . . .	76	+ 5	4.5	+3.7	Medford . . .	66	0	0	-.1
Fairbanks . . .	48	+ 1	T	-.3	MASS. Boston . . .	72	+ 5	.4	-.5	Pendleton . . .	64	- 2	T	-.1
Juneau . . .	47	- 3	1.5	+ .1	Nantucket . . .	68	---	.5	---	Portland . . .	64	0	.2	-.1
Nome . . .	42	- 2	.2	-.5	MICH. Alpena . . .	64	+ 6	T	-.9	Salem . . .	62	- 2	.1	-.2
ARIZ. Flagstaff . . .	59	- 2	0	-.4	Detroit . . .	73	+ 7	.3	-.3	PA. Allentown . . .	75	+ 8	1.2	+ .3
Phoenix . . .	94	+ 9	0	-.2	Flint . . .	72	+ 9	.2	-.5	Erie . . .	70	+ 5	-.1	-.7
Tucson . . .	84	+ 2	.7	+ .4	Grand Rapids . . .	71	+ 7	1.1	+ .4	Harrisburg . . .	78	+ 9	.8	+ .1
Winslow . . .	75	+ 2	T	-.3	Houghton Lake . . .	65	+ 5	T	-.7	Philadelphia . . .	78	+ 9	3.0	+2.1
Yuma . . .	95	+ 6	0	-.1	Lansing . . .	70	+ 6	1.6	+1.0	Pittsburgh . . .	74	+ 7	.9	+ .3
ARK. Fort Smith . . .	81	+ 4	T	-.8	Marquette . . .	65	+ 5	.8	+ .1	Scranton . . .	74	+ 9	.3	-.4
Little Rock . . .	81	+ 4	0	-.8	Muskegon . . .	71	+ 6	.5	-.3	R.I. Providence . . .	74	+ 9	.9	0
CALIF. Bakersfield . . .	81	+ 2	T	0	S. Ste. Marie . . .	62	+ 4	.6	-.2	S.C. Charleston . . .	78	+ 1	.4	-1.0
Eureka . . .	58	+ 1	0	-.1	MINN. Duluth . . .	63	+ 7	1.1	+ .4	Columbia . . .	78	+ 1	1.7	+ .6
Fresno . . .	78	+ 2	T	0	Internatl Falls . . .	61	+ 6	.2	-.5	Greenville . . .	75	0	.8	-.1
Los Angeles . . .	82	+ 9	0	0	Minneapolis . . .	69	+ 6	.4	-.3	S. DAK. Aberdeen . . .	65	+ 2	T	-.3
Red Bluff . . .	79	+ 1	0	-.1	Rochester . . .	67	+ 4	2.2	+1.3	Huron . . .	64	- 1	T	-.4
San Diego . . .	77	+ 6	0	0	St. Cloud . . .	65	+ 4	1.4	+ .8	Rapid City . . .	63	- 1	.1	-.1
San Francisco . . .	67	+ 3	T	-.1	MISS. Jackson . . .	81	+ 3	.5	-.1	Sioux Falls . . .	66	+ 1	.3	-.4
Stockton . . .	77	+ 3	0	0	Meridian . . .	79	+ 1	.5	-.3	TENN. Chattanooga . . .	78	+ 2	.1	-.7
COLO. Denver . . .	68	+ 3	.4	+ .1	MO. Columbia . . .	78	+ 7	0	-1.0	Knoxville . . .	75	+ 1	.7	+ .1
Grand Junction . . .	70	- 1	T	-.3	Kansas City . . .	80	+ 7	0	-.8	Memphis . . .	80	+ 3	T	-.7
Pueblo . . .	71	+ 2	T	-.2	St. Louis . . .	78	+ 6	1.3	+ .6	Nashville . . .	76	+ 1	.7	0
CONN. Bridgeport . . .	74	+ 7	3.3	+2.3	Springfield . . .	78	+ 5	.4	-.5	TEX. Abilene . . .	80	+ 2	.2	-.2
Hartford . . .	73	+ 8	2.2	+1.3	MONT. Billings . . .	67	+ 4	.1	-.2	Amarillo . . .	76	+ 2	0	-.5
D.C. Washington . . .	79	+ 7	1.1	+ .1	Glasgow . . .	67	+ 8	T	-.2	Austin . . .	83	+ 2	.8	0
FLA. Apalachicola . . .	79	- 1	3.1	+ .8	Great Falls . . .	66	+ 7	T	-.3	Beaumont . . .	79	0	1.1	-.1
Ft. Myers . . .	77	- 6	5.4	+3.3	Havre . . .	64	+ 6	T	-.3	Brownsville . . .	86	+ 3	.1	-1.2
Jacksonville . . .	80	- 1	3.1	+1.3	Helena . . .	59	+ 1	T	-.2	Corpus Christi . . .	83	+ 1	5.7	+4.7
Key West . . .	83	0	1.3	-.2	Kalispell . . .	56	- 1	0	-.2	Dallas . . .	84	+ 4	0	-.6
Lakeland . . .	76	- 5	2.1	+ .4	Miles City . . .	68	+ 4	T	-.2	Del Rio . . .	84	+ 2	T	-.6
Miami . . .	80	- 2	3.7	+1.6	Missoula . . .	59	+ 1	T	-.2	El Paso . . .	78	+ 2	T	-.3
Orlando . . .	81	0	2.4	+ .7	NEBR. Grand Island . . .	70	+ 2	T	-.6	Fort Worth . . .	82	+ 1	0	-.6
Tallahassee . . .	80	+ 1	1.1	-.3	Lincoln . . .	73	+ 3	T	-.7	Galveston . . .	82	0	5.8	+4.4
Tampa . . .	77	- 4	8.4	+6.6	Norfolk . . .	68	0	T	-.5	Houston . . .	81	+ 1	2.6	+1.6
GA. Atlanta . . .	76	- 1	.4	-.4	North Platte . . .	64	- 3	.1	-.3	Lubbock . . .	78	+ 5	T	-.5
Augusta . . .	78	+ 1	.5	-.2	Omaha . . .	72	+ 4	0	-.7	Midland . . .	78	0	T	-.4
Macon . . .	82	+ 4	T	-.7	Valentine . . .	65	0	.2	-.1	San Angelo . . .	79	- 2	0	-.6
Savannah . . .	79	+ 1	.7	-.7	NEV. Ely . . .	61	+ 1	.1	0	San Antonio . . .	82	+ 2	2.0	+1.2
HAWAII. Hilo . . .	77	+ 1	.4	-1.6	Las Vegas . . .	86	+ 3	0	-.1	Victoria . . .	82	+ 1	9.2	+8.2
Honolulu . . .	80	0	T	-.2	Reno . . .	64	+ 3	0	-.1	Waco . . .	83	+ 2	0	-.7
Kahului . . .	79	0	.1	+ .1	Winnemucca . . .	64	+ 3	.1	+ .1	Wichita Falls . . .	83	+ 3	T	-.5
Lihue . . .	81	+ 3	.3	-.2	N.H. Concord . . .	67	+ 6	1.1	+ .2	UTAH. Blanding . . .	68	+ 3	T	-.3
IDAHO. Boise . . .	68	+ 3	.3	+ .2	N.J. Atlantic City . . .	74	+ 5	2.6	+1.8	Salt Lake City . . .	69	+ 2	.2	+ .1
Lewiston . . .	65	- 1	T	-.2	Trenton . . .	76	+ 7	2.2	+1.3	VT. Burlington . . .	70	+ 9	.1	-.7
Pocatello . . .	62	- 1	.6	+ .5	N.MEX. Albuquerque . . .	75	+ 3	T	-.2	VA. Lynchburg . . .	74	+ 3	1.5	+ .7
ILL. Cairo . . .	79	+ 4	T	-.7	Roswell . . .	77	+ 5	T	-.5	Norfolk . . .	77	+ 2	1.8	+ .7
Chicago . . .	76	+ 8	.2	-.5	N.Y. Albany . . .	73	+ 9	.2	-.6	Richmond . . .	76	+ 3	1.6	+ .7
Moline . . .	76	+ 8	T	-.9	Binghamton . . .	72	+11	.5	-.2	Roanoke . . .	73	+ 1	2.2	+1.4
Peoria . . .	75	+ 6	.8	0	Buffalo . . .	72	+ 7	.2	-.6	WASH. Colville . . .	59	- 2	.1	-.1
Rockford . . .	75	+ 9	0	-.8	New York . . .	77	+ 5	1.8	+ .8	Omak . . .	60	- 2	T	-.1
Springfield . . .	77	+ 7	.2	-.4	Rochester . . .	74	+ 9	.5	-.1	Quillayute . . .	55	- 3	1.2	+ .4
IND. Evansville . . .	77	+ 4	2.3	+1.6	Syracuse . . .	74	+10	.5	-.2	Seattle-Tacoma . . .	59	- 2	.3	-.1
Fort Wayne . . .	72	+ 5	.6	0	N.C. Asheville . . .	71	+ 1	.5	-.1	Spokane . . .	61	- 2	.4	+ .2
Indianapolis . . .	73	+ 4	.9	+ .1	Charlotte . . .	76	+ 1	.6	-.2	Walla Walla . . .	65	- 3	T	-.2
South Bend . . .	73	+ 7	1.0	+ .2	Greensboro . . .	74	+ 2	1.1	+ .2	Yakima . . .	60	- 3	T	-.1
IOWA. Burlington . . .	76	+ 8	.6	-.2	Hatteras . . .	77	+ 1	2.9	+1.3	W.VA. Beckley . . .	69	+ 3	1.8	+1.0
Des Moines . . .	74	+ 6	T	-.9	Raleigh . . .	76	+ 3	2.1	+1.2	Charleston . . .	75	+ 5	2.4	+1.7
Dubuque . . .	70	+ 6	1.4	+ .4	Wilmington . . .	---	---	---	---	Huntington . . .	74	+ 4	.6	-.1
Sioux City . . .	71	+ 3	T	-.7	N.DAK. Bismarck . . .	64	+ 3	T	-.3	Parkersburg . . .	75	+ 4	.5	-.2
KANS. Concordia . . .	75	+ 3	0	-.7	Fargo . . .	63	+ 1	T	-.4	WIS. Green Bay . . .	---	---	.1	-.6
Dodge City . . .	77	+ 4	0	-.4	Williston . . .	64	+ 4	T	-.3	La Crosse . . .	69	+ 5	.6	-.3
Goodland . . .	70	+ 2	T	-.3	OHIO. Akron-Canton . . .	72	+ 6	.1	-.6	Madison . . .	71	+ 8	T	-.6
Topeka . . .	78	+ 6	0	-.7	Cincinnati . . .	75	+ 4	.8	+ .1	Milwaukee . . .	71	+ 8	T	-.7
Wichita . . .	79	+ 5	.2	-.6	Cleveland . . .	74	+ 8	.4	-.3	WYO. Casper . . .	63	0	.3	+ .1
KY. Lexington . . .	76	+ 4	1.2	+ .5	Columbus . . .	73	+ 5	.6	0	Cheyenne . . .	63	+ 2	.8	+ .5
Louisville . . .	76	+ 4	3.1	+2.5	Dalyton . . .	72	+ 2	.8	+ .2	Lander . . .	64	+ 2	.5	+ .3
LA. Baton Rouge . . .	82	+ 2	1.1	-.1	Toledo . . .	72	+ 6	.3	-.2	Sheridan . . .	65	+ 3	.2	0
Lake Charles . . .	82	+ 1	.9	-.1	Youngstown . . .	71	+ 6	.3	-.4	P.R. San Juan . . .	84	+ 4	.1	-1.3

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

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: Sunny and warm days and fair nights throughout week. Temperatures for week warmer than usual until becoming decidedly cooler at end of period. Most areas had no rain, or only a few widely scattered light to moderate showers. Open weather benefited crops. Cotton continues to open slowly. Light picking few fields, but full scale harvest not expected for 2 to 3 weeks. Boll rot prevalent many lowland fields. Insect control continues. Farmers anticipating good to excellent corn yield. About 1/2 crop matured, light harvest underway. Soybeans making favorable development. Most of crop set pods and almost 1/5 yellowing. Weeds are problem most fields. Peanut harvest active, but lagging behind last year. Watermelon harvest about complete. Tomato and pepper harvest continues. Sweetpotato harvest slow Cullman County. Much hay saved during week. Pastures providing adequate to surplus feed. Livestock good.

ALASKA: Precipitation amounts below average Kenai Peninsula, near average elsewhere. Heaviest amounts fell early in week. About half areas have negative cumulative amounts. Minimum temperatures now reaching freezing all areas. Coldest reported was 29°. Potato harvest about 30% complete Tanana Valley. Weather past week conducive to increasing potato tuber size most areas. Small grain and hay harvest hampered by frequent wet weather. Maturity grain crop very late, some may be harvested as silage. Vegetable harvest continues Matanuska Valley. Little grain harvest accomplished to date.

ARIZONA: Temperatures ranged from normal to slightly below normal over northeast sections to much above normal in southwest and south-central sections. Scattered thundershower activity Monday through Wednesday brought mostly light amounts. Cotton harvest just underway Yuma and Maricopa Counties. Few fields both areas chemically defoliated for harvest. Plants southeast good condition, but maturity rates running 1 month behind. Pink bollworm populations increasing. Control measures continue. Early-planted sorghum harvest continues Yuma. Later plantings fair to good condition. Field preparations fall-planted sugar beets continue. Alfalfa seed harvest nearly complete. Plantings fall lettuce western, central areas. Thinning underway early-planted fields. Fall cantaloupes making good progress Yuma and central areas. New crop citrus good condition Yuma and Salt River Valley. Lemon harvest continues Yuma. Arizona range conditions improved. Range feed supplies generally improved, but grasses, weeds shorter than normal. Cattle and calves fair to good. Sheep and lambs fair.

ARKANSAS: Warm and humid week with slight change to cooler and drier weekend. Weekly temperatures 2° to 3° above normal, ranging from upper 70's to low 80's. Daily extremes 47° to 100°. Isolated showers extreme north, little or none elsewhere. Marked Tree high with 1.30 inches. Dry weather hastening maturity, but causing late developing crops to suffer. Soil moisture adequate few counties, mostly short statewide. Cotton fruiting rate rapidly declining, bottom crop opening freely. Few bales ginned most areas. Insects prevalent

many fields, control measures continue. Rice prospects very good. Crop maturing rapidly, earliest varieties being combined. Soybeans need rain, particularly late beans. Early beans have good pod set. Corn and sorghums about mature, milo harvest active. Haying continues, but nearing completion. Apple and grape harvest over 50% complete. Fall vegetable crops good. Land preparation and seeding small grains. Pasture condition average, except extremely dry areas. Cattle good shape.

CALIFORNIA: Average temperatures 2° to 4° above normal, except 6° to 8° above normal Los Angeles Basin, slightly below normal extreme north. Freezing minimum mountains basin location, windy at times northern Sacramento, coastal valleys. Preparing seedbeds for fall plantings small grain. Rice harvest started. Harvest milo, field corn, dry beans increasing. Cotton harvest increasing Desert. First bales picked San Joaquin Valley. Picking Delicious apples underway. Harvest prunes active most districts. Picking late clingstone peaches continues. Laying Thompson grapes continues San Joaquin Valley. Packing Thompsons for fresh market continues. Wine variety grapes San Joaquin Valley, being crushed. Harvest Valencia oranges continues active. Old crop lemon and avocado harvest tapering off. Ranges continue dry. Stock on dry grass supplemented. Stockwater ample. Early calving noted southern California. Movement cattle off mountain ranges continues. High temperatures reduced milk, egg production levels. Broccoli, cauliflower increasing slightly Salinas, Santa Maria. Harvest Westside cantaloupes slow. Carrot digging continues moderate pace. Cutting celery active Santa Maria, Salinas. Picking sweet corn continues southern California. Honeydew marketing active. Lettuce shipments lighter Santa Maria, Salinas. Onions active San Joaquin, Central Coast. Green pepper harvest active northern San Joaquin. Potato harvest slow; light frost damage Tule Lake, Butte. Strawberries slow. Fresh market tomato harvest slow; poor markets. Greens good volume. Processing tomato deliveries active, declining.

COLORADO: Varying temperatures averaged near normal except cooler mountains. Precipitation light or none southeastern plains and lower western valleys. One-third to 1.00 inch most other areas. Snow some mountains with appreciable accumulation higher mountains. Rainfall western slope and northeast areas improved crops and topsoil moisture. Other areas remained dry. Winter wheat seeding 32% complete. Emergence on 10% of seeded acreage. Harvest spring barley and oats completed. Freezing temperatures San Luis Valley halted growth fall potatoes, harvest beginning. Late summer potato harvest complete Arkansas Valley. Statewide 72% complete. Hot dry weather latter part of week hastened maturity of crops. Dry beans 37% cut and 11% threshed. Corn acreage 92% past dough, 59% dented. Corn harvested for silage 15% complete. Three-fourths grain sorghum turned color and 12% ripe. Sorghum harvest 36% complete. Sugar beets excellent. Alfalfa 3d cutting, 51% complete. Ranges, pastures fair. Grass growth limited high elevations. Livestock generally good.

FLORIDA: Unsettled weather conditions which led to the formation of several hurricanes and tropical disturbances also brought overcast skies, below normal temperatures, and almost continuous rain showers. Temperatures averaged 2° to 3° below normal, with very few temperatures above 90°. Rainfall amounts averaged 1.50 to 2.00 inches in the northern sections, over 3.00 inches in the central and southern sections, and over 1.00 inch in the Keys. Showers heaviest along both east and west coast. Rainfall amounts were largest in the Tampa area with Tampa International Airport reporting 8.37 inches for the week with a 1-day total, September 9 and 10, at nearby Sarasota of 5.80 inches. Venice reported 7.17 inches, 4.85 inches were recorded at Ft. Myers, 4.65 inches at Vero Beach, 4.56 inches at Clermont, and 4.14 inches at Lake City. Moisture adequate to surplus all Florida field crop areas. Open weather needed all areas. Corn and peanut harvest active clear days. Pastures and livestock improved. Surplus moisture flooding lower pastures west-central and southwest areas. Frequent rains delaying hay harvest and fieldwork for seeding small grain and pasture grasses for fall and winter grazing. Citrus trees and fruit excellent condition. Some areas excessive water. New growth continues. Rust mite damage heavy. Moderate to heavy rains continue to hamper planting and other field activities most vegetable producing areas. High winds accompanied rains and were hard on young plants. Cloudy, damp weather not conducive to good growth. Spraying active. Water damage evident low spots many fields.

GEORGIA: Rainfall moderate to locally heavy extreme south and southeast and mostly light remainder of State. Many northern and central areas had no measurable rain and statewide, it was the driest week since early June. Temperatures continued unseasonable warm through most of week with highs mostly 80's and lows in 60's and low 70's. Cooler and drier air moved into State on Sunday and Monday morning temperatures were 60° or lower in the north and central and in low 60's over most of south. Averages for week ranged from normal to 3° above normal. Soil moisture mostly adequate, but ranged from very short few counties central and north to surplus southeast. All crops good condition, except cotton which is fair. Peanut harvest very active with 56% dug and 43% threshed. Late insect control continued soybean and cotton. Soybean pods developing well. Silage harvesting active. Four % corn harvested for grain. Land preparation and seeding pastures and small grains increasing.

HAWAII: Shower activity increased all islands. More rain needed to replenish water supply. Pastures and orchards benefited from showers. Crops dry areas under heavy irrigation. Progress crops fair to good. Vegetable production light, supplies adequate. Papaya production down. Harvesting pineapples declining. Sugarcane harvesting normal. Cattle condition fairly good.

IDAHO: Temperatures averaged slightly lower than last week, but generally near normal. Few more higher areas reported temperatures below freezing. Heavy precipitation was reported midweek, east and central panhandle of north. Elsewhere precipitation ranged 0.00 to about normal. Heaviest amounts ranged 0.50 to 1.00 inch. Warm days and cool nights generally aiding agriculture. Harvest, resumed after rains, in final stage for grains

while active for corn silage, beans, onions, and fruit. Potato harvest not too active yet. Moisture levels good most areas. Soil preparation underway for fall grain seeding. Few fields seeded.

ILLINOIS: Hot, fairly dry week with spotty very heavy showers on 5th and 6th. Precipitation generally less than 1.00 inch but Decatur had 3.22 inches and Virginia had 2.78 inches on these dates. Ottawa and Marengo complain of drought. Temperatures average 6° to 8° above normal. Maximum was 98° at Waterloo. Temperatures were generally from upper 50's into the 90's. Soil moisture reported short 69%, adequate 31%. Corn 85% mature, 5% harvested. Grain quality generally good to excellent. Grain moisture 20% to 30%. Little damage from Southern corn leaf blight expected. Leaves yellow on 75% soybean crop, 45% shedding leaves, 5% harvested. Bean quality fair to good, some small bean size reported. Yields variable, moisture 10% to 15%. Fall wheat acreage 5% seeded, 3d crop alfalfa 85% cut. Pastures excellent 7%, good 16%, fair 33%, poor 44%. Pasture conditions improved somewhat with scattered showers. Average 6 days suitable fieldwork. Activities include combining soybeans, filling silos, haying, plowing, mowing, corn harvesting.

INDIANA: Warm week, averaging 4° to 6° above normal. Highest afternoon readings low 90's and 60's and 70's typical minimums at night. Cool air arrival on weekend lowered temperatures 10° to 15°. Rain early and late in week, averaging 1.00 to 3.00 inches. Humidity high with heavy nighttime dew and fog daily. Sunshine, drying, and evaporation lower than usual. Storm damage at Winamac by tornado 6th. Scattered hail on 11th. Days suitable for fieldwork 4. Topsoil and subsoil moisture adequate. Pastures mostly fair. Harvest starting on blighted corn southwest. Corn 25% mature, 20% average. Corn 85% dented. Soybeans 50% turning yellow, 25% shedding leaves. Wheatland 70% plowed, 55% average. Wheat 5% seeded, same as average. Rye 15% seeded, 20% usual. Barley 10% seeded, 15% usual. Silos 35% filled, 40% usual. Tobacco 20% cut, 40% usual.

IOWA: Hot with scattered showers east and extreme north at midweek. Dry sunny conditions accelerated crop maturity. Some corn harvest early fields scattered areas. Condition crops mostly good. Days suitable for fieldwork 6. Farm activity mainly silo-filling, plowing and seeding wheat. Corn 90% in or past dent stage, 60% mature (safe from frost), about 10 days ahead normal. Corn condition 7% excellent, 67% good, 23% fair, 3% poor. Reported soybean condition, 5% excellent, 54% good, 37% fair, and 4% poor. Nearly 3/4 leaves turning, 70% year ago. Over 2/3 shedding leaves, same as year ago. One-third crop mature (safe from frost). Third cutting hay 80% complete. One-third wheat seeded. Pastures condition mostly poor to fair. Topsoil moisture as of last Friday 83% short and 17% adequate.

KANSAS: Very dry most of State, locally 0.25 to 0.75 inch southeast. Some spots in State no significant precipitation since late July. Weekly mean temperatures averaged several degrees above normal. Maxima locally 106° several stations northern Kansas 7th. Several weak cold air surges brought relief to heat wave of September 6, 7. Patches blowing dust with cold front northwest

late in week. Most areas need general rains. Surface and subsoil moisture short supply. Some corn harvested for silage. Harvesting of sorghum continued with some sorghum baled for hay. Late-planted soybeans suffered from drought. Early-planted fields being harvested. Seedbed preparation for planting small grains being completed but topsoil dry many areas central and west. Less forage available many pasture and range areas especially southwest. Supplemental feeding increased and movement cattle to feedlots.

KENTUCKY: Showers daily but mostly sunny and only a few showers 8th and 10th. Weekly rainfall total less than 0.25 inch to more than 6 inches; lightest portions of northwest, north-central and east warm and humid until cooler on 11th and 12th. Temperatures for week averaging 2° to 5° above normal. Soil moisture adequate, crops in good condition maturing at normal pace. Harvest major crops on schedule. Burley 48%, dark type 59% cut. Late fields developing rapidly. House burn evident many early-filled barns. Corn 28% matured, another 58% dented. Blight infection in check, but stalk rot causing concern over how well corn will stand. Corn silage about 1/2 harvested. Soybean harvest just underway, 11% shedding leaves. Fall plowing 27% complete, somewhat behind normal due wet fields west. Seeding winter grain underway. Pasture condition excellent, livestock good to excellent condition.

LOUISIANA: Cloudy, humid week with numerous showers extreme south daily through Saturday. Showers less numerous central and north. Weekly rain totals to 1 to 3 inches in South, none or less than 1 inch central and north. Greatest 24 hour total 2.00 inches at Diamond Wednesday. Temperature 1° to 2° above normals. Sharply cooler at night over weekend north and central. Daily extremes 96° and 58°. Effects of Hurricane Fern minimal. Some fringe rains south. Johnson Bayou-Holly Beach evacuated Thursday before storm tides briefly covered road. No damages. Soil moisture short to adequate north, adequate to surplus central and south. Cotton prospects fair to good. Some bollrot south. Cotton opening rapidly; some scattered picking. Rice yields good. Lower in late-harvested fields due large amount lodged. Harvest 85% complete. Corn and grain sorghum active, fair to good yields. Sugarcane prospects good. Seed cane planting slowed by rains. Sweet potato harvest active, 25% dug; yields fair to good. Soybeans good condition, early varieties maturing. Few fields of hill varieties combined. Late beans show good growth. Haying active north, delayed by rains south. Pasture conditions average or above. Livestock good to excellent.

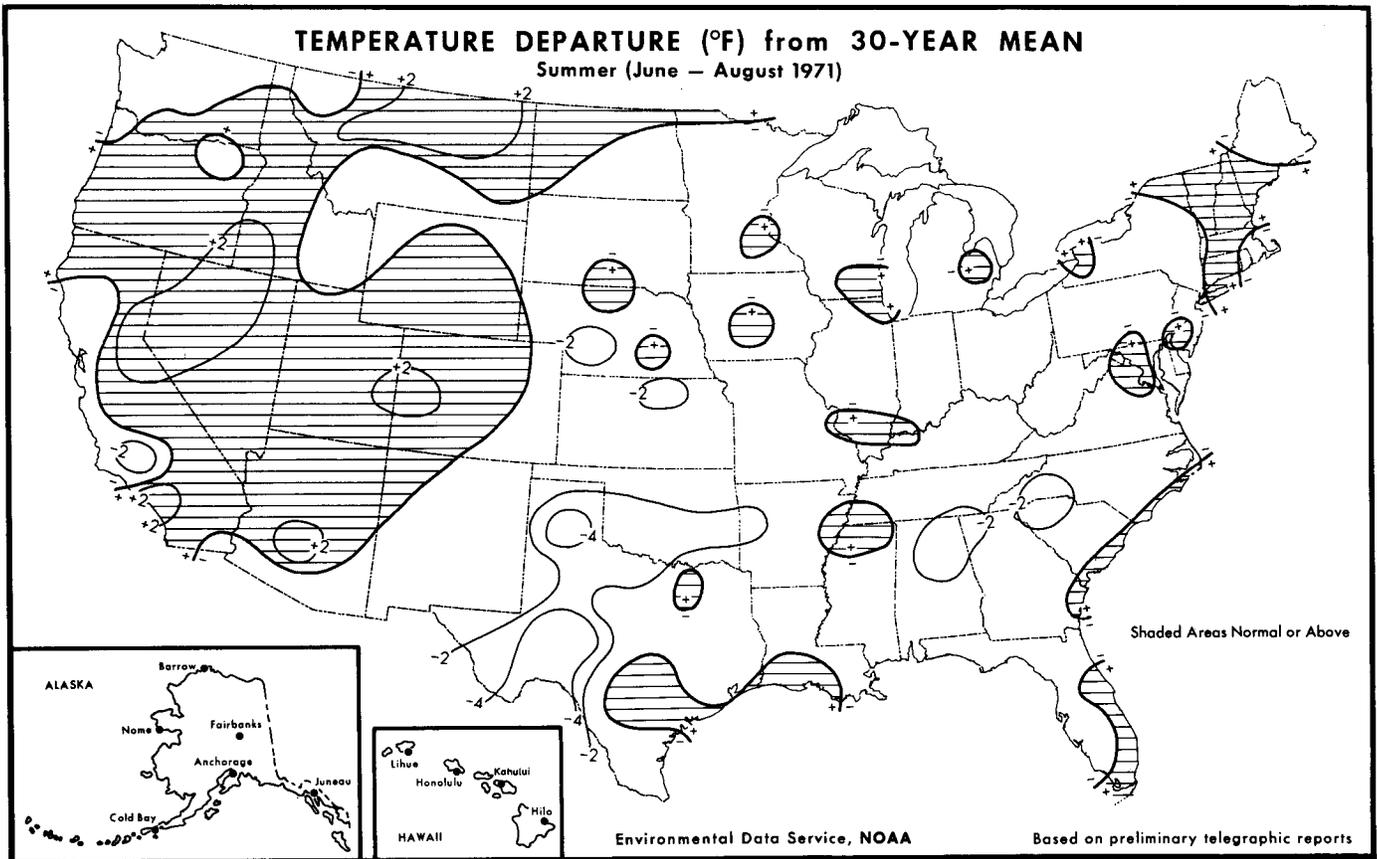
MARYLAND AND DELAWARE: Warm and humid with a very wet weekend. Weekly temperatures averaged 4° to 7° above normal except 2° to 4° above normal in southern areas. Until weekend, some scattered showers mainly in Garrett County. Heavy rainfall with some local flooding in central and northeast Maryland during weekend. Unofficial totals up to 10.00 inches reported northern and western Montgomery County. In other areas central and northeast Maryland, totals mostly 3.00 to 6.00 inches. Least in west and south with 0.50 to 2.00 inches. Heat and humidity slowed activity. Soil moisture short to adequate except where heavy weekend rains fell. Corn harvest starting, silo filling 1/2 done, ahead of average. Soybean growth rapid, some fields weedy. Tobacco cutting 85% done, 95% last year. Peach harvest nearing end. Important Delicious apple harvest starting, will peak near month's end. Vegetable harvest slowing down.

MICHIGAN: Unseasonably warm through midweek, cooler as period ended. Spotty rain, early and again late in period. Temperature averages ranged 4° to 8° above normal. Precipitation amounts, 0.25 to 0.75 inch except locally up to 1.50 inches Lansing and Soo areas, and only a trace in northeast Lower Peninsula area, small sections of southwest and west-central. Light to moderate showers slowed fieldwork, but came too late to help most crops. Soil moisture still short west-central, south-central, and southeast. State averaged 5 days suitable fieldwork. Corn 80% dented or mature. Corn silage 30% harvested. Dry beans 40% harvested, yields disappointing. Soybean development limited by dry soils, over 1/2 soybean acreage turning color or more mature. Sugar beets developing well. Harvest fall potatoes active. Pasture feed supplies below average southern 2/3 Lower Peninsula, near average elsewhere. About 1/3 3d cutting hay made. Farmers preparing fields for seeding wheat and fall plowing for spring crops. Harvest peaches and pears nearing completion southwest and well along elsewhere. Apple sizes below average. Pickle and sweetcorn harvest about finished.

MINNESOTA: Temperatures varied from 1° above normal in the west to 7° above normal across eastern part. Extremes: 97°, 38°. Precipitation variable. Generally 1.00 to 2.00 inches in the southeast, central, east-central districts and along north shore of Lake Superior in northeast district. Rest of districts received generally from 0.00 to 0.50 inch. Rain slowed small grain combining parts of northwest district, expected to help late corn and soybeans. Corn fair to good; dented 80%, normal 67%, mature 30%, normal 26%. Silage corn 30% cut, normal 23%. Southern corn leaf blight remains very light. Soybeans fair; shedding leaves 43%, normal 40%, mature 12%. Flax 63% combined normal 61%. Winter wheat 51% seeded, winter rye 46% seeded.

MISSISSIPPI: Rainfall 5 days in south and only 1 in north, ranging from 1.50 inches south to less than 0.50 inch elsewhere. Greatest 1-day amount was 1.43 inches on 5th at Natchez. Average temperatures near normal. Extremes: 94° and 64°. Over weekend scattered showers mostly south, with greatest amount 2.14 inches at McComb. High 94°, low 53°. Soil moisture generally adequate, local areas central and south surplus to excessive. Average 4 1/2 days suitable fieldwork. Corn over 1/2 mature, 6% harvested. Cotton 7% opened. Soybeans 18% shedding, 9% mature. Sorghum 48% mature, 20% harvested. Rice nearly all headed. Sweetpotatoes 35%, hay crops 69% harvested. Cotton and corn condition variable, fair to mostly good. Hay crops, soybeans, pastures, livestock mostly good; pecans fair.

MISSOURI: Very warm week. Temperatures averaged 6° to 8° above normal. Moderate showers west Monday September 6 did not alleviate drought that area. Few scattered showers end of week central and eastern sections State. Corn mostly good, 60% matured, 57% last year, 5% harvested. Dry weather holding Southern corn leaf blight in check. In more severely affected areas, some husk and ear infection. Soybean condition good, 47% turning color, 30% last year, 2% harvested. Two weeks ahead of last year. Sorghum 55% mature, 44% last year, 7% harvested. Three-fourths cotton good condition, 22% bolls opening, last year 27%. Soil moisture 70% short, 27% adequate, 3% surplus.



SUMMER WEATHER (June-August 1970)

TEMPERATURE: Summer temperatures averaged above normal over the West and below normal over central and eastern sections of the Country. June was warmer than normal over most of the Nation. A large area from eastern Nebraska to Lower Michigan averaged 3° to 6° warmer than normal. The Far Northwest averaged cooler than normal in June. The Southwest was slightly cooler than normal. July temperatures averaged above normal over the Far West, the West, the Southwest, and central and eastern Texas. The northern and central Great Plains averaged 3° to 6° cooler than normal. Cool weather predominated from the Great Plains to the Atlantic Ocean in August. Most of the area from the Pacific Ocean to the Rocky Mountains averaged warmer than normal.

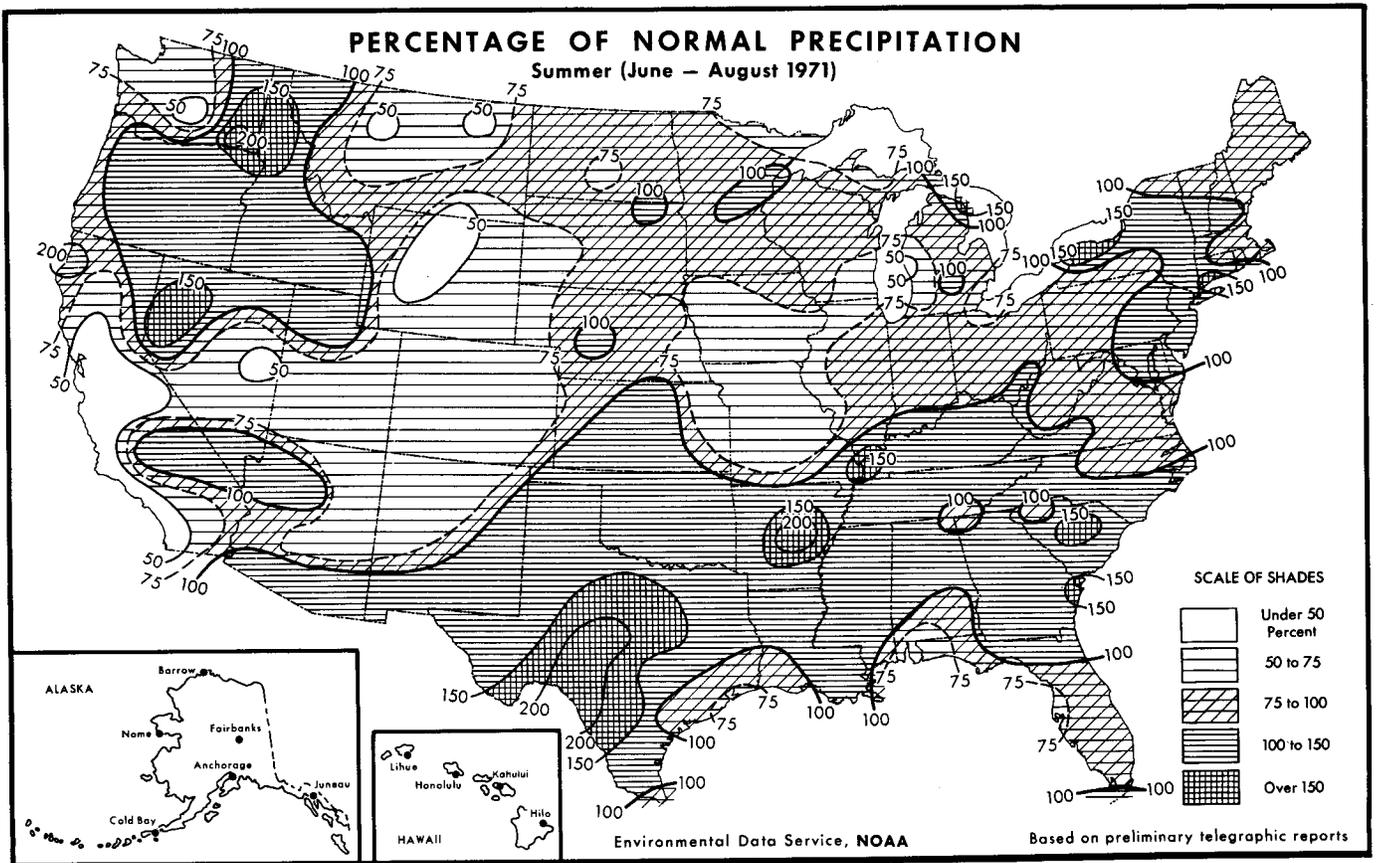
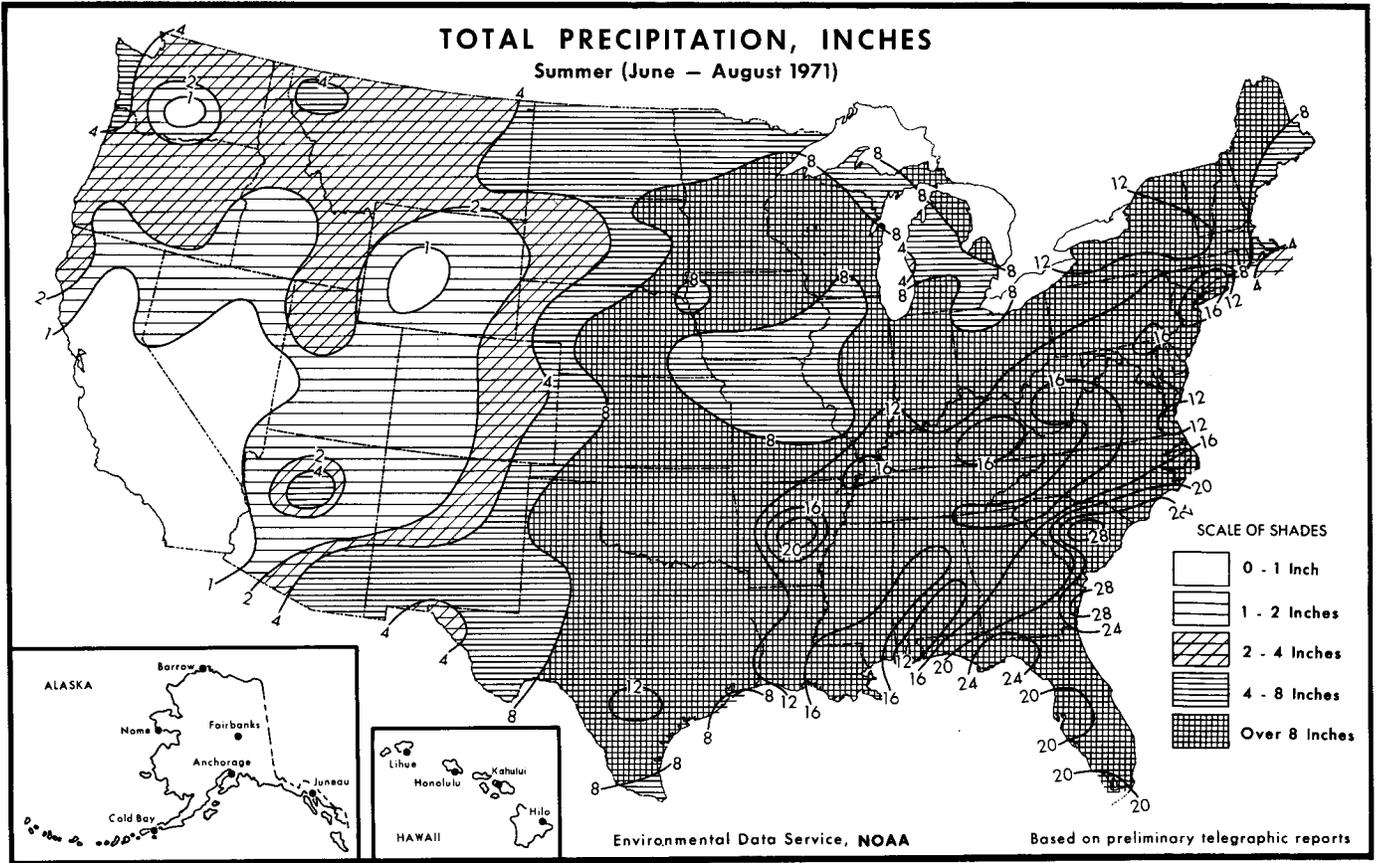
PRECIPITATION: The usual summer-type thunder-showers furnished most of the rain from June to August 1971. Many of the thundershowers were accompanied by high winds, large hail, and torrential rains, especially over the central and eastern parts of the United States. The heavy rains caused flash floods, the strong winds downed trees, and the hail caused glass damage to buildings and destroyed crops. Seasonal rainfall totals ranged from none or only light sprinkles in California and nearby parts of Nevada to more than 10.00 inches over portions of the Great Plains and the Southeast. Parts of the Southeast received 16.00 to 20.00 inches of rain in the 3-month period.

L. W. Dye

MONTANA: Showers southwest half first 2 days, otherwise little or no precipitation. Another warm week, averaging near seasonal normals west to as much as 7° above normal parts of eastern half. Frost some western valleys several mornings, but Miles City had 98° Saturday. Topsoil moisture still short north-central and central. Spring wheat, barley and oats 95% harvested, week ahead average. Second cutting alfalfa hay 85% stacked. Beans and corn silage 40% harvested. Winter wheat 10% planted. Range livestock 20% moved from summer ranges. Marketing cattle and sheep ahead average. Hay and forage supplies somewhat short. Stock-water little short.

NEBRASKA: Warm days and cool nights. Scattered showers, generally light except moderate to heavy in northern Panhandle. Warm dry weather pushing crops to maturity. Corn has reached 92% dented and 40% ripe. About 80% sorghum heads turning color with 15% ripe. Soybean leaves turning color 60% acreage, 20% shedding leaves and 5% ripe. Few fields row crops harvested, but grain contains too much moisture for safe storage. Dry bean harvest well underway. Winter wheat planting 20% completed with good topsoil moisture west, but dry elsewhere. Livestock conditions good, except for few reports dusty conditions causing respiratory problems.

(Continued on page 10)



(Continued from page 8)

NEVADA: Temperatures all divisions averaged 3° above normal. Light, spotty precipitation in northwest. Light to moderate general rains from 0.01 to 1.40 inches in northeast, none in south. Third cutting alfalfa hay in progress western and central areas. Harvest 6th cutting alfalfa hay starting southern valleys. Alfalfa seed harvest active all major-producing areas. Weather continues favorable for cotton crop Pahrump Valley. Livestock contracting for fall delivery slow. Range feed dry, but generally good condition.

NEW ENGLAND: Week unseasonably warm and humid. Many maxima in the 80's with some 90's on 9th setting new records for day. Means averaged mostly 5° to 10° above normal. Nights very mild, with lows averaging up to 12° above normal. Scattered light showers some areas, but week mostly dry until weekend. Some very heavy showers with thunderstorms over weekend. Totals varied from less than 0.50 inch to about 5.00 inches with the very heaviest in the southern portion. Most of section received less than 1.00 inch. Some general fall harvest starting. Silage being cut all areas for green feed with little going into silo. Apples and cranberries coloring slowly due unusually warm weather. Active harvest should start next week. Cranberry harvest started 11th. Bogs are dry. Potato harvest for storage will start this week Maine. Harvest other areas going to chippers and daily market demand. Vegetables still heavy supply although tapering off. Harvest fall squash for storage starting.

NEW JERSEY: Very warm week with temperatures averaging from 5° to 10° above normal. Readings ranged from the mid 50's to the low 90's. Excessively heavy rainfall over the weekend averaged around 4.00 inches over most State. Station totals varied from 1.70 inches at Cape May to 8.00 inches at Freehold. Soil moisture excessive. Additional crop damage expected as result heavy rain. Some soil washing occurred. All fieldwork halted. Peach harvest about 80% complete. Apple movement increasing. Some field corn drying early due blight. Blight damaged field corn for grain being harvested for silage. Early soybeans beginning to color.

NEW MEXICO: Scattered showers mostly light first part of week. Temperatures averaged 3° to 6° above normal over most of State. Cooler daytime in middle of week. Coolest nights early in week except for Sunday in extreme south. Soil conditions vary widely. Winter wheat planting active. Sorghum maturing, dryland varies considerably. Broomcorn pulling active. Fourth and fifth cuttings alfalfa underway. Potatoes, lettuce harvest active Torrance County. Cotton good condition. Light bollworm infestations Dona Ana County. Corn good, harvesting silage.

NEW YORK: Midsummer heat and humidity with averages in low 70's. Nights very warm entire week except for minimums in upper 40's to mid-50's on 10th. Precipitation mostly light to very light through midweek. Widespread rain on 12th totaled 1.00 to 1.50 inches extreme southeast down to 0.20 inch or less northern half. Southern plateau 0.50 to over 1.00 inch as dry soils in southwest and south-central received much needed moisture. Soil moisture adequate most areas. Corn silage harvest begun and crop good to excellent condition. Wheat about 50% planted. Alfalfa 3d cutting about 75% complete. Dry beans reaching maturity, few fields pulled. Pastures fair to good condition. Long Island

potato shipments active. Katahdin harvest getting underway Long Island and Upstate areas. Onion harvest active all areas, size running smaller than usual. Yields down. Oswego County providing steady lettuce supplies. Cabbage and tomatoes good volume for fresh markets and processing. Late planted sweet corn being harvested. "Spot picking" McIntosh began Hudson Valley. Harvest early apple varieties continues. Harvest Bartlett pears full swing. Harvesting of Aurora and Concord grapes for "cold press" has begun.

NORTH CAROLINA: Temperatures holding near normal with highs mostly 80's and low 90's. Showers 9th through 12th with total amounts 0.25 inch to 6.00 inches, averaging 1.00 inch west portion, 2.00 inches central and east portions. Reports through 9th indicated soil moisture decreased, generally adequate to short except Coastal Plain adequate to surplus. Most crops good with conditions unchanged to slightly lower. Flue-cured tobacco harvest about complete Coastal Plain, 90% complete in Piedmont. Growers busy preparing leaves for market. Burley crop 1/2 harvested. Corn and apple harvest active. Limited peanut and sweet-potato digging underway. Cotton picking expected soon. Seeding small grains southeast.

NORTH DAKOTA: Temperatures averaged 4° to 8° above normal north, 2° to 4° above normal central and south. Precipitation ranged from none to 0.04 inch over State. Combining small grains resumed late week and in full swing late areas. Oats and barley in windup with wheat harvest making good progress. Rains over Labor Day weekend will give good boost to fall sown grains and grasses. Moisture will speed up fall plowing and tillage as some areas were too dry to plow. Potato digging underway.

OHIO: Warm spell which began on 1st continues under generally cloudy sky. Rain widespread over State 6th and over southern half on 11th. Early morning fog especially dense 6th to 9th. Five days favorable fieldwork. Topsoil moisture: 45% short, 45% adequate, 10% surplus. Nearly 95% corn crop dented, but not hard, last year same, usual 70%. Corn 45% mature and safe from frost, last year same, normal 25%. Less than 5% corn for grain harvested. Corn silage harvest 50% complete, soybeans 15% mature, 1965 to 1969 average, 5%. Soybeans 35% with leaves shedding usual 30. Rest of crop leaves turning yellow. Half potatoes dug, 65% 3d cutting alfalfa harvested. Tobacco 45% cut. Winter wheat acreage 10% planted. Barley acreage 20% planted. Fall acreage for rye 15% seeded.

OKLAHOMA: Rainfall ranged from trace Panhandle to 0.25 inch south-central and southeast. Temperatures were 3° to 7° above normal. Row crop prospects declined slightly, but still mostly fair to good. Development somewhat behind year ago. First bale cotton delivered September 7 to gin Harmon County. Few fields soybeans harvested north-east. Seeding 1972 wheat crop 8% complete, 15% year ago. Planting delayed lack moisture several western counties. Surface soil moisture about steady, 77% short. Corn for grain 10% picked, some corn harvested for silage. Sorghum grain 5% harvested, year ago 17%. Only 5% cotton bolls open, year earlier 33%. Peanuts 10%, soybeans 13% mature. Pasture and range prospects declined. Livestock fair to good. Marketing increasing few scattered areas, mostly east.

OREGON: Cooler days first and last of week, but warm mid-period. Temperatures averaged near normal west side, 2° to 6° below normal east-

side. Minima 27° to 31° northeast and south-central, 33° to 49° elsewhere. Maxima 70° to 75° coast, 80° to 93° elsewhere. Most of State dry or traces except 0.10 to 0.70 inch northwest quadrant. Grain harvest northern counties approaches completion. Seedbed preparation and some seeding grain crop active. Grain harvest well underway Willamette Valley with conditions difficult from wet weather. Grain harvest other areas progressing rapidly. Alfalfa seed harvest continues Ontario area. Italian prune harvest at Milton-Freewater remains standstill. Red and Golden Delicious apple harvest began. Bartlett pear picking about complete. Winter pear harvest began Medford. Evergreen blackberry harvest continues, pickers short supply. Sweet corn harvest continues. Bush bean and broccoli harvest underway. Onion topping and lifting active. Russett potatoes being dug north-central and Ontario areas. Fall pastures showing good growth. Livestock good.

PENNSYLVANIA: Week warm and humid. Showers Statewide over weekend, moderate to heavy several areas. Previously soaked southeast. Received 2.00 to nearly 4.00 inches, while over 3.00 inches fell in Upper Susquehanna Region, and 2.00 to 2.50 inches in parts of southwest. Central, northwest and northeast received generally less than 1.00 inch. Warmest week since early July. Temperature 7° to 11° above normal. Maximum: 94°, Minimum 46°. Silo filling full swing. Corn maturing rapidly. Most T-cytoplasm fields dead in southeast. Stalk rot becoming more evident. Farmers chopping off diseased fields for ensilage. Full scale potato harvest to start next week. Blight under control. Tomato harvest 3/4 complete. Poor drying conditions. Apples coloring fair, good size. Picking Cortland, McIntosh. Peaches good size and color, some cracking. Harvesting Hale and Elbertas. Picking red ripe tomatoes full swing. Sweet corn nears end. Hay curing unfavorable. Rains boosted topsoil moisture supplies.

PUERTO RICO: Rainfall averaged 0.65 inches or about 0.90 inches below normal. Little or no rain north and south-central coasts and interior. Heavier showers totalling 3.00 to 4.00 inches northwest and southeast. Crop moisture low along north-central coast. Near normal rest of island. Temperatures averaged 80° to 81° on coast and 75° to 76° interior. Average departure about 0.4° below normal. Temperatures along north-central coast generally above normal due southerly winds. Highest maximum 95°, lowest minimum 58°. Sugarcane plantations made good progress seeding and cultivating. Recent rains improved crop moisture northwest and northeast. Coffee zones good progress pruning and cultivating. Pastures and minor crop zones active seeding and fertilizing with improved crop moisture conditions northwest. Still too dry for satisfactory growth north-central.

SOUTH CAROLINA: Temperatures averaged 2° above normal in Piedmont and 1° above normal sand hills and coastal plain. Precipitation generally light. Divisional averages ranged from 0.10 to 0.40 inches. Few locations had from 0.50 to 1.00 inches but most others had 0.25 inch or less. Soil moisture excessive southeast portion, approaching short central area. Cotton condition down, fair to good. Normal defoliation practices underway. Hand picking small acreage. Bolls opening about 31%. Soybean condition good to excellent, corn earworms causing damage. All plants blooming stage, about 89% setting pods, 14% matured. Corn condition good to excellent, 86% matured, 15% harvested. Condition sorghum good to excellent --

14% harvested. Peanuts good to excellent, 46% dug. Pecans fair to good. Good crop nuts set, heavy premature crop, diseases, insects, cut prospects. Apples mostly good, harvest 63% complete. Hay crops good. Pastures good to excellent. Fall vegetables fair to good.

SOUTH DAKOTA: Weekly temperatures averaged from 3° below normal to 4° above normal. Extremes ranged from 37° at Rapid City on 9th and Brookings on the 13th to 103° at Parkston on the 7th. Precipitation fell as light showers scattered through first half of week with most areas reporting from none to about 0.30 inch. Greatest amount reported at Porcupine where 0.61 inch fell. Topsoil moisture supplies much improved, but subsoil moisture still mostly short. Conditions fall plowing and seeding good to excellent. Some early-seeded fall grain emerging. Harvest sorghum grain began few areas. Corn and sorghum yields will vary from poor to good. Filling soybean pods generally fair to poor. Recent rains permitted fall pastures to green. Many areas finishing silage harvest. Maturity row crops still well ahead normal with corn 55% mature, normal 32%; sorghum turning color 90%, normal 60%; soybeans shedding leaves 60%, normal 33%. Seeding fall rye and wheat about normal, both at 35% complete. Fall plowing 60% complete. Livestock good condition and fall feed and water prospects generally good.

TENNESSEE: Warm days with scattered showers first of week, followed by cooler, light showers on weekend. Temperatures averaged 1° to 4° above normal. Weekly rainfall less than 0.50 inch. Widely scattered reports in midstate area of over 1.50 inches, while 3.50 inches measured at Carthage Tuesday morning. Crops prospect mostly good. Cotton needs dry weather to mature good crop, 10% bolls open. Soybeans good condition, but weeds lodging problem some fields. Harvest good corn crop gaining momentum. 45% fields mature. Tobacco harvest active, but past peak with 75% in barn. Damp weather hindering harvest and curing generally good tobacco crop. Percent seeded small grains; wheat 10%, oats 20%, and barley 15%. Hay and pasture good. Harvest commercial late crop snap beans and peppers underway. Apples going to market. Days favorable field work averaged 4.8. Soil moisture 59% adequate, 14% surplus and 27% short.

TEXAS: Hurricane Fern, moved inland on Texas coast about 70 miles southwest of Galveston about 6 a.m. 10th with minimal hurricane-force winds dominating weather. Only minor property damage by hurricane standard resulted from storm tides as the tropical cyclone followed coastline to Corpus Christi with winds 60 to 70 m.p.h. From Corpus Christi storm turned south westward to Rio Grande south of Laredo. Fern dumped 10.00 to more than 20.00 inches rain on coastal counties northwest of Corpus Christi and near 10.00 inches south of Laredo. Almost all streams above flood stage and many towns isolated. Two known deaths due to Fern. Flood damage expected to run to several million dollars. Harvest cotton, corn, sorghum, peanuts, made fair progress. Fall rains interfered with harvest from High Plains to South Texas. Seeding wheat on High Plains limited by lack of moisture. Fall oat planting delayed Central and South Texas by wet weather. Early wheat, oat stands damaged by fall army worms. Hay baling active where weather conditions favorable. Percent harvested major crops: cotton 11, 19 last year; corn 51, 63 last year; sorghum 46, 52 last year; peanuts 14, 19 last year; rice 96, 52 last year. Percent planted: wheat 35, 10 last year; oats 11, 13 last year; High Plains potato and onion harvest

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OCCURRENCES OF EXTREME DROUGHT IN NEW MEXICO
DURING THE PAST 40 YEARS

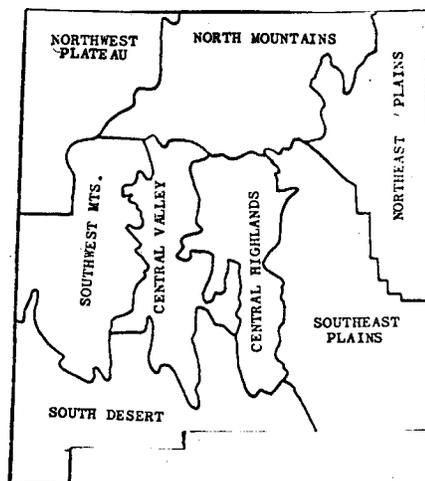
The accompanying table, prepared by Mr. Houghton, Climatologist for New Mexico, lists all past occurrences of extreme drought (drought index -4 or below) in each climatological division of New Mexico since 1931. (For an explanation of the drought index and a comparable tabulation of past occurrences of extreme drought in Texas and Oklahoma, see the May 31, 1971, issue of this Bulletin.) The Drought Severity maps show the situation at about the time of maximum drought severity over the southwestern U.S. this year (July 17), and on September 4 after rains had brought considerable relief to most areas. The September 4 Index values for each division in New Mexico are shown in the small table below.

Northwest Plateau	-3.2
Northern Mountain	-2.3
Northeastern Plains	-1.9
Southwest Mountains	-2.4
Central Valley	-3.8
Central Highlands	-1.4
Southeastern Plains	-1.2
Southern Desert	-3.7

The maximum severity reached in New Mexico this summer was -4.2 in the Central Highlands division in mid-July—far from a record. In addition, recent rains have changed the index so much that one can be about 75% confident that they have brought an end to the abnormally dry weather that had been plaguing the Pecos Valley area since August 1970. At any rate, the weather has been running moderately wetter than normal for the

past 7 or 8 weeks over most of New Mexico except the Rio Grande Valley and the southern desert areas. If the drought is not definitely broken, it certainly is badly bent over much of New Mexico as well as over most of Texas and Oklahoma.

Orus W. Byrd



PERIODS OF EXTREME DROUGHT WITH DATE AND VALUE* OF
MAXIMUM SEVERITY (Monthly, 1931-1970)

NEW MEXICO

Northwestern Plateau Division

Aug'50 - Oct'51, -6.1 in Jul'51
Jun - Dec 1956, -5.2 in Sep'56
Jul 1959 only, -4.6

Northern Mountains Division

Dec'50 - Mar'51, -4.3 in Dec'50
Jun - Jul 1951, -4.6 in Jul'51
Sep - Oct 1951, -4.5 in Sep'51
Sep 1953 only, -4.2
Jun'56 - Feb'57, -6.1 in Oct'56
Jul - Aug 1963, -4.8 in Jul'63
Oct'63 - Feb'64, -4.6 in Jan'64
Jun - Oct 1964, -4.6 in Aug'64
Apr - Jun 1967, -4.8 in May'67

Northeastern Plains Division

Jul - Dec 1934, -4.6 in Sep'34
Mar - Apr 1935, -4.5 in Apr'35
Jul 1954 only, -4.2
Sep'56 - Feb'57, -4.3 in Oct'56

Southern Desert Division

Sep - Dec 1956, -4.3 in Oct'56

Southwestern Mountains Division

Dec'50 - Mar'51, -4.5 in Dec'50
May - Sep 1951, -5.7 in Sep'51
Jun 1956 only, -4.1
Aug'56 - Mar'57, -5.1 in Sep'56

Central Valley Division

Jul'56 - Feb'57, -5.0 in Sep'56

Central Highlands Division

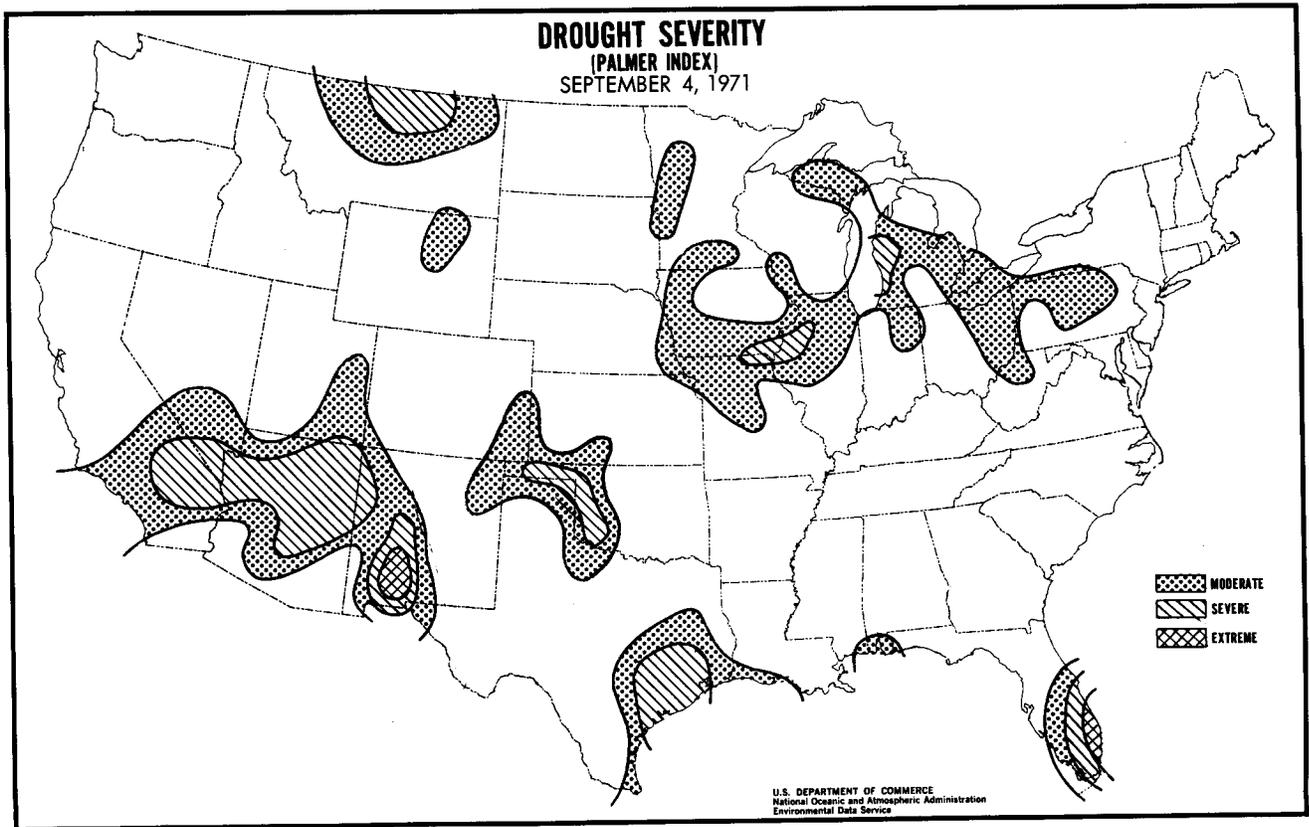
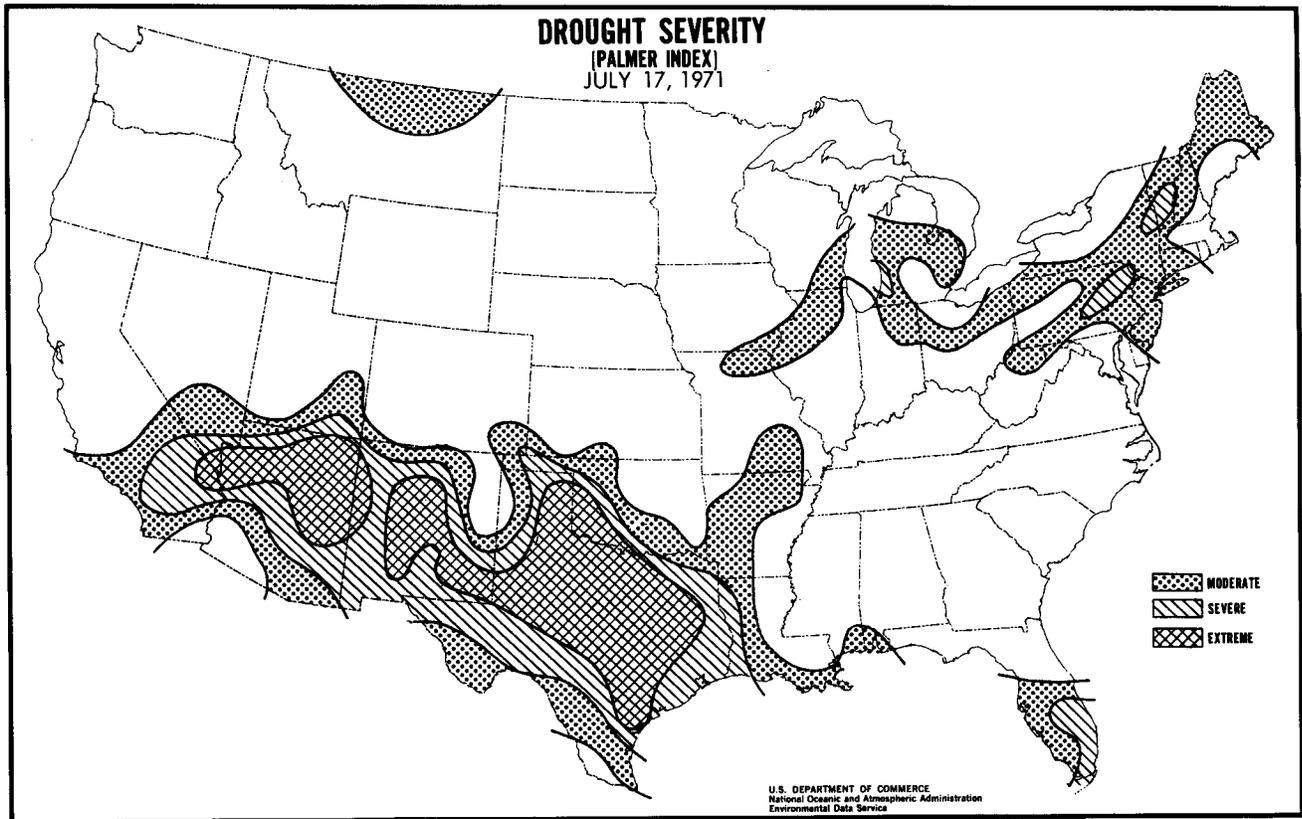
Jul - Dec 1934, -5.2 in Oct'34
Jul 1947 only, -4.3
Sep - Oct 1947, -4.6 in Oct'47
Sep - Oct 1951, -4.2 in Sep'51
Jun 1956 only, -4.1
Aug'56 - Feb'57, -4.8 in Sep'56

Southeastern Plains Division

Oct 1952 only, -4.0
Sep 1953 only, -4.4
Jul 1954 only, -4.4
Sep'56 - Jan'57, -4.2 in Oct'56
Aug 1964 only, -4.2
Oct 1964 only, -4.2

* Values listed are Palmer Drought Index, where -4.0 or below = Extreme Drought, based on zero = Normal.

OCCURRENCES OF EXTREME DROUGHT IN NEW MEXICO DURING THE PAST 40 YEARS



(Continued from Page 11)

continue to decline. Bell pepper harvest picked up. Carrot volume holding but low. Fall lettuce looks good. Trans-Pecos onion harvest continues. Lettuce up to good stands El Paso county. North Texas watermelon and cantaloupe harvest declining. East Texas harvest sweet potatoes increasing. Fall planting tomatoes, cucumbers, peppers, carrots, cabbage carried out Winter Garden and San Antonio area. Planting and harvesting activities Coastal Bend, Laredo, and parts of Lower Rio Grande halted by hurricane Fern.

UTAH: Storm of moderate intensity moved across much of State early in period. Locally moderate to heavy accumulations moisture. Average temperatures near to a little below normal. Accumulated growing degree days since March 1 range from 150 degree days ahead of last year some sections south east. Almost ideal weather continues to favor maturing and harvesting of hay, corn, vegetable, and fruit crops. No killing frosts reported through September 13 crop areas. Intended winter wheat acreage for 1972 now 50% planted, well ahead year ago. Percent acreage harvested to September 13th; 55 3d crop alfalfa, 5 field corn, 25 dry onions, 5 potatoes, 25 tomatoes, 75 sweet corn. Percent fruit picked to September 13th; 40 peaches, 75 pears, 10 apples. Fall range prospects very poor southeast. Fair to good remainder State.

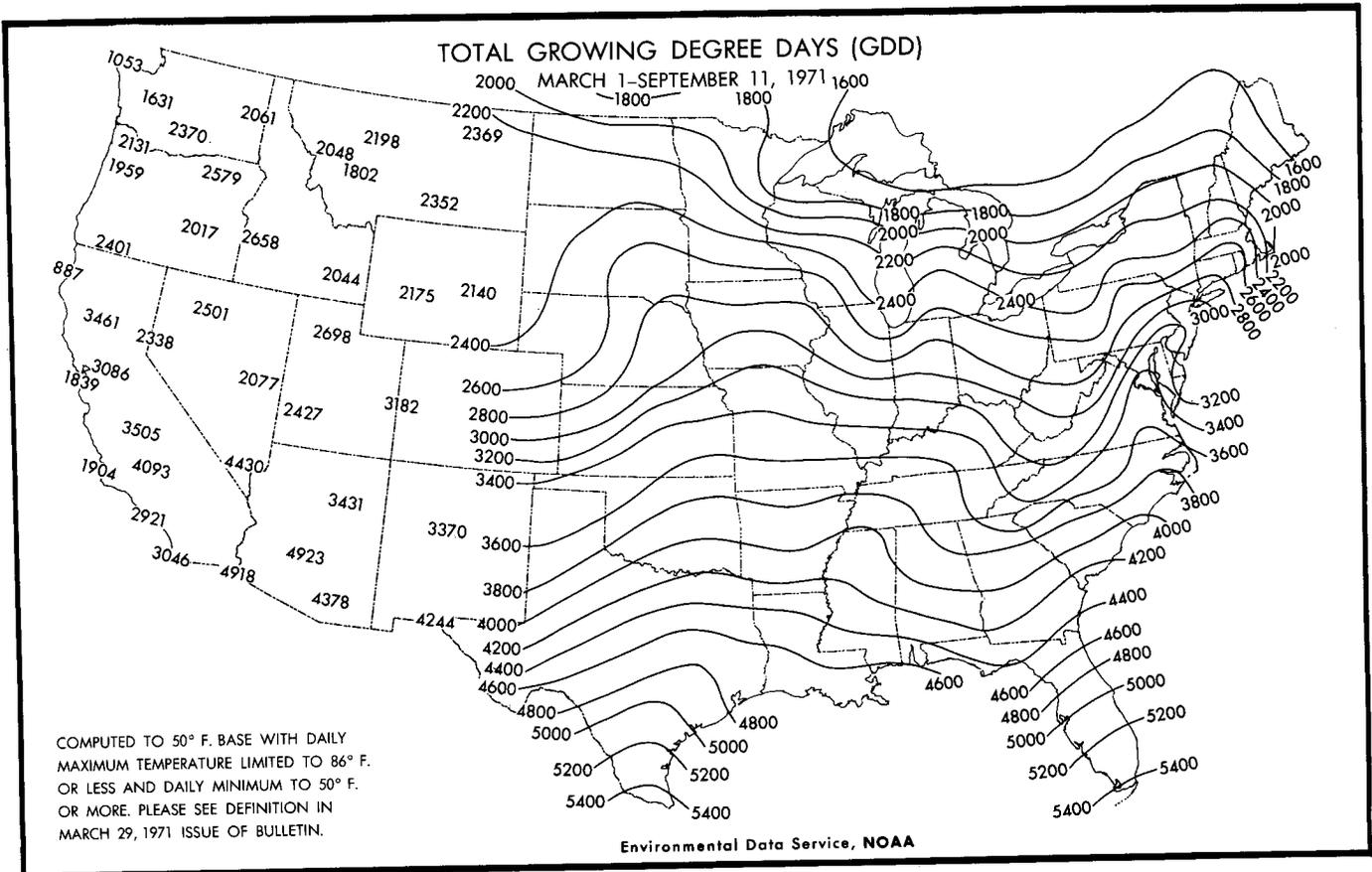
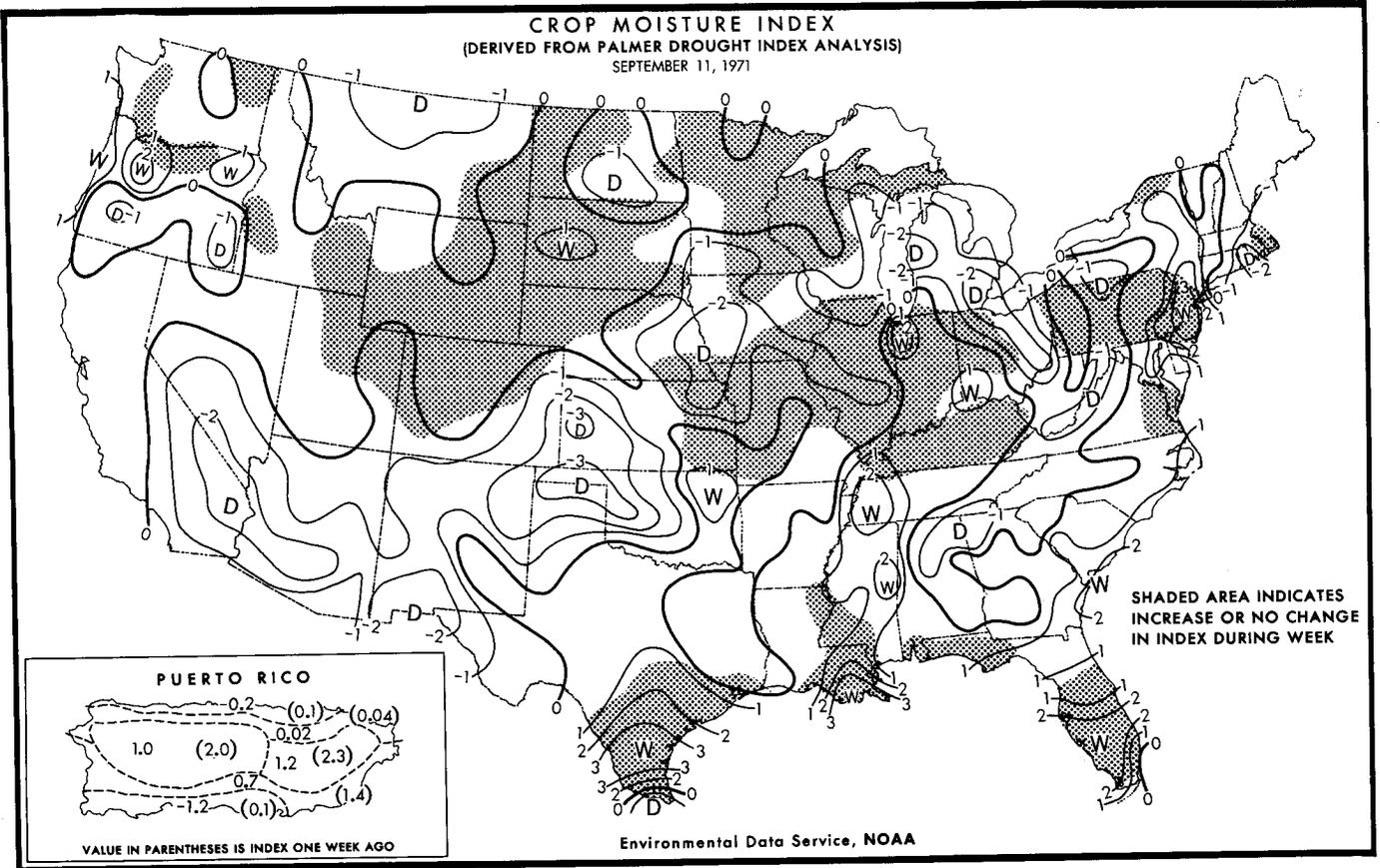
VIRGINIA: Temperatures mostly above normal. Widely scattered showers until heavy precipitation over weekend. Weekend rain will temporarily stop fieldwork. Topsoil moisture short in 2/3 State. Corn silage harvest active. Harvesting corn for grain Tidewater. Flue-cured and fire-cured tobacco 2/3 cut. Burley 45% and sun-cured over 1/2. Soybean prospects bright. Some growers sampled peanut fields. Haying active. Pastures declined moderately. Wheat 1% planted, barley and winter oats 5%. Tomato harvest in windup. Dug some sweet potatoes.

WASHINGTON: Western Washington: Near normal temperatures except cooler along coast. Generous rainfall all sections except San Juans and South Coast. Considerable greening pastures with harvest vegetable crops continuing. Harvesting vegetable seed crop hindered by rain. Blackberry harvest continues with some heavy mold loss. Silage corn harvest expected to begin shortly. Eastern Washington: Temperatures averaged below normal with spotty heavy rainfall. Apples developing well with harvest to begin soon. Small grains harvest slowed by rain. Potatoes, sweet corn, onions, hops, tomatoes and late peaches being harvested. Dryland seeding good, although later areas may require reseeding due to soil crusting.

WEST VIRGINIA: Summers longest, humid, heat wave continued through Friday September 10. Rainy, cooler weekend September 11 and 12 gave most areas over 1.00 inch rainfall. Average 5.3 days suitable for fieldwork. Main farm activities making hay, filling silos, and general maintenance. Moisture conditions reported; 45% short, 53% adequate, and 2% surplus. Tobacco nearly all topped. Potatoes 50% harvested. Apple prospects continue good.

WISCONSIN: Heavy showers over western and northern portions mainly Wednesday and Thursday. 0.50 to 1.50 inch readings common. None over southeastern quarter State. Temperatures continued above normal trend by averaging 6° above normal. Corn nearly 2/3rds dent. Late corn still frost susceptible. Blight damage at standstill. Oat combining delayed north due rain. Second hay crop being cut north, 3d south. Good crop except where moisture short. Soybeans look good. Late-planted tobacco not so good as early-planted. Sweet corn harvest ending, yields and quality good. Lima beans, red beets, snap beans, carrots, potatoes, cabbage quality and yield good. Late potatoes being harvested. Apples good. Pastures good northwest and west. Poor in dry southeast. Soil moisture 50% short, 45% adequate, and 5% surplus in northwest and west.

WYOMING: Moderate to heavy showers occurred over most of State. Alva reported the most moisture with 2.20 inches. Temperatures averaged near normal with wide fluctuations. Maxima were mostly around 80° west of Divide and Upper Platte Drainage, around 90° elsewhere. Minima were mostly around 30° west of Divide, 35° to 45° east. Temperature extremes were 93° at Sheridan Field Station and Gillette and 20° at Big Piney. Main agricultural activities irrigating and harvesting in farming areas and moving and shipping livestock ranching areas. Rains slowed harvest small grains and dry beans, although little damage to windrowed beans reported. Slightly more than 80% barley combined while oat harvest about 75% complete. Only about 8% dry beans combined, while nearly 15% corn silage cut. Over half fall wheat sown, about 15% emerged. Surface soil moisture supplies short to adequate. Recent showers improved ranges and pastures currently in use and prospects for late fall and winter grazing. Ranchers moving livestock off high ranges and preparing for winter.





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Questions and comments are invited; please send to Editor in Agricultural Climatology Service Office, address above.

General flooding occurred on the creeks and Gulf drainages streams in the coastal plains of Texas from the effects of the rainfall from Tropical Storm Fern...with extensive damage reported throughout the coastal bend area.

Major flooding is developing on the Lower Nueces River with a crest 15 feet above flood stage forecast to occur near Three Rivers on September 15. Major flooding will be in evidence for several days on the lower Nueces. Several feet of flooding is reported in the Lavaca-Navidad drainage and in the Mission River drainage. There is a strong rise developing on the Lower Rio Grande but stages are expected to remain below flood level.

In the east...severe flash flooding and considerable damage occurred during the weekend on small streams and creeks in the Washington, D.C. Metropolitan Area where as much as 8 inches of rain was reported. Also in central and northern New Jersey where rainfall amounts to 6 inches or so were measured. Most creeks and streams in New Jersey, except the Delaware River, were near bankfull or overflow this morning with crest to about 2 feet above flood stage forecast to occur today and tonight.

A near record high stage occurred yesterday evening on the Saddle River in northeast New Jersey where almost 5 feet of overflow was reported.

Major rises are occurring on North Carolina streams and the Upper Neuse River will reach 2 to 4 feet over flood stage during the next couple of days.

The coastal plains of Texas received torrential rains from Tropical Storm Fern since 7 a.m. Friday...especially in the first 48 hours of the period. The greatest amount reported was 34.5 inches at Papalote, about 25 miles northwest of Corpus Christi, for the 48 hours. During the same period Aransas Pass received 19.5 inches and Beeville 16.78 inches. Heavy rain ranged to 9 inches, in the Lower Rio Grande Valley, fell in the last 24 hours. Heavy rain also fell in the East Coast States...especially in the last 48 hours from North Carolina through the Virginias and Maryland to New Jersey and Pennsylvania. Some local areas received 4 to 8 inches in Maryland... up to 6 inches in New Jersey...and to near 6 inches in North Carolina. The Florida peninsula has also received some heavy rains in the last 72 hours.

Office of Hydrology, NOAA