

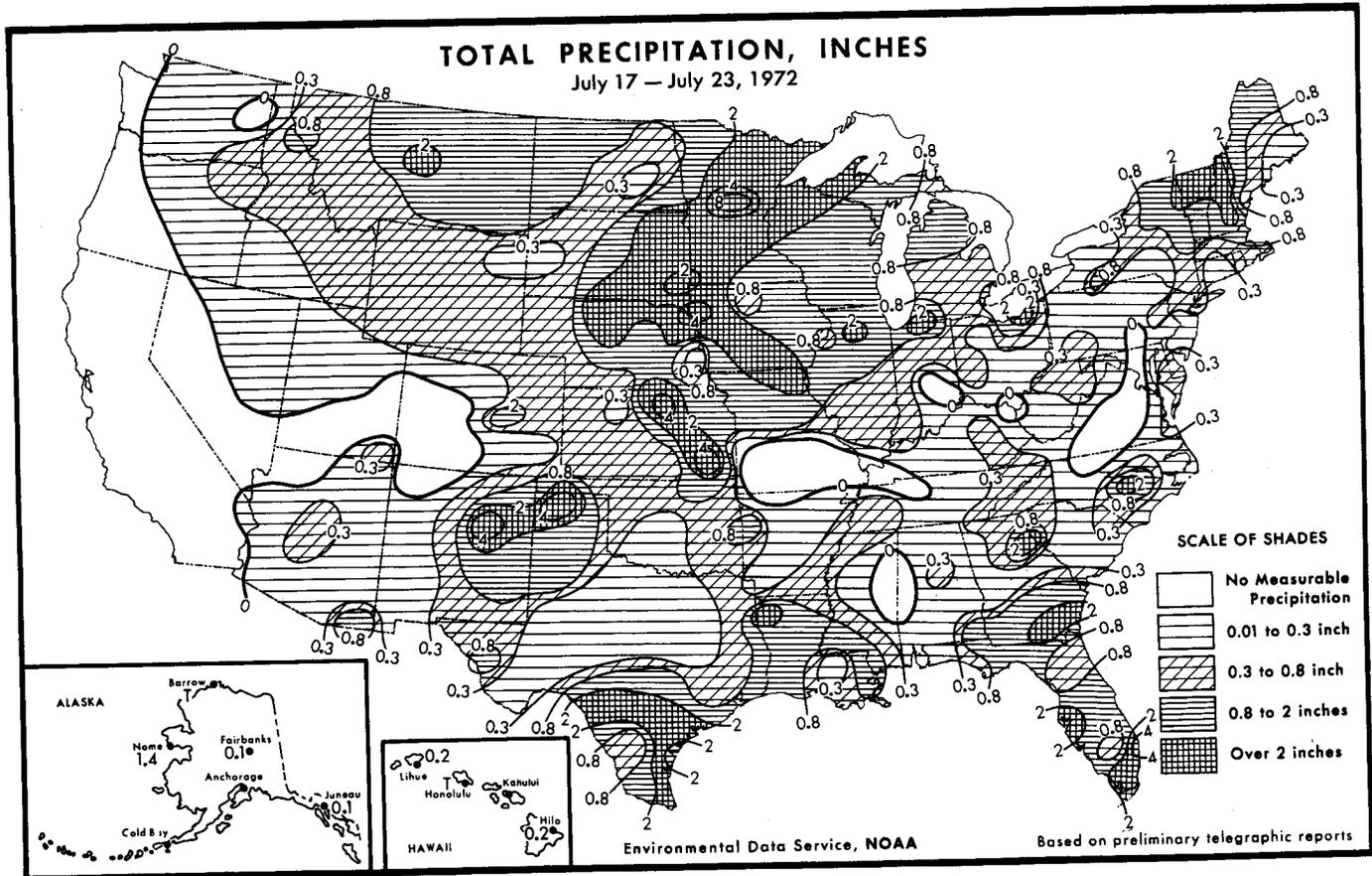
# Weekly Weather & Crop Bulletin

U. S. DEPARTMENT OF COMMERCE  
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Edited by Lucius W. Dye

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## NATIONAL WEATHER SUMMARY

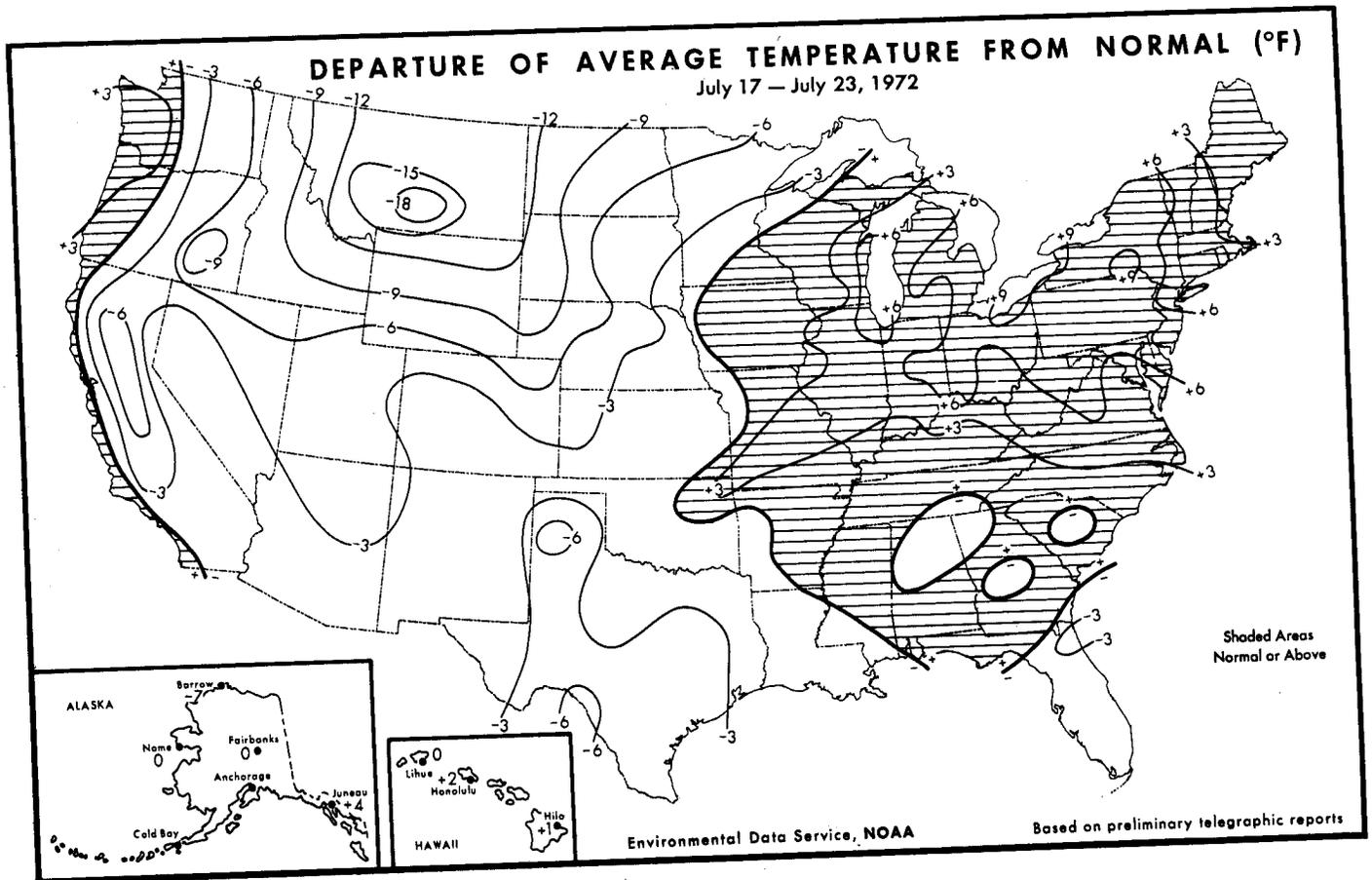
**HIGHLIGHTS:** The Bermuda High migrated westward to the Lower Mississippi River Valley bringing hot sultry weather to the eastern half of the Nation. Pollutants in the atmosphere made it more debilitating. Heaviest showers fell in northern and central Great Plains.

**PRECIPITATION:** Vigorous thunderstorms broke out along a quasi-stationary front which, early in the week, stretched from the Great Lakes to the Texas Panhandle. Some of these thunderstorms produced hail and heavy rain. Hail of 1-inch size bounced off the streets of Calamus, Iowa, and 5.00 inches of rain fell at Lowden, Iowa. These towns are about 20 miles northwest of Davenport. Twisters occurred in central Kansas, east-central Iowa, and northern Illinois late Monday evening. The most severe damaged farmsteads and injured

cattle north-northeast of Peoria, Ill. Heavy rains, approaching 10.00 inches, and strong winds caused property damage west of Chicago early Tuesday.

After the front across mid-America dissipated about midweek, another front farther north brought active weather to the northern and central Great Plains. The showers were especially heavy north of St. Cloud, Minn., where 10.84 inches fell at Ft. Ripley, 8.90 inches at Long Prairie, and 8.10 inches at Onamia in the 24-hour period ending Saturday morning. The central Great Plains received substantial showers Sunday and light rains fell in the Deep South.

The Far Southwest continued dry. Numerous dust devils swirled across the desert near Blythe, Calif., Wednesday afternoon.



**TEMPERATURE:** On Monday, July 17, a mountain of air with a central pressure of 1025 millibars was centered about 600 miles northeast of Bermuda. This Bermuda High, as it is frequently called, moved westward reaching the Carolina Coast Thursday. By Friday morning it had become quasi-stationary over the western Carolinas.

The very light but generally southerly breezes over the backside of the High, spread warm, humid, hazy weather of the eastern edge of the Nation early in the week and the eastern half of the Nation by Friday. The light thundershowers brought little relief from the heat, humidity, and atmospheric pollution. Afternoon temperatures reached the high 80's and low 90's from the Great Lakes to Texas and eastward to the Atlantic Ocean. Minimum temperatures were mostly in the 70's. Patches of light fog dotted the eastern third of the Nation on most mornings and the rising sun was reddish orange due to the pollutants in the air.

The Far Southwest continued hot with temperatures exceeding 100° every afternoon at some locations. The Southwest was not quite so hot

as during the previous week, however. A quasi-stationary front stretched from the Great Lakes to the Texas Panhandle early in the week. Temperatures north of the front were quite comfortable, generally reaching the 70's in the afternoons. This front disappeared about midweek as the Bermuda High spread westward and, on Thursday afternoon, 90° heat spread to the central Great Plains. Montana and North Dakota were in the cool air. Temperatures there ranged from the 40's in the mornings to the 70's and 80's on Monday and Tuesday and the 60's on Wednesday. The coolest weather occurred in the high Rockies where,

The Bermuda High moved westward reaching the Lower Mississippi River Valley by the weekend and continued to bring hot sultry weather to the eastern half of the Nation. Arctic air cooled the West. Montana and the neighboring States were especially cool averaging 6° to 18° cooler than normal.

L. W. Dye

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Heavy rains slow wheat combining, but improve row crop prospects in North Central States. \* Hot temperatures promoted crop growth in Northeast. \* Vegetable harvest moving North.

**SMALL GRAINS:** Rains and high humidity slowed grain combining in the north-central part of the Nation. Farmers from Montana to northern Illinois and Wisconsin were delayed in their harvesting activities. Curing was very slow, plus rain and wind caused some lodging. On the brighter side--the moisture improved spring-seeded grain prospects as heads should be filling properly. About 3/4 ths of the winter wheat crop is combined in Nebraska and Colorado. Montana winter wheat combining was just beginning when it was postponed by rain. On the other extreme, hot, dry weather made for excellent harvest conditions in the Pacific Northwest. California growers are in the mop-up phase of this year's grain harvest.

A week of dry hot weather was a welcome experience for farmers struggling to save their grain crop in Virginia, Maryland, Delaware, New Jersey, and Pennsylvania. Combining made good progress but is still a few weeks late overall. Yields are low in some areas.

**CORN:** The combination of warm weather or good rainfall boosted the Nation's corn crop. In the eastern part of the country where moisture is adequate -- hot, humid weather continued to encourage growth and maturity of corn. Heavy rains from the Great Plains to Lake Michigan brought much needed moisture to this section benefitting the maturing crop. Over 3 inches fell over much of the region. High winds and hail damaged some Illinois fields. Iowa corn is doing very well--98 percent of the acreage is rated good to excellent. Silking of the Corn Belt crop is widespread, but is generally behind the pace set last year and average.

Elsewhere the crop also made good progress as the warmest temperatures of the summer was what corn needed. A good rain is needed in the South as soils are becoming dry. A large amount of the Louisiana acreage is mature.

**COTTON:** Heavy rains delayed cotton picking in southern Texas. However, rain was minimal across the rest of the southern portion of the United States. The hottest weather of the summer was ideal for cotton growth and development from Arkansas to the Carolina's. In the Delta States, cotton prospects are good to excellent and bolls are setting in most fields. Development is slower than usual in the Southeast, and a rain would be helpful. Cotton growth was good in Missouri and Tennessee.

Temperatures were a few degrees below normal from California to New Mexico, but cotton still made good growth and is fruiting heavily. Some early bolls are open around Yuma, Arizona.

**SOYBEANS:** The crop remains good to excellent in the major producing areas. Rain was highly beneficial and widely received in the north-central States. The warmest temperatures in the

last few years sparked soybean growth in the East and South--soil moisture also evaporated fast due to the heat. Plant height and percent of plants blooming are behind last year in the major growing areas. Podding has started in many States. Southern soybeans are in all stages of growth--early plantings are blooming whereas late seedings are just emerging. Farmers in Virginia and Maryland were busy seeding their last fields as soils were becoming workable.

**OTHER CROPS:** Heavy rains and flooding caused considerable crop damage in central Minnesota. Just the reverse was true in the Northeast where farmers welcomed the driest week since mid-June when Hurricane Agnes struck the region. Cool weather and rains held up haymaking from the Rocky Mountains to the Great Lakes. Haying was the major chore on livestock farms in the Nation's Eastern sector. Sorghum started heading on the Great Plains. Rains interrupted harvesting in Southern Texas. The crop in southeast Colorado continued to decline from lack of rain. Peanuts made excellent progress in Georgia, Alabama, and Virginia. Some Virginia fields are still yellow. Hot temperatures helped the potato crop in Maine and New York. Digging started in Bay County, Michigan. The Nation's rice crop remains in good shape--rains delayed harvesting along the Texas Upper Gulf Coast.

**Fruits and Nuts:** Fruit sizing was slowed by hot weather in Oregon. In the Northeast warm temperatures also spurred fruit growth and development. Tart cherry picking gained momentum as more growers found blocks of fruit to pick. Peach picking increased in the North--Southern peaches are over half picked. Grape picking continued in California--picking of other California fruits also increased. The Nation's pecan crop is in good shape.

**Vegetables:** Warm weather was advantageous to vegetable crops from Michigan to New England--harvest increased daily. Lettuce cutting started in Orange County New York and some sweet corn was picked in Wisconsin. Maryland and Delaware farmers started picking tomatoes and cantaloupes. Supplies are diminishing from the South. On a sad note--western Washington lettuce growers are disking mature fields due to the lack of sales.

**PASTURES AND LIVESTOCK:** Heavy rains spurred pasture growth from Montana to Michigan. Grazing prospects are also good from Michigan to the Atlantic Ocean. Pastures are exceptional in Tennessee and Virginia. Southern pastures are providing adequate feed, but rain is needed to keep up the moisture supply. It was a refreshing week in the West as cooler temperatures finally arrived. Range feed improved slightly in the Southwest. Cooler weather helped milk and egg production in California. Pastures began to dry in the Pacific Northwest.

Steve J. Pscodna  
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., JULY 23, 1972

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure*	Total	Departure*		Average	Departure*	Total	Departure*		Average	Departure*	Total	Departure*
ALA. Birmingham . . .	80	-2	.5	-.7	New Orleans . . .	80	-2	.8	-.7	OKLA. Okla. City . .	81	-2	T	-.5
Mobile . . .	83	0	.1	-2.3	Shreveport . . .	82	-2	2.7	+1.8	Tulsa . . .	85	+3	.1	-.3
Montgomery . . .	83	+1	.2	-1.0	MAINE. Caribou . .	65	0	1.2	+ .3	OREG. Astoria . . .	65	+4	T	-.3
ALASKA. Anchorage .	33	-1	---	---	Portland . . .	70	+1	.4	-.2	Burns . . .	61	-10	T	-.1
Barrow . . .	60	0	T	-.2	MD. Baltimore . . .	84	+7	.2	-.8	Medford . . .	73	0	T	0
Fairbanks . . .	60	+4	1.1	-.4	MASS. Boston . . .	76	+1	1.2	+ .6	Pendleton . . .	71	-3	.5	+ .5
Juneau . . .	50	0	1.4	+ .8	Chatham . . .	69	---	.3	---	Portland . . .	73	+5	T	-.1
None . . .	63	-3	.7	0	MICH. Alpena . . .	73	+6	1.9	+1.3	Salem . . .	69	+2	T	0
ARIZ. Flagstaff . .	91	+1	.3	+ .1	Detroit . . .	79	+6	1.0	+ .4	PA. Allentown . . .	82	+7	1.8	+ .6
Phoenix . . .	84	-3	.4	-.1	Flint . . .	78	+8	.4	-.3	Erie . . .	76	+7	.1	-.7
Tucson . . .	77	-4	.1	-.2	Grand Rapids . . .	78	+6	.7	+ .1	Harrisburg . . .	83	+6	0	-.8
Winslow . . .	92	-2	T	-.1	Houghton Lake . .	74	+7	.1	-.5	Philadelphia . . .	84	+8	T	-1.0
Yuma . . .	81	-2	1.3	+ .7	Lansing . . .	77	+5	.4	-.2	Pittsburgh . . .	79	+6	.3	-.5
ARK. Fort Smith . .	84	+2	T	-.8	Marquette . . .	68	+1	1.9	+1.2	Scranton . . .	80	+7	.1	-1.0
CALIF. Bakersfield .	81	-4	0	0	Muskegon . . .	76	+4	.5	-.1	R.I. Providence . .	77	+4	.4	-.2
Eureka . . .	76	-6	0	0	S. Ste. Marie . . .	68	+3	.8	+ .3	S.C. Charleston . .	81	0	.1	-1.8
Fresno . . .	74	0	0	0	MINN. Duluth . . .	63	-4	3.7	+2.9	Columbia . . .	81	-1	.2	-1.3
Los Angeles . . .	74	-8	0	0	Internat'l Falls .	65	-1	3.0	+2.2	Greenville . . .	80	0	.6	-.7
Red Bluff . . .	72	+1	0	0	Minneapolis . . .	73	0	3.2	+2.5	S. DAK. Aberdeen .	70	-4	3.4	+2.9
San Diego . . .	63	0	T	0	Rochester . . .	71	-1	3.7	+3.0	Huron . . .	71	-5	3.1	+2.7
San Francisco . . .	72	-7	0	0	St. Cloud . . .	71	-1	3.7	+3.0	Rapid City . . .	64	-11	.1	-.3
Stockton . . .	71	-3	.2	-.1	MISS. Jackson . . .	83	+1	1.0	-.1	Sioux Falls . . .	74	-1	1.2	+ .6
COLO. Denver . . .	79	0	T	-.2	Meridian . . .	82	0	T	-1.4	TENN. Chattanooga .	80	+1	.4	-.8
Grand Junction . .	75	-2	1.1	-.3	MO. Columbia . . .	82	+5	.9	+ .2	Knoxville . . .	83	+2	.3	-.5
Pueblo . . .	80	+5	.1	-.8	Kansas City . . .	81	-1	1.9	+1.3	Memphis . . .	81	0	T	-1.0
CONN. Bridgeport . .	80	+7	.3	-.6	St. Louis . . .	84	+5	.6	0	Nashville . . .	81	-2	.2	-.4
Hartford . . .	84	+5	T	-1.0	Springfield . . .	82	+3	0	-.8	TEX. Abilene . . .	81	-2	1.2	+ .6
D.C. Washington . .	82	+5	1.0	-.9	MONT. Billings . .	58	-18	1.5	+1.3	Amarillo . . .	74	-7	1.6	+1.1
FLA. Apalachicola .	82	0	.5	-1.5	Glasgow . . .	60	-12	1.2	+2.9	Austin . . .	82	-3	1.7	+1.3
Ft. Myers . . .	79	-4	.3	-1.4	Great Falls . . .	57	-14	1.2	+ .9	Beaumont . . .	80	-5	3.7	+3.3
Jacksonville . . .	82	-1	1.6	+ .7	Havre . . .	61	-10	.4	+ .2	Brownsville . . .	83	-2	1.7	+1.2
Key West . . .	80	-2	1.0	-.6	Helena . . .	54	-16	.5	+ .3	Corpus Christi . .	82	-3	T	-.4
Lakeland . . .	80	-2	3.5	+2.0	Kalispell . . .	57	-10	.4	+ .2	Dallas . . .	81	-6	2.0	+1.7
Lakeland . . .	80	-2	1.0	-.6	Miles City . . .	63	-13	.9	+ .6	Del Rio . . .	80	-2	.3	0
Miami . . .	82	-1	.8	-1.0	Missoula . . .	57	-11	.6	+ .4	El Paso . . .	80	-2	.3	-.1
Orlando . . .	82	+1	1.0	-.8	NEBR. Grand Island	77	-1	1.1	+ .6	Fort Worth . . .	83	-3	.3	-.1
Tallahassee . . .	81	-1	2.2	+ .3	Lincoln . . .	81	0	.2	-.5	Galveston . . .	83	0	1.8	+ .6
Tampa . . .	79	0	.6	-.5	Norfolk . . .	75	-3	3.7	+3.1	Houston . . .	80	-3	.5	-.5
GA. Atlanta . . .	81	-1	.2	-.8	North Platte . . .	73	-4	1.7	+1.2	Lubbock . . .	76	-4	1.7	+1.2
Augusta . . .	81	0	1.1	-1.2	Omaha . . .	77	0	1.1	-.7	Midland . . .	78	-5	.1	-.3
Macon . . .	81	-1	.9	-.6	Valentine . . .	70	-7	2.1	+1.6	San Angelo . . .	82	-3	.1	-.2
Savannah . . .	82	0	.9	-.6	NEV. Ely . . .	64	-5	T	-.2	San Antonio . . .	81	-3	2.9	+2.5
HAWAII. Hilo . . .	76	+1	.2	-2.2	Las Vegas . . .	89	-1	0	0	Victoria . . .	82	-2	3.6	+2.7
Honolulu . . .	81	+2	T	-.1	Reno . . .	68	-1	0	-.1	Waco . . .	82	-4	T	-.4
Kahului . . .	78	0	.2	-.2	Winnemucca . . .	69	-3	0	-.1	Wichita Falls . . .	84	-2	1.0	+ .8
Lihue . . .	68	-8	.2	+ .2	N. H. Concord . . .	74	+4	2.4	+1.7	UTAH. Blanding . .	69	-4	1.0	+ .8
IDAHO. Boise . . .	69	-6	.4	+ .3	N. J. Atlantic City	83	+7	T	-.9	Salt Lake City . .	73	-5	.1	0
Lewiston . . .	65	-9	.6	+ .5	Trenton . . .	84	+7	T	-.9	VT. Burlington . .	75	+6	2.4	+1.5
Pocatello . . .	84	+3	0	-.7	N. MEX. Albuquerque	77	-2	.5	+ .2	VA. Lynchburg . . .	83	+6	0	-1.0
ILL. Cairo . . .	83	+7	1.3	+ .5	Roswell . . .	78	+5	.8	0	Norfolk . . .	83	+4	.7	-.7
Chicago . . .	81	+5	.8	+ .1	N. Y. Albany . . .	80	+11	.1	-.7	Richmond . . .	81	+4	T	-1.0
Moline . . .	79	+3	1.9	+1.1	Binghamton . . .	79	+9	T	-.5	Roanoke . . .	63	-7	T	-.1
Peoria . . .	78	+3	2.7	+1.8	Buffalo . . .	81	+4	1.0	+ .1	WASH. Colville . .	64	-8	T	0
Rockford . . .	83	+4	.3	-.4	New York . . .	80	+8	.2	-.4	Omak . . .	63	+3	0	-.5
Springfield . . .	80	+1	.4	-.3	Rochester . . .	81	+8	.4	-.3	Quillayute . . .	69	+4	T	-.1
IND. Evansville . .	80	+5	.6	-.1	Syracuse . . .	76	+1	.7	-.3	Seattle-Tacoma . .	66	-6	T	-.1
Fort Wayne . . .	81	+6	T	-.7	N. C. Asheville . .	80	0	.1	-1.1	Spokane . . .	69	-8	.5	+ .5
Indianapolis . . .	78	+4	2.7	+1.9	Charlotte . . .	82	+4	0	-1.1	Walla Walla . . .	69	-3	T	0
South Bend . . .	79	+2	1.4	+ .6	Greensboro . . .	81	+3	T	-1.6	Yakima . . .	76	+4	T	-1.1
IOWA. Burlington .	77	0	3.4	+2.8	Hatteras . . .	81	+3	.6	-.8	W. VA. Beckley . .	80	+5	T	-1.4
Des Moines . . .	76	+3	1.4	+ .6	Raleigh . . .	82	+2	.1	-1.8	Charleston . . .	81	+5	T	-1.2
Dubuque . . .	78	0	6.5	+5.8	Wilmington . . .	82	+2	.6	+ .2	Huntington . . .	82	+6	.4	-.5
Sioux City . . .	80	-1	4.0	+3.4	N. DAK. Bismarck .	65	-7	.6	+ .2	Parkersburg . . .	77	+6	.9	+ .3
KANS. Concordia . .	79	-2	.3	-.2	Fargo . . .	68	-4	1.5	+ .9	WIS. Green Bay . .	76	+2	1.9	+1.1
Dodge City . . .	73	-5	.4	-.2	Williston . . .	60	-12	1.1	+ .8	La Crosse . . .	74	+2	1.0	+ .3
Goodland . . .	78	-2	1.1	+ .3	OHIO. Akron-Canton	80	+7	.4	-.8	Madison . . .	76	+7	1.0	+ .4
Topeka . . .	80	-1	.6	-.2	Cincinnati . . .	83	+7	0	-.8	Milwaukee . . .	64	-9	.5	+ .3
Wichita . . .	80	+2	.5	-.4	Cleveland . . .	82	+10	2.6	+1.9	WYO. Casper . . .	64	-7	.4	0
Wichita . . .	83	+5	.3	-.4	Columbus . . .	78	+3	.2	-.7	Cheyenne . . .	63	-9	.4	+ .2
LA. Baton Rouge . .	82	-1	.1	-1.0	Dayton . . .	82	+7	.4	-.4	Lander . . .	59	-13	.5	+ .3
Lake Charles . . .	81	-2	1.8	+ .2	Toledo . . .	80	+6	.7	+ .2	Sheridan . . .	83	+3	.3	-1.1
					Youngstown . . .	78	+7	.3	-.7	P. R. San Juan . .				

\* 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:** Considerable sunshine much of week. Scattered thundershowers mainly Wednesday and Saturday. Temperatures near normal until weekend then about 4° above normal. All crops made good development, but need rain. Insect counts high. Many cotton fields require control measures. About 1/2 corn dough stage with many fields south and central denting. Late-planted soybeans just emerging while early beans blooming. Grass and weed problems being controlled. Prospects excellent for peanuts. Cutworms problem few fields. Harvest Sand Mountain Irish potatoes nears completion--quality and yield good. Growth sweet-potatoes good Cullman County. Much hay saved. Pastures supplied adequate grazing, but need moisture.

**ALASKA:** All agricultural areas reported precipitation during week but only isolated areas measured above-normal amounts. Seasonal amounts are now above normal in Matanuska Valley and near normal in isolated parts of Upper Tanana Valley. Temperatures were near or below normal with no unusual extremes. The range was from 74° to 40°. Soil moisture supply adequate Matanuska Valley and Kenai Peninsula, but short Tanana Valley. Hay harvest beginning Kenai Peninsula, virtually complete remainder Railbelt. Second crop brome responding well to warm weather and rainfall during reporting period.

**ARIZONA:** Temperatures slightly below normal over State and humidity somewhat above normal. Shower activity mostly limited to higher elevations in southeastern, eastern, and northern parts of State. Strong winds and blowing dust in irrigated valleys in southern part of State on 23d. Arizona's cotton crop making good progress, development ahead of normal most areas. Yuma virtually all fields setting bolls. Some early bolls opening. Pink bollworm causing damage, controls being applied. Other areas early boll set good. Sorghum in all stages maturity. Early plantings mature Yuma. Southeast planting late crop nearing completion. Safflower harvest full swing Salt River Valley. Sugar beet harvest nearing completion central areas, completed Yuma. Alfalfa hay harvest continues. Cantaloupe harvest completed Yuma. Fieldwork underway. Many areas fall plantings. Watermelon harvest active Salt River Valley, other central areas. Grapefruit and Valencia orange harvest still active Yuma, Salt River Valley areas. Citrus groves generally good. Insect controls applied as needed. Arizona ranges improved slightly. Soil moisture and stock-water supplies nearly normal. Supplemental feeding required some areas. Several cases screw-worm reported southeastern areas.

**ARKANSAS:** Dry weather continued over most of State during week with rainfall amounts generally ranging from none to less than 0.25 inch. Exceptions included Texarkana, 1.71 inches; Fort Smith, 1.36 inches; Hot Springs, 0.76 inch; and Camden, 0.41 inch. Most showers fell latter part of week. Very dry entire State on weekend. Mean temperatures in range -1° to +2° from normal. Warming trend in daytime temperatures through week with several 100° readings late in week and on weekend, mainly northeastern 1/4 of State. Nighttime

temperatures continued in a narrow range mostly in upper 60's and low 70's. Soil moisture mostly short except northeast, west-central and southern-most tier Counties. Extreme heat causing many crops to wilt. Cotton fruiting exceptionally well and setting bolls most fields. Insect buildup continues, control measures active. Rice growing well. Early rice heading. Midseason nitrogen and herbicides being applied. Early beans lapping in middles and starting to bloom. Late beans variable in size, many stunted from dry weather and excessive weeds. All beans need rain. Corn rapidly developing. Some silage cutting begun. Haymaking active. Excellent peach crop at peak harvest. Okra, cucumbers, watermelons, and tomatoes being marketed. Most pastures need rain. Livestock fair to good.

**CALIFORNIA:** Scattered local showers deposited trace to 0.01 inch along central coast and Inyo County. Temperatures much cooler. San Luis Obispo County coolest with 7° below normal; Sierra warmest with 7° above normal. Most valley stations reported negative departures; averages 6° below normal Sacramento Valley to near normal Yosemite Valley. Grain harvest near completion; cotton, milo, dry beans, field corn good growth. Apple harvest progressing normally with Gravensteins being picked Sebastopol and Watsonville. Nectarine, freestone peach and plum harvest active, good fruit quality. Clingstone peach harvest increasing; small fruit reported. Bartlett pear harvest active Sacramento and Suisun Valley; picking Lake County week away. Walnut crop developing normally, some sunburn damage. Valencia orange harvest continues. Avocado, lemon, and grapefruit harvest continues. Broccoli, cauliflower Central Coast moderate. Westside cantaloupes continue active. Carrots San Joaquin, Central Coast moderate. Celery Salinas, Santa Maria to increase slightly. Southern California sweet corn active; Hilmar, Brentwood increasing. Bell peppers San Joaquin Valley increasing. Honeydews central valley increasing. Lettuce Santa Maria, Salinas slight decrease. Potatoes Kern near completion; Southern California increasing. Kern watermelons active. Livestock good. Grazing on stubble and irrigated pastures. Hill ranges fed off. Water supplies questionable to critical. Supplemental feeding heavy. Cooler weather helped livestock daily gains, milk and egg production.

**COLORADO:** Temperatures 4° to 5° below normal along foothills, 2° to 5° above normal elsewhere. Rainfall 0.10 and 0.50 inches throughout State. Winter wheat harvest progressing, 76% cut, 95% ripe. Most acreage left western slope. Winter barley 89% ripe, 79% cut. Condition oats and spring barley very good statewide. Harvest underway eastern slope. Corn developing normally, 3/4 tasseled, same as last year. Crop generally excellent. Condition dry beans declined, dry weather southwest major cause. Sorghum condition southeast declining. Moisture needed. Second cutting alfalfa 2/5 complete. Summer potatoes excellent condition. Harvest active eastern areas. Fall crop potatoes excellent. Ranges and pastures need moisture.

**FLORIDA:** Temperatures slightly below normal with daily highs in low and mid-90's. Rainfall totals averaging 1.00 to 2.00 inches in showers and thunderstorms throughout State except along Lower East Coast where division total was above 5.00 inches. Field crop activity making hay, harvesting flue-cured tobacco and green peanuts, cultivating, and control insects and diseases. Shade tobacco harvest complete. All crops making good progress. Moisture adequate, except small isolated areas. Livestock and pastures rated very good. Moisture favorable most locations. Tree, grove and new crop fruit excellent condition. New growth heavy most areas.

**GEORGIA:** Rainfall highly variable in almost daily showers. Amounts ranged from over 4.00 inches parts of south and northeast to less than 0.25 inch many widely scattered places. Some areas have had less than 1.00 inch since July 1, and are becoming very dry. Temperatures warmest of summer last half of week with highs in mid- to upper 90's, except in mountains. Nights also unusually warm with lows mostly in 70's. Weekly averages above normal all areas for first time since late April. Inadequate soil moisture continued to slow crop development over much of State. General rain needed many areas. Tobacco, hay, and peach harvest made good progress. Development cotton slower than usual. Japanese beetles active. Insect and disease control measures active cotton and peanuts. Some cotton layed-by. Supplies most summer vegetables and melons past peak south Georgia. Pastures and hay crops mostly good, but generally need rain.

**HAWAII:** Warm, dry weather with scattered, light showers. Conditions generally favorable all crops with adequate soil moisture. Insects on increase--mainly leaf miner and white flies. Damage confined to vegetable and melon crops. Sugarcane and pineapple harvesting on schedule. Supplies watermelon declining seasonally. Papayas adequate, but bananas light. Ample vegetables. Cattle condition fair to good. Lowland pastures need more rain.

**IDAHO:** A storm moved southward across State about midweek bringing unseasonably cool temperatures, damaging winds, and hail to some areas. Temperatures averaged about 7° below normal all areas. Precipitation was above normal over northern and eastern sections, near normal in south-central, while none fell in southwestern Idaho. Heaviest precipitation at Winchester, 0.90 inch, and 0.81 inch at Ashton. Wind and hail damage to crops occurred in portions of Lewis County while snow fell in mountainous area above 8000 feet. Cool weather and rains held up grain and hay harvest. Rains generally beneficial especially north. Winter grains 10% - 15% harvested southwest, 2% - 3% elsewhere. Spring grain harvest just getting started except north, where spring grains beginning to ripen. Corn making rapid growth and much in tassel. Alfalfa seed blooming and setting seed. Mint harvest underway.

**ILLINOIS:** Frequent thunderstorms early in week produced rains exceeding 3.00 inches. Most heavy in west and northwest. Briefly cooler midweek but later entire State in heat with mid-90° temperatures. Vandalia reported 98° on 21st. Corn 70% silked, little ahead normal, some local damage by high winds and hail. Condition good to excellent 84%, 1971, 93%. Soybeans 65% bloomed, 30% podded, behind average. Condition good to excellent 80%, year ago 95%. Wheat harvest virtually complete.

Oats 85% ripe, 50% harvested. Alfalfa 2d crop 55% cut. Pasture condition improved--some still short. Soil moisture short 37%, adequate 48%, surplus 15%. Days suitable for fieldwork 4.5.

**INDIANA:** Scattered showers and hot. On most days temperatures from middle 70's to low and middle 90's. Brookville reported 97° on 20th. Scattered thunderstorms mostly in northwest early in week produced 3.00 inches of rain in some localities. Four-week totals above normal except southeast and southwest. Four days suitable fieldwork. Dry soils relieved north but south continues dry. Topsoil and subsoil moisture mostly adequate. Wheat 80% combined, 85% average. Oats 20% harvested, 40% average, 65% last year. Corn 25% silked, 55% last year. Soybeans 10% setting pods, 15% average. Pastures improved north, overall rated mostly fair. Alfalfa hay 50% cut 2d time.

**IOWA:** A hot, humid, wet week. Some local flooding. Growing crops mostly good to excellent. Haying and small grain harvest slowed due to rains. Three days suitable fieldwork. Condition corn crop 52% excellent, 46% good, and 2% fair. Forty-five % fields 75% or more silked, year ago almost 70%. Soybeans 55% blooming, year ago over 70%. Condition mostly good to excellent. Oats 20% harvested, last year 75%, 5-year average 45% for this date. Condition oats mostly good to excellent. Winter wheat harvest 85% complete. Alfalfa 2d cutting 40% complete, condition mostly good to excellent. Recent rains spurred pasture growth. Condition mostly good to excellent. Topsoil moisture 70% adequate, 30% surplus.

**KANSAS:** Little or no rain western 1/3. Generally moderate to heavy elsewhere. Locally over 6.00 inches northeast 1/4 of State. Local flash flooding at Abilene July 17 and 18. Dry weather in southeast further alleviated although moisture still deficient extreme southeast corner. Weekly mean temperatures averaged 1° to 4° below seasonal. High humid weather in east after 18th. Crops and pastures benefited greatly from rains. Corn 47% tasseled, 63% last year and average 56%. Corn 8% dough stage, 13% year ago and range 6% to 28% recent years. Sorghums 9% headed, 15% last year and 1963-70 average 11%. Green bugs and corn leaf aphids were problems some areas with some spraying done. Soybeans progress moderately behind usual development, 15% setting pods, compared with 27% last year and average 19%. Peach picking active limited areas. Alfalfa 2d cutting 90% completed, 94% last year and average 91%. Third cutting 12% completed. Pastures and ranges providing mostly good to excellent grazing. Flies causing some problems and some black disease reported.

**KENTUCKY:** Temperatures averaged 2° to 5° above normal, making it the warmest week since late July. 1970. Sunny, very warm, and humid. Afternoon temperatures in 90's statewide 19th through week-end. 99° at Bowling Green on 23d. Daily isolated showers, weekly rainfall totaled generally less than 0.25 inch but 1.00 to 2.00 inches at a few locations. Over greater part of State, about a week since last rain of 0.25 inch or more; continued dry in east, 2 to 3 weeks since last rain of 0.25 inch or more. Five days favorable. Cultivating late corn and soybeans, spraying tobacco, clipping pastures, and baling hay main activities. Soil moisture 33% short, 65% adequate, 2% surplus. About 1/2 corn tasseling, condition remains good. About 20% soybeans blooming. Average soybean height about 20 inches. Tobacco requiring spraying and cultivating.

Topping most advanced fields underway, about 5% tobacco blooming. Tobacco 30% 12 to 24 inches, about half 24 to 36 inches, and 20% over 3 feet. Fruit crops fair to poor. Early apples being picked. Pastures being clipped.

LOUISIANA: Mild to warm. Averages below normal for 3d week with departures 1° to 3°. Scattered showers frequent south and central during week diminishing over weekend. Activity limited but locally heavy north. Temperature extremes: 96° Shreveport Thursday and Lafayette Sunday and 67° at Clinton Monday and Ashland Tuesday. Weekly rain totals highly variable. Mostly less than 0.50 inch north and 0.20 inch to more than 1.50 inches central and south. Greatest 1-day rain 2.72 inches measured at Shreveport Saturday morning. Fieldwork generally active, but showers continued to cause interruptions. Cultivation and layby row crops, insect control, and haying principal activities. Soil moisture generally adequate, but short scattered localities and excessive in few. Cotton prospects good to excellent--practically all acreage squaring and most fields showing blooms. Soybeans fair to good, some late plantings grassy and had poor stands. Crops in all stages, some fields blooming, others just emerging. Rice good to excellent, water being turned off in many fields. Harvest early varieties started. Sugarcane growth fair to good, more moisture would be beneficial. Corn prospects fair to good, considerable acreage maturing. Sorghum grain good, early plantings heading. Sweetpotatoes fair to good, light digging scattered areas. Haying difficult because showers. Pasture feed. average.

MARYLAND AND DELAWARE: Warmest week of year to date. Temperatures averaged 5° to 7° above normal. Extremes mostly 90's, 60's and low 70's. A 100° temperature at Waldorf on 23d. Rainfall variable as result of scattered afternoon and evening thunderstorms. Totals mostly little or none to 1.00 inch. Air stagnation episode in Baltimore-Washington area due mostly to light winds. Hot and sweaty week. Generally favorable workweek. Barley harvest 90% complete, 3 weeks late. Wheat 2/3 combined, 1 week late. Corn good except low areas. Soybean planting 85% done, 2 weeks behind. Hay harvest made good progress between showers. Cucumber and sweet corn harvest continues. Cantaloupe, tomato, and potato harvest starting. Summer apple picking near peak. Sunhaven and Jerseyland peaches available.

MICHIGAN: Unseasonably hot and humid south. Light showers south early, intermittent rain and thunderstorms north until turning cooler as period ended. Maximum temperatures generally in 80's to mid-90's. Temperature averages 2° to 5° above normal Upper Peninsula, 5° to 9° above normal Lower Peninsula with largest departures Thumb area. Precipitation totals: 0.75 inch east to 3.50 inches west Upper Peninsula, 0.50 to 1.00 inch south, 0.10 to 0.50 inch central, 1.00 to 3.00 inches northern Lower Peninsula. Corn, beans, and vegetables made rapid growth. Soil moisture mostly adequate to surplus. State averaged 3.9 inches suitable fieldwork. Wheat 57% ripe, 6% harvested. Considerable lodging and some sprouting lodged wheat. Oats mostly headed, 25% turning yellow. Corn made fast growth, much tasseled, average height 47 inches. Dry beans made rapid growth, early-planted started to blossom. Soybeans growing well. Sugar beet hoeing nearing completion, growth good. Potatoes growing well, harvest started Bay County. Haymaking slowed by

wet humid weather. Pasture feed supplies above average much State. Tart cherry harvest well along southwest, in full swing west-central, starting northwest. Sweet cherry harvest past peak west-central and underway northwest. Vegetable growth rapid. Snap beans and cucumber harvest started southeast.

MINNESOTA: Temperatures generally below normal across State. Extremes: 92°, 45°. Precipitation over entire State. Extremely wet week. Precipitation varied from 0.50 to more than 11.00 inches. Torrential rainfall fell overnight July 21 and again late afternoon and evening of July 22 centered over an 8-county area central Minnesota producing flash flooding. Additional high water and flooding occurred over weekend. A new 24-hour official record rainfall total of 11.18 inches was recorded at Fort Ripley. 10.84 inches of this total fell from approximately 7 p.m. July 21 to 2 a.m. July 22. Property damage considerable. Only 1 death was attributed to storm. There were no injuries. Moisture now adequate northwest district. Adequate to surplus elsewhere. Heavy rains and flooding caused considerable crop damage some areas of east-central district. Most crops continue to make good progress. Corn 56% tasselling, normal 38%. Soybeans 61% blooming, normal 67%. Nine percent setting pods. Flax 54% blooming, normal 77%. Cutting small grains beginning south. Percent turning ripe: Spring wheat 21, normal 37; oats 40, normal 59. Percent cut: Winter wheat 6, normal 17; rye 10, normal 35.

MISSISSIPPI: No rain to less than 0.25 inch in north. Elsewhere thunder showers on 2 to 3 days with greatest 1-day amount of 1.80 inches at Poplarville on 17th. Weekly temperature averages normal to 3° below normal. Extremes: 96° and 65°. Over weekend: Extreme northern and southern sections reported no rain, elsewhere scattered showers; 2.00 inches at Edinburg this Monday morning; temperatures rose slightly. Soil moisture short to adequate. Condition cotton good, but condition most other crops fair to good. Average 5.3 days suitable for fieldwork. Peach harvest 71% complete and 60% hay crop cut. Cotton acreage 97% squaring and 76% setting bolls.

MISSOURI: Moderate rains midweek and again over weekend soaked northern 2/3 of State with from 1.00 to 4.00 inches of rain. There were unofficial reports of 5.00-inch rains northeast of Kansas City. Rainfall in southern Ozarks and Bootheel were light, amounts generally less than 0.10 inch. Temperatures on hot side, with all but the northwest sweltering under mid-90° temperatures most of week. Temperatures averaged 3° above normal south to near normal northwest. Corn 59% silked, mostly good condition. Soybeans 40% blooming, mostly fair to good condition. Cotton 90% squaring, 61% setting bolls. Mostly good condition. Second cutting alfalfa and oats both 82% harvested. Clover-timothy hay 88% cut. Soil moisture adequate north and Bootheel, short elsewhere.

MONTANA: Cold and wet throughout period. Temperatures averaged 10° below normal west and south to 15° to 20° below normal east. Precipitation ranged from 0.25 inch above normal west to over 1.00 inch above normal southeast. General rains across State improved spring grain prospects and range grass. Haying slowed or halted. Alfalfa 1st cutting 90% complete, wild hay 55%. Rains increased prospects for good 2d cutting alfalfa. Winter wheat harvest just begun some counties, but delayed Statewide because precipitation. Winter wheat 20% headed, 80% turning. Spring

wheat 10% boot, 65% headed, 25% turning. Average date for beginning spring wheat harvest August 12. Some cattle scattered counties moved from summer ranges due grass shortage. Cattle and sheep good condition.

**NEBRASKA:** Heavy thunderstorms, rains, ranging from 2.00 to locally in excess of 6.00 inches fell across north-central and northeast Nebraska, as well as southeast tip of State, during week ending July 21. In contrast, a strip running from the east-central district to southwest remained quite dry. Average temperatures across State week ending 23d ranged from near normal in southeast to 5° to 10° subnormal in Panhandle. Weekend of 22d saw seasonably warm weather prevalent with locally heavy rains falling in southeast and south-central Nebraska during evening of 23d. Moisture quite beneficial to row crops, but caused delays small grain harvest. Wheat harvest 75% complete, but curing Panhandle very slowly due rains. Row crops conditions mostly good to excellent. About 30% corn silking compared with 50% normal. Sorghum maturity 5% heading, contrast to 16% normally headed. Soybeans podding on 5% acreage, compared 9% normal. Greenbug population sorghum field increased to point requiring spraying for control some eastern areas; however, natural predators increasing rapidly and should help controlling aphids. Hay harvest continued as weather permitted and 70% 2d crop alfalfa cut. Hot humid conditions causing discomfort to livestock.

**NEVADA:** Temperatures averaged 2° to 4° below normal all divisions except south-central which was about normal. Only precipitation reported was trace at Reno and Yerington and 0.02 inch at Ely in north. Las Vegas had 0.13 inch and Logandale 0.15 inch. Trace at Yucca. Thunderstorm with 47 knots wind and blowing sand and dust in Las Vegas first of week. Second cutting alfalfa hay underway western areas. Third cutting alfalfa ending and 4th cutting beginning southern valleys. Cattle and sheep remain fair to good condition with range feed conditions poor to fair. Few contracts signed.

**NEW ENGLAND:** Hot and humid with very warm nights with week averaging 3° to 6° above normal except near normal some coastal areas and in eastern Maine. Showers and thunderstorms almost daily with some locally severe storms evenings of July 19, 21, and 23. Several small tornadoes on 21st in New Hampshire and northeastern Massachusetts. Heavy property damage but no serious injuries. Total rainfall extremely variable from near nothing to about 3.00 inches, with least generally near the coast. Silage corn making very good progress although late. Haying poor due humid weather and frequent showers. Apple crop sizing well. Potatoes Aroostook County, Maine, in full bloom and looking good. Weather advantageous vegetable crops with harvest vegetables increasing daily.

**NEW JERSEY:** Hottest week in 17 years. Trenton's average of 84° has not been exceeded since first week of August 1955 when the average was 85°. Temperatures over State averaged from 5° to 9° above normal with afternoon temperatures in upper 80's or in 90's every day. Overnight readings varied from the mid-60's to upper 70's. Humidity remained high most of week. Rainfall spotty in scattered showers and thundershowers. Station totals varied from none to 1.20 inches. The northern 1/3 of State averaged 0.70 inch while the southern and coastal divisions averaged 0.20

inch. Some areas received thundershowers during week. In other areas, topsoil moisture short and growers irrigating. Hot weather maturing crops rapidly. Harvest summer crops very active. Small amount white potatoes dug. Light supply peaches available. Blueberry harvest at peak. Grain combining active--some yields low. Hay being cut, but showers and humid weather make drying a problem. Some field corn planted during week.

**NEW MEXICO:** Frequent showers much of north and scattered showers elsewhere. Totals generally light in west except heavy showers north of Gallup Monday causing flash flooding of Rio Puerco. Showers eastern plains generally totaled 1.00 to 2.00 inches but a 4.00-inch shower fell at Roswell Thursday night. Temperatures averaged near seasonal in west and below normal in east. Coolest midweek. Soil moisture conditions short and adequate. East side State adequate. West side generally short on soil moisture. Wheat and barley harvest complete. Sorghum grain good condition on both dry and irrigated land. Cotton good condition and heavy fruiting. Alfalfa hay harvest active. Onion harvest active. Ranges fair to good condition. Livestock good.

**NEW YORK:** Warmest week since mid-July 1968 as temperatures averaged mid-70's to low 80's. Maximums mostly upper 80's to low 90's except lowering to near 80° extreme north where cooling trend on 23d. Nights warm to very warm entire period. Precipitation for week ending on 21st averaged 1.80 to 2.00 inches Hudson Valley and northern 1/4 decreasing to 0.50 inch Long Island and western Great Lakes counties. Showers frequent late week but highly varied in yield. Amounts mostly light western half to heavy eastern Upstate. Fieldwork limited by scattered showers. Hot weather promoted good corn growth--some early fields tasselled. Wheat about ready to harvest. Haying continues although rain and high humidity slows drying. Some 1st crop alfalfa remains to be cut. Dry beans making slow progress. Warm weather improved vegetable crop condition in State, with exception of few areas. Orange County harvest iceberg lettuce underway, but movement slow. Pulling and topping set onions continues. Hot weather helping Long Island potatoes make good growth. Upstate potatoes western sections responding to drier soils. Fields generally showing spotty growth. Apples, pears, and peaches developing adequately--need more sunshine. Tart cherry harvest continues.

**NORTH CAROLINA:** Temperatures averaging slightly above normal. Highs in 90's and lows near 70° most areas. Widely scattered showers each day. Precipitation totals variable none to 3.00 inches averaging 1.00 inch mountains and southern Piedmont and 0.25 to 0.75 inch elsewhere. Soil moisture mostly adequate. Crop conditions little change--some corn needs rain. Corn, peanuts, soybeans, hays, Irish and sweetpotatoes, and pastures mostly good. Cotton poor to good, mostly fair. Apples mostly fair to good. Peaches mostly fair. Flue-cured fair to good. Type 13 auctions start July 25. Harvest continues flue-cured, small grains, potatoes, peaches. Farmers active applying pesticides, herbicides. Average 3.9 days fieldwork.

**NORTH DAKOTA:** The heaviest rains since May fell during week, mostly from showers and thundershowers, some with hail and strong winds. Rainfall totals mostly 0.50 to 2.00 inches with only the north-east and south-central areas averaging less than

1.00 inch. Temperatures averaged 10° below normal in west and 6° to 8° below normal other areas except 3° below normal east-central. Rainfall improved soil moisture supplies and crop prospects. Improved filling small grain heads expected. Few scattered spots hail damaged. Early barley ripening. Earliest fields harvested southern counties. About 1/2 hard wheat milk stage or beyond. Earliest fields turning to ripe. Farmers working summer fallow and preparing for small grain harvest.

**OHIO:** Hot and humid. Light winds at surface and aloft associated with high pressure area caused very poor dispersion of atmospheric pollutants. Low temperatures ranged from low 60's to mid-70's; highs ranged from 80's to upper 90's. Highest temperature was 98° Columbus on 20th. Rainfall amounts ranged from a trace to over 4.00 inches. On 16th, Wooster reported 3.44 inches while Akron-Canton measured 2.71 inches. On the 18th thunderstorms; winds in Cleveland reached 64 m.p.h. For second straight week, hot humid weather continues to encourage growth and maturity row crops, but high humidity with some rain slowed progress combining and haymaking. Soil moisture supplies 3% short, 50% adequate and 47% surplus. Corn height averaged 52 inches, 17 inches below last year, but only 6 inches below 1967-71 average. Corn crop 25% silked, 55% last year. Average height soybeans 18 inches, 2 inches below average and 6 inches below last year. Second cutting alfalfa 35% cut and 20% 2d cutting clover-timothy harvested. Both wheat and barley harvest 60% along, 90% last year. Oat crop 55% ripe, but less than 10% harvested. Year earlier about 55% harvested.

**OKLAHOMA:** Rainfall varied from 0.10 inch south-central and southeast to 0.70 inch Panhandle and 1.60 inches north-central. Temperatures averaged 1° to 2° below normal except 1° to 3° above normal northeast. Row crops good to fair condition, moderate improvement from past week. Development about same year ago, except cotton sharply ahead. Moisture becoming critically needed most areas for continued growth. Some burning beginning to occur few localities. Soil moisture supplies declined substantially. Both surface and subsoil moisture rated 70% short. Corn crop 1/3 dough stage--few fields mature. Sorghum 1/3 heading, 6% dough. Cotton 3/5 squaring, 5% setting bolls. Soybean crop 1/4 flowering. Alfalfa seed harvest about to start few southern localities. Watermelon and cantaloupe harvest active. Cutting broomcorn underway. Pasture and range condition only fair to good. Most livestock steady gains, good condition. Some supplemental feeding, but grazing to date generally sufficient to adequate.

**OREGON:** Hot dry week, cooler east side at close. Temperatures averaged 1° to 6° below normal eastern 1/3 and 2° to 7° above normal western 2/3. Minima at close 33° to 54°. Coastal maxima 76° to 88°, elsewhere 81° to 106°. Scattered showers northern half with less than 0.10 inch north-central and 0.30 to 0.50 inch northeast. Mostly above normal temperatures and limited precipitation gave farmers excellent harvest conditions throughout State. Grain harvest Umatilla County slowed somewhat by winds and showers. Raspberry harvest near completion. Marion blackberry harvest beginning. First picking pole beans Willamette Valley underway. Early potato harvest underway. Some limited peppermint harvest just starting. Fruit sizing slowed by hot weather.

**PENNSYLVANIA:** Very warm and humid. Daytime temperatures mostly mid-80's to mid-90's. Overnight minima, mid-60's and 70's. Little day-to-day change. Weekly temperatures 5° to 10° above normal. Rainfall very spotty, occurring as scattered showers and thunderstorms. Amounts variable from none to over 3.50 inches in Allentown area. Topsoil moisture 51% adequate, 46% surplus. Barley harvest near 3/4 mark, wheat almost 1/4 complete. Corn tasselling southern half State; average height lags behind last year. Haying weather fair to poor. Picking early peaches begun. Tart cherry harvest in progress, labor shortage some sections. Some Lodis picked southern counties. Green pea processing virtually completed; above-average abandonment. Sweet corn, some early potatoes and snap beans reaching fresh market.

**PUERTO RICO:** Rainfall averaged 0.85 inch or about 0.50 inch below normal. Highest weekly total 2.93 inches western Cardelloras, 2.84 inches eastern mountains and 2.82 inches on west coast. Some rain fell in dry central portion but generally less than 1.00 inch with little or no rain southwest. Agricultural drought slightly eased some central and southern zones, but much more rain needed. Temperatures averaged 81° on coast and 76° interior with mean departure of 1.0° below normal. Highest maximum 95°, lowest minimum 60°. Young sugarcane and ratoons improving some non-irrigated zones due light but well distributed rainfall. Fall crop maturing well in southeastern sections. Some coffee plantations premature ripening coffee beans especially southern zones due drought. Tobacco 2d crop under cultivation, but developing slowly result dry conditions. Pasture zones generally poor to fair, some improvement southern and central zones. Additional pasturage being planted, cultivated, and fertilized, but many farmers awaiting further rains to continue fieldwork. Minor crops behind planting schedule, but much soil preparation underway. Avocados slow on market, but mangos, bananas, and plantains generally abundant.

**SOUTH CAROLINA:** Warm weather brought temperatures up to normal for the 1st week in a 3-month period. Rainfall was of a showery nature and varied considerably from place to place. Divisional averages ranged from less than 0.50 inch in south to more than 1.00 inch in central division. Good week for field activity. Crops improving. Tobacco good condition--47% harvested compared 40% last year. Cotton fair to good condition--83% plants squaring, 53% setting bolls, 2% have open bolls. Corn excellent condition--91% crop reaches silk stage, 62% dough stage and 25% reached maturity. Soybeans good condition. Peanuts, lespedeza good condition. Pastures generally good. Army worms showing up. Peaches fair to good--56% crops harvested compared with 52% last year. Grapes good. Watermelons fair to good--64% harvested, 62% last year.

**SOUTH DAKOTA:** Temperatures averaged up to 10° below normal with greatest departures west. This is 4th week in a row with below-normal temperatures. Extremes ranged from 39° at Ralph 18th to 94° at Salem on 18th. Precipitation fell as showers and thundershowers scattered through week, with locally heavy amounts. The heavy showers occurred mostly on 20th and 21st. Iroquois reported a total of 5.10 inches on these days and a total of 5.58 inches for week. Weekly totals of 1.00 to 3.00 inches were common over State, although isolated areas received only 0.10 inch. A few widely scattered areas of hail. Winter wheat harvest underway and making progress southwest

and south-central areas, other areas delayed some by rain and high humidity. Harvest small spring grains started, but also delayed by rain. Overall harvest progress slightly behind normal. Wind and rain caused lodging winter wheat, rye, and oats several areas. Row crops made rapid growth and development. Much corn acreage tasseled and well over 1/2 soybeans in or past bloom stage. Maturity all crops most advanced southern part State, but variable planting and seeding dates still evident in crop maturity. Recent rains boosted crop prospects some areas, but northwest area extending south needs rain. Most livestock ranges and pastures good to excellent condition.

**TENNESSEE:** Hot and humid. Temperatures averaged near normal. Extremes: 90's, 70's except upper 60's eastern mountains. Scattered thunderstorms early in week. Precipitation totals light to over 2.00 inches, heaviest parts of northwest. Hay harvest and row crop cultivation major farm activities. Nearly 35% soybeans blooming and almost 10% setting pods which is normal for this date. Favorable weather conditions for corn--70% silked which is about week behind last year. About 25% in dough stage with some early corn beginning to dent. Except in few counties that received too much rain, cotton continues to grow rapidly with over 90% squaring and 30% setting bolls. Black shank still exists with some severe isolated cases. Second cutting alfalfa hay 95% complete. Pasture conditions for last July best since 1967. Days favorable fieldwork averaged 4.4. Soil moisture 61% adequate, 23% short, and 16% surplus.

**TEXAS:** Scattered thundershowers most sections of State throughout week. Locally heavy amounts in southwest Texas, coastal sections, and parts of High Plains. Livestock owners keeping close watch for screwworms. Slight relief expected screwworm infestation until cold weather fall and winter. Harvesting sorghum and cotton southern half delayed by rains. Rice harvest Upper Gulf Coast also delayed. Rain and wind caused lodging. Soybeans, peanuts, corn making excellent progress. Percent harvested major crops; cotton 1, 1 last year; sorghum 19, 18 last year; rice 14, 7 last year; peanuts 2, 2 last year; corn 2, 2 last year. High Plains potato and onion harvest slowed by rains. Cucumber picking underway. Green peppers and carrots making good growth. Trans-Pecos cantaloupe harvest should reach peak production. Light supplies onions remain available. Central and East Texas cantaloupe and watermelon harvest active. Light supplies tomatoes still available. Cucumber picking continues. North Texas watermelon and cantaloupe harvest underway. Laredo green peppers and tomatoes being field set. Lower Rio Grande Valley green peppers and tomatoes being planted. Peach harvest continues. Pecan crop outlook good. Citrus crop making satisfactory growth.

**UTAH:** A few scattered showers and thunderstorms many sections of State. Accumulated amounts of moisture generally light but few isolated heavy thunderstorms southeast. Soil moisture on range and non-irrigated crop lands very short south, short to very short north. Temperatures averaged near normal except 2° to 4° below normal along the Wasatch Front. Soil temperatures, at 4-inch depth, again ranged from upper 70's Cache Valley to near 80° Salt Lake City and Richfield, and mid-90s in Utahs Dixie. Range feed poor to fair south--fair north. Week favorable for harvest operations. Harvest 2d crop alfalfa hay progress except in

few late counties--about 1/5 done. Small grain harvest started lower elevations. Dryland winter wheat about 1/5 done. Irrigated winter wheat just started, spring wheat and barley about 5%, and oats barely started. Commercial vegetable crop condition mostly good. Harvest started early potatoes and sweet corn harvest beginning. Cattle and sheep condition mostly fair to good--no movement reported.

**VIRGINIA:** Warm and humid with widely scattered showers and thundershowers, most favorable week for fieldwork since early June. Small grain harvest good progress. Wheat 80% finished. Corn good growth in response to hot, humid weather, 35% silked. Early soybeans good progress, late acreage still being planted after small grains. Peanuts satisfactory progress but some fields still yellow. Tobacco prospects variable. Many flue-cured fields show effects early cold weather followed by excessive rains. Harvest 5% complete. Burley tobacco making favorable progress. Pastures unusually good. Potato digging on Eastern Shore.

**WASHINGTON:** Western Washington: Warm and dry. Warm weather increased flooding lowland areas adjoining Skagit River. Considerable crop loss noted. Broccoli harvest progressing and green pea vining continues. Bulb harvest underway. Growers disking lettuce fields due lack of sales. Pastures made good growth and supplying normal feed requirements. Eastern Washington: Cool with occasional showers. Heaviest amounts southeastern counties. Sweet corn harvest underway. Cherry picking nearly finished late areas and peach harvest starting. Apricot picking progressing well. Many orchards applying 2d or 3d cover spray control for codling moth. Pastures drying, but still good. Some grasshopper damage to pastures with spot spraying for control. Livestock excellent shape.

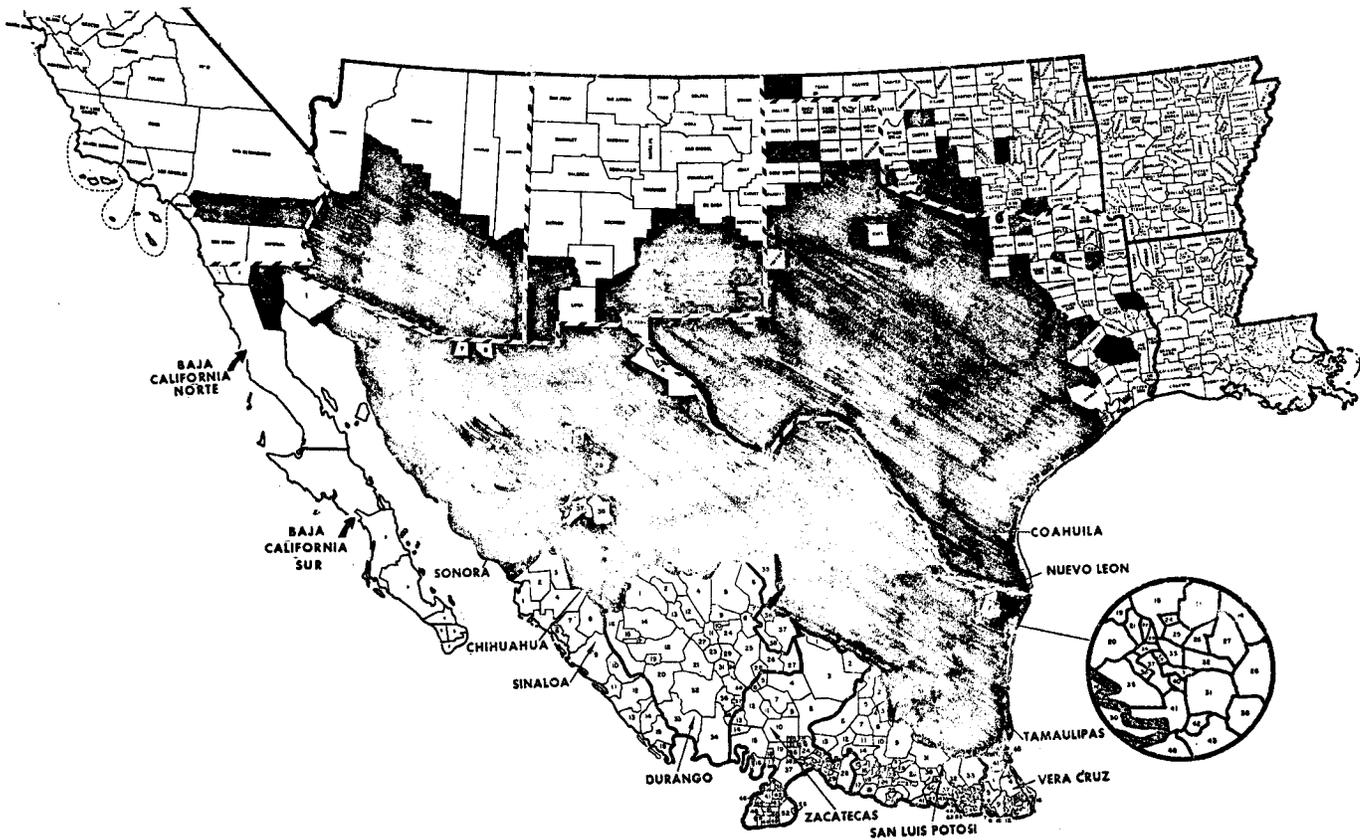
**WEST VIRGINIA:** Heat wave with high humidity and heavy smog prevailed most of week. Maximum temperatures in 90's midweek through Sunday. Severe electrical storms July 15 northern Panhandle and north-central sections. Frequent thunder with little rain balance of week. Winds July 22 and 23 dispersed much of smog and reduced humidity. Hay and small grains harvest active. First cutting hay 80% complete. Second cutting underway with 16% harvested. Oats condition good with 26% ripe. Corn fair condition with 6% silked. About 5 days favorable fieldwork. Soil moisture mostly adequate.

**WISCONSIN:** Warm and humid much of week, especially southern and eastern portions of State. Rainfall very heavy in northwest and across extreme northern counties where weekly totals of 3.00 to 6.00 inches were common. Rainfall elsewhere mostly between 1.00 and 2.00 inches. Crops responding well to warm humid conditions and adequate moisture. Much corn tasseled and development close to normal. Wheat, rye, and barley ready for harvest while oats turning color. Pastures and hayfields coming on strongly. Harvest 2d cutting hay slowed by poor drying weather and only about 10% completed. Tobacco and soybeans looking very good. Vegetable crops mostly good to excellent. Sweet corn harvest about to begin. Cherry picking Door County starting this week. Apple set heavy most orchards. Soil moisture 10% short, 60% adequate and 30% surplus.

WYOMING: Light to moderate precipitation most of State as a very cold air mass moved across. Carpenter reported most moisture with 1.05 inch. Temperatures averaged 2° to 5° below normal west of Divide, 3° to 14° below normal east. Maxima mostly 80's with few 90's east of Divide. Minima mostly 35° to 45°. Temperature extremes: 95° at Wheatland and 33° at Jackson and Big Piney. Chief agricultural activities were irrigating, summer

fallowing, and cultivating row crops. Winter wheat about 80% matured with about 2% harvested. All spring wheat in soft and hard dough stage. Most all oats in soft and hard dough stage, with 6% mature. Barley 1/4 in soft dough, 3/4 hard dough and about 2% mature. Dry beans 1/3 in bloom. Sugar beets good condition. About 1% 2d cutting alfalfa harvested. Surface soil moisture short with sub-soil moisture short to adequate.

**- INFESTED COUNTIES (UNITED STATES) and INFESTED MUNICIPIOS (MEXICO BARRIER)**  
Cumulative since January 1, 1972



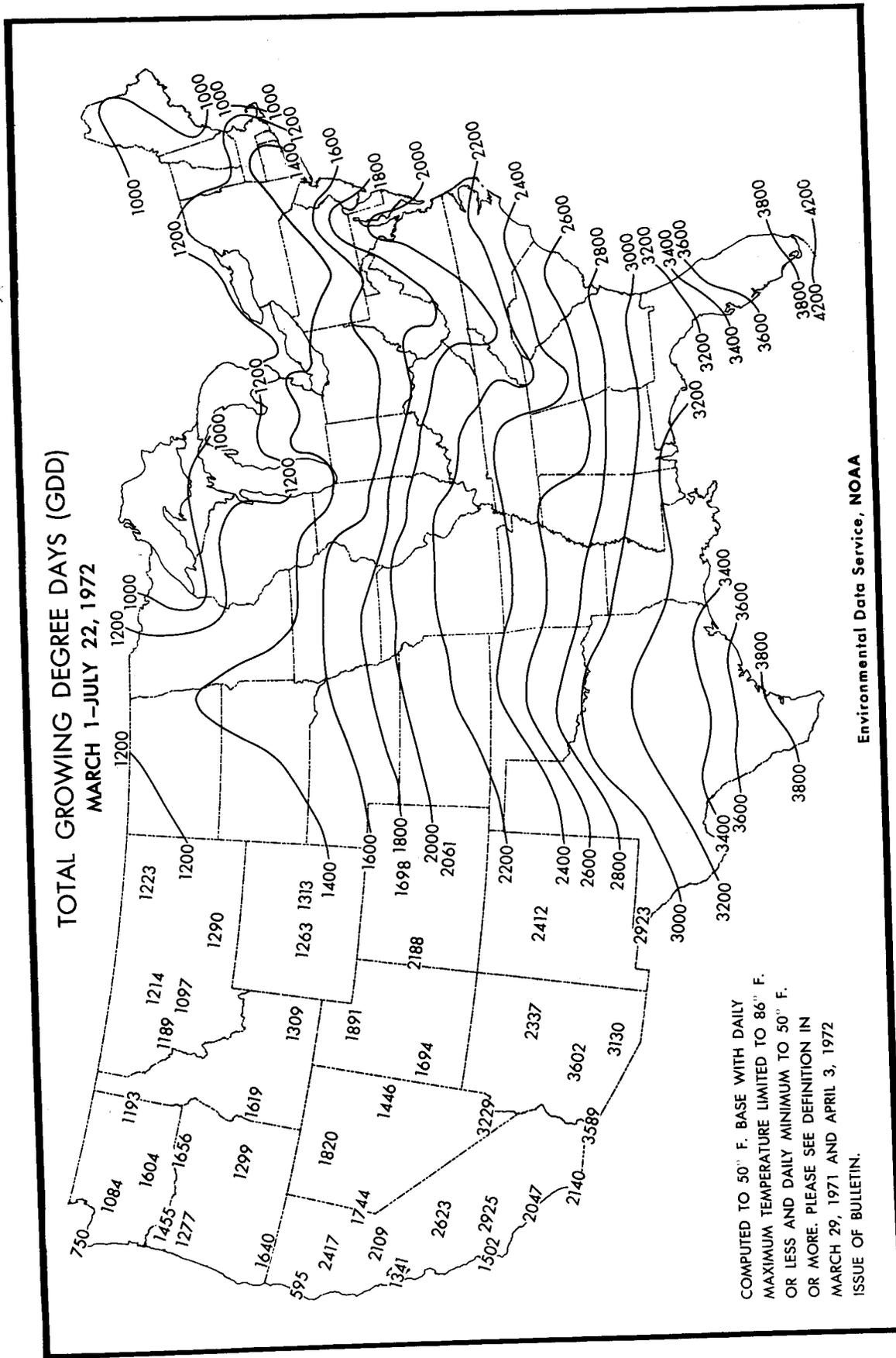
**SCREWORM EPIDEMIC CONTINUES TO WORSEN**

The number of screwworm cases being reported continues at extremely high levels in the south-western United States and Mexico. During the week ending July 15, 1972, 3392 cases of screwworm were laboratory confirmed. Of these cases, 3317 were found in Texas, 11 in New Mexico, 6 in Oklahoma and 58 in Arizona. The most alarming of these cases occurred in Shelby County, Texas, which borders Louisiana. To date no cases have been reported in Louisiana.

Since January 1, 1972, a total of 28,420 cases have been confirmed in the United States and an additional 11,741 cases have been confirmed in Mexico. Of the U.S. total 27,938 cases occurred in Texas, 92 in New Mexico, 364 in Arizona, 2 in California and 24 in Oklahoma. The figure above shows the infested areas in the U.S. and Mexico. The seriousness of the outbreak appears to be

related to several factors. An extremely warm winter in southern Texas and Mexico permitted overwintering much further north than usually occurs. A warm, wet period in February and March allowed rapid development of the organism. Continued wet weather, particularly in the southern portions of Texas have resulted in ideal conditions for fly development. Previous success with the eradication program has also led to some husbandry practices to change. Calves are dropped year round. Surgical procedures are carried out anytime of the year. In pre-program years castration and dehorning were usually done during the colder months to prevent screwworm infestation. This is important because the adult flies require an open wound in which to lay their eggs.

R. E. Felch



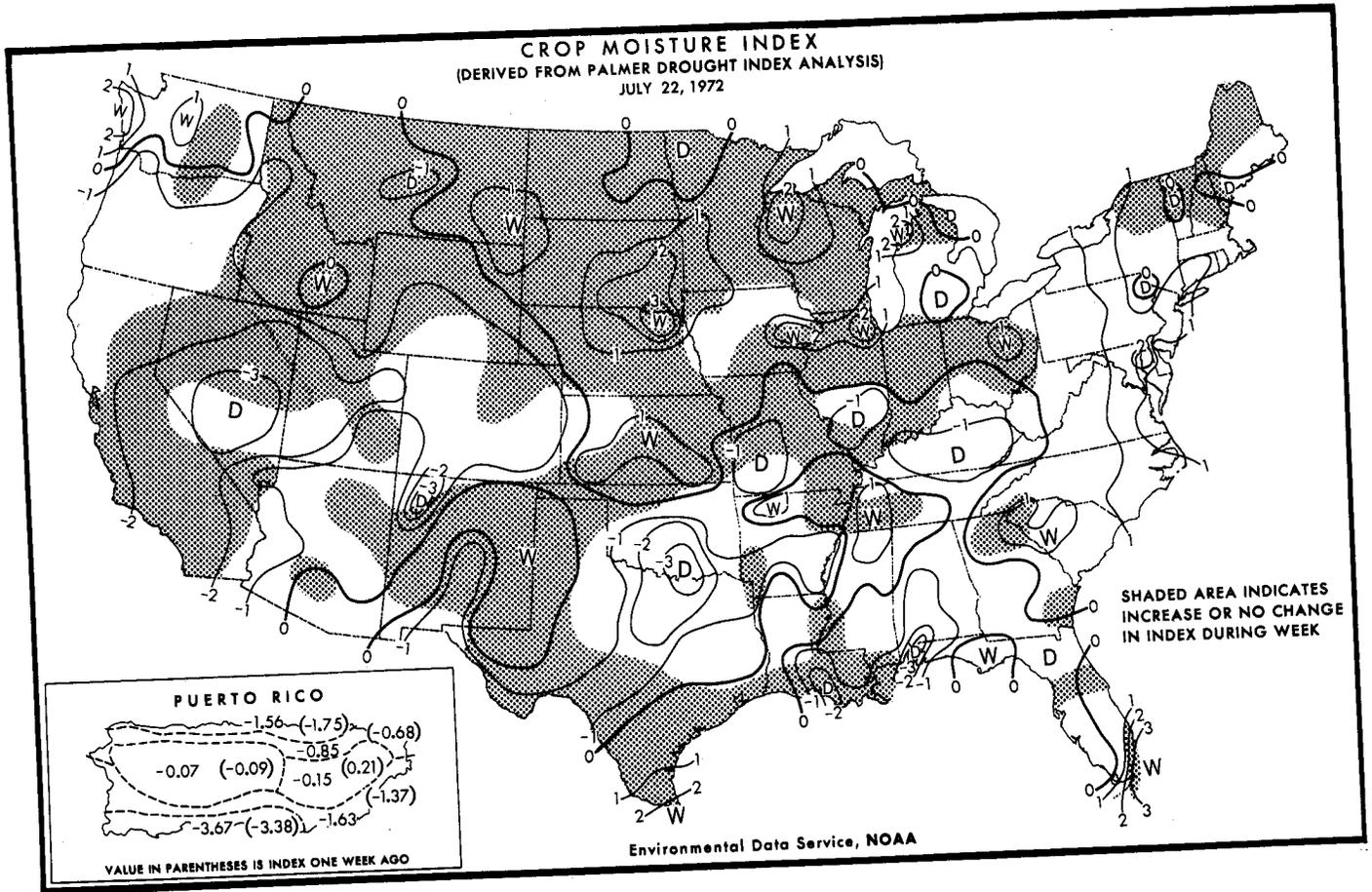


1872

100 YEARS OF THE WEEKLY WEATHER AND CROP BULLETIN

1972

Title	Period	Bureau or Office	Department	Remarks
Weekly Weather Chronicle	Nov. 16, 1872- Apr. 4, 1881	Signal Corps	War	This was a 2-page printed release that contained a general summary of weather for each week ending on Wednesday. A paragraph on rivers was included, beginning in 1873. Publication discontinued in 1881.
Special Bulletin	June 1884- Apr. 1887	"	"	Issued as a special bulletin for the month; a one-page leaflet.
Weather Crop Bulletin	May 1887- June 26, 1891	"	"	Issued weekly during growing season May to September and monthly during other months. Consisted of one page of text under headings of "Temperature," "Precipitation," and "General Remarks." Crop information was given.
Weather Crop Bulletin	July 1891- Jan. 1896	Weather Bureau	Agriculture	The Weather Service of the Signal Corps was transferred from the War Department to the Department of Agriculture, effective July 1, 1891, thus creating the Weather Bureau. The Bulletin was issued weekly from April through September and monthly October to March. One large page (19"x24") containing charts of temperature and precipitation, and text under headings "Temperature," "Precipitation," "General Summary," and "State Summaries." The general plan (format) of the publication continued with little change to the end of 1921, except for adding the Snow and Ice Bulletin at end of 1919 as mentioned below.
Climate and Crop Bulletin	Feb. 1896- Aug. 22, 1904	"	"	Title of publication changed.
Weather Crop Bulletin	Aug. 29, 1904 Jan. 1906	"	"	Title of publication changed.
National Weather Bulletin	Feb. 1906- June 1914	"	"	Title of publication changed.
National Weather and Crop Bulletin	July 6, 1914 Dec. 1921	"	"	Title of publication changed. The Snow and Ice Bulletin that had been issued as a separate publication since 1894 was combined with the National Weather and Crop Bulletin during the winter from December 1919 to December 1921.
Weather, Crops, and Markets	Jan. 1922- Dec. 1923	"	"	For economy the bulletin was reduced in content and consolidated with the <u>Crops and Markets</u> under the title <u>Weather, Crops, and Markets</u> and published weekly at the Government Printing Office. The tabulation of temperature and precipitation was dropped, but the charts of temperature and precipitation, discussion of weather and its effects on crops, and State telegraphic summaries were generally carried in the consolidated publication.
Weekly Weather and Crop Bulletin	Jan. 1924- June 1940	"	"	Due to public demand for more detailed and earlier release of information on the weather and its effects on crops, a separate publication was again issued and printed weekly at the Weather Bureau. This bulletin consisted of 4 pages (9 1/2"x12") and contained a general discussion of conditions during the week with special emphasis on small grains, corn, cotton, miscellaneous crops, and pastures; charts and tabulation of temperature and precipitation; and State telegraphic summaries. The Snow and Ice Bulletin that was resumed as a separate publication from January 1922 to November 1932 was again added to the Weekly Weather and Crop Bulletin for the December to March period from December 1932 to present.
Weekly Weather and Crop Bulletin	July 1940- July 12, 1965	"	Commerce	The Weather Bureau was transferred from the Department of Agriculture to the Department of Commerce, effective July 1, 1940. There was little change in the format of the Bulletin until October 18, 1954, when revised to an 8-page publication.
Weekly Weather and Crop Bulletin	July 13, 1965 May 4, 1969	Environmental Data Service	"	On July 13, 1965, the Environmental Science Services Administration was created as an agency within the Department of Commerce. The Environmental Data Service was established in ESSA.
Weekly Weather and Crop Bulletin	May 5, 1969- Oct. 2, 1970	"	"	Format changed. The Bulletin was expanded to 12 or 16 pages to accommodate additional maps and articles.
Weekly Weather and Crop Bulletin	Oct. 3, 1970- (continuing)	"	"	On October 3, 1970, the National Oceanic and Atmospheric Administration was created as an agency within the Department of Commerce. ESSA went out of existence but all functions of ESSA, including Environmental Data Service, were combined with other Governmental organizations into NOAA.



INDEX DECREASED DURING WEEK  
(Unshaded Areas)

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

INDEX

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

INDEX

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

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

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

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

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



# FIRST CLASS MAIL

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

## NATIONAL FLOOD SUMMARY -- JULY 24, 1972

Excessive rains falling across several central Minnesota counties Friday and early Saturday resulted in extensive surface flooding and flash flooding of small streams. Much highway damage occurred and considerable loss to crops and other property. One death due to drowning near Eagle Bend, Minn. Saturday afternoon and evening heavy rain fell over portions of this same area. Substantial rises are in progress on the better known tributaries in this region.

Marysville, Kans., received 5.46 inches of rain between 5 p.m. and 8 p.m. yesterday. This caused considerable surface flooding and some minor flash flooding of small streams.

Although a number of local areas in Texas received heavy rain during the 72 hours since Friday morning July 21, as well as several widely scattered stations elsewhere from the Rockies to the east coast. The most significant precipitation occurred in the Upper Mississippi Valley. A band of heavy rain extended across central Minnesota and northern Wisconsin during the 24 hours ending 7 a.m. Saturday, July 22. During this period Ft. Ripley, Minn., received a total of 10.84 inches, more than has ever been recorded before in a 24-hour period at any location in the State of Minnesota. During the following 24 hour period, central Minnesota and most of the western half of Wisconsin received heavy rain with amounts in Minnesota ranging to more than 5.00 inches.

Hydrologic Services Division  
National Weather Service