

1872-Centennial-1972

Weekly Weather & Crop Bulletin

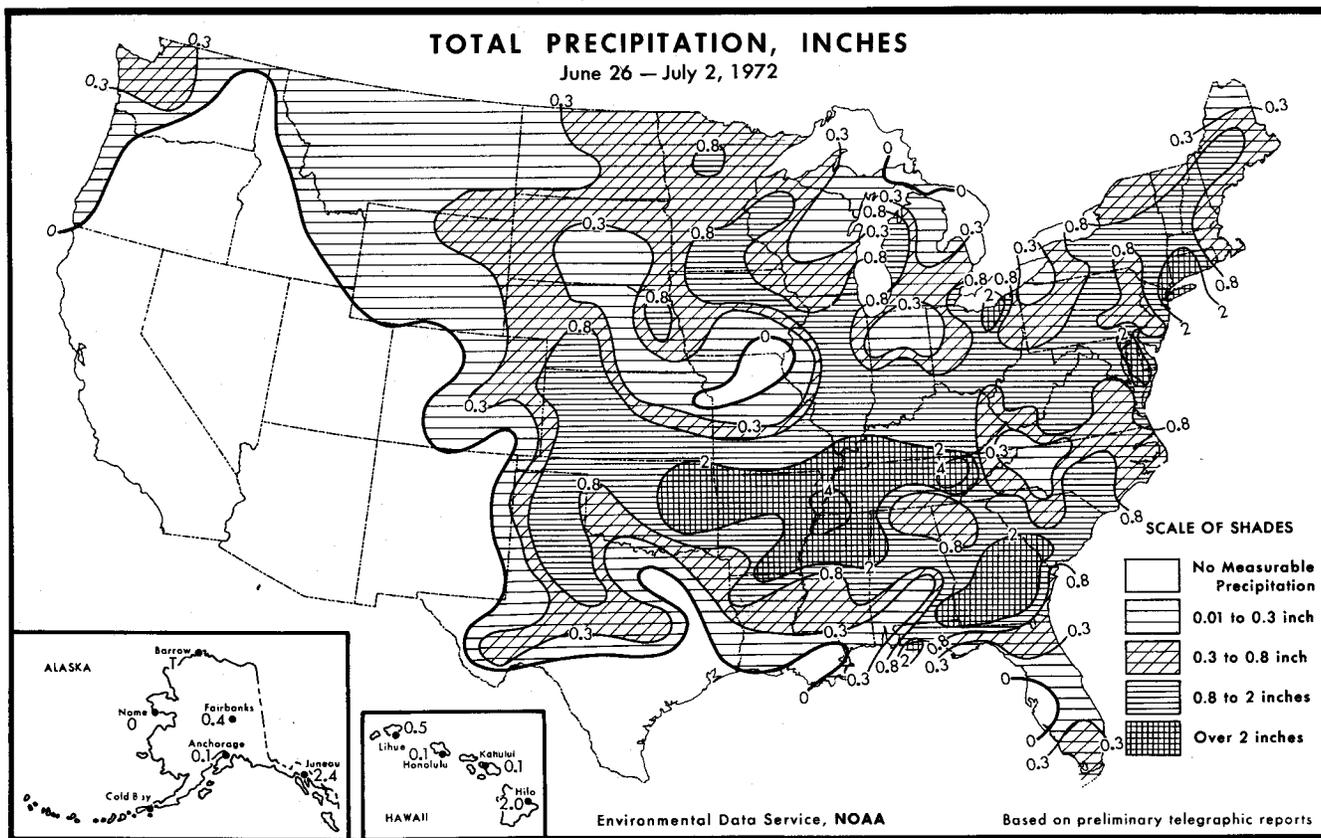
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Edited by Lucius W. Dye

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NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Temperatures ranged from comfortable over the North and balmy over the Central to hot in the South and sizzling in the Southwest. Precipitation ranged from none or light over the western half of the Nation to spotty moderate to heavy amounts over the East.

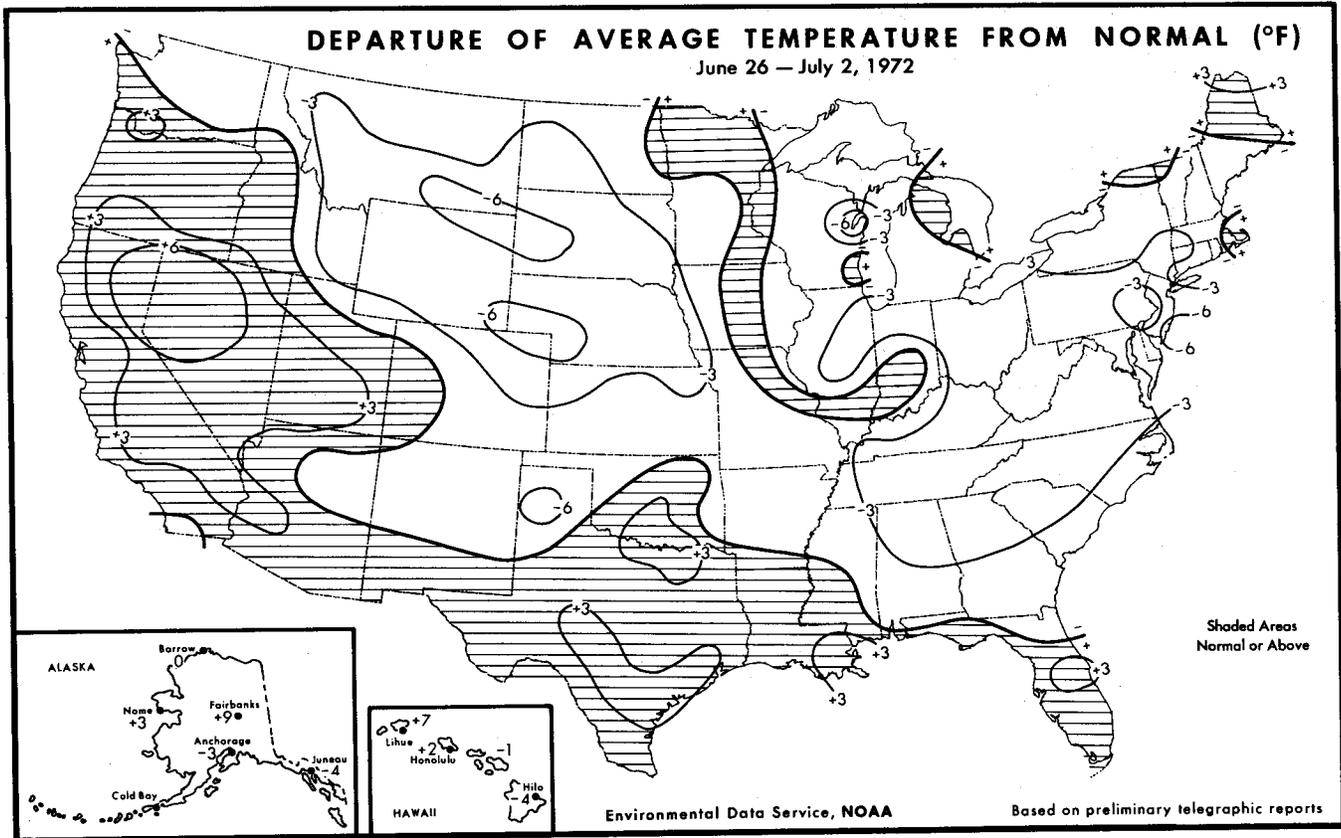
PRECIPITATION: A quasi-stationary front stretched from Oklahoma to North Carolina early in the week. Waves formed along portions of the front. A Low developed over southern Missouri and moved to northern Indiana about midweek. A cold front stretched from a Low centered over southern Manitoba southward across Minnesota to Iowa.

Thunderstorms rumbled across the South in the hot humid Gulf air. Many of the thunderstorms produced heavy rain, large hail, and damaging winds. Hail as large as baseballs pounded Okla-

homa City and Tulsa, Okla., and a locality about 30 miles south of St. Louis, Mo., Tuesday evening. Winds gusted to 83 m.p.h. at Tinker Air Force Base, Okla., and 80 m.p.h. at Tulsa. Tornadoes occurred in North Dakota, Missouri, Arkansas, and South Carolina late Tuesday, and in Oklahoma, Arkansas, and western Tennessee early Wednesday. Most of the tornadoes caused only minor damage.

A quasi-stationary front from western New York to the Texas Panhandle caused dismal rainy weather late in the week. As the front became active, tornadoes occurred in North Dakota, Nebraska, Iowa, Kansas, Arkansas, and Texas. Property damage was generally light and no deaths nor injuries due to the tornadoes were reported.

Much of the area west of the Rocky Mountains received no rain last week.



TEMPERATURE: Hot humid air flowed northward from the Gulf of Mexico early in the week. Dew points were high in the sultry air--mostly in the 60's and 70's. Afternoon temperatures ranged from near or above 100° in most of Texas to the high 80's and 90's in the Southwest. Except in the thunderstorms, the air was calm or only light breezes prevailed. The air was very oppressive. Wichita Falls, Tex., registered 110° Tuesday afternoon; the dew point was about 70°. This condition is extremely uncomfortable for most persons and dangerous for some. Wednesday was the 9th consecutive day at Seminole, Tex., with afternoon temperatures reaching 100° or higher. The extremely hot weather, but less humid, occurred in Arizona and southern California. Thursday afternoon, the temperature at Furnace Creek in Death Valley, California, reached 124°. This is 10° "cooler" than the all-time record for California, 134°, recorded at Greenland Ranch, California, July 10, 1913.

So much for the South; the northern States

were far more comfortable. Maximums early in the week in the North ranged from the 60's in the Rocky Mountains to the 70's and 80's across the Great Plains and Great Lakes Region to the 60's in New England. By midweek the Great Plains warmed to the 90's--94° at Jamestown, N. Dak., Pierre, S. Dak., and Chadron, Nebr., on Thursday. A weak nearly stationary High over the Northeast caused a stagnation problem. The winds were light, the air was stable. Pollutants became trapped in the lower layers of the atmosphere. This was true on Tuesday over a wide area from northern Illinois and Indiana to Pennsylvania, West Virginia, and Kentucky. The condition improved by midweek.

Cold air moved into the north-central Great Plains late in the week ending summer's grip over that area. Norfolk, Nebr., registered 95° Saturday but only 66° Sunday afternoon. Summer heat continued in the South.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Fields along Atlantic Seaboard still soaked by rains from Tropical Storm Agnes--warmer weather and sunshine needed. * Corn, cotton, and soybeans progressing normally. * Western ranges drying.

SMALL GRAINS: The center of the winter wheat harvest moved into northern Kansas. However, progress was frequently interrupted by rain. About 60 percent of the Kansas crop is in the bin--70 percent was cut last year. Only a few scattered fields remain to be combined in southern Kansas. Combining of the 1972 wheat crop is virtually complete in Oklahoma and Texas. Harvest activity picked up in southeast Colorado and southern Nebraska. About 10 percent of the crop is combined in both States. Hail damaged grain fields in Kansas, Colorado and Nebraska. Rust and smut are showing up in the rapidly-maturing South Dakota wheat crop. South Dakota farmers are still struggling to get their last spring grain fields planted--time is running out.

Rains prolonged the harvest season for Southern grain growers as it slowed cleanup operations. Wheat combining is essentially over in the Deep South--and about 3/4 complete in Kentucky and Tennessee. The Illinois wheat crop is 65 percent cut. Grains are heading about normal in North Dakota and Minnesota. Oats crop prospects are poor in Wisconsin as stands are short, thin, and weedy.

Grain combining is delayed from Virginia to New Jersey as a result of Tropical Storm Agnes. Some fields are lodged and harvest losses are increasing daily as fields remain too wet to enter.

Hot, dry weather pushed grain harvesting in the Western States. Barley growers started combining in Oregon's Columbia Basin and in Washington--grains were maturing rapidly in other areas.

CORN: The Nation's corn crop continues to make favorable progress. Over 1 inch of rain blanketed much of the Eastern Corn Belt--thus moisture is adequate to surplus from Iowa to Ohio. However, Michigan, Wisconsin, and southern Illinois are exceptions and remain on the dry side. Rains have also been scarce the past 2 weeks in Nebraska--thus growers started irrigating cornfields. As we approach July 4, the average height of this year's crop is shorter than last year and a little below knee high. Illinois corn is the most advanced with early-planted fields chest-high--and much of the State's crop already waist-high.

Corn made rapid growth in the South. A good rain improved prospects from Arkansas to the Carolinas. Southern Alabama farmers cut some early fields for silage. The crop is tasseling in Arkansas--the earliest fields have roasting size ears.

Corn in the path of Tropical Storm Agnes made very limited growth--many fields are flooded. Cultivating was impossible. Some corn remains to be planted in New England.

COTTON: Showers and warm nights stimulated cotton plant growth and development across the South. Wet weather also had a bad effect as insects increased after the rains. Much (about 3/4ths) of the Southern acreage is squaring--many fields are setting bolls.

Texas cotton growers finished seeding this year's acreage. Cotton is developing well in the

Southwest, but some stress was noted due to extremely high temperatures. Cotton bolls are appearing in California's San Joaquin Valley.

SOYBEANS: Rains improved the Nation's soybean outlook. Prospects remain good in most States. Soybean planting is 95 percent complete in the South and over 98 percent in the North Central States. Rains slowed final seeding and replanting activities. Southern farmers were seeding soybeans in fields where wheat, oats and barley were recently combined. Development of this year's crop is slightly behind last year, but with adequate moisture and "hopefully" warmer temperatures the gap should disappear.

Flood-waters from last week's Tropical Storm pushed soybean seeding 2 to 3 weeks behind schedule in Maryland and Delaware. Much of this acreage is double-cropped after small grains which are not yet harvested.

OTHER CROPS: Haying was active on most U. S. farms. Northern farmers were busy getting in their 1st cutting, while Southern farmers were cutting fields for the second or third time. Inclement weather ruined some cut hay in Alabama and lowered Michigan quality. Hay is beginning to rot in some New England fields. Potato acreage losses are heavy in Steuben and Wayne Counties, New York from Tropical Storm Agnes. Some Maine fields have not yet emerged. Sorghum harvesting is underway in south-central Texas--a few fields remain to be planted on the High and Low Plains. Greenbugs are troublesome in Kansas and South Dakota. Rice harvest started on the Texas Gulf Coast--Arkansas farmers were busy applying midseason nitrogen to their fields.

Fruits and Nuts: Excessive moisture is causing sweet cherries to crack in Maryland and New York. Texas pecans are also suffering from aphid and case bearer damage. On the brighter side--peach picking continued throughout the South and early apples were picked in Arkansas and Maryland. Fruit in Michigan orchards is sizing well. Heavy flushes of new growth are appearing on Florida citrus trees. Hot temperatures increased maturity of California fruit and nut crops.

Vegetables: Tropical Storm Agnes hurt vegetable crops in the path of its heavy rains and floodwaters. Some mature lettuce fields were abandoned in Orange and Oswego Counties, New York--New Jersey lettuce was also hurt. The heaviest loss of onion acreage occurred in the Potter and Prattsburg New York muck areas. Green peas suffered the most damage in Pennsylvania. Michigan vegetables continue to develop slow due to the cool spring.

Florida vegetables are declining in supply with major shipments now coming from the Deep South. Georgia watermelon harvest is at peak.

PASTURES AND LIVESTOCK: Hot dry weather hastened deterioration of Western ranges. Very little feed is available on lower elevation ranges and many ranchers are forced to give herds supplemental feed and extra water.

Recent rains have favored grass growth in the Nation's eastern half and grazing is adequate. Dairymen in Michigan and Wisconsin would welcome a good rain to boost grass growth.

Steve J. Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., JULY 2, 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 . . .	77	- 5	1.4	+ .3	New Orleans . . .	85	+ 4	T	-1.3	OKLA.,Okla. City . .	84	+ 3	1.7	+ .9
Mobile . . .	83	0	.1	-1.7	Shreveport . . .	85	+ 2	.8	+ .1	Tulsa . . .	83	+ 2	2.3	+1.4
Montgomery . . .	80	- 1	.2	-1.0	MAINE.Caribou . . .	65	+ 3	.1	- .9	OREG.Astoria . . .	61	+ 2	.1	- .2
ALASKA.Anchorage . .	54	- 3	.1	- .2	Portland . . .	63	- 2	.7	- .1	Burns . . .	67	+ 2	0	- .1
Barrow . . .	38	0	T	- .1	MD.Baltimore . . .	72	- 4	2.3	+1.5	Medford . . .	73	+ 5	0	- .1
Fairbanks . . .	70	+ 9	.4	+ .1	MASS.Boston . . .	70	0	.5	- .3	Pendleton . . .	71	+ 1	T	- .1
Juneau . . .	50	- 4	2.4	+1.5	Chatham . . .	62	-	.3	-	Portland . . .	68	+ 3	0	- .3
Nome . . .	52	+ 3	0	- .4	MICH.Alpena . . .	64	0	T	- .6	Salem . . .	65	+ 2	0	- .2
ARIZ.Flagstaff . . .	63	- 1	0	- .3	Detroit . . .	69	- 2	.3	- .4	PA.Allentown . . .	71	- 2	.6	- .4
Phoenix . . .	91	+ 3	0	- .1	Flint . . .	68	- 1	.3	- .3	Erie . . .	64	- 3	.1	- .7
Tucson . . .	85	0	0	- .3	Grand Rapids . . .	68	- 3	.3	- .4	Harrisburg . . .	72	- 3	.8	0
Winslow . . .	77	- 1	0	- .1	Houghton Lake . . .	66	0	.1	- .6	Philadelphia . . .	72	- 2	.3	- .6
Yuma . . .	91	+ 1	0	0	Lansing . . .	66	- 5	.5	- .1	Pittsburgh . . .	68	- 4	.4	- .5
ARK.Fort Smith . . .	80	- 2	2.6	+1.8	Marquette . . .	63	- 1	T	- .9	Scranton . . .	67	- 4	.4	- .6
Little Rock . . .	81	- 1	1.3	+ .5	Muskegon . . .	66	- 4	1.0	+ .4	R.I.Providence . . .	69	0	.7	0
CALIF.Bakersfield . .	86	+ 4	0	0	S.Ste.Marie . . .	63	0	0	- .7	S.C.Charleston . . .	79	- 2	1.0	- .3
Eureka . . .	86	0	0	- .1	MINN.Duluth . . .	62	0	.6	- .3	Columbia . . .	78	- 4	.7	- .4
Fresno . . .	84	+ 5	0	0	Internatl Falls . .	64	+ 1	.2	- .7	Greenville . . .	74	- 6	1.5	+ .8
Los Angeles . . .	73	+ 2	0	0	Minneapolis . . .	70	0	1.3	+ .4	S.DAK.Aberdeen . . .	69	- 2	.6	- .1
Red Bluff . . .	87	+ 6	0	0	Rochester . . .	70	0	.8	- .2	Huron . . .	68	- 5	.1	- .4
San Diego . . .	67	- 1	0	0	St. Cloud . . .	67	- 2	.5	- .4	Rapid City . . .	62	- 8	.5	- .1
San Francisco . . .	64	+ 2	0	0	MISS.Jackson . . .	83	+ 1	.3	- .7	Sioux Falls . . .	70	- 3	.8	0
Stockton . . .	77	+ 1	0	0	Meridian . . .	80	- 1	.9	- .4	TENN.Chattanooga . .	73	- 7	.6	- .4
COLO.Denver . . .	68	- 3	.1	- .3	MO.Columbia . . .	76	0	.2	- .6	Knoxville . . .	73	- 5	3.8	+2.9
Grand Junction . . .	78	+ 2	0	- .1	Kansas City . . .	78	- 1	T	-1.1	Memphis . . .	80	- 1	5.0	+4.2
Pueblo . . .	74	- 1	.2	- .1	St. Louis . . .	77	0	1.3	+ .3	Nashville . . .	76	- 4	2.2	+1.5
CONN.Bridgeport . . .	70	- 1	2.6	+1.8	Springfield . . .	77	- 1	1.5	+ .4	TEX.Abilene . . .	85	+ 2	1.0	+ .4
Hartford . . .	68	- 3	2.6	+1.7	MONT.Billings . . .	65	- 6	.1	- .3	Amarillo . . .	75	- 6	1.4	+ .8
D.C.Washington . . .	73	- 5	1.8	+1.0	Glasgow . . .	66	- 1	.3	- .1	Austin . . .	86	+ 2	0	- .7
FLA.Apalachicola . .	83	+ 2	T	-1.5	Great Falls . . .	64	- 1	T	- .4	Beaumont . . .	83	+ 2	0	-1.2
Ft. Myers . . .	84	+ 2	1.5	- .6	Havre . . .	65	- 1	.2	- .3	Brownsville . . .	84	0	0	- .5
Jacksonville . . .	81	- 1	.5	-1.2	Helena . . .	60	- 5	T	- .4	Corpus Christi . . .	87	+ 3	0	- .5
Key West . . .	85	+ 2	.5	- .5	Kalispell . . .	60	- 3	T	- .3	Dallas . . .	87	+ 3	T	- .6
Lakeland . . .	82	+ 1	T	-2.3	Miles City . . .	68	- 3	T	- .5	Del Rio . . .	88	+ 2	0	- .4
Miami . . .	82	+ 1	.4	-1.4	Missoula . . .	60	- 3	.1	- .2	El Paso . . .	83	+ 1	0	- .2
Orlando . . .	85	+ 3	.1	-1.7	NEBR.Grand Island .	74	- 1	.3	- .4	Fort Worth . . .	87	+ 2	0	- .5
Tallahassee . . .	83	+ 1	0	-1.9	Lincoln . . .	74	- 1	T	-1.0	Galveston . . .	84	+ 1	0	- .8
Tampa . . .	83	+ 1	0	-1.9	Norfolk . . .	74	- 1	.9	- .1	Houston . . .	86	+ 4	T	- .9
GA.Atlanta . . .	74	- 6	.6	- .4	North Platte . . .	68	- 6	.9	+ .2	Lubbock . . .	80	0	1.8	+1.3
Augusta . . .	79	- 3	3.0	+2.0	Omaha . . .	72	- 4	.7	- .2	Midland . . .	85	+ 2	T	- .4
Macon . . .	78	- 3	2.5	+1.3	Valentine . . .	67	- 5	.3	- .4	San Angelo . . .	88	+ 4	.6	+ .2
Savannah . . .	80	- 1	.8	- .6	NEV.Ely . . .	67	+ 3	0	0	San Antonio . . .	85	+ 2	0	- .6
HAWAII.Hilo . . .	75	- 4	2.0	+ .2	Las Vegas . . .	91	+ 3	0	- .1	Victoria . . .	86	+ 3	0	- .7
Honolulu . . .	80	+ 2	.1	0	Reno . . .	73	+ 8	0	- .1	Waco . . .	87	+ 2	.8	+ .3
Kahului . . .	77	- 1	.1	+ .1	Winnemucca . . .	75	+ 8	0	- .1	Wichita Falls . . .	88	+ 3	T	- .6
Lihue . . .	78	+ 1	.5	+ .2	N.H.Concord . . .	66	- 1	.5	- .4	UTAH.Blanding . . .	73	+ 3	0	- .2
IDAHO.Boise . . .	71	+ 1	T	- .1	N.J.Atlantic City . .	67	- 6	1.2	+ .5	Salt Lake City . . .	73	0	0	- .1
Lewiston . . .	70	+ 2	0	- .2	Trenton . . .	79	+ 1	T	- .2	VT.Burlington . . .	67	0	.4	- .5
Pocatello . . .	64	- 4	T	- .2	N.MEX.Albuquerque . .	81	+ 2	1.2	+ .9	VA.Lynchburg . . .	69	- 7	1.3	+ .4
ILL.Cairo . . .	78	- 3	3.1	+2.3	Roswell . . .	67	- 3	1.7	+ .9	Norfolk . . .	75	- 4	1.3	+ .1
Chicago . . .	72	- 3	.7	- .1	N.Y.Albany . . .	67	0	.7	- .2	Richmond . . .	72	- 4	.9	0
Moline . . .	74	- 1	.9	0	Binghamton . . .	67	0	.7	- .2	Roanoke . . .	72	- 4	.9	0
Peoria . . .	72	- 3	.9	0	Buffalo . . .	67	- 1	.8	+ .2	WASH.Colville . . .	62	- 2	0	- .2
Rockford . . .	70	- 3	1.2	+ .2	New York . . .	70	- 5	2.3	+1.5	Omak . . .	63	- 5	T	- .2
Springfield . . .	74	- 5	1.2	+ .3	Rochester . . .	70	- 1	1.4	+ .7	Quillayute . . .	58	0	.2	- .4
IND.Evansville . . .	74	0	1.0	+ .2	Syracuse . . .	69	- 2	1.4	+ .8	Seattle-Tacoma . . .	63	0	T	- .3
Fort Wayne . . .	70	- 4	.2	- .6	N.C.Asheville . . .	69	- 5	.7	- .2	Spokane . . .	65	- 2	0	- .2
Indianapolis . . .	73	+ 1	1.0	0	Charlotte . . .	74	- 5	T	-1.0	Walla Walla . . .	72	0	0	- .2
South Bend . . .	67	- 5	.3	- .5	Greensboro . . .	72	- 5	.8	- .1	Yakima . . .	68	0	0	- .1
IOWA.Burlington . . .	74	- 1	T	- .8	Hatteras . . .	77	0	.5	- .6	W.VA.Beckley . . .	65	- 5	.8	- .2
Des Moines . . .	76	+ 1	.2	- .8	Raleigh . . .	74	- 4	1.2	+ .1	Charleston . . .	69	- 5	1.0	0
Dubuque . . .	71	0	.5	- .3	Wilmington . . .	79	- 1	.3	-1.0	Huntington . . .	70	- 4	.7	- .4
Sioux City . . .	74	- 4	.6	- .2	N.DAK.Bismarck . . .	66	- 3	.1	- .6	Parkersburg . . .	70	- 4	.7	- .4
KANS.Concordia . . .	75	- 3	.2	- .5	Fargo . . .	70	+ 1	.2	- .5	WIS.Green Bay . . .	62	- 7	.2	- .5
Dodge City . . .	76	- 2	1.2	+ .6	Williston . . .	65	- 3	T	- .8	La Crosse . . .	70	- 2	1.3	+ .3
Goodland . . .	69	- 4	1.2	+ .6	OHIO.Akron-Canton . .	68	- 4	.5	- .4	Madison . . .	69	- 1	.5	- .4
Topeka . . .	75	- 3	T	- .9	Cincinnati . . .	72	- 3	.9	- .1	Milwaukee . . .	68	+ 1	1.5	+ .7
Wichita . . .	79	- 2	.9	0	Cleveland . . .	67	- 4	2.5	+1.7	WYO.Casper . . .	63	- 5	.1	- .1
KY.Lexington . . .	71	- 5	1.7	+ .6	Columbus . . .	69	- 5	1.7	+ .7	Cheyenne . . .	62	- 6	.1	- .4
Louisville . . .	75	- 2	.8	0	Dayton . . .	71	- 4	.3	- .5	Lander . . .	64	- 3	T	- .2
LA.Baton Rouge . . .	86	+ 3	0	- .7	Toledo . . .	68	- 4	1.9	+1.1	Sheridan . . .	62	- 6	.7	+ .2
Lake Charles . . .	85	+ 2	T	-1.3	Youngstown . . .	65	- 5	.5	- .4	P.R. San Juan . . .	84	+ 4	0	-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: Substantial rains Tuesday and Wednesday over north and central counties with more showers over weekend in north. Muscle Shoals reported over 4.00 inches for week. South Alabama rainfall was more spotty ranging from 0.10 to 1.25 inches for week. Near normal temperatures with no major changes. Extremes ranged from 95° at Selma and Mobile to 62° at Huntsville and Anniston. Soil moisture generally adequate. Growing conditions excellent for crops. Most cotton squaring with small bolls earliest fields. Insect counts increased following rains. Control measures underway. Rains improved corn prospects especially northwest counties. First fields cut for silage extreme south. Planting remaining soybeans slowed by rains. Peanut growers continue applying calcium and fungicides. Prospects very good with grass and weeds generally under control. Harvest remaining wheat slowed by rains northern counties. Rain delayed digging Sand Mountain potatoes, but helped sizing tubers. Only small amount hay saved due inclement weather. Pastures supplied adequate grazing most counties. Fall calves started to market.

ALASKA: Temperatures averaged near or above normal Tanana Valley and mostly below normal elsewhere. Range was from 75° in Fairbanks area to 34° at Clearwater. Precipitation also normal or above in Tanana Valley and generally below normal elsewhere. For season Tanana Valley is again only area over normal with growing degree days. Cumulative precipitation below normal. Soil moisture supply generally adequate throughout Railbelt. First crop hay harvest started Matanuska Valley, further advanced Tanana Valley. Continued cold temperatures detrimental to good growth grain and vegetables. Grass growth excellent, but poor on Kenai Peninsula.

ARIZONA: Skies mostly clear and temperatures above normal in Salt River Valley but near normal most other sections. No precipitation. Cotton crop making good progress. Virtually all fields Yuma setting bolls. Salt River Valley, Pima and Pinal Counties squaring and flowering continued. Infestations pink bollworms, controls being applied. Harvest small grains nearing completion. Sorghum fields good condition. Early safflower approaching maturity Yuma. Sugar beets making excellent progress southeast. Cutting alfalfa hay active. Cantaloupe harvest past peak Yuma. Cantaloupe, watermelon harvest active Salt River Valley-central Arizona. Potato harvest continued Salt River Valley. Picking valencia oranges, grapefruit Salt River Valley. Citrus groves Yuma good condition. Grape harvest active Salt River Valley. Ranges remain fair. Soil moisture and stockwater tank levels above normal for this time of year. Supplemental feeding continued, but leveling off. Cattle and calves fair to good. Sheep and lambs generally fair. Scattered predator problems reported. Problems with screwworm flies southeastern portion.

ARKANSAS: Rains generally in excess of 1.00 inch most of State except extreme south, extreme northeast corner, and portions of central section. A number of locations in northwest, west-central,

and east-central sections as well as small portion of the northeastern section received amounts in excess of 4.00 inches. Augusta, located about 65 miles northeast of Little Rock, had a weekly total of 5.99 inches. Mean temperatures ranged -3° to +3° with greatest negative departures in northwest and west-central sections and greatest positive departures in southwest and south-central sections. Most of State had mean temperatures very close to normal. Some warming early week followed by minor day-to-day changes through weekend. Soil moisture conditions continue improve Cotton good condition. Squaring well and blooms increasing. Insect activity light. Rice making normal progress. Midseason nitrogen application underway. Soybean prospects greatly improved by rains. About 95% planted. Final seeding and replanting underway as conditions permit. Feed grains and hay prospects improved. Much corn tasselling. Earliest fields roasting ear stage. Early sorghums heading with final plantings being made. Harvest peaches, tomatoes, and cucumbers active. Marketing beginning for apples and okra. Melons late, but growing well. Pastures improved, but still short. Further improvement expected after weekend showers. Supplemental feeding continued some areas.

CALIFORNIA: Dry with warm temperatures inland. Averages from 5° above normal near Clear Lake to 1° below normal along coast and 2° below normal Coachella Valley. Warm weather increased maturity fruit and nut crops. Harvest grapes Coachella declining. Picking Perlette and Cardinal grapes increasing Kern. Thompson seedless harvest will start shortly. Apricot harvest nears completion. Packing plums, freestone peaches and nectarines active--good fruit quality and large sizes. Harvest early clingstone peaches underway. Walnut and almond crops making good development. Harvest small grain very active. Summer crops developing well, some stress due extreme high temperatures. Cotton bolls appearing San Joaquin Valley. First cutting alfalfa north to 4th cutting south. Broccoli, cauliflower Salinas, Santa Maria moderate. Cantaloupes Kern decreasing, Fresno increasing rapidly. Carrots Salinas, San Joaquin Valley moderate. Celery South Coast decreasing, Central Coast increasing. Lettuce Central Coast active. Potato digging Kern. Tomatoes Cutler-Orosi decreasing. Southern California and Merced increasing. Watermelons Palo Verde nearing completion, Kern increasing. High temperatures hastened deterioration already scarce range feed supplies. Worsening fire danger and continued depletion water supplies resulted. Supplemental feeding and movement off ranges continues high. Reduced milk and egg production evident.

COLORADO: Temperature averages near or slightly below normal. Moderate to locally heavy rains central front range and east Plains. Some local hail. Light to moderate hail damage many areas eastern Plains. Winter wheat and barley active southeast. Winter wheat 32% ripe, 10% harvested. Winter barley 19% mature, 8% harvested. Conditions spring barley and oats excellent. Sorghum 92% emerged. Final corn cultivation 64% complete--condition very good to excellent except hailed.

areas. Sugar beets very good, 9% acreage blocked. First cutting alfalfa 84% complete, 2d cutting 6%. Range and pastures improved. Scattered moisture promoting additional growth. Livestock very good.

FLORIDA: Temperatures continued to climb during week averaging 2° above normal. Scattered showers and thunderstorms throughout State, more numerous and heavier in north. Panhandle and north divisions reported rainfall totals near 2.00 inches with rest of State having totals less than 0.50 inch. Soil moisture adequate north and west Florida major field crop production area. Soybean planting complete. Crops making satisfactory growth. Pasture grasses growing rapidly with surplus becoming available for hay. Most cattle and calves good with some excellent. Citrus tree condition excellent. Moisture adequate. Heavy flushes new growth. No late bloom. New crop fruit sizing well. Watermelons and sweet corn in moderate, but declining supply. Eggplant volume continues at good level. Other crops largely complete.

GEORGIA: Rainfall moderate to locally heavy in showers and thundershowers with heaviest amounts southwest early week. Shower activity decreased last half week, but picked up again Sunday. Totals ranged mostly from 0.50 to 2.00 inches. Warmer than last few weeks, but still averaged cooler than normal most areas. Highs ranged from 80's north to low 90's south. Lows were in 60's most areas, but varied from 50's mountains to low 70's extreme south. Soil moisture adequate to surplus entire State. Frequent showers and boggy fields hindered field activity some areas. Excessive moisture affected quality melons and caused drowning tobacco low lying areas. Crop condition improved. Cotton fair to good. Corn mostly good. Peanuts good to excellent. Tobacco mostly good. Harvest completion: Wheat and oats 97%, tobacco 30% and peaches 34%. Soybeans 93% planted, sorghums 83%. Cotton 72% squaring, 44% setting bolls. Corn tasseling and silking general south Georgia. Melon harvest near peak. Summer vegetables good supply south, beginning mountain area.

HAWAII: Clear, warm weather all areas. Heavy irrigation in progress. Insects and diseases prevalent, but damage light. Harvesting sugarcane and pineapples full swing. Watermelons and papayas plentiful, but bananas light. Vegetables adequate supply. Pasture and cattle condition fair to good. More rain needed lowland pastures.

IDAHO: Temperatures averaged slightly less than normal with lowest beginning, returning to above normal at end. Precipitation mostly less than normal but locally heavy showers upper Snake River Plains and Eastern Highlands. Warm weather benefited crop development. Hay harvesting full swing with near ideal weather conditions. Winter wheat mostly heading. Some advanced fields southwest and north turning color. Potatoes mostly bloom stage. Cultivation well along potatoes, sugar beets and corn. Grasshopper spraying programs underway infested southern areas.

ILLINOIS: About 4 days with showers ranging from a few hundredths in Quincy area to 2.00 inches at Cairo. Temperatures were warmest of the season touching 99° at Vandalia on 1st. Daily minimums as low as 55° on July 3. Cloudiness and humidities above normal. Corn 55 inches high most advanced fields, average 42 inches across State.

Corn starting to tassel some areas. Soybean condition improving with recent needed rains. Wheat 97% ripe, 65% combined, both same as 1971. Oats 90% filled, 35% turned yellow, 10% ripe. Barley harvest 45% complete. Alfalfa 96% 1st crop cut. Red clover hay 90% 1st crop cut. Soil moisture short 47%, adequate 47%, surplus 6%. Days suitable for fieldwork 5.5.

INDIANA: Three to 4 days of widely scattered showers with amounts ranging from 0.10 inch to 1.00 inch. Temperatures from 50° on 3d in north to 94° on 1st in southwest. Humidities, temperatures, evaporation, and sunshine below normal. Least precipitation in last 4 weeks in north-central. Five days suitable fieldwork. Topsoil and subsoil moisture short to mostly adequate. Dry some northern counties and in southern area. Soybeans nearly all planted; 7 inches high, 10 inches year ago. Corn 21 inches high, last year's advanced crop 37 inches. Wheat 20% combined, average 10%. Barley 20% cut, rye 15% in and oats 5%. Small grain harvest most advanced southwest. Alfalfa 2d cutting underway. Clover 3/4 cut. Pastures fair to good.

IOWA: Near seasonal temperatures. Showers moderate to locally heavy from west-central to northeast; generally light elsewhere. Condition corn and soybeans mostly good, ranging from fair to excellent. Some stands uneven and yellow low wet spots, mainly east, southeast area. Weed control corn and soybeans mostly good. Soybeans 8% blooming, year ago 10%. Alfalfa cutting nearing completion, clover 75%. Condition hay crops and pasture mostly good to excellent. Topsoil moisture 75% adequate, 7% surplus, 18% short. Subsoil 88% adequate, 5% surplus, 7% short. Days suitable fieldwork 6.

KANSAS: Continued dry northeast 1/4, extreme southwest, and parts west-central. Generally 0.25 to 1.25 inches precipitation elsewhere. Dry weather in southeast at least temporarily alleviated as 0.50 to 1.50 inches fell most that area. Locally severe thunderstorms east several days. Some hail damage northeast June 27 and July 2. Temperatures averaged 2° to 4° below normal. Maxima generally 80's and 90's and minima 50's to 70's. Wheat harvest 3/5 completed, 70% last year and average 65%. Only scattered fields remained to be harvested southern and central areas. Harvest underway most northern counties, but progress slowed by intermittent rains. Scattered hail northern and western districts. Farmers working stubble ground following harvest. Rains boosted row crop development many areas. Sorghums doing well, but some replanting needed where rains covered recently emerged plants. Greenbugs bothering sorghum plants with some spraying eastern areas. Most soybeans growing well with some additional planting. Alfalfa 2d cutting 40% complete, 51% year ago. Livestock condition good. Range and pasture feed responded favorably to rainfall. Cattle marketing slow due harvest activities.

KENTUCKY: Rains on 3 days, weekly totals 0.13 inch to over 3.00 inches, heaviest in west. First substantial rains many western locations in about a month. Continued cool, becoming warm and humid over weekend. Weekly temperatures averaged about 2° to 6° below normal. Some high winds night of 2d south-central; no injuries, some local damage. Almost 5 days favorable fieldwork. Soil moisture 16% very short, 35% short, 44% adequate, 5% surplus. Crops suffering west and

west-central from lack moisture, showers during week brought some relief. Corn 2% tasseled. Wheat harvest 3/4 complete. Soybeans average height 9 inches. Tobacco condition good--29% under 6 inches height. Second cutting alfalfa 1/2 complete.

LOUISIANA: Hot, windy, dry weather throughout week. Temperatures averaged 1° to 4° above seasonal. Afternoon highs middle to upper 90's. Morning lows, low to upper 70's. Extremes: 99° at Hammond Monday and Tuesday; 67° at Homer Friday. Shower activity isolated and mostly light. Many areas received no rain or only a few sprinkles. Greatest 1-day amounts reported 1.11 inches measured at both Clinton and Homer Friday morning. Fieldwork slowed by scattered showers. Soil moisture varied widely, but generally adequate over northern 1/2 State and short southern 1/2. Cultivation and lay-by row crops continued. Soybean planting neared completion, but some growers waiting for moisture. Cotton, rice, and sugarcane generally good condition--soybeans, corn, and sweetpotatoes fair to good, but needing moisture. Harvest peaches, tomatoes, green peppers, and okra active. Haying continued, but yields light. Supply pasture feed below average, but livestock good.

MARYLAND AND DELAWARE: Continued cool and wet. Temperatures averaged 3° to 5° below normal. Extremes: Upper 80's to low 90's on 2d, 50's. Rainfall mostly 1.25 to 2.50 inches. June 1972 cool and very wet as temperatures averaged 3° to 5° below normal and rainfall recordbreaking for many Maryland stations with many totals between 10.00 and 20.00 inches. Scattered fieldwork early week. Continued showers accentuating low spot damage. Corn generally good on high ground. Small grain harvest delay increasing harvest losses and lowering quality. Soybean seeding 2 to 3 weeks behind schedule due late small grain harvest. Hay quality deteriorating. Vegetable harvest slowed--some losses. Early peach and apple picking started. Sweet cherry crop damaged as extensive moisture caused cracking.

MICHIGAN: Little temperature change until turning much cooler as week ended. Scattered showers after midweek. Maximum temperatures mostly in 70's to mid-80's. Minimum temperatures tumbled to low 40's north, mid-30's at interior locations of Upper Peninsula as period ended. Temperature averages: Upper Peninsula, 1° above normal to 2° below normal; Lower Peninsula, 1° above normal north to 5° below normal south. Precipitation totals: Upper Peninsula, generally less than 0.10 inch except locally over 1.00 inch west; Lower Peninsula, 0.30 to 1.00 inch south, decreasing to less than 0.10 inch north-central interior and northeast. Warmer weather improved crop development. Soil moisture varies from short to adequate most of State, but surplus east-central and southeast. State averaged 4.3 days suitable fieldwork. Winter wheat and oats developing well. About 40% wheat turning yellow; 50% oats headed. Average height corn 17 inches. Dry beans over 90% planted. Light to heavy rain and cloudy weather reduced hay quality and slowed harvest, 65% 1st cutting harvested. Pasture feed supplies below average. Tree fruits sizing well. Strawberry harvest nearing completion southwest, but just starting Alpena area. Vegetable development below average due late plantings and previous cool weather.

MINNESOTA: Temperatures near normal across most of State. Extremes: 98°, 35°. Precipitation: Less than 0.25 inch precipitation in northwest, rest of State generally received 0.50 to 1.25 inches. The heaviest amount, 1.13 inches at Austin on 28th. Crops good to excellent condition south, fair west-central and fair to good elsewhere. Corn progress ahead of normal south. Average height 24 inches, normal 20. Soybeans average 9 inches. Alfalfa 95% cut, normal 80%. Flax 8% blooming, normal 26%. Percent heading: spring wheat 36, normal 45; oats 48, normal 57; barley 38, normal 48. Percent turning ripe: winter wheat 19, normal 12; rye 21, normal 26.

MISSISSIPPI: Severe thunderstorms some sections every day except 24th and 27th during week. Mostly straight winds caused damages estimated under \$500,000. Two persons injured: 1 on 25th at Parchman and 1 on 29th at Kosciusko 11 W. Weekly rainfall totals averaged 1.25 inch with some totals over 4.00 inches. Temperatures averaged below normal except coastal division and sections of southwest. Extremes: 100° and 50°. Over weekend: More thunderstorms, no excessive damages nor injuries. Soil moisture adequate to surplus northern 1/3 State, mostly adequate central counties and short to adequate south. Average 3.5 days suitable fieldwork. Peaches 38%, Irish potatoes 84%, and hay about 42% harvested. About 2/3 cotton acreage squaring and 9% setting bolls. Corn acreage 34% silked. Cotton, corn, sorghum, hay crops and soybeans fair to good condition. Pastures fair to good and livestock mostly good.

MISSOURI: Generous rain fell in southern Missouri alleviating drought conditions that had existed. Many areas received from 2.00 to 4.00 inches of rain in two sets of showers, 1 midweek, the other over weekend. Elsewhere rains limited to scattered light showers with amounts mostly less than 0.50 inch. Temperatures averaged near normal with the highest Friday, June 30th when a few stations reached 100°. Corn 6% silked. Soybeans mostly fair condition. Wheat 73% harvested, oats 79% turning color and 19% harvested. Cotton mostly good. Second cutting alfalfa 44% and clover-timothy 74% harvested. Soil moisture 80% short, 20% adequate.

MONTANA: Warm midweek, cool otherwise as temperatures averaged 1° to 8° below normal. Scattered light showers weekend with a few locally heavy showers south-central and southeastern divisions. Most non-irrigated crops western 2/3 state affected by dry soils. Topsoil moisture short to adequate western 1/3, short central 1/3, mostly adequate eastern 1/3. Winter wheat poor to good condition north-central, fair to good elsewhere. Other grains mostly fair to good, poor to good central and north-central. First cutting alfalfa making good progress, 45% complete. Short hay crop expected drier areas. Growth and condition sugar beets and potatoes mostly good; sugar beet thinning 90% complete. Cattle and sheep good.

NEBRASKA: Scattered thunderstorms and mild temperatures ushered in first of week with hot dry weather statewide on 29th and 30th. Maximum temperatures between 93° and 99° in east and south on 30th. 24-hour rainfall amount of 1.00 inch to 0.50 inch occurred in isolated spots of southwest first of week. In contrast some stations in south reported no measurable amounts in the 9-day period

ending July 2. Cooler air swept across State on 1st and 2d triggering severe thunderstorms from northeast into south-central Nebraska evening of 1st. Much crop damage due hail near David City in connection with these storms. Most wheat turning color. About 40% acreage ripe and 10% harvested. Showers caused delays harvesting. Scattered hail storms caused variable amount crop damage. Corn, sorghum, and soybeans making good growth. Topsoils dry in 40% reporting areas and farmers starting to irrigate row crops. Growers keeping close watch on corn borer and greenbug populations. About 10% 2d crop alfalfa cut. Pastures and ranges providing good grazing most areas. Livestock generally good, but high temperatures and humidity several days caused discomfort.

NEVADA: Warm dry week. 2° to 7° above normal in south and 4° to 7° above normal in north. Northeast coolest. Las Vegas reported 116 degrees on Saturday. No precipitation. Alfalfa 1st cutting over half completed western areas, and will soon be underway northeast. Second and third cuttings alfalfa hay underway southern valleys. Small grains good condition with much acreage headed. Fall-planted grains approaching dough stage development. Livestock remain generally good condition with movement to summer ranges nearly complete. Lower ranges dry with very little feed. Upper ranges good.

NEW ENGLAND: Warming trend in week with means near seasonal. Some above normal in north and some below normal in south. Many 90° readings. On July 2 highest of season to date for some locations. Frequent light showers with week fairly dry excepting some locally very heavy thunder-showers in Massachusetts and Vermont on June 28 and again on June 30, with the heaviest in western Massachusetts and western Connecticut. Totals for week widely variable but mostly 1/4th to 1 inch. Up to 5 inches fell in western Massachusetts. Chester, Mass., reported 4.44 inches on the 30th with 3.5 inches from 8 AM to noon, with heavily damaging local flooding. Many evacuated from homes. Roads washed out. Chester's June rainfall total was 14.31 inches. Cloudy and damp week further restricted haying. Very little hay in barns. Crop beginning to rot in fields. Corn still to be planted, growth slow. Aroostook County Maine late potato fields still not emerged. Early plantings look good, but few spots flooded or washed out. Frequent rain keeps orchardists in almost continuous spraying schedule. Strawberry picking at peak northern areas, more rot than normal. Tomatoes setting fruit. Peas and lettuce harvest underway.

NEW JERSEY: Moderately wet and cool. Temperatures averaged as much as 5° below normal. Extreme readings from upper 40's to low 90's. Rainfall varied from 0.20 inch at East Millstone to 3.20 inches at Long Branch. A thunderstorm on 28th produced 2.00 inches of rain in 1 hour at Long Branch. North Jersey averaged 0.70 inch, the central and southern interior 1.00 inch, the coastal division 2.00 inches. Excessive rain resulted extensive crop damage and limited cultivation and harvest activities. Crops low areas drowned out. Quality many crops reduced. Soil nutrients leached out. Production most crops will be below earlier expectations. Spring lettuce season shortened by rain. Light harvest pickles, fresh market cucumbers, and tomatoes underway. Blueberry harvest increasing. Weather conditions continue delay grain combining and hay-making. Small amount barley harvested. Additional drying and sunny weather would be beneficial to all crops.

NEW MEXICO: Scattered light precipitation east and second half of week but with local totals of more than 1.00 inch at Roswell and Raton. Temperatures averaged near normal but with seasonal hot days and cool nights southwest and central portions. Maximum temperatures in 100's in south and valleys. Lowest temperatures first part of week with freezing in scattered mountain areas. Moisture short. Wheat harvest still active--80% complete. Barley near completed. Sorghum grain growing well. Cotton good--some square blooms appearing. Alfalfa good, 3d cut started south. Onion harvesting very active. Ranges fair to good. More moisture needed. Livestock doing good.

NEW YORK: Abundant precipitation and cool daytime temperatures continued through 30th. Precipitation week ending Friday totaled 2.00 to 3.00 inches Hudson Valley and Long Island. Elsewhere 1.00 to 1.50 inches except down to 0.40 inch St. Lawrence Valley. Short warming trend weekend. Maximums upper 80's to low 90's on 2d for highest since June 15. Near record June precipitation much of southern 2/3 as total of 11.80 inches at Ithaca, more than 3 times normal. Little field-work because continued rain and wet soil conditions. Drying conditions not good. Some corn planting where soils permitted--many cornfields standing in water--growth retarded. Wheat mostly good condition some lodging. Hay poor to fair condition. Wet conditions slowing vegetable growth and limiting field activity. Lettuce harvest delayed. Field and vegetable crops receiving severe damage from June 23 storm. Potato acreage losses heavy Steuben and Wayne counties. Vegetable acreage losses substantial Genesee Valley. Heaviest loss onion acreage occurred Prattsburg and Potter muck areas. Some mature lettuce fields abandoned Orange and Oswego Counties. Strawberries damaged by brown rot. Apples sizing. June drop looks heavy. Peaches and pears sizing nicely. Cracking occurring sweet cherries as fruit ripens.

NORTH CAROLINA: Cool at first warming to near normal at weekend. Highs ranged 60's to 90's and lows 40's to 70's. Fair weather through 27th and showery thereafter. Daily amounts variable from none to 2.00 inches. Totals 0.10 to 3.00 inches averaging 1.00 inch. Adequate soil moisture and warm weather beneficial most crops. Harvesting blueberries, peaches, Irish potatoes, flue-cured tobacco, and small grains. Average 3.8 days field-work. Flue-cured tobacco, corn, peanuts, soybeans, hay, Irish potatoes, sweetpotatoes, apples, and pasture fair to good. Peaches, cotton poor to good, mostly fair. Small grain harvest over 50% complete, about normal.

NORTH DAKOTA: Temperatures averaged near normal. Cool first of week followed by warming trend with maximum temperatures above 90° in east Thursday. Much cooler on weekend. Precipitation totals varied from none to over 1.00 inch in scattered showers. Severe thunderstorms, hail, and high winds caused damage in some areas. Crops continued to make good progress. About 40% hard spring wheat and barley and about 33% durum and oats headed. Alfalfa 1st cutting completed some southern counties and underway northern counties. Yields generally good.

OHIO: Thunderstorms on 28th and 29th caused widespread minor damage. Low temperatures 26th, 28th, and 30th were in lower 50's to lower 60's while on 29th, 1st, 2d, they were in 60's and lower 70's. Highs for the week ranged from upper 60's to mid-90's. Cleveland's 95° on 28th was highest temperature for week. Largest rainfall amounts

came with the thunderstorms on 28th to 29th, from 8 P.M. On 28th to 8 P.M. on 29th Cleveland had 2.38 inches. On evening on 29th, Toledo had 1.18 inches of rain in 30 minutes. More sunshine and somewhat less moisture desired by most Ohio farmers, last week only 4 days favorable for fieldwork. General crop development and maturity less than week behind average, but 1 to 2 weeks behind last year. Soil moisture supplies 63% adequate and 37% surplus. Corn average height 21 inches compared to 1967-to-71 average 25 inches. Average height soybeans 7 inches, 1 inch below average. First cutting alfalfa 90% complete and 70% 1st cutting clover-timothy cut. Wheat 15% ripe, compared 25% for 5-year average. Oats 80% headed. Barley less than 10% harvested.

OKLAHOMA: Precipitation ranged from 0.40 inch southeast to 3.30 inches northeast. Temperatures ranged from 3° below normal Panhandle to 3° above normal central. Severe thunderstorms southern half of State June 27 and July with considerable wind damage some areas and a few funnel clouds. Wheat harvest essentially completed except few fields Panhandle. Over 1/2 stubble fields plowed. Widespread showers helped improve soil moisture supplies; however, both surface and subsoil moisture remain short many areas. Row crops fair to good condition most areas. Development about same year earlier. Recent showers will maintain or stimulate growth, but additional moisture still needed. Cultivation general. Moderate to heavy hail damage few scattered areas. Over 1/4 corn crop tasseling. Small acreage sorghum grain heading. Some late sorghum still being planted. Cotton 11% squaring, only 1% year ago. Peanuts 7% flowering, soybeans 4/5 up to acceptable stand. Alfalfa 2d cutting nearly 4/5 completed, 3d cutting underway few localities. Pasture and ranges improved moderately--generally fair to good. Recent rains expected to stimulate growth. Some supplemental feeding necessary few scattered areas.

OREGON: Light showers early in period followed by warm days and cool nights. Temperatures averaged 1° to 3° above normal west, 1° to 4° below normal east. Minima 35° to 54°. Maxima 69° to 76° coast, 83° to 98° elsewhere. Showers limited to northern half of State totaled 0.10 to 0.15 inch except 0.20 to 0.60 inch North Coast. Fall barley combining started Columbia basin--other areas maturing rapidly. Windrowing grass seed crops underway and very active. Cherry harvest 50% completed--strawberry 90%. Haying remains active. High eastern Oregon areas making 1st cutting. Early areas western Oregon starting 2d cutting. Ranges drying rapidly. Spray being applied for grasshopper control east.

PENNSYLVANIA: Another cool week until warming over weekend. Rainfall highly variable with showers and thunderstorms midweek and late in weekend. Weekly totals from under 0.25 to nearly 2.50 inches. Heaviest amounts not widespread. Generally fair weather early part of week and most of weekend aided drying out and cleaning up operations from previous weeks devastating floods. Weekly temperatures 2° to 6° below normal. Topsoil moisture 100% surplus. Fieldwork at virtual standstill. All row crops show poor growth, fields weedy. Much winter grain lodged, some rotting. Barley 3/4 ripe. Hay overmatured. Vegetables hurt, green peas for processing suffered most damage. Late strawberries lost. Cherry crop hurt, tart cherry harvest to begin July 6. Tobacco transplanting over 2/3 finished.

PUERTO RICO: Rainfall averaged 0.74 inch or 0.47 inch below normal. Highest weekly total 2.56 inches in Mayaguez. Very little rain island-wide except some areas in west, east, and north-central coast with about 1.00 to 2.00 inches. Agricultural drought continued to intensify in central section of Island. Crop moisture near normal all other zones. Temperatures averaged 81° to 82° on coast and 77° interior with mean departure of 0.4° below normal. Highest maximum 96°; lowest minimum 59°. Sugarcane harvest almost ended. Some non-irrigated zones north generally too dry for normal development young crop. Coffee zones need more rain for improved bean development. Tobacco zones need more rain. Prevailed dry weather favored drying in the seed. Pastures improved some zones where rains eased drought. Southeast coast being attacked by yellow aphid. Most minor crop zones need more rain, but some harvest and cultivation underway Ciales and Coamo. Farmers preparing soil and waiting for rains.

SOUTH CAROLINA: Prefrontal thunderstorms followed by a cold front brought rain on 28th and 29th. 2.00 to 3.00 inches fell on a strip from Allendale and Hampton counties to Berkeley and Williamsburg Counties. Less than 0.50 inch parts of north-central, northwest, and in Horry County. 1.00 to 1.50 inches elsewhere. Temperatures averaged 4° below normal in north and 2° below normal south. Favorable weather beneficial to development all crops. Insect problem increasing. Tobacco 11% harvested, 61% topped. Corn good to excellent condition. Cotton fair condition. Hay crops, pastures good. Wheat, oats poor to fair. Wheat harvest 85%, oats 93% complete compared with 81% and 95% respectively previous year. Barley 92% harvested. Soybeans 89% planted, stands good. Sorghum 87% planted, same last year. Peaches fair to good. Harvest 15% complete. Grapes good. Tomato harvest slow result low prices. Snap beans Piedmont damaged by winds and rain. Sweetpotato planting essentially complete. Watermelons fair.

SOUTH DAKOTA: Temperatures averaged from near normal portions of northeast to 7° below normal parts of west. Extremes ranged from 40° at Webster on 27th and Philip on 3d to 100° at Leola on 29th. Precipitation fell as showers and thundershowers scattered through week with totals ranging from less than 0.10 inch to over 1.00 inch. Scattered areas hail damage. Weather generally favorable for fieldwork. Some areas still seeding small grains and planting row crops, but acreage not in by this week will probably be left unplanted. Early-planted crops making moderate to rapid growth. Green bugs problem late sorghum and small grains. English aphid and corn borer numbers increasing. Large numbers grasshoppers hatching western areas. Some rust and smut showing up small grain. Maturity fall-seeded grains slightly ahead normal with many fields turning color. Lodging problem. Corn averages 17 inches high, slightly shorter than normal. First cutting hay good to excellent. Pasture and livestock good to excellent. Flies and mosquitoes bothering cattle.

TENNESSEE: Showers on 3 to 4 days. Totals excessive parts of southwest and northeast to very little some north-central areas. Totals 0.25 to 5.00 inches, mostly 0.75 to 1.50 inches. Average temperatures continued below normal, with greatest departures east. Extremes: 96°, 55°. Average 3.9 days suitable fieldwork. Conditions

favorable for rapid plant growth. Nearly all small grains ripe and harvest 80% complete for wheat, 60% oats and 75% barley. Soybean planting near completion. About 5% soybeans have begun to bloom. About 70% cotton squaring. Showers and warmer nights stimulated plant growth and development. Corn 20% silk, behind last year. Pasture conditions improved, but still below last year.

TEXAS: Scattered moderate to locally heavy showers dotted high and low plains almost daily during week. North-central Texas benefitted from scattered showers Thursday. Temperatures continued hot with numerous reports of daily maxima 100° or above. Planting cotton complete, few fields sorghum High and Low Plains remain to be planted as moisture becomes available. Peanut planting making good progress Cross Timbers. Sorghum harvest underway south-central Texas to Lower Rio Grande Valley. Yields generally good, except Lower Rio Grande Valley where flooding reduced crop prospects. Rice harvest getting started upper Gulf Coast. Percent planted major crops; cotton 100, 100 last year; corn 100, 100 last year; sorghum 99, 99 last year; peanuts 83, 92 last year; soybeans 100, 98 last year. Percent harvested wheat 95, 96 last year; oats 100, 100 last year. On High Plains onions and potato harvest underway. Cucumbers, carrots continue good growth. Central and East Texas tomatoes, watermelons, cantaloupes being harvested. North Texas cantaloupes, watermelons continue make good growth. In Winter Garden-San Antonio area bell pepper harvest nearing completion. Cantaloupe harvest virtually complete. Some late onions still being harvested. Coastal Bend melon harvest practically complete. Laredo melon harvest back in full swing. Lower Rio Grande Valley land preparation continues for fall crops. Peach harvest continues throughout State. Pecans suffering from damage from aphids and case bearers.

UTAH: Some scattered showers and thunderstorm activity in north and central sections forepart week. Little or none in south. Drought conditions remain serious much southern half State. Soil moisture dry crop and range lands. Feed supplies on ranges only poor to fair. Accumulated amounts moisture northern Utah locally between 0.50 and 0.75 inch, but generally less than 0.10 inch. Hail stones 1 1/4 inches reported at Millford. Average temperatures ranged from near normal to a few degrees below normal. Soil temperatures at 4-inch depth ranged from mid-70's north and central Utah to mid-80's at St. George. Accumulated growing degree days continues well ahead of normal. Dryland winter wheat harvest completed Washington County. Will start this week lower valleys central and northern Utah. Yield prospects rated poor to fair as prolonged drought has erased good prospects existing 2 months ago. Percentage acreage headed out to July 3 95 for spring wheat and barley, 90 for oats. Cherry picking would be in progress, but no sweets and only few tart cherries this year. Green pea harvest completed Box Elder, nearly so Davis, just starting Cache County. All vegetable crops good condition.

VIRGINIA: Temperatures below normal becoming normal over weekend. Scattered showers and thunderstorms mostly near end of week. Cleaned up after Tropical Storm Agnes and repaired fences. Additional rain and soaked fields hampered fieldwork. Crop loss and damage occurred from

flooding and washing. Corn, tobacco, and peanuts need warmer weather and sunshine. Corn 4% silked. Small grain lodged, especially barley. Barley 2/3 cut Tidewater and nearly half in Piedmont. Oats 1/4 harvested. Wheat half done lower Tidewater. Scab, rust, and army worms reduced yields.

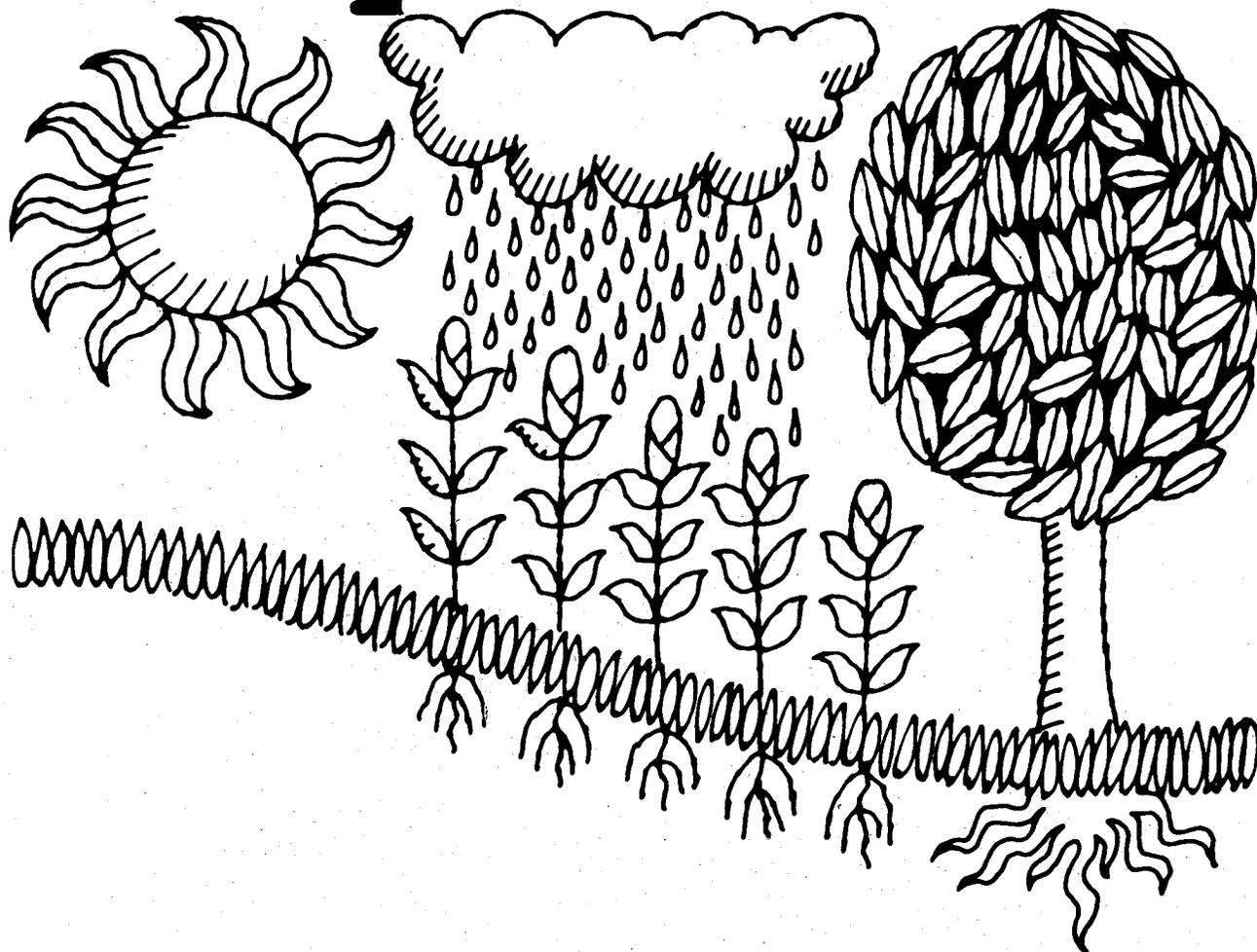
WASHINGTON: Western Washington: Cloudy showery weather beginning period hampered hay operations, reduced hay quality; and caused some strawberry rot. Warmer weather weekend brought favorable responses from corn and green pea crop. Continued fair weather will bring "hoot owl" logging operations due to increased fire danger. Eastern Washington: Rain showers caused considerable damage to Yakima Valley cherry crop and slowed haying operations. Potatoes and sugar beets doing well. Pastures and livestock good condition. Haying operations accelerated under warmer weather conditions. Grains doing well although some signs moisture stress appearing winter wheat especially lighter soils. Grasshoppers showing up in large numbers and some growers spraying. Barley harvest underway.

WEST VIRGINIA: Another cool wet week with rain almost every day, heaviest on June 29. Warm and humid after June 28. Heavy rains continued to provide surplus soil moisture and limited field work to 2.5 days. Hay harvesting main activity with 1st cutting 55% complete. Crops mostly good condition.

WISCONSIN: An average early summer week. Temperatures near normal. Rainfall mostly light and scattered. A few severe thunderstorms across central portions of State Saturday evening. First crop haying past 3/4 mark. Yields very light. Emergency release acreage by ASCS many counties due widespread winterkill and dryness problems. Corn mostly good to excellent though slowed by cool nights, dry weather and scattered frost damage. Early-planted corn beyond knee high. Average height statewide 18 inches. Oats about 50% headed out. Poor crop many areas. Stands short, thin and weedy. Pastures generally fair. Soil moisture 55% short, 40% adequate and 5% surplus.

WYOMING: Most of State light to moderate showers with a few violent thunderstorms eastern half. Afton reported most moisture with 1.15 inches. Temperatures averaged near to a little below normal. Maxima were mostly high 70's and 80's west of Divide, 80's to mid-90's east. Minima were mostly 30's west of Divide, high 30's and 40's east. Temperature extremes were 97° at Thermopolis and 29° at Boundurant. Agricultural activities included hay harvested. Irrigation, cultivation row crops and beet thinning. Most winter wheat reached or passed mild stage. About 1/4 acreage in soft dough stage. Barley 90%, spring wheat 75% and oats 40% acreage headed by weekend. 70 percent 1st crop alfalfa and 20% other hay harvested. Contracting livestock for fall delivery beginning. Soil moisture short to adequate.

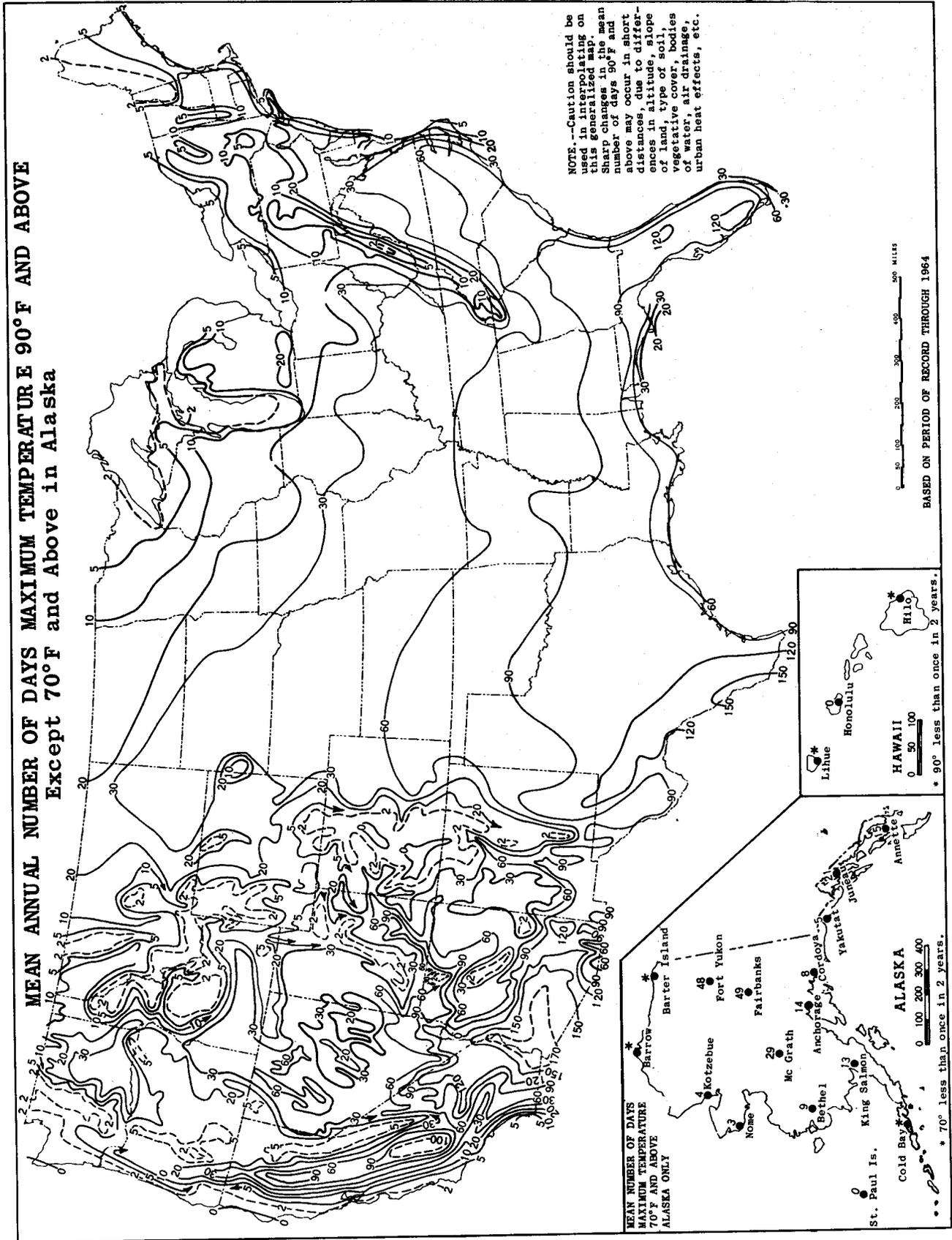
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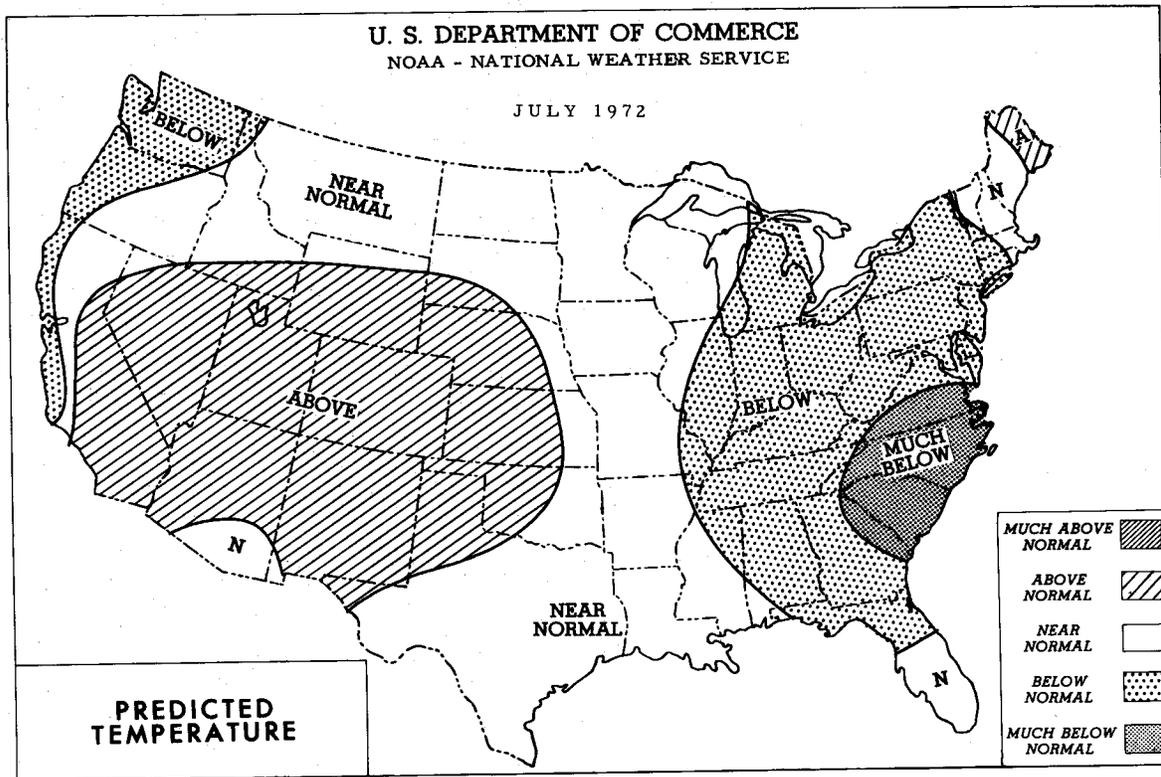
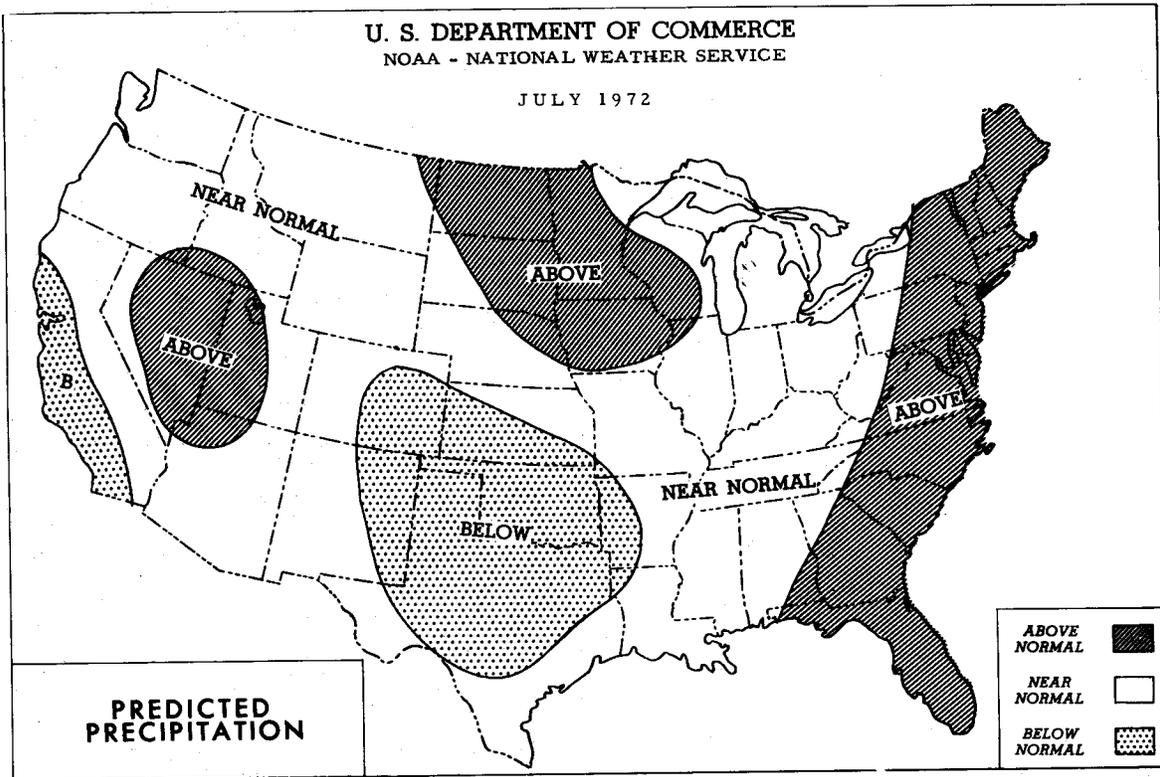
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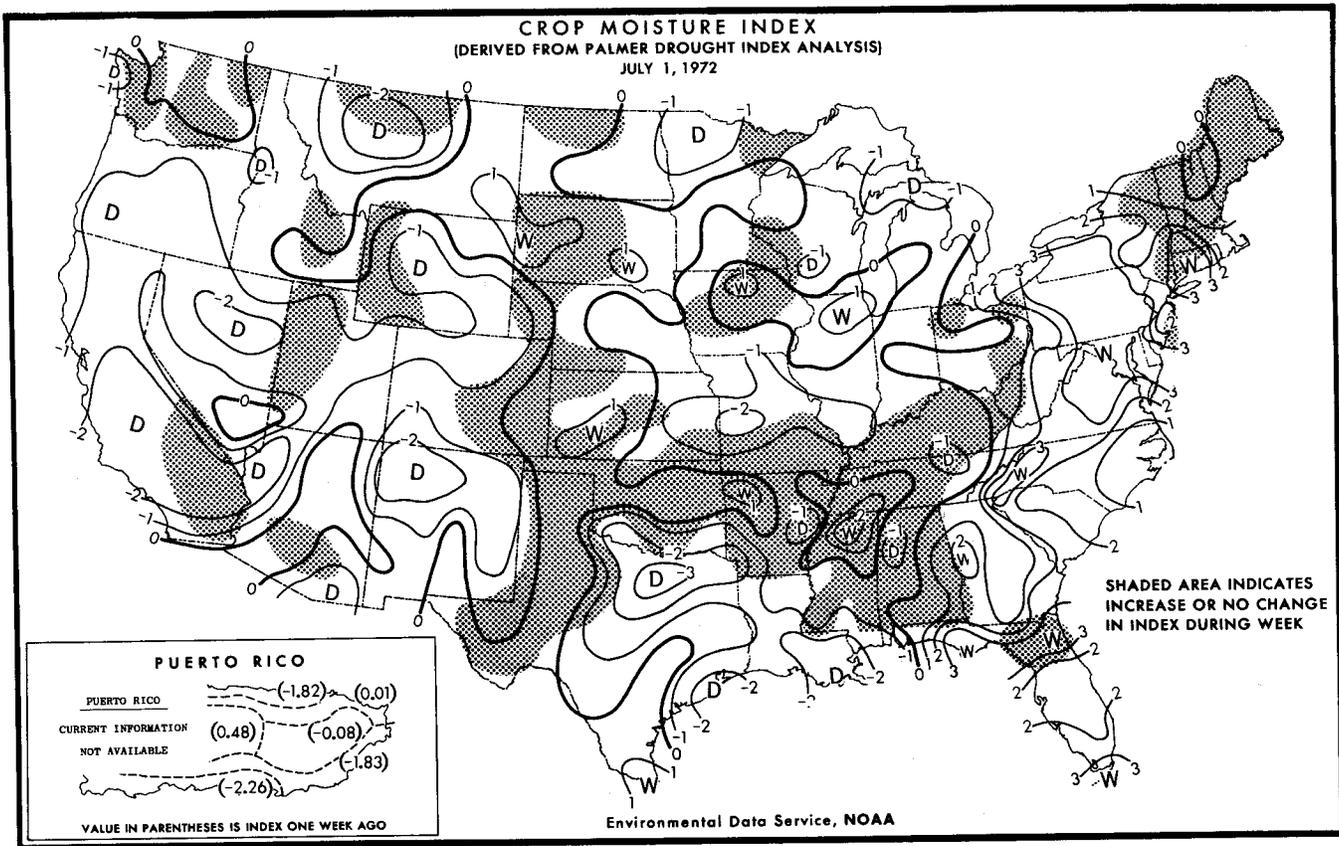
MEAN ANNUAL NUMBER OF DAYS MAXIMUM TEMPERATURE 90°F AND ABOVE
Except 70°F and Above in Alaska



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.



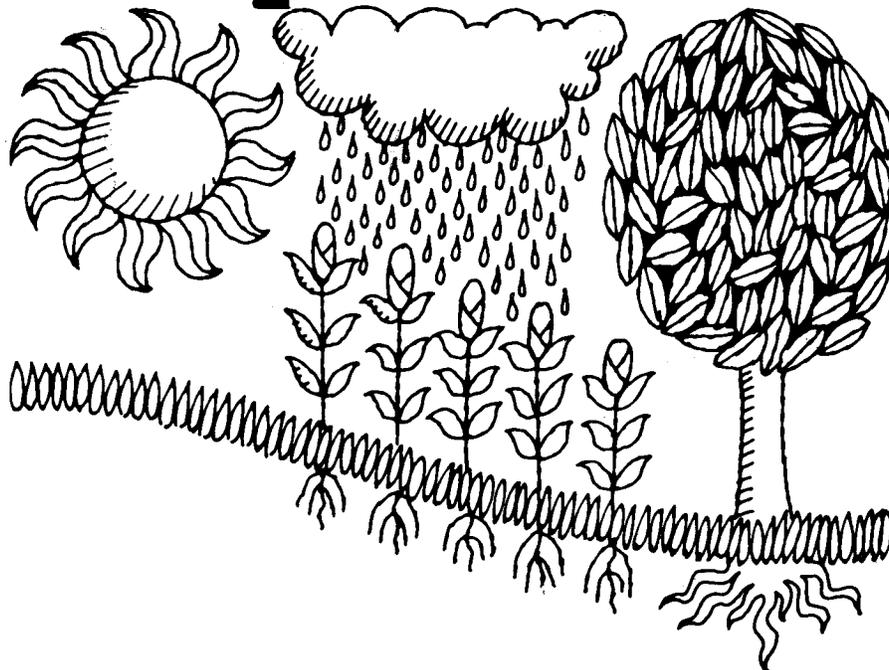
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