



Weekly Weather & Crop Bulletin

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

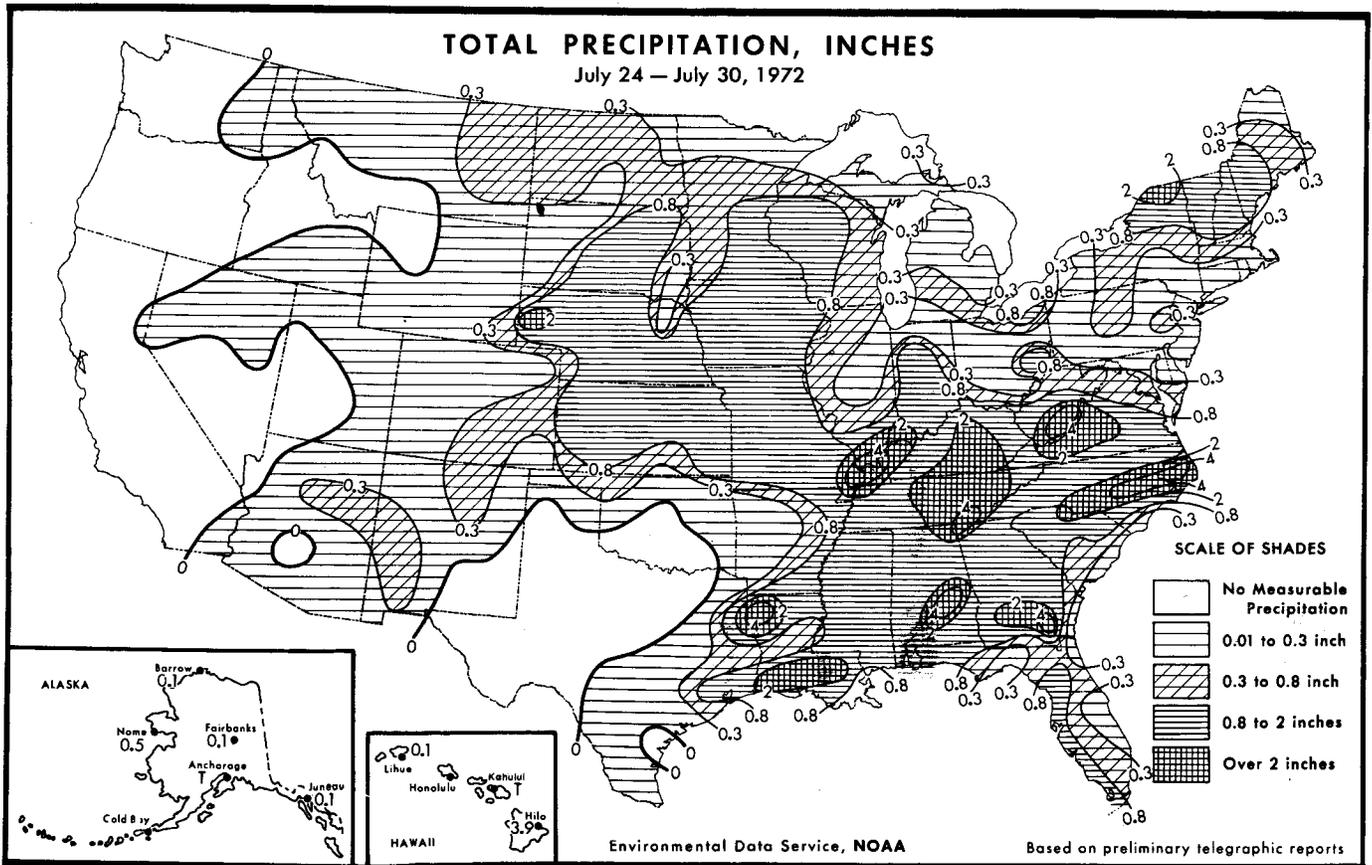
U. S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service

1872-Centennial-1972

Volume 59 No. 31

Edited by Lucius W. Dye

JULY 31, 1972 Washington, D. C.

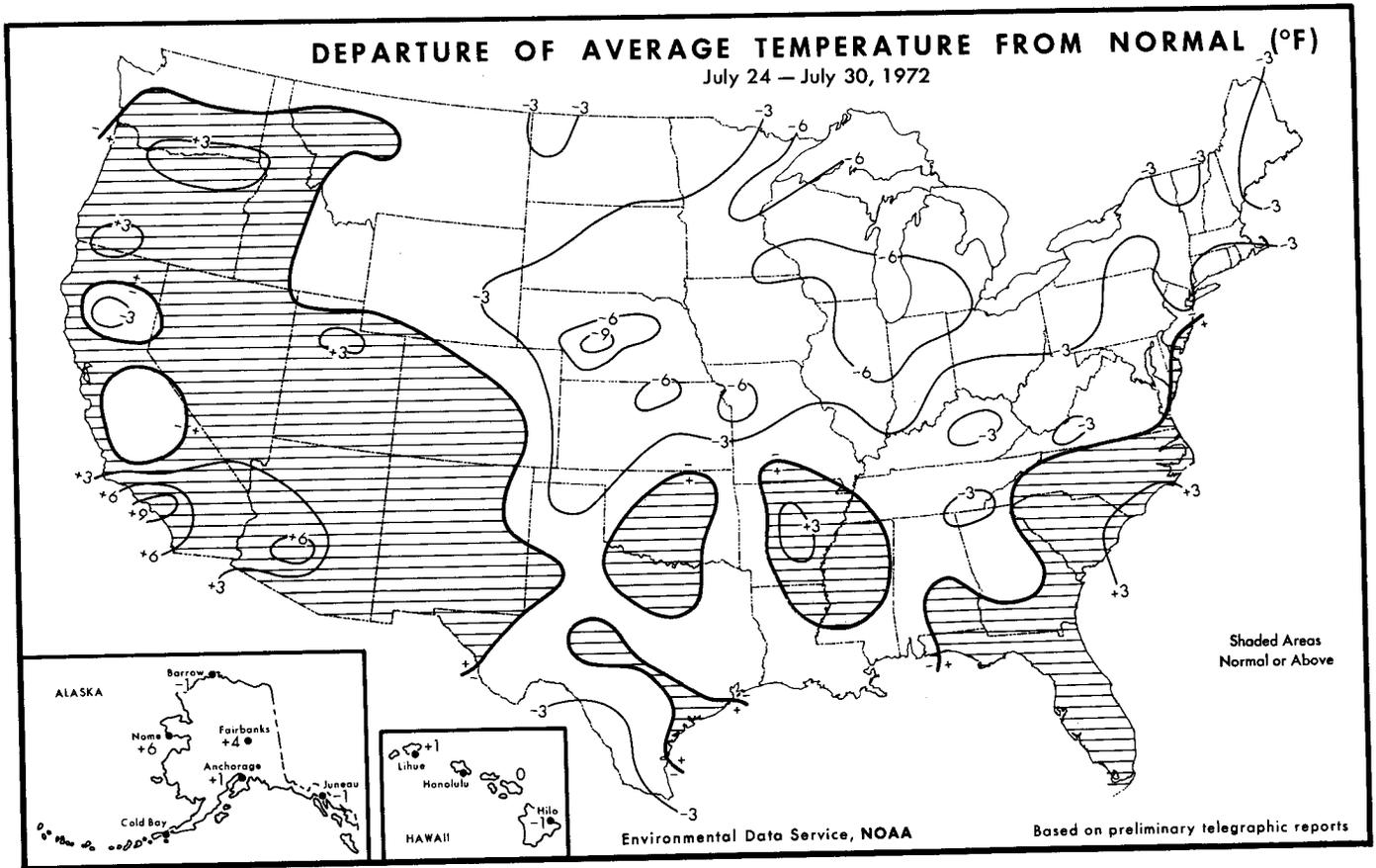


HIGHLIGHTS: The Far West ranged from warm to hot. Cool weather predominated from the central Great Plains to the Great Lakes. The Southeast continued hot. Thunderstorms brought scattered heavy showers over the Central and East. Little or no rain fell in the West.

PRECIPITATION: Early in the week, a front meandered from Utah across the central Rocky Mountains, the central Great Plains, the Ohio River Valley, and the Appalachians to southern New England. Waves developed along the front. Some of the waves became Lows which produced showers and thunderstorms. Other thunderstorms were scattered randomly over the West and South. A shower at Tucson left 0.62 inch of rain late Monday, July 24. This is approximately the weekly normal for Tucson. Vigorous thunderstorms caused torrential downpours in South Dakota and Nebraska late Tuesday and early

Wednesday. Up to about 7.50 inches of rain drenched a small area south of Aberdeen, S. Dak., in 3 hours Wednesday forenoon. Three to 5.00 inches caused local flash flooding in southeastern Nebraska, also Wednesday forenoon. Parts of Hastings, Nebr., were under 2 to 3 feet of water and streets and highways at Pleasanton, Nebr., were flooded. Pierce, Nebr., was swamped by 3.50 inches of rain in a 2-hour period.

By Thursday, the front extended from Utah to the Virginia coast. Most of the thunderstorm activity occurred along the front and in the sultry air that covered the Deep South. Up to 6.00 inches caused flash flooding in central Minnesota. A pre-dawn thunderstorm swept through Russell, Kans., Friday producing wind gusts exceeding 50 m.p.h. and an inch of rain. Three inches of rain in western Tennessee swelled creeks and small rivers to overflowing. Fair weather



prevailed over most of the area north of the front. Weekly totals ranged widely over the East. Little rain fell west of the Rocky Mountains. California, Oregon, parts of nearby States and much of Texas received no rain.

TEMPERATURE: A cold front brought relief to the Northeast early in the week after almost 2 weeks of humid 90° weather. Rochester, N.Y., registered 88° Monday afternoon but only 72° Wednesday. Sultry weather continued over the Southeast. Bowling Green, Ky., recorded 96° Wednesday afternoon. The far Southwest remained hot. Needles and Thermal, both in California, registered 113° and 112°, respectively, Wednesday afternoon. A warming trend occurred over the western Great Plains. The temperature reached 95° at Havre, Mont., 96° at

Worland, Wyo., and 97° at Russell, Ks., Wednesday afternoon. Hot summer weather also prevailed over the central Great Plains with temperatures in the 90's over most of Kansas and Missouri and reaching 100° in Oklahoma and spots in Arkansas. Cool temperatures were the rule from eastern North Dakota to northern New England. Afternoon temperatures in that area were mostly in the 60's and 70's. After midweek the front became stationary from Utah to the middle Atlantic coast. The Southeast continued hot but the North was comfortably cool. Weekly mean temperatures from the central Great Plains to the Great Lakes were mostly 3° to 8° cooler than normal. The South and the Far West averaged slightly warmer than normal.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

HIGHLIGHTS: Small grain harvest again hampered by rains but moisture helped row crops in dry areas. * Row crops prospects continue good in North-Central States although crop progress is still behind last year. * Western ranges becoming very dry.

SMALL GRAINS: Rains and wet fields continued to hamper grain harvest in the north-central part of the Nation. While harvest continued to advance with northern States, progress was slowed and running behind last year and normal. Small grain harvest is about a week behind normal in Minnesota.

Colorado and Nebraska winter wheat growers still have about 10 percent of the crop to combine. Some winter wheat harvest started in the drier portions of Montana. To the east, Indiana has 90 percent of the crop harvested, Ohio has reached the 85 percent level while Michigan is nearing the halfway point.

Oat harvest is 20 percent complete in Minnesota compared with a normal level of 33 percent. Harvest is just starting for oats in Wisconsin and Michigan and is at the halfway mark in Illinois and Iowa. Small grain harvest is nearing completion in Virginia, Maryland, and Delaware along the east coast. On the West coast small grain harvest is virtually complete in California's Sacramento Valley but continue active in the northern mountain areas.

CORN: The crop got a boost during the week from rains over much of the producing area, giving some relief to areas that were becoming dry. The crop continues in good to excellent condition over much of the Corn Belt. It is rated fair to good in Missouri where additional rain is needed. In Iowa, 98 percent of the crop is rated good to excellent while 80 percent of the Illinois acreage is rated at this level. Progress of crop remains behind last year's pace. In the Corn Belt the crop is most advanced in Illinois where 90 percent of the acreage is silked. About half the crop has reached this stage in Ohio and Indiana and about 80 percent of Iowa's crop is silked. Nebraska's crop is 70 percent silked.

Elsewhere the crop made good progress but additional rain is still needed in the South. The southern crop is reaching maturity. Harvest has started in Texas.

SOYBEANS: Progress of the soybean crop continued lag behind last year and average. The cooler than normal temperature during week slowed maturity but did help to conserve moisture. The crop continues in good to excellent condition over much of the area. Seventy percent of the Illinois crop has bloomed and 40% has set pods. About one-fourth of the crops in Iowa, Indiana and Ohio have set pods. In Arkansas the crop is in mostly fair condition with the early beans blooming, rains are needed for growth of late beans. In Mississippi the crop is starting to set beans. The planting of late beans is being completed in Maryland and Virginia.

COTTON: Harvest of cotton remains at a standstill in Southern half of Texas. The crop remains in good condition in the Delta States but only fair to good in the southeast. About 75 percent of the Missouri crop and 50 percent

of Tennessee crop is setting bolls. In South Carolina, bolls are just starting to open. In the Southwest, California's cotton bloom continues with good boll set. Pink bollworm and mite control measures are active in the southern area of the State. The crop made good progress statewide in Arizona with boll setting complete in most fields and early bolls beginning to open near Yuma.

OTHER CROPS: Tobacco harvest is reaching final stages in Georgia. The condition of South Carolina's crop is good, about 65 percent is harvested. Harvest continues active for North Carolina's flue-cured crop. Type 13 auctions have started. The crop is mostly fair to good in Kentucky, the burley crop has 29 percent blooming and 4 percent topped while dark types have 45 percent blooming and 20 percent topped. Haying operations were again stalled by rains in New England. Sorghum harvest is making good progress in Texas where 25 percent is harvested. About half of the Oklahoma crop is headed and has been hurt by hot dry weather. The Missouri crop is 40 percent headed while Nebraska and Kansas have 35 percent and 18% headed, respectively. The Idaho potato crop is making good progress and is mostly in the blooming stage. Scattered digging is underway of New York's early varieties on Long Island southern shores. The Maine crop is looking good. Harvest of first cutting rice is making progress in Texas between rains with 35% harvested. Louisiana harvest is getting underway while good crop progress is being made in Arkansas and California where early varieties are heading.

Fruits: Picking of early peaches continues in Washington and has started in Idaho. Tart cherry harvest is in full swing in Door County, Wisconsin; nearly finished in southwest Michigan but active in the northern area of the State. Harvest of the crop is winding up in southern counties of Pennsylvania and is accelerating in New York, where brown rot is expected to reduce quality and quantity of crop. Harvest of fruit crops in California is in various states of completion. Citrus tree conditions in Florida are excellent as heavy new growth continues. New fruit is making excellent growth.

Vegetables: Harvest of summer vegetable crops increasing in New Jersey. Harvest of lettuce is increasing in New York while cutting of celery is just starting. Watermelon and cantaloupe harvest moved northward along eastern coast and is just getting underway in Maryland and Delaware.

PASTURES AND LIVESTOCK: Western ranges are becoming very dry in need of rain. Livestock remain in fair to good condition although supplemental feeding is necessary in some areas. Pastures are mostly good to excellent condition from the upper plains States east where rainfall has been more plentiful. Pastures are excellent from Virginia northward to New England States. Southern pastures are providing adequate grazing but are in need of moisture in many areas.

Jack L. Aschwege
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., JULY 30, 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	1.4	+ .3	New Orleans . . .	80	- 2	.6	- .9	OKLA. Okla. City . . .	83	- 1	T	- .5
Mobile . . .	82	- 1	1.4	-1.0	Shreveport . . .	84	- 1	4.6	+3.9	Tulsa . . .	84	+ 1	.2	- .3
Montgomery . . .	84	+ 1	4.2	+3.1	MAINE Caribou . . .	63	- 3	.2	- .7	OREG. Astoria . . .	61	0	0	- .3
ALASKA Anchorage . . .	58	+ 1	T	- .5	Portland . . .	67	- 3	1.0	+ .4	Burns . . .	72	+ 1	T	- .1
Barrow . . .	39	- 1	.1	- .1	MD. Baltimore . . .	76	- 1	T	-1.1	Medford . . .	76	+ 3	0	0
Fairbanks . . .	63	+ 4	.1	- .4	MASS. Boston . . .	72	- 4	.2	- .4	Pendleton . . .	79	+ 4	T	- .1
Juneau . . .	55	+ 1	.1	-1.0	Chatham . . .	---	---	---	---	Portland . . .	71	+ 3	T	- .1
Nome . . .	56	+ 6	.5	- .2	MICH. Alpena . . .	63	- 4	.1	- .6	Salem . . .	67	- 2	0	- .1
ARIZ. Flagstaff . . .	68	+ 2	.7	+ .1	Detroit . . .	68	- 5	.2	- .4	PA. Allentown . . .	72	- 0	.5	- .6
Phoenix . . .	97	+ 7	T	- .2	Flint . . .	66	- 5	.1	- .6	Erie . . .	---	---	---	---
Tucson . . .	87	+ 0	.8	+ .2	Grand Rapids . . .	66	- 6	.5	- .1	Harrisburg . . .	74	- 2	T	- .8
Winslow . . .	81	+ 1	0	- .3	Houghton Lake . . .	63	- 5	.2	- .4	Philadelphia . . .	76	0	.1	- .9
Yuma . . .	97	+ 3	T	- .1	LaSalle . . .	64	- 8	.3	- .4	Pittsburgh . . .	69	- 3	.2	- .6
ARK. Fort Smith . . .	81	- 3	T	- .6	Marquette . . .	63	- 5	.1	- .6	Scranton . . .	70	- 3	T	-1.1
Little Rock . . .	85	+ 3	.3	- .4	Muskegon . . .	66	- 6	.5	- .1	R.I. Providence . . .	---	---	---	---
CALIF. Bakersfield . . .	85	0	T	0	S. Ste. Marie . . .	61	- 4	.3	- .3	S.C. Charleston . . .	84	+ 3	T	-2.1
Eureka . . .	58	+ 1	T	0	MINN. Duluth . . .	61	- 7	.7	- .1	Columbia . . .	83	+ 1	.6	- .8
Fresno . . .	81	- 1	T	0	Internat Falls . . .	65	- 2	.1	- .7	Greenville . . .	80	0	1.5	+ .2
Los Angeles . . .	85	+11	0	0	Minneapolis . . .	68	- 5	1.0	+ .3	S. DAK. Aberdeen . . .	71	- 4	1.8	+1.3
Red Bluff . . .	82	- 3	T	0	Rochester . . .	66	- 7	1.6	+ .8	Huron . . .	72	- 4	.5	+ .1
San Diego . . .	77	+ 6	0	0	St. Cloud . . .	67	- 6	.9	+ .1	Rapid City . . .	72	- 3	.2	- .1
San Francisco . . .	63	- 1	T	0	MISS. Jackson . . .	83	+ 1	1.5	+ .5	Sioux Falls . . .	71	- 4	.1	- .6
Stockton . . .	79	0	0	0	Meridian . . .	82	0	1.0	- .3	TENN. Chattanooga . . .	77	- 4	5.1	+4.0
COLO. Denver . . .	74	0	.2	- .1	MO. Columbia . . .	75	- 3	1.0	- .2	Knoxville . . .	77	- 2	3.7	+2.6
Grand Junction . . .	80	+ 1	T	- .2	Kansas City . . .	76	- 7	.8	+ .2	Memphis . . .	83	+ 2	.9	+ .1
Pueblo . . .	79	+ 2	.6	+ .1	St. Louis . . .	76	- 2	.7	+ .1	Nashville . . .	79	- 1	2.5	+1.4
CONN. Bridgeport . . .	74	- 1	T	- .9	Springfield . . .	79	0	1.5	+ .7	TEX. Abilene . . .	83	- 1	0	- .4
Hartford . . .	73	0	T	- .9	MONT. Billings . . .	74	- 2	0	- .2	Amarillo . . .	77	- 3	0	- .5
D.C. Washington . . .	76	- 3	.4	- .7	Glasgow . . .	71	- 1	.6	+ .3	Austin . . .	85	0	1	- .3
FLA. Apalachicola . . .	84	+ 2	.1	-1.7	Great Falls . . .	78	+ 7	T	- .3	Beaumont . . .	80	- 2	1.2	- .1
Ft. Myers . . .	84	+ 1	1.8	- .1	Havre . . .	69	- 2	.1	- .1	Brownsville . . .	82	- 3	.1	- .3
Jacksonville . . .	83	0	.2	-1.5	Helena . . .	68	- 2	T	- .2	Corpus Christi . . .	85	0	0	- .5
Key West . . .	84	0	1.8	+ .9	Kalspell . . .	---	---	---	---	Dallas . . .	86	0	0	- .3
Lakeland . . .	82	0	1.0	- .6	Miles City . . .	75	- 2	1.0	+ .7	Del Rio . . .	84	- 3	0	- .3
Miami . . .	82	0	.5	-1.0	Missoula . . .	69	+ 1	T	- .2	El Paso . . .	84	+ 2	T	- .3
Orlando . . .	85	+ 2	T	-1.7	NEBR. Grand Island . . .	73	- 5	1.4	+ .9	Fort Worth . . .	87	+ 1	0	- .4
Tallahassee . . .	82	+ 1	.2	-1.6	Lincoln . . .	74	- 7	1.0	+ .3	Galveston . . .	84	0	.5	- .6
Tampa . . .	82	0	1.5	- .4	Norfolk . . .	71	- 6	.3	- .3	Houston . . .	81	- 2	1.0	0
GA. Atlanta . . .	79	0	.8	- .2	North Platte . . .	68	- 9	1.3	+ .8	Lubbock . . .	80	0	0	- .4
Augusta . . .	83	+ 1	1.1	+ .1	Omaha . . .	73	- 4	1.2	+ .4	Midland . . .	81	- 2	0	- .4
Macon . . .	81	- 1	1.5	+ .4	Valentine . . .	73	- 4	2.0	+1.5	San Angelo . . .	86	+ 1	0	- .3
Savannah . . .	84	+ 2	.1	-1.3	NEV. Ely . . .	70	+ 1	.1	- .1	San Antonio . . .	84	- 1	T	- .4
HAWAII. Hilo . . .	75	- 1	3.9	+1.3	Las Vegas . . .	93	+ 3	0	- .2	Victoria . . .	84	0	---	---
Honolulu . . .	---	---	---	---	Reno . . .	69	0	T	- .1	Waco . . .	85	- 1	0	- .4
Kahului . . .	79	0	T	- .1	Winnemucca . . .	73	+ 1	T	- .1	Wichita Falls . . .	87	+ 1	0	- .4
Lihue . . .	79	+ 1	.1	- .4	N. H. Concord . . .	67	+ 4	1.1	+ .4	UTAH. Blanding . . .	75	+ 2	.2	- .1
IDAHO. Boise . . .	78	+ 1	0	0	N. J. Atlantic City . . .	74	- 2	.5	- .6	Salt Lake City . . .	82	+ 3	T	- .1
Lewiston . . .	78	+ 3	T	- .1	Trenton . . .	74	- 3	.2	- .8	VT. Burlington . . .	67	- 2	1.9	+1.1
Pocatello . . .	72	- 2	T	- .1	N. MEX. Albuquerque . . .	79	+ 1	T	- .3	VA. Lynchburg . . .	74	- 2	2.6	+1.6
ILL. Cairo . . .	80	- 1	4.9	+4.2	Roswell . . .	---	---	---	---	Norfolk . . .	79	0	1.2	- .1
Chicago . . .	70	- 7	.3	- .5	N. Y. Albany . . .	68	- 5	.5	- .2	Richmond . . .	76	- 2	1.8	+ .4
Moline . . .	72	- 4	.6	- .1	Binghamton . . .	69	0	.1	- .7	Roanoke . . .	73	- 4	2.4	+1.3
Peoria . . .	71	- 6	.3	- .5	Buffalo . . .	68	- 3	0	- .6	WASH. Colville . . .	68	- 2	T	- .2
Rockford . . .	68	- 7	.8	- .1	New York . . .	74	- 4	T	- .9	Omak . . .	71	- 1	0	- .1
Springfield . . .	74	- 4	.1	- .6	Rochester . . .	68	- 4	.4	- .2	Quillayute . . .	59	- 2	T	- .4
IND. Evansville . . .	76	- 3	2.7	+1.9	Syracuse . . .	70	- 3	.7	0	Seattle-Tacoma . . .	66	0	T	- .1
Fort Wayne . . .	69	- 6	.2	- .5	N. C. Asheville . . .	76	+ 1	1.0	0	Spokane . . .	72	0	T	- .1
Indianapolis . . .	72	- 4	1.4	+ .6	Charlotte . . .	81	+ 1	3.4	+2.2	Walla Walla . . .	80	+ 3	T	0
South Bend . . .	66	- 8	.2	- .5	Greensboro . . .	79	+ 1	.9	- .3	Yakima . . .	74	+ 2	0	0
IOWA. Burlington . . .	72	- 4	.6	- .2	Hatteras . . .	79	0	4.5	+3.0	W. VA. Beckley . . .	70	- 1	4.1	+3.1
Des Moines . . .	72	- 5	1.8	+1.2	Raleigh . . .	80	+ 2	3.4	+2.1	Charleston . . .	74	- 1	1.0	- .3
Dubuque . . .	68	- 5	1.1	+ .3	Wilmington . . .	84	+ 4	.2	-1.4	Huntington . . .	74	- 2	1.2	+ .1
Sioux City . . .	74	- 5	1.7	+1.0	N. DAK. Bismarck . . .	71	- 2	.5	- .1	Parkersburg . . .	73	- 3	T	- .9
KANS. Concordia . . .	75	- 6	2.4	+1.7	Fargo . . .	70	- 2	.2	- .2	WIS. Green Bay . . .	66	- 5	.3	- .2
Dodge City . . .	77	- 5	1.6	+1.1	Williston . . .	69	- 3	.7	+ .4	La Crosse . . .	73	- 2	1.7	+ .9
Goodland . . .	74	- 4	.9	+ .3	OHIO. Akron-Canton . . .	68	- 5	.2	- .6	Madison . . .	65	- 7	.6	- .1
Topeka . . .	76	- 5	1.3	+ .5	Cincinnati . . .	74	- 1	1.1	- .3	Milwaukee . . .	66	- 4	.4	- .2
Wichita . . .	80	- 2	.7	0	Cleveland . . .	68	- 5	.8	- .1	WYO. Casper . . .	70	- 3	.3	+ .1
KY. Lexington . . .	74	- 4	3.3	+2.4	Columbus . . .	72	- 3	.1	- .7	Cheyenne . . .	69	- 2	.5	+ .1
Louisville . . .	77	- 1	1.1	+ .3	Dayton . . .	73	- 2	.2	- .5	Lander . . .	71	- 1	T	- .1
LA. Baton Rouge . . .	82	- 1	3.1	+1.9	Toledo . . .	67	- 6	.6	+ .1	Sheridan . . .	71	- 2	.1	- .1
Lake Charles . . .	81	- 2	2.1	+ .7	Youngstown . . .	66	- 5	.3	- .7	P. R. San Juan . . .	85	+ 4	.3	-1.2

* 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: Hot, humid, and hazy with temperatures 2° to 4° above normal until increasing shower activity brought lower temperatures and locally heavy rains at end of week especially north and central. Muscle Shoals received 5.00 inches in one storm Friday evening and 9.46 inches for week. Temperature extremes: 99° at Selma to 65° at Huntsville. Weekend rains improved conditions for crops. Cotton setting bolls most fields. Insect population high many areas and farmers' continued control measures. Over half corn in dough stage with many south and central Alabama fields reaching dent stage; rains timely. Soybeans continued good growth. Good progress controlling grass and weeds. Peanut prospects favorable but need more moisture in few counties. Leaf spot and cut worms being controlled. Sand Mountain potato harvest near completion. Cullman County sweet potato prospects improved by rain. Hay harvest curtailed by showers several localities but sizeable amounts saved. Pastures supplied adequate grazing.

ALASKA: Above-normal temperatures most areas gave a boost to growing degree days but except late in week heavy rains in Upper Tanana Valley little precipitation. Many areas have seasonal shortage of over 2.00 inches of rainfall. Soil moisture supplies are generally adequate throughout agricultural areas. Crop prospects are average for grain mixtures, for silage, and hay, with below-average indications for all crops. Height of grain ranges from 8 inches on Kenai Peninsula to 40 inches in Tanana Valley. Vegetable harvest underway for commercial sales.

ARIZONA: Showers widely scattered over State; most precipitation totals somewhat below normal for time of year. Temperatures above normal in most sections. Mean temperature for July 29, 1972, at Phoenix Airport was 102°. Strong winds and blowing dust irrigated valleys in southern part of State on weekend. Cotton good progress statewide. Boll setting completed most fields. Early bolls beginning to open Yuma. Pink bollworm problem throughout State but controls applied. All stages sorghum progressing normally. Early plantings ready harvest Yuma. Safflower harvesting Pinal, Yuma almost completed. Sugar beet harvest completed last week Yuma, Pinal. Alfalfa hay harvest progressing normally. Treatments for caterpillars Yuma. Harvest commercial vegetables, melons virtually complete statewide. Few melons, chili, and tomatoes remain Graham and Greenlee Counties for local market. Land preparation underway central and west for late summer and fall-planted vegetables and melons. Citrus harvest virtually complete. Market conditions fair remaining fruit. Citrus groves remain good condition. New crop prospects reasonably good. Insect controls applied as needed. Ranges continue moderate improvement. Early rains caused some greening. Stockwater and soil moisture levels normal. Moderate supplemental feeding continues. Cattle and calves fair to good. Sheep and lambs fair. Moderate screwworm fly problems and normal predator problems continue.

ARKANSAS: Very warm through latter part of week with many readings of 100° or higher. Little Rock

had high of 103° on 25th, new record for date. At Morrilton, about 40 miles northwest of Little Rock, 103° recorded 26th and 27th. Pronounced cooling on weekend. Mean temperatures in range -2° to +3° with largest positive departures in central part of State and largest negative departures extreme northwest. Northeast and west-central portions of State remained very dry with rainfall amounts generally less than 0.10 inch. Elsewhere scattered showers mainly late in week and on weekend gave amounts ranging from 0.25 inch to over 2.00 inches. Eastern 1/3 of State and southwestern and south-central border areas generally wettest. Largest amount 2.43 inches at Black Rock in north-eastern part of State. Soil moisture short most areas, adequate in extreme northeast. Hot dry weather has caused wilting and fruit shedding cotton and soybeans. Irrigation being done where possible. Cotton generally good condition and setting bolls. Insect activity relatively light. Soybeans mostly fair condition. Early beans blooming. Nematode damage widespread. Rain badly needed for growth of late beans and pod set on older beans. Rice progressing well. Early varieties heading. Most corn maturing rapidly. Most sorghum heading but need rain for filling. Hay cutting active but yields cut by drought. Apples, peaches, and watermelons being marketed. Tomato and cucumber harvest virtually complete. Grazing generally short. Livestock in mostly good condition.

CALIFORNIA: Much cooler, except south coast. Most stations reported negative departures. Averages ranged from 7° below normal central valley to 2° above normal north coast. South coast experienced warm temperatures; averages ranging from 6° above normal to 1° below normal. No precipitation. Field corn, milo, dry beans continue good growth. Corn for silage nearly ready to cut. Milo harvest beginning Imperial Valley. Sugarbeets making good growth. Harvest full swing San Joaquin Valley. Small grain harvest virtually complete Sacramento Valley, but continues active northern mountain areas. Safflower harvest well underway San Joaquin Valley, starting Sacramento Valley. Cotton bloom continues with good boll set. Pink bollworm and mite control measures active southern areas. Rice making good progress, early varieties heading. Fertilizing continues. Apple harvest increasing, Gravensteins being picked. Picking table grapes continues Delano, Sanger, and Exeter areas, good fruit quality. Sunburn damage wine grapes north coast and Tokay grapes Lodi. Picking grapes for raisins to start mid-August. Harvest freestone peaches, nectarines, and plums continues. Picking clingstone peaches continues to increase. Fruit sizes below expectations. Pear harvest Sacramento, nearing completion. Picking starting Placer and El Dorado Counties and Lake and Mendocino. Almond hulls splitting early harvest anticipated. Walnuts received sunburn damage several areas. Prune harvest getting underway Sacramento Valley. Valencia orange harvest continues moderate. Avocado, lemon and grapefruit harvest continues. Broccoli, cauliflower Salinas, Santa Maria lighter. Cantaloupes, Westside good volume. Carrots Central Coast, San Joaquin Valley continues moderate volume. Celery Salinas, Santa Maria good

volume. Sweet corn southern California active; northern San Joaquin, San Jose areas increasing. Bell peppers, San Joaquin Valley moderate. Honeydews San Joaquin, Sacramento Valley increasing. Lettuce, Salinas, Santa Maria lighter. Onions Stockton light, Kern increasing. Strawberries central coast decreasing. Tomatoes southern California increasing; Monterey to start this week; Stockton light. Watermelons Kern declining, north San Joaquin increasing. Rangeland dry. Pasturing and grazing conditions declining. Temporary watering facilities for livestock. Supplemental feeding necessary. Egg production down due hot weather. Honey flow slow and below normal.

COLORADO: Temperatures near normal most of State. Maximums in 90's Eastern Plains, 80's in mountain valleys. Moderate to heavy shower activity east, heaviest in Kansas River Basin. Over 2.00 inches several locations. Light showers mountains and western slope as mountains continue quite dry. Afternoon showers hampered small grain harvest northeast. Wheat harvest 89% complete. Winter barley also 89% cut. Harvest spring barley and oats progressing. Spring barley 42% cut, oats 48%. Both crops ripening rapidly. Corn making good growth, 62% tasseled, condition good to very good. Condition sorghum very good, 24% headed. Sugar beets generally very good condition. Dry bean condition good to excellent. Late summer potatoes very good condition. Harvest progressing Eastern Plains. Fall potatoes excellent condition. Condition alfalfa declined slightly. Second cutting 53% complete, third cutting under way southeast. Range and pasture condition declining. Hot dry weather limiting grass growth. Surface soil moisture very short to short most areas, adequate local areas northeast. Subsoil moisture short to adequate. Livestock condition good.

FLORIDA: Temperatures near normal with daytime highs in mid-90's. Rainfall averaged 0.50 inch most sections except 1.50 inches along southwest coast. Rainfall mainly as showers and thunderstorms early part of week. One of driest Julies on record north and central Florida. Field crops generally good condition. Soil moisture adequate. Haying and harvest flue-cured tobacco active. Soil moisture favorable most areas for pasture grass development. Cattle and calves good to excellent condition. Citrus tree condition excellent. Heavy new growth continues. Irrigation on higher sand hills. New fruit making excellent growth. Land preparation for fall crops continues active. First fields of pepper, eggplant, tomatoes, celery, and sweet corn usually planted during latter part of July with activity increasing in early August. Plant beds generally good condition and water supplies are adequate.

GEORGIA: Frequent showers most areas except southeast coast. Showers heavier in north where some totals over 4.00 inches. Parts of southeast have had no rain in 10 or 12 days and were quite dry at end of period. Hot and humid throughout week but afternoon highs slightly lower last half under increased shower activity. Averages ranged from near normal north to just above normal south. Rains revived crop conditions most areas. Peach, hay and tobacco harvest advancing final stages. Army worms damaging pastures and other field crops. Insect control measures active on cotton and peanuts. Some cotton layed by. Pastures and hay crops deteriorated. Supplies most summer vegetables and melons past peak south Georgia.

HAWAII: Warm, dry weather. Showers light to moderate mainly on Island of Hawaii. Soil moisture continued adequate. Progress of crops fair to good with heavy irrigation. Sugarcane and pineapple harvesting active. Supplies of watermelons and bananas light but papayas and vegetables adequate. Cattle and pastures continued in fair to good condition. Dry weather affecting growth of grasses lowland pastures, more rain needed.

IDAHO: Low temperatures early in week increased to well above normal by end but averaged 1° to 7° below normal for week. Precipitation was limited to scattered light showers. Only a few stations northern Panhandle and southwest reported more than normal. Porthill reported 0.45 inch for greatest total. Harvesting grain and hay crops gaining momentum. Crop development generally very good throughout State. Range feed getting short. No livestock moved yet, cattle in good condition. Grain harvest nearly 25% done in southwest, and 15% elsewhere. About 15% second cutting alfalfa complete except in southwest where crop is 25% baled. Spearmint harvest nearly complete, peppermint harvest getting started. About 5% dry peas combined in north Idaho. Fruits developing nicely. Peach harvest starting. Potatoes making good progress. Most fields in bloom. Harvest to start in southwest 7 to 10 days.

ILLINOIS: Much cooler air moved into Illinois accompanied by showers and thundershowers which were heaviest in extreme southwestern part of State. Temperatures dipped into 50's in northern part of State. Antioch reported 50° on Friday morning. Average of 4 1/2 days suitable for fieldwork. Corn 90% silked, 1/4 in dough stage, ahead of normal progress. Condition 80% good to excellent, 1971, 97%. Soybeans 70% bloomed, 40% have set pods. Progress behind normal. Condition 77% good to excellent, 1971, 97%. Oats 90% ripe, 55% combined. Alfalfa hay 60% cut. Progress behind normal. Pasture condition little change. Soil moisture short 39%, adequate 47%, surplus 14%.

INDIANA: Warm and humid early in week. Cool later. Temperatures in south to mid-90's then declined later to near 80°. Precipitation general but amounts ranged from few tenths to 5.00 inches. Area averages from 0.20 inch north-central to 1.80 inches southwest. Five days suitable for fieldwork. Some relief soil moisture deficiencies south recorded. Topsoil and subsoil moisture mostly adequate. Wheat 90% combined, 95% average. Wheat land 15% plowed, few days ahead of average. Barley harvest complete. Rye 90% combined. Corn 55% silked, a week behind 1971. Soybeans 30% setting pods, 50% last year. Alfalfa hay 60% cut second time, 70% 1971. Pastures fair.

IOWA: A cool wet week except light precipitation in some northern counties. Heaviest showers the 26th. Growing crops condition good to excellent. Weeds and lodging hampering oats harvest. Four days suitable for fieldwork week ending July 28. Eighty percent of corn fields reached 75% or more silked. Fifteen percent of corn in dough stage compared with last year's over 20%. Condition of corn crop 68% excellent, 30% good, and 2% fair. Seventy-five percent of soybeans blooming. Twenty-five percent setting pods compared with last year's 50%. Condition, 53% good, 43% excellent, and 4% fair. Oats harvest 50% complete, last year 90%, with a 5-year average of 70%. Second cutting

alfalfa hay 60% complete with red clover 30%, condition was mostly good to excellent. Pasture condition, good to excellent. Topsoil moisture reports as of July 28, 70% adequate and 30% surplus. Subsoil moisture reports indicated 88% adequate and 12% surplus.

KANSAS: Significant rains most of State, generally 0.50 to 2.00 inches. Dry weather eastern Kansas further alleviated. Hail, high winds, and heavy rains local areas north-central and western 1/3 night 27th. Hail to about 2 1/2 inch diameter Scandia area of north-central early 28th. Weekly mean temperatures averaged 2° to 6° below seasonal. Maxima above 100° part of south-central and south-east July 26. Generally 70's to 90's otherwise. Daily minima mostly 60's and 70's dropping to 50's and 60's after 28th. Row crops and pastures benefitted from rainfall last week. Corn 73% tasseled, 81% last year and average 74%. Sorghums 18% headed, 23% year ago and average of 21%. Greenbugs increasing some western counties, predators building up elsewhere. Soybeans 27% podded, compared with 37% last year and average 32%. Alfalfa second cutting nearly completed. Third cutting 20% harvested compared with 39% year earlier and average 31%. Spotted alfalfa aphids causing some damage locally. Prairie hay baling full swing. Pastures supplying mostly good to excellent grazing. Some temporary pastures brought into use. Calf movement off of grass underway on limited scale. Some pink eye and fly problems reported.

KENTUCKY: Rainfall totals less than 1.00 inch several northern locations but 1.00 to 6.00 inches generally. Temperature averages near normal except about 4° below normal portions of Bluegrass. Widespread rain 27th to 29th; a few showers other days. Temperatures generally seasonable to above normal through 27th; 98° at Bowling Green on 24th. 28th to 30th, daily readings 3° to 10° below normal. Local wind damage south-central 24th and 28th. Fieldwork 4.5 days. General rains late in week replenished soil moisture supply. Some flooding and ponding low-lying fields extreme west. Tobacco fair to mostly good condition. Burley 29% blooming, 4% topped. Dark types 45% blooming, 20% topped. Corn good to excellent, nearly all tasseled. Corn 20% milk stage, another 45% silked. Soybeans 38% blooming, about comparable recent years. Early beans good, some late-planted spotty stands. Pastures helped greatly by recent rains.

LOUISIANA: Fourth straight cool week as temperatures averaged normal to 3° below normal. Extremes 100° Winnsboro last Monday, 63° New Orleans Moisant today. Scattered showers during week. More extensive and heavier showers began Friday north continued through weekend south. Maximum temperatures Saturday and Sunday remained in 80's due to heavy clouds and rain. Weekly rain totals variable ranging from less than 1.00 inch to more than 4.00 inches. Greatest 1-day total, 3.21 inches measured at Curtis near Shreveport Saturday morning. Fieldwork interrupted by daily scattered showers over southern half of State and statewide rain end of the week. Moisture beneficial to crops and pastures supplies now generally adequate. Weeds and grass troublesome in late plantings. Cultivation and application of herbicides active. Soybeans growing rapidly, condition good to excellent. Early plantings blooming. Insect control active. Prospects good to excellent. Rice growing and maturing rapidly. Harvest gaining momentum, about 5% harvested. Early yields and quality very good. Showers

beneficial to sugarcane, stands best in years but growth a little behind normal. Corn growth and maturity good. Sweet potato prospects greatly improved by recent showers. Harvest of water-melons and peaches about over, okra and red peppers active. Pasture and hay grasses making rapid growth. Haying slowed by showers. Supply of pasture feed average. Livestock in good condition.

MARYLAND AND DELAWARE: Last week's hot spell continued first 2 days, becoming cool rest of week. Temperatures averaged normal to 3° below normal. Extremes mostly low and mid-90's, mid-50's to low 60's. Little or no measurable rainfall except in southern Maryland and lower eastern shore where some weekend rains over 1.00 inch. Good work week. Corn erratic but generally favorable. Average 54% silked, near normal. Small grain harvest practically done. Some late soybeans planted during week. Tobacco variable, early fields matured rapidly and cutting started. Good haying weather, vegetable crops developing rapidly. Cantaloupe harvest underway, watermelon just starting.

MICHIGAN: Pleasant days, cool nights, and widely scattered light showers dominated week's weather. Temperature averages: 2° to 5° below normal Upper Peninsula; 2° to 8° below normal Lower Peninsula with largest departures south-central section. Precipitation totals: 0.50 inch north decreasing to 0.10 inch southern Upper Peninsula; 0.25 to 0.50 inch south decreasing to a trace northern Lower Peninsula. Field crops continue to develop well. Soil moisture adequate most localities. State averaged 4.8 days suitable for fieldwork. Wheat 93% ripe, 48% harvested. Oats 55% turning yellow or more mature. Oat harvest starting southern counties. Corn growing well, average height 60 inches. Many navy bean fields in blossom. Soybeans and fall potatoes making fine growth. Late summer potato harvest active in Bay County. Sugar beets making good top growth. Nearly 1/4 2d cutting hay made. Pasture feed supplies near average. Tart cherry harvest nearly finished southwest, active northwest. Strawberry harvest completed all areas. Apples and pears sizing well. Cucumber and melon development slowed by cool weather. Onions making fine growth. Pickle harvest started east-central areas.

MINNESOTA: Temperatures averaged 4° below normal. Extremes: 90°, 40°. Precipitation: Wet southern half except southwest. Rainfall averaged 1.00 to 2.00 inches. Dry northern half. Rainfall averaged less than 0.50 inch. Floods on 21st and 22d; damage estimated at \$20 million. Flood areas receiving more than 12.00 inches of rainfall in 24-hour period in Todd, Morrison, and Crow Wing Counties. Small grain harvest beginning, one week behind normal. Topsoil moisture adequate to surplus nearly all areas. Wet fields delaying fieldwork some areas. Corn and soybeans good to excellent condition in south, fair to good elsewhere. Corn tasseled 83%, normal 66%. Soybeans setting pods 21%, normal 26%. Flax setting bolls 44%, normal 66%; turning ripe 8%, normal 24%. Small grains cut: Spring wheat 2%, normal 10%; oats 20%, normal 33%; barley 11%, normal 32%. Small grains combined: Winter wheat 9%, normal 22%; rye 8%, normal 28%.

MISSISSIPPI: Weekly temperature averages were normal to 2° above normal. Extremes: 98° and 64°. Widely scattered thunderstorms on 1 or 2 days with

amounts mostly up to 1.50 inches. The greatest 1-day amount of 3.15 inches was measured at Pelahatchie Wednesday. Over weekend: Thunder-showers with some amounts over 2.00 inches and cooler temperatures. Soil moisture mostly short in northwestern counties and short to adequate in remainder of State. An average of 5.4 days suitable for fieldwork. Peaches 79%, watermelons 48%, and sweet potatoes 9% harvested. Corn acreage is 38% dented. Seven percent of soybeans are setting pods and 44% of sorghum headed. Cotton, soybeans, and livestock in good condition; other crops and pastures fair to good.

MISSOURI: Moderate rains early and late in week. Heavy amounts of 2.00 to 4.00 inches extreme south-east. Some areas of central and east-central Missouri received less than 0.50 inch. Warm most of week turning cooler by weekend. Maximums in 90's with a few 100° readings. 4.6 days suitable for fieldwork. Corn in fair to good condition, and 77% silked. Soybeans 57% blooming and in fair to good condition. Oats 93% harvested. 75% of cotton setting bolls. Grain sorghum 40% headed. Second cutting of alfalfa 89% completed; 3d cutting 11% harvested. Pastures poor to fair condition most sections. Soil moisture 56% short, 41% adequate and 3% surplus.

MONTANA: Near-normal temperatures with daytime maximums in 80's and 90's. Scattered thunder-showers early in week eastern half of State. Some winter wheat harvest started drier portions scattered counties. Winter wheat 25% ripe, 65% turning. Some hail damage to grain five counties north-central, northeast, and southwest. Spring grains generally doing well since rains. Spring wheat 5% boot, 55% headed, 40% turning. Grass-hopper damage to crops and ranges significant in southwest, mostly light elsewhere. First cutting alfalfa winding up. Wild hay harvest 65% complete. Range feed supply short central, mostly adequate eastern 1/3, short to adequate elsewhere. Cattle and sheep condition good to excellent eastern 1/3, good south-central, fair to good elsewhere.

NEBRASKA: Stormy over much of Nebraska. Evening of 25th saw locally torrential rains and some hail falling over northwest 2/3 of State. Similar weather from southwest to north-central Nebraska on 27th. Some funnel clouds and a few tornados with these weather systems. Beneficial rains relieved local areas of drought in southeast, but pockets of dryness remained in Panhandle and south. Warmest in west, but averaged subnormal statewide. Weekend dry, hot in west. Weather favorable for row crops, but hindered small grain and hay harvest. Wheat is 91% harvested with wet conditions slowing operations in Panhandle. A few local areas remain dry while some have surplus soil moisture supplies. Crops maturity advancing rapidly with 70% of corn silking, 35% of sorghum heading, and 32% of soybeans podding. Green bugs being controlled by natural predators. Farms busy irrigating, spraying, mowing weeds, and tilling fallowed land as weather permits. About 85% 2d crop alfalfa cut with some 3d cutting harvested. Livestock conditions mostly favorable.

NEVADA: Temperatures near normal averaging 1° below normal in northwest and extreme south; 2° to 3° above normal northeast and south-central. Light spotty precipitation end of week all divisions. Only measurable precipitation 0.03 inch at Fallon. Second cutting alfalfa

hay underway northern areas State with 4th cutting complete in south. Harvest other hays over 1/2 complete. Small grain harvest complete southern valleys and underway other areas. Cotton in Pahrump Valley has set bolls and is in good condition. Ranges dry nearly all areas State and need moisture. Livestock fair to good condition.

NEW ENGLAND: Warm and humid early in week, but mean temperatures mostly 1° to 4° below normal. Scattered showers almost daily, with heaviest activity early in week. Many severe thunderstorms July 25 with large hail, damaging wind, and heavy rain. Blue Hill, at Milton, Mass., had a gust to 88 m.p.h. Several stations reported hail 1 1/2 inches or larger. Total rain extremely variable, from near none to over 2.00 inches, with large variations within each State. Very little hay put into barns due to showers throughout week. Corn for silage doing well most areas. Seasonal vegetables moving to local markets and roadside stands moderate volume. Scattered thundershowers with high winds and hail did local damage to hay crops throughout New England. Potatoes growing well in Maine, first diggings in Rhode Island.

NEW JERSEY: A cool dry week most of State. Temperatures averaged mostly from 2° to 4° below normal or about 10° cooler than previous week. Readings ranged from mid-90's on 24th to upper 40's on 29th. Rainfall varied from none at Charlotteburg to 1.60 inches at Atlantic City. North Jersey averaged 0.10 inch, South Jersey 0.40 inch, and coastal division 1.00 inch. Some damage from wind and electrical storm on afternoon of 25th. Some areas received hail damage early in period. Topsoil drying, growers irrigating. Harvest of summer vegetable crops increasing. White potato harvest light, some blight and insect damage. Apples sizing well. Harvest light peach crop becoming general. Blueberry supplies heavy, harvest will drop sharply next week. Combining all small grains very active. Weather generally good for hay and straw baling.

NEW MEXICO: Mostly light scattered showers decreasing through week. Local totals from 0.50 to 1.00 inch. Heaviest showers in mountain areas north and west. Temperatures averaged near normal except locally above normal and south-central portions. Local 100° temperatures in valleys Sunday. Soil moisture short to adequate. East side has adequate moisture, west side very spotted. Sorghum grain good condition, heading out. Heavy fruiting cotton continues. Alfalfa harvest delayed due rains. Onion harvest still active. Planting fall lettuce underway. Other mixed vegetables harvesting.

NEW YORK: Cooling trend northern half at beginning, spread to all sections on 25th, and terminated mid-July hot spell. Temperatures seasonably cool balance of week. Maximums 85° to 90° southern half on 24th cooling to upper 60's and low 70's Upstate on 26th and 27th. Nights cool 28th through 30th as minimums near 50° were coolest in 3 weeks. Showers daily northern quarter through 27th with totals 1.50 to 2.00 inches. Dry in extreme west and across southern tier to Long Island. Precipitation totaled 0.50 to 1.00 inch Lake Ontario Plain to Upper Hudson Valley from early week showers. Dry in southern half after 25th. Wheat harvest began early in week although moisture remains high

many fields. Average yields expected. Corn responding to warm weather. Dry beans poor to fair condition except few fields excellent west. Oats fair to good condition. Good start cutting alfalfa. Clover-timothy 60% to 70% harvested. Warm dry air beneficial to vegetable crops. Harvest iceberg lettuce increasing Oswego county. Orange county cutting of celery started while harvest of onion sets nearly completed. Scattered digging early potato varieties underway on Long Island's south shore. Picking of first sweet corn started in Ulster County. Tart cherry harvest accelerating. Brown rot will reduce quality and quantity harvested. Apples sizing adequately. Some scab and fire blight present. Grape crop developing. Condition reduced by powdery mildew.

NORTH CAROLINA: Hot and humid with temperatures reaching 90° some areas every day and occasionally near 100° for highest in about 2 years. Nighttime lows mostly upper 60's to middle 70's. Considerable haze and some morning fog. Variable showers increasing at weekend. Total amounts 0.10 inch to 4.00 inches, mostly 1.00 to 2.00 inches. Scattered thunderstorms with small areas of damaging wind and lightning. Soil moisture generally adequate, except mostly short central, northern Piedmont. Crop conditions improved. Corn, peanuts, soybeans, hays, Irish and sweet potatoes, apples, pastures mostly good. Cotton mostly fair. Peaches poor to good, mostly fair. Flue-cured fair to good, mostly good. Harvest active all belts. Type 13 auctions started July 25. Harvest potatoes, peaches continued, small grains nearly finished.

NORTH DAKOTA: Showers on 2 to 4 days during week. Rainfall totals ranged from very light to over 1.00 inch averaging about 0.50 inch. Storm damage some east-central areas Saturday night. Temperatures averaged 2° to 4° below normal. Maxima 95° at Bismarck and Devils Lake Saturday and 90° or higher most areas. Showers past week continued to improve crop prospects but shortages still exist some areas. Additional moisture needed for proper grain development. Over 1/2 corn tasseled. About 1/4 hard wheat and 1/8 durum turning ripe. Some combining barley and rye.

OHIO: More seasonable weather returned to Ohio this week. Passage of a cold front on 24th brought cooler temperatures from 25th to 30th. The lows ranged from low 50's to low 70's. Youngstown's 51° Friday morning set a new record for that date. Highs ranged from the mid-60's to low 90's. Rainfall amounts across state were quite variable. Greatest 24-hour amount was 2.30 inches, at Irwin. Severe thunderstorms on 24th. On that date, Lunken Airport in Cincinnati had a thunderstorm which brought 0.94 inch of rain, 1/4 inch hail, and winds up to 43 m.p.h. Near-normal temperatures and lower humidity permitted Ohio farmers nearly 5 1/2 favorable days for fieldwork. Change in weather welcomed most by farmers making hay and combining. Soil moisture supplies slightly depleted as 13% reporters indicated short supplies, 62% adequate and 25% surplus. Corn 1/2 silked compared to 80% last year. Average silked by this date is 60%. Soybean maturity continues much behind last year and normal. Soybean pods forming 1/4 of crop, average is 50%. 55% second cutting alfalfa harvested, average is 60%. 35% of the clover-timothy is cut, compared with 45% last year. Small grain harvest still behind normal. Wheat 85% harvested, 5% below average. Oats 1/4 complete, 35 percent below average.

OKLAHOMA: Temperatures averaged 2° below normal northwest to 2° above normal northeast. Rainfall averaged from trace southwest and south-central and to near 1.00 inch Panhandle. Dry hot weather beginning to hurt crop prospects several areas but overall row crop condition still mostly good to fair. Cotton development sharply ahead year earlier, development other row crops about same. Soil moisture supplies declined substantially, surface moisture 81% short, subsoil moisture 70% short. Some small grains stubble fields too dry to plow. Corn 2/3 tasseling, 1/3 dough, nearly 1/10 mature. Recent rains very beneficial part of Panhandle area. Sorghum grain crop 1/2 heading, 16% dough. Hot dry weather has hurt crop several areas. Cotton fruiting rapidly, more than 3/4 crop squaring, nearly 1/5 setting bolls. Nearly 1/2 soybean crop flowering, about 1/10 setting pods. Peanuts 3/4 flowering, nearly 1/4 spiking. Third cutting alfalfa 3/5 completed. Pasture and range condition only fair to good. Mature grasses turning brown several areas, supplemental feeding necessary some localities. Livestock condition remains mostly good, rate of gain declining many localities.

OREGON: Dry conditions continued with hot days cool nights. Temperatures averaged near normal except 3° to 4° below normal east border. Minima 37° to 56°, maximum coast 68° to 76°, inland 83° to 98°. Precipitation limited few traces eastern part except up to 0.10 inch northeast. Excellent weather for harvest continues. Grain harvest activities getting underway Willamette Valley and northeastern Oregon. Grass harvest also continues. Field burning behind schedule due unfavorable burning conditions. Tart cherry harvest nearly over. Cane berry harvest progressing well for short crop. Bean yields hurt by blossom drop during July hot spell. Soil moisture generally short. Ranges dry, fire danger high. Cattle contracting slow.

PENNSYLVANIA: Quite warm early in week. Cooler and drier midweek. Temperatures near to slightly below normal southeast, 2° to 5° below normal elsewhere. Extremes: 92°, 43°. Scattered thunderstorms, mainly ahead of cold front Tuesday, produced weekly rainfall totals generally under 0.25 inch, with 0.25 to 0.75 inch few areas. Hail and strong winds eastern counties Tuesday. Topsoil moisture picture continues improvement along with harvesting weather. Barley harvest winding up, 90% completed. Wheat nears 1/2 mark. Oats just underway. Corn improving, silk ear shoots starting. First quality hay made. Tart cherry winding up southern counties. Early peaches good color and size. Lodi and transparent apples on market. Early sweet corn, tomatoes, cabbage, snap beans, and potatoes for fresh market continue limited movement. Fall potato fields in bloom.

PUERTO RICO: Rainfall averaged 0.85 inch or about 0.65 inch below normal. Highest weekly total 4.25 inches eastern-interior with second maximum 3.64 inches northwest coast. An area of little or no rain continued through south-central portion of island. Agricultural drought this area continued to intensify and situation very serious for dairy and cattle industry. Only emergency supplies of molasses and feed keeping many farmers in business. Temperatures averaged between 81° and 83° on coast and 76° interior zones. Highest maximum 95°, lowest minimum 56° with mean departure of 0.3° below normal. Sugar-cane plantations report much cultivating and

general fieldwork although weather too dry for optimum development of young cane in non-irrigated zones. Coffee plantations report good progress in fieldwork under favorable weather conditions and preparing for harvesting. Tobacco zones cultivating 2d crop but need more rain. Pastures very poor in south and central zones where light showers did not relieve agricultural drought now extreme some zones. Elsewhere northern and interior conditions fair to good. Minor crops also suffering from drought with some minor damage to plantain crops in higher elevated interior zones due gusty winds middle of week. Many farmers awaiting more rain for next planting cycle. Markets show general decrease in most local food stock as production drops due to drought.

SOUTH CAROLINA: A high pressure area near the east coast dominated weather over South Carolina and produced afternoon and evening thundershowers with most of activity inland. Temperatures mostly around 90° daytime and around 70° at night. Rainfall amounts varied from about 0.50 inch along coast to locally over 3.00 inches at some inland areas. Spraying for insects and weeds continued. Tobacco conditions good, 65% harvested compared with 61% last year. Cotton fair to good condition, 86% plants squaring, 66% setting bolls, 4% open. Corn good to excellent condition, 95% silk stage, 73% dough stage and 29% reached maturity. Soybeans conditions good. Peanuts, lespedeza and pasture good condition. Peaches fair to good, 67% harvested compared to 70% last year. Grapes good condition. Watermelons fair to good, 73% harvested compared to 83% completed last year.

SOUTH DAKOTA: Temperatures averaged up to 4° below normal. This is 5th week in a row that weekly temperatures averaged below normal. Extremes ranged from 50° at Oral on 26th to 100° at Philip on 30th. Precipitation fell as showers and thundershowers scattered through week with locally heavy amounts. On 26th, some amounts were: Summit 3.63 inches, Waubay 3.61 inches and Webster 3.42 inches. Unofficial reports on 25th were: Near Scotland up to 6.00 inches, Ferney 7.50 inches and Utica 5.00 to 6.00 inches. A wide range of weekly totals occurred with amounts from about 0.10 inch to over 3.00 inches. Scattered areas of hail mostly in west. Rains and humid weather slowed harvest small grains many areas and some areas brought harvest to complete standstill. Harvest of small grains running well behind normal and far behind last year's early season. Heavy rains and wind caused lodging of small grains several areas and caused some summer fallow fields to wash in northeast and north-central areas. Row crops making good growth but development averages below normal. Corn at 44% silked compares to normal of 63%. Pastures and ranges remain in good to excellent condition as moisture continues to fall. Livestock condition good with some reports of weight gains for calves above normal. Flies, mosquitoes, and pink eye still a problem.

TENNESSEE: Scattered showers and thunderstorms through week with locally heavy amounts except light in southwest. The heavy showers occurred mostly on 27th and 28th. Shelbyville reported a total of 10.10 inches for week. Temperatures above normal first half to below normal second half. Hay harvest, row crop cultivation and burley tobacco topping were major farm activities. Soybeans developing rapidly. Nearly 65% soybeans blooming and over 15% setting pods.

Corn continues to grow rapidly with nearly 90% silked, almost 45% dough stage and 10% dent stage. Cotton also made rapid growth. About 95% squaring and 50% setting bolls. Tobacco continues good growth except areas of excess rain. 15% burley tobacco has been topped. Hay and pasture conditions fair. Lespedeza hay harvest underway. Days favorable for fieldwork averaged 4.2. Soil moisture 57% adequate, 20% surplus and 23% short.

TEXAS: Widely scattered showers mostly to south-central and East Texas latter half of week. Warmer than previous week. Harvest cotton at standstill southern half. Sorghum harvest making good progress Blacklands, East Texas, and south-central Texas. Harvest 1st cutting rice making fair progress between rains. Rice and sorghum yields above average but rains threaten prospects. Corn harvest making fair progress South Texas. Percent harvested major crops; cotton 2, 2 last year; corn 3 last year; sorghum 25, 25 last year; peanuts 8, 0 last year; rice 35, 27 last year. High plains potato and onion harvest back in full swing. Cucumber and tomato picking continues. Carrots making good growth. North Texas watermelon and cantaloupe harvest underway. Trans-Pecos cantaloupe harvest has passed peak, supplies will start decreasing. Light supplies of watermelon and cantaloupe remain available. Central and East Texas. Winter Garden, San Antonio area early fall carrots being planted. Cabbage and peppers also being planted. Laredo tomatoes and peppers being field set. Lower Rio Grande Valley land preparation for fall vegetables continues. Peach harvest reaching completion, only late varieties to ripen. Pecan crop outlook continues good. Citrus trees remain in excellent condition after recent rains.

UTAH: Scattered showers and thunderstorm activity many sections of State. Accumulated amounts of moisture generally light to moderate. Scattered nature of storms limited their value insofar as drought relief is concerned. Soil moisture on non-irrigated crop and range lands continues short in northern Utah, very short in central and southern Utah. Average temperatures ranged from near normal to 5° below normal. Soil temperatures, at 4-inch depth, ranged from mid 70's Cache Valley, to upper 70's Salt Lake City and mid-90's St. George. Weather favorable for harvest during week. Harvest of non-irrigated wheat about 35% completed. Irrigated wheat about 20%. Spring grain harvest in progress, earlier areas about 15% completed. 15% of oats and 20% of barley harvested. Second cutting alfalfa hay 33% completed. Clover-timothy and wild hay harvest in progress. Early potato harvest in progress. Sweet corn and early peach harvest started. Lower elevation ranges very dry. Some high ranges quite dry. Most livestock continue fair to good condition.

VIRGINIA: Temperatures above normal at beginning becoming much below over weekend. Scattered showers and thundershowers during week and rain, showers, and thundershowers over weekend. Fieldwork advanced rapidly. Topsoil becoming dry. Corn grew rapidly. Small grains mostly harvested. Late crop soybeans largely planted. Tobacco work included sucker control, topping, insect control, and cultivation. Flue cured tobacco harvesting continues. Haying active. Pastures excellent. Canneries began processing tomatoes. Harvested peaches and a few early apples.

WASHINGTON: Western Washington: Warm and dry. Crop growth excellent. Raspberry picking nearly finished with problems of brown rot still reported. Harvest of vegetables normal. Cutting of hay active with good quality. Pastures showing some moisture stress. Eastern Washington: Warm with a few thundershowers vicinity of Blue Mountains early in period. Harvest of sweet corn and green string beans beginning early fields. Green pea harvest virtually completed; combining of dry peas and lentils progressed. Cutting of hay continued, southern areas starting to cut 3d crops. Peach harvest continued. Rapid apple sizing reported. Cattle appear in good condition.

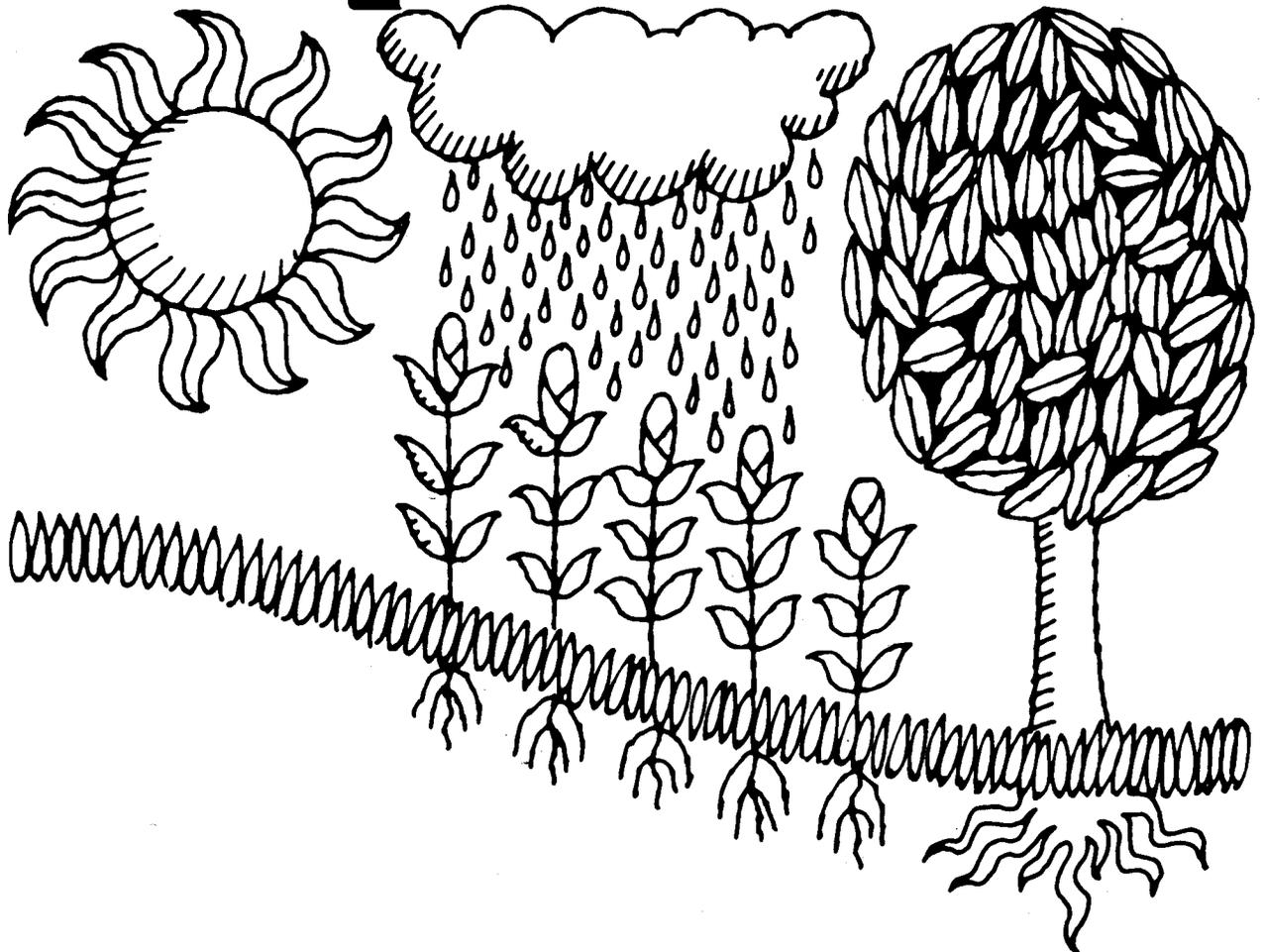
WEST VIRGINIA: Heat wave ended July 26 as cold front from north brought showers and lower temperatures. Scattered showers balance of week with totals over 1.00 inch south. Crops and hay late. Haying and clipping pastures main activities. Pasture condition mostly good. Hay cut poor quality, second cutting 23% complete. Corn condition fair to good, 13% silked compared to 50% last year. Percent harvested: barley 88, wheat 68, and potatoes 5. Soil moisture reported 30% short, 68% adequate and 2% surplus. Five days favorable for fieldwork.

WISCONSIN: Cool much of week. Wednesday particularly cool with all-day rain over south half and maximum temperatures at record low levels for date, near the 60° mark. Resort business in north hurt by recent cool wet weather. Crops generally doing fine. Corn in good to excellent condition with 1/3 in silk or only slightly behind last year. Oats less than 5% combined. Oats have improved somewhat but still

only considered a fair crop. Tobacco and soybeans growing very well. Early potatoes harvested central Wisconsin. Good quality and yield. Sweet corn harvest to start this week. Pea harvest finishing up. Snap beans being picked. Cherry harvest in Door County in full swing. Crop down from last year due to winter damage and more recent hail and wind damage. Second cutting of hay 15% harvested. Yields generally heavier than 1st cutting though quality down due to delayed cutting and poor drying weather. Pastures continue to show improvement. Soil moisture 10% short, 70% adequate, and 20% surplus.

WYOMING: Scattered light showers much of Wyoming, some moderate to heavy southeast. Guernsey Dam reported most moisture with 1.19 inches. Temperatures averaged from near to 6° below normal. Four-week departures east of Divide are 3° to 8° below normal, a very cold July. Maxima mostly 80's west of Divide and Upper Platte Drainage, high 80's and 90's elsewhere. Minima mostly 30's to low 40's west of Divide, high 30's to low 50's east. Temperature extremes were 98° at Thermopolis and 18° at Bondurant. Chief agricultural activities were haying, irrigating, summer fallowing, and some harvesting wheat and barley. Over 1/2 spring wheat hard dough stage, about 10% mature. About 2/3 oats hard dough stage, with about 1/3 mature. Winter wheat harvest only 15 percent. About ten percent second cutting alfalfa harvested. Surface soil moisture mostly short, some adequate. Subsoil moisture short to adequate. Sugar beets good condition. Over 1/2 corn tasselled. Almost all dry beans in bloom. Stock water supplies adequate most areas.

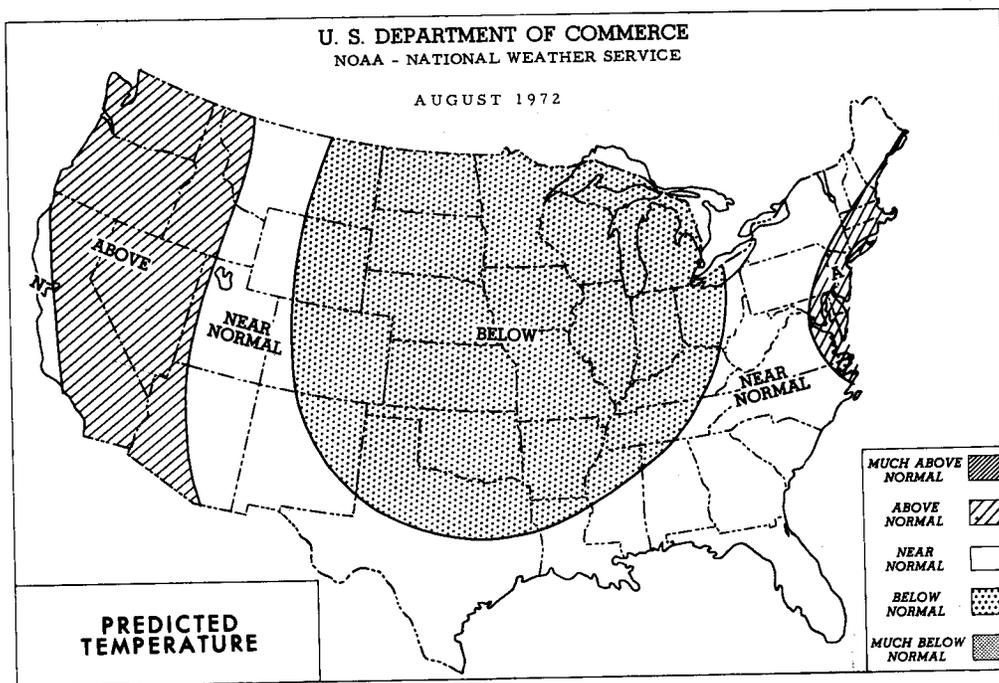
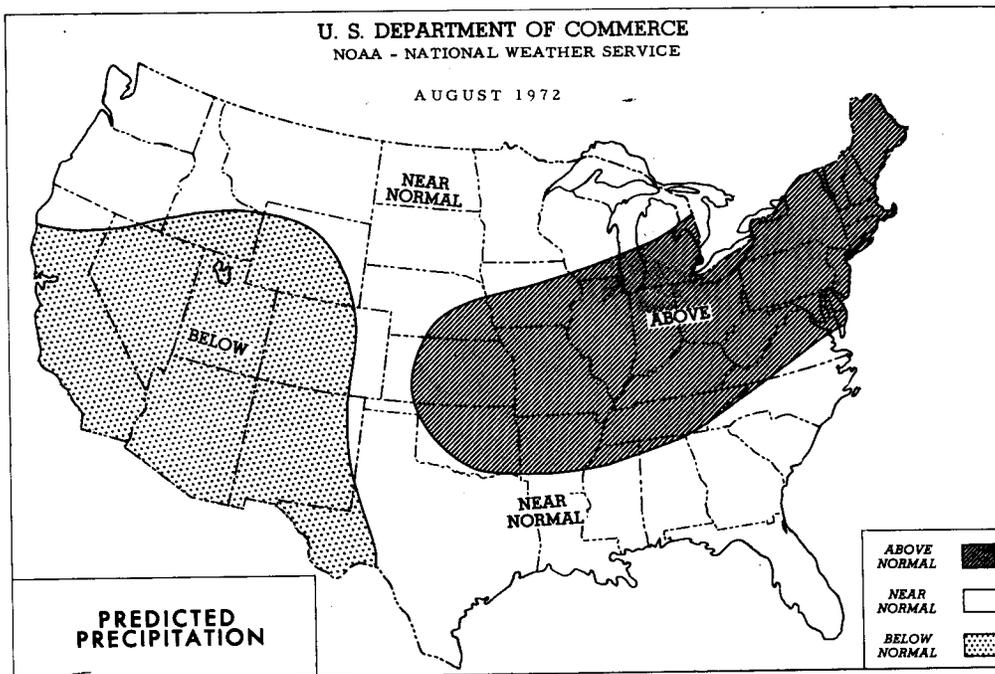
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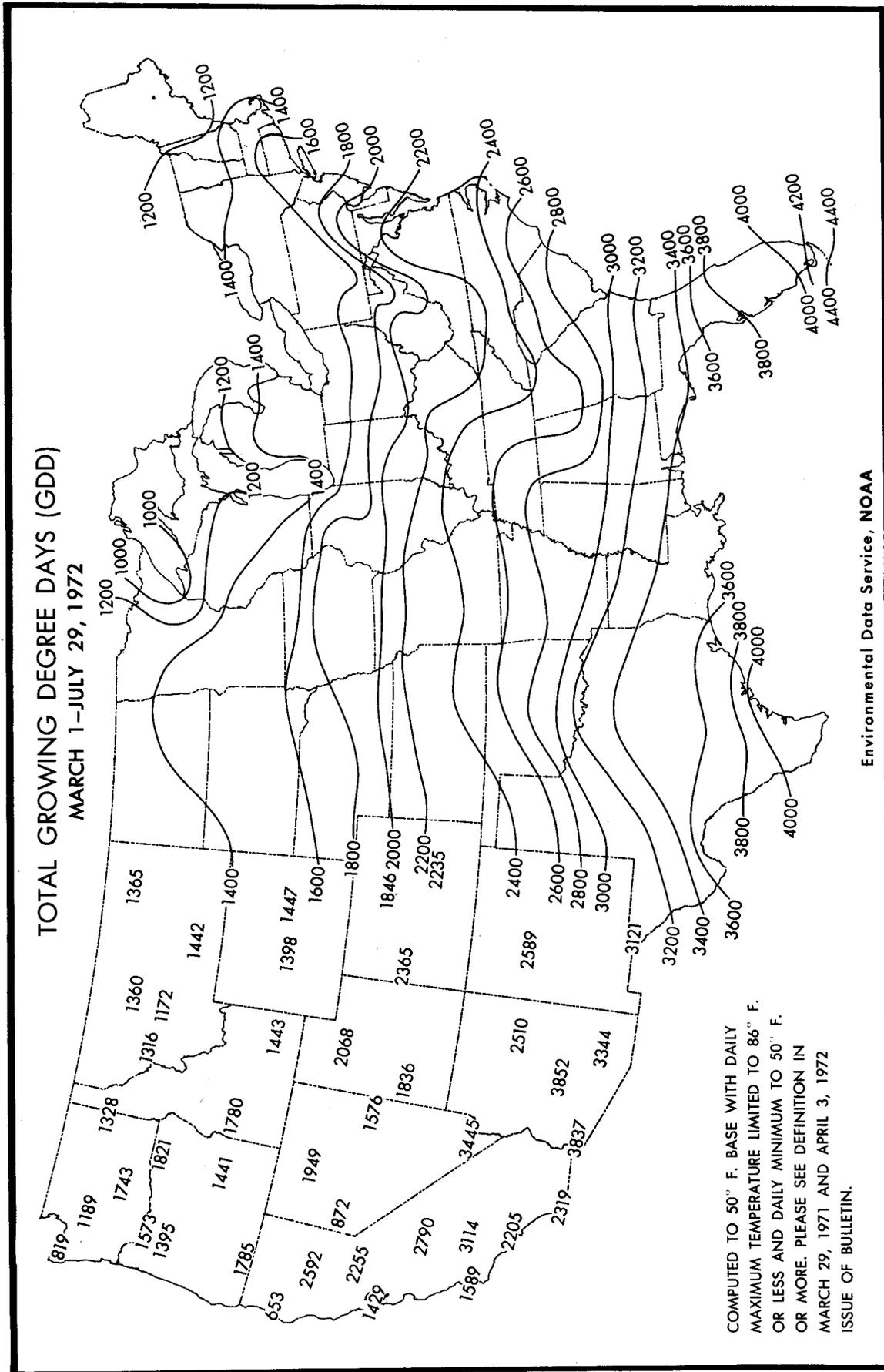
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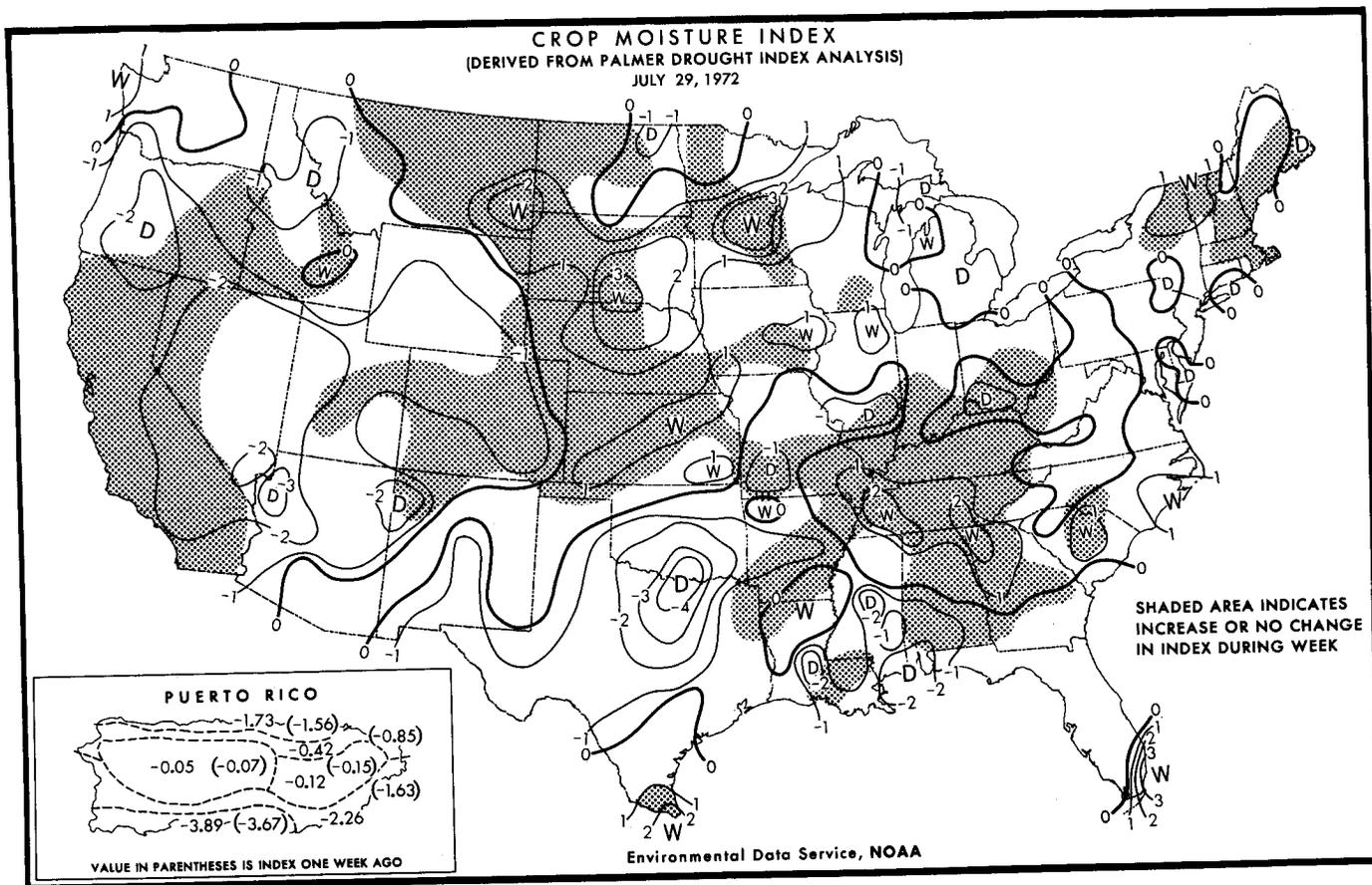
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AVERAGE MONTHLY WEATHER OUTLOOK



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





INDEX DECREASED DURING WEEK
(Unshaded Areas)

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

INDEX

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

INDEX

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

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

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

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

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



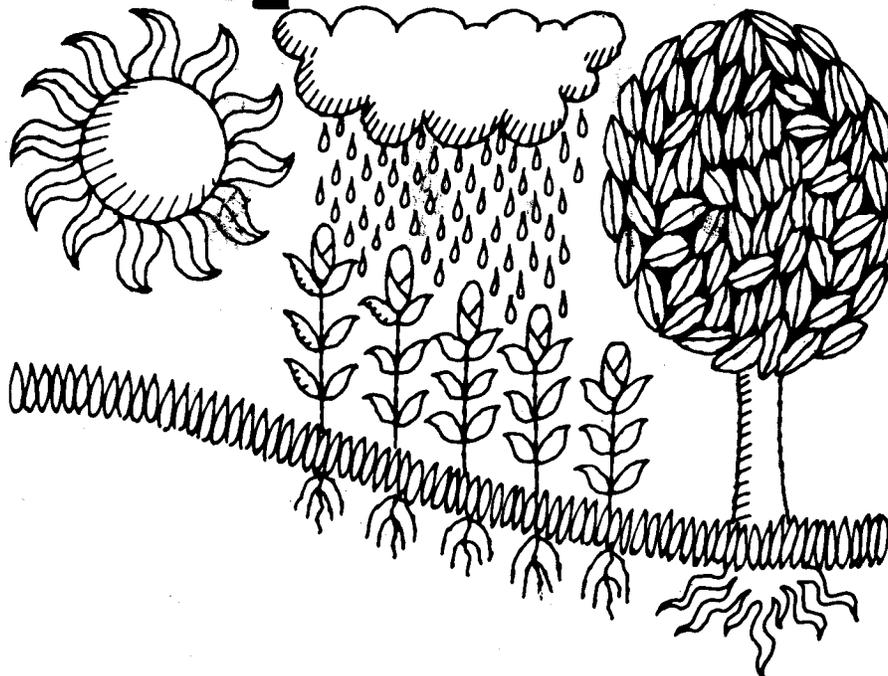
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Publication of this bulletin began in 1872 as the Weekly Weather Chronicle. It is now issued under general authority contained in the Act of January 12, 1895 (44 USC 213), 53d Cong., Ill. Sess. Quotation or reproduction of this material is encouraged. Please give credit to this publication and, in case of special articles, to authors.

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