

# Weekly Weather & Crop Bulletin

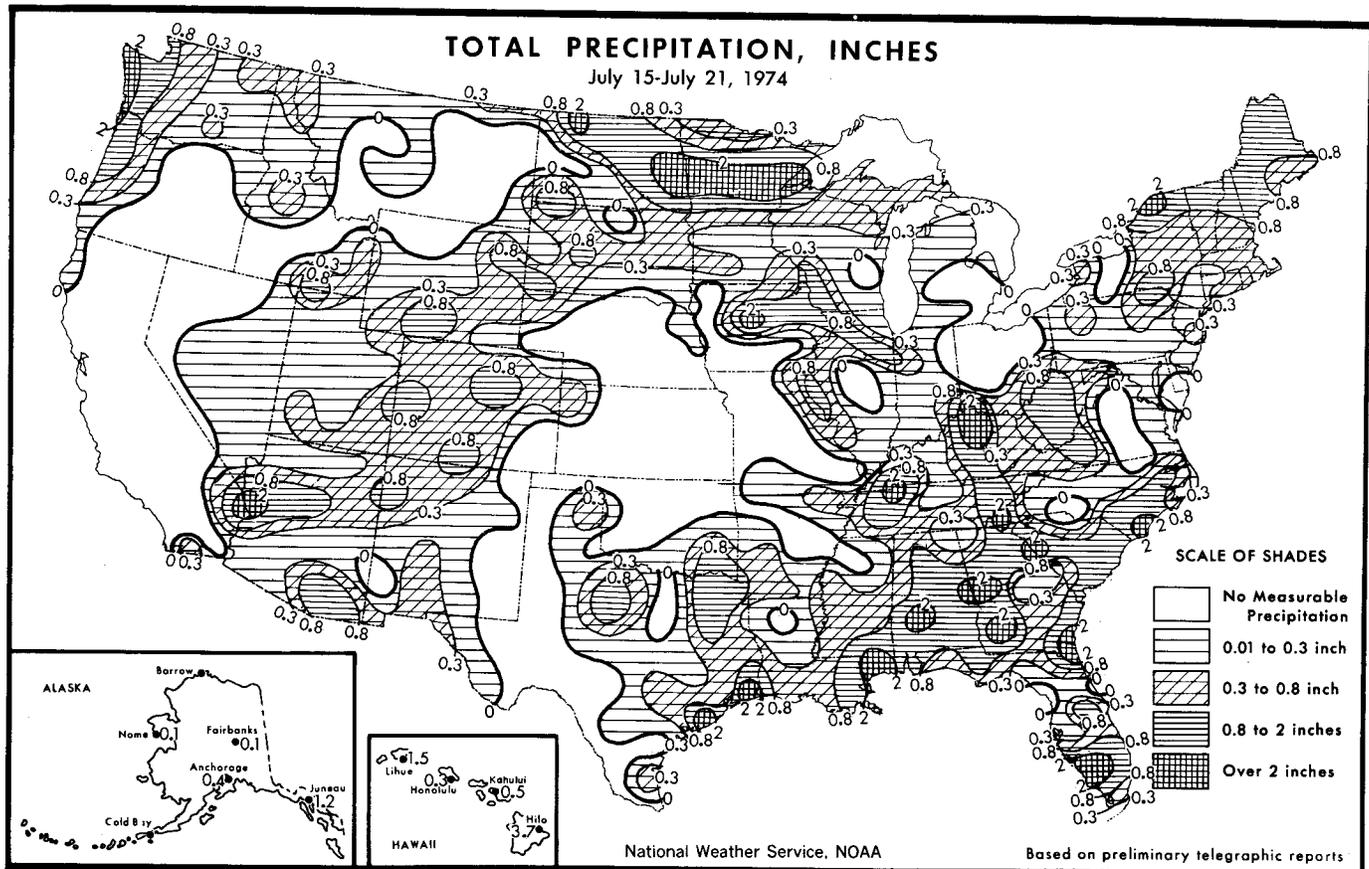
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## NATIONAL WEATHER SUMMARY

**HIGHLIGHTS:** Precipitation was highly variable throughout the Nation last week. Locally heavy rainfall of 2.00 in. or more, associated with thunderstorm activity, was spotted across the Nation's eastern third. The only general soaking rains fell in the Southeast and Northern New England.

The Central Plains and Far Western States received no precipitation. The dry Desert Southwest experienced light shower activity with some locally heavy amounts.

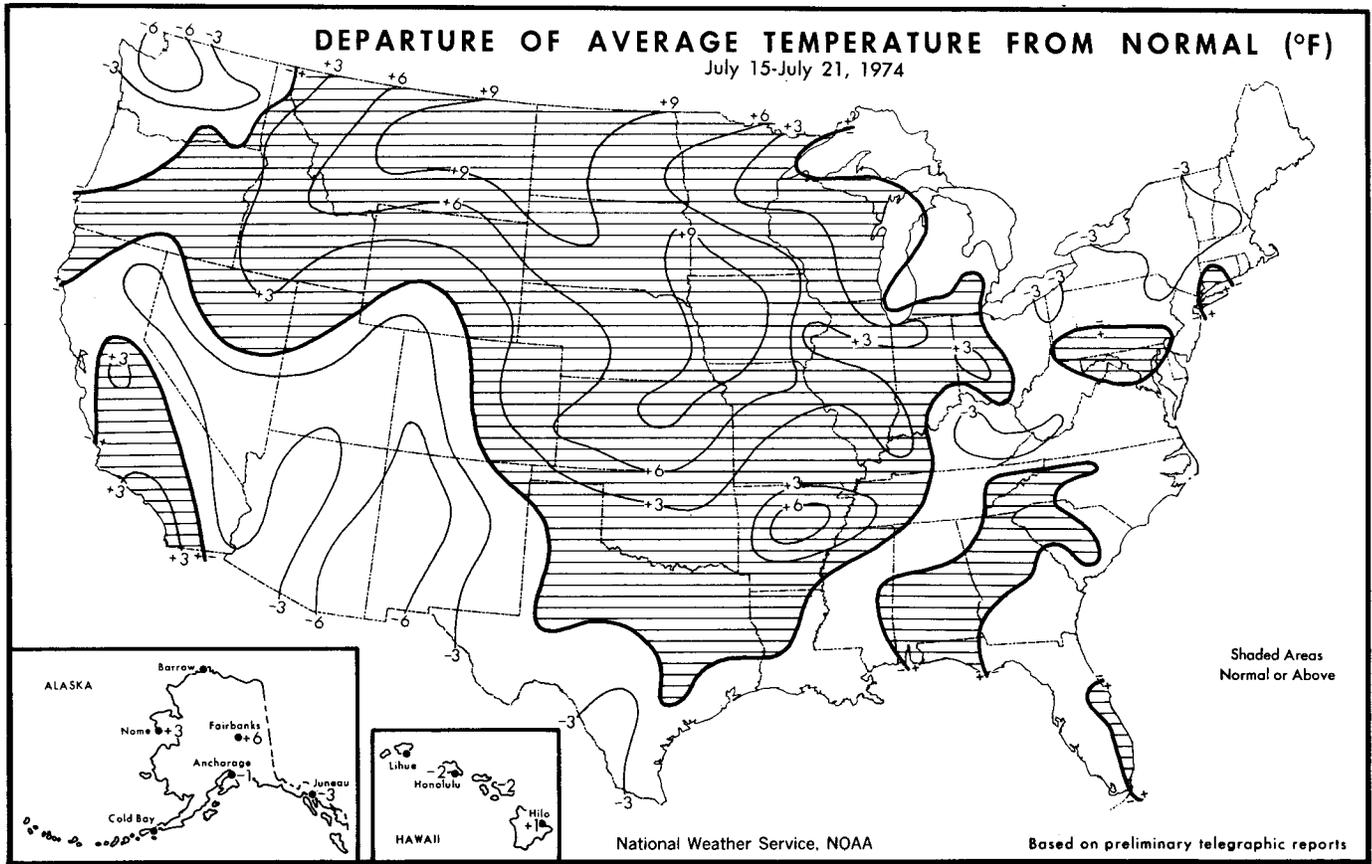
Eastern Iowa, Northern Illinois and northeast Missouri received significant rainfall, but the remainder of the Corn Belt received little or no precipitation.

Temperatures averaged well above normal across most of the Nation except over the Desert Southwest and from the Appalachian eastward. Temperatures of 100° or more were common across the Plains as temperatures averaged 6 to 12° above normal.

**PRECIPITATION:** Rainfall amounts were highly variable across the Nation, and generally light. Many sections of the Desert Southwest received some much needed precipitation last week including: Flagstaff, Ariz., 1.59 in.; Tucson, Ariz. 1.97 in.; Denver, Colo., 1.49 in.; and, Grand Junction, Colo. 1.52 in. Parts of Minnesota and North Dakota received some heavy rains with locally heavy showers scattered throughout the Southeast and New England areas. The Central Plains recorded little or no precipitation for the week except in the northwest corner where Goodland got 0.43 in.

Monday, the 15th, a cold front triggered some scattered thundershowers from the North Atlantic States through the Ohio Valley to the Central Plains. Nearly 1.50 in. of rain fell at Lexington, Ky., within only six hours. During the afternoon strong thunderstorms struck the southern states.

Tuesday, the 16th, a weather system in the



northern Rockies caused widely scattered thunder-showers in the Plateau and the Rockies.

A few thunderstorms developed ahead of the system in the upper Plains and Mississippi Valley and along the eastern slopes of the Central Rockies.

Wednesday, a large high pressure system centered in the Northeast extending southwest into Texas. Meanwhile, an extensive area of scattered thunder-shower activity paralleled the Gulf Coast from near Houston, Texas eastward across southern Florida.

Thursday, the 18th, thundershowers developed through the Gulf Coast States and in the Rocky Mountains extending into the Pacific Northwest and the Plateau Region. Other thundershowers were scattered through New England, the Appalachians and in southern Wisconsin. Thunderstorms dumped 3.00 in. of rain on Hill City, S. Dak. causing some minor street flooding.

Friday, a severe storm struck Grand Junction, Colo. with 72 mph winds causing damage to aircraft, trailers and power lines. The storm soaked Grand Junction, Colo. with 1.30 in. of rain in less than an hour. Late Friday night extensive flooding occurred between Needles, Calif. and Lake Havasu City, Ariz., where power and phone lines were downed. Three persons drowned as a result of the floods.

Saturday, the 20th, large amounts of moisture were pumped into the southwestern states by tropical storm Gretchen. Needles, Calif. got 2.00 in. rain within only six hours causing extensive flooding. In southern Ariz., Wickenburg recorded nearly 2.00 in. in one hour.

Sunday, the 21st, thunderstorms dumped heavy rains on the Duluth, Minn. area. During a one-

hour period 2.25 in. of rain was reported flooding the business district of Duluth with 6 to 8 in. of water.

**TEMPERATURE:** The Great Plains States experienced a blistering heat wave last week with temperatures averaging 6 to 11° above normal. Meanwhile some sections in the Southwest averaged 1 to 6° below normal. The Pacific Northwest and much of the Southeast also reported below normal temperatures.

Monday, the 15th, a cold front from New England to the Central Plains separated warm and humid air with temperatures in the 90's to the South from cooler, drier air and 80's to the north. Record highs for the day were set at: Richmond, Va., 98° and Raleigh-Durham, N.C. 93°.

Tuesday, warm weather continued in the Plains Mississippi Valley, the Southwest and Gulf Coast States as temperatures reached into the 90's. Readings in the 70's were common in the Great Lakes, New England and the Pacific Northwest.

Wednesday, the 17th, afternoon temperatures were hot again in the Plains and the Mississippi Valley and Desert Southwest as readings rose above the 100° mark in many locations.

Extremely hot temperatures persisted from Thursday through the weekend across the Nation's midsection. Temperatures were in the high 90's and 100's every day. Omaha, Nebr., reached 107° on Friday. Sunday was the hottest day in almost 18 years at Topeka, Kan., with 106°.

Cooler weather began to move into the northern Plains on Sunday. Although temperatures cooled by 10 to 15°, afternoon highs were still well into the 90's.

## NATIONAL AGRICULTURAL SUMMARY

**HIGHLIGHTS:** Small grain harvest active in North Central States. Continued hot dry weather depleting valuable topsoil moisture in corn and soybean States. Rain needed to help assure good development. Cotton making good progress, insect controls remain active.

**SMALL GRAINS:** Combining winter wheat and other small grain crops progressed well in the North Central States, while harvest in the Northwest was delayed by rain and cool weather. The Nebraska winter wheat crop is virtually all harvested, Ohio and Indiana are both 95% complete and South Dakota advanced to 85% done. The New York winter wheat harvest is expected to get underway next week while Pennsylvania farmers are nearing completion.

Moving westward, Montana winter wheat is 25% ripe and 2% harvested. Colorado winter wheat is 86% harvested.

Small grains continue to be pushed toward maturity, and harvest of oats and spring wheat are gaining momentum. Illinois oat harvest is 40% done, compared with 20% last year. South Dakota spring grain harvest is well ahead of normal: Barley 42%, oats 32% and spring wheat 22% harvested. Swathing has started in southern North Dakota and southern Minnesota.

**CORN:** Prolonged hot, dry weather in much of the Corn Belt is putting considerable stress on the corn crop in most areas. Topsoil moisture supplies are short in many areas of the major corn States, although condition of the crop is mostly fair to good. Rain is needed to help assure good development. Dry conditions in Nebraska are severely damaging dryland corn and conditions range from poor to good. Silking throughout the Corn Belt is widespread. The Indiana crop is 15% silked, compared with 35% normally, Illinois 35%, and 40% of Iowa's corn fields are 75% or more silked.

In the South, corn is growing well and is generally ahead of last year's progress. Harvest is moving along in Florida and is 3% complete in Texas. Alabama's corn crop is 18% dented while 10% of South Carolina's corn is mature.

**COTTON:** Cotton made good progress in the major producing States as near normal temperatures and thundershowers in some areas aided growth. Insect populations increased in most areas and farmers were busy spraying. The crop remains in fair to good condition with heavy squaring and setting bolls. Development is behind normal in Tennessee, Mississippi, and Arkansas, while Alabama cotton continues much ahead of last year's progress. Mississippi cotton is 52% setting bolls, compared with 75% normally. In Arizona cotton is putting on boll set, California fields are blooming and setting bolls. Irrigation and pest control measures continue. Harvest in south Texas is gaining momentum and gradually moving northward.

**SOYBEANS:** The Corn Belt soybean crop continues to develop well despite short moisture supplies. However, overall development is behind last year and normal in many States. Most of the crop is in fair to good condition, although the condition

varies considerably between the early and late planted fields. Soybeans in Iowa are 40% blooming, compared with 50% normally. The Illinois crop is much behind with 20% blooming versus 37% in 1973 and 57% average. Soybeans average 18 in. high in Minnesota with 61% blooming. Normally, average height is 17 in. and 60% blooming. Rain is needed in all areas of the Corn Belt for continued growth.

Planting continued in Arkansas and Mississippi is 94% complete. Planting is normally done by July 20 in Mississippi and the crop is about 3 weeks later than normal in Arkansas. Soybeans are in mostly good condition in South Carolina and Georgia and making good growth.

**OTHER CROPS:** Sorghum harvesting advanced to 28% complete in Texas, compared with 13% last year. The Kansas crop is 5% headed versus 10% average and dry conditions are causing some firing although irrigation wells are pumping the limit. Nebraska sorghum is 15% headed compared with 10% normally.

Tobacco is 3% harvested in Virginia, 17% in North Carolina, 56% in South Carolina, and 59% in Georgia. Tobacco is growing fast under generally favorable conditions in Kentucky.

Potatoes in Aroostook County, Maine look good and many growers are finished hilling and cultivating. Idaho potato crop progress is good with nearly all of the middles closing except in the eastern areas.

**FRUITS AND NUTS:** Tart cherry harvest is well along in southwestern Michigan, Wisconsin and Utah; while Peach picking continued in the South and is increasing in New Jersey and Pennsylvania. Harvest of early variety apples is underway in Pennsylvania and Kern County, California. Active harvest of fruits continues in California. Almond orchards are prepared for harvest. The raspberry harvest reached a peak in Washington and the blueberry harvest got underway.

**VEGETABLES:** Vegetable harvesting continued to increase in the North Atlantic States with tomato, sweetcorn, lettuce, cabbage, beets, cucumbers, snap beans and summer squash supplies increasing. Land preparation for fall vegetable crops is active in the San Antonio and Rio Grande Valley areas and in Florida. Onion harvest is underway in the High Plains of Texas as watermelons, tomatoes and squash harvests continue in east Texas. In California, carrot digging; celery, lettuce and dry onion harvest continues. In Oregon harvest is now underway for dry peas, spearmint, and broccoli.

**PASTURES AND LIVESTOCK:** Pastures continued to deteriorate in the North Central Region as hot dry weather sapped soil moisture supplies. Supplemental feeding is now necessary in several States. Herd culling is active in South Dakota and Nebraska due to a shortage of feed supplies and stockwater. Ranges are greening up in rainy areas of New Mexico and Arizona but more rain is needed to get enough runoff to replenish stockwater.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., July 21, 1974

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	0	1.5	+ .3	La. Baton Rouge . . .	81	- 1	.6	- .9	Youngstown . . .	71	- 3	T	- .9
Mobile . . .	82	0	1.4	- .7	Lake Charles . . .	82	0	.7	- .8	OKLA. Okla. City . . .	84	+ 2	0	- .6
Montgomery . . .	81	0	1.7	+ .5	New Orleans . . .	79	- 3	1.2	- .4	Tulsa . . .	88	+ 6	T	- .8
ALASKA Anchorage . . .	57	- 1	.4	- .1	Shreveport . . .	83	0	T	- .6	OREG. Astoria . . .	58	- 2	2.4	+ 2.2
Barrow . . .	-	-	-	-	MAINE Caribou . . .	63	- 2	1.1	+ .2	Burns . . .	70	+ 1	0	- .1
Fairbanks . . .	67	+ 6	.1	- .3	Portland . . .	69	+ 1	1.2	+ .6	Medford . . .	73	+ 1	T	- .1
Juneau . . .	53	- 3	1.2	+ .1	MD. Baltimore . . .	77	0	.1	- .8	Pendleton . . .	75	+ 1	T	- .1
Kodiak . . .	-	-	-	-	MASS. Boston . . .	73	- 1	.5	- .1	Portland . . .	67	- 1	.7	+ .6
Nome . . .	53	+ 3	.1	- .5	Chatham . . .	69	-	.4	-	Salem . . .	65	- 2	.8	+ .7
ARIZ. Flagstaff . . .	65	- 1	1.6	+ 1.0	MICH. Alpena . . .	64	- 2	.3	- .3	PA. Allentown . . .	73	- 2	T	- 1.0
Phoenix . . .	90	- 2	.2	0	Detroit . . .	72	0	0	- .7	Erie . . .	66	- 3	.2	- .6
Tucson . . .	81	- 6	2.0	+ 1.4	Flint . . .	70	0	0	- .6	Harrisburg . . .	77	0	.3	- .5
Winslow . . .	75	- 4	.5	+ .2	Grand Rapids . . .	70	- 2	T	- .7	Philadelphia . . .	77	0	.1	- .8
Yuma . . .	91	- 3	T	- .1	Houghton Lake . . .	66	0	T	- .7	Pittsburgh . . .	72	0	.2	- .7
ARK. Fort Smith . . .	84	+ 2	.1	- .6	Lansing . . .	70	- 1	T	- .6	Scranton . . .	69	- 4	.6	- .4
Little Rock . . .	87	+ 6	T	- .8	Marquette . . .	67	0	.4	- .3	R.I. Providence . . .	71	- 2	.4	- .2
CALIF. Bakersfield . . .	86	+ 1	0	0	Muskegon . . .	70	0	.1	- .5	S.C. Charleston . . .	80	0	1.2	- .7
Eureka . . .	60	+ 4	T	0	S. Ste. Marie . . .	63	- 1	.7	+ .1	Columbia . . .	83	+ 2	1.1	- .2
Fresno . . .	82	+ 1	0	0	MINN. Duluth . . .	66	0	3.8	+ 3.0	Greenville . . .	81	+ 3	.4	- .5
Los Angeles . . .	78	+ 4	0	0	Internatl Falls . . .	74	+ 8	.2	- .7	S.D. Aberdeen . . .	80	+ 8	.4	- .2
Red Bluff . . .	81	- 2	0	0	Minneapolis . . .	77	+ 5	.2	- .6	Huron . . .	82	+ 8	.5	0
San Diego . . .	75	- 5	0	0	Rochester . . .	76	+ 6	.5	- .3	Rapid City . . .	81	+ 8	.2	- .2
San Francisco . . .	62	- 1	T	0	St. Cloud . . .	74	+ 3	.3	- .4	Sioux Falls . . .	84	+ 10	.1	- .5
Stockton . . .	80	+ 3	0	0	MISS. Jackson . . .	81	- 1	.7	- .3	TENN. Chattanooga . . .	77	- 2	.1	- 1.1
COLO. Denver . . .	75	+ 1	1.5	+ 1.1	Meridian . . .	83	+ 2	.7	- .5	Knoxville . . .	79	+ 1	1.2	+ .1
Grand Junction . . .	76	- 4	1.5	+ 1.4	MO. Columbia . . .	82	+ 4	0	- .9	Memphis . . .	86	+ 4	.1	- .7
Pueblo . . .	80	+ 3	.3	- .1	Kansas City . . .	85	+ 6	0	- .9	Nashville . . .	81	+ 1	.1	- .8
CONN. Bridgeport . . .	76	+ 2	.7	- .1	St. Louis . . .	81	+ 2	.4	- .4	TEX. Abilene . . .	84	0	.9	+ .4
Hartford . . .	73	0	.3	- .5	Springfield . . .	80	+ 2	.2	- .6	Amarillo . . .	79	0	T	- .6
D.C. Washington . . .	80	+ 1	T	- .9	MONT. Billings . . .	80	+ 7	T	- .1	Austin . . .	84	- 1	.3	- .1
FLA. Apalachicola . . .	81	0	.7	- 1.2	Glasgow . . .	80	+ 9	T	- .3	Beaumont . . .	80	- 3	2.1	+ .7
Daytona Beach . . .	79	- 2	T	- 1.5	Great Falls . . .	79	+ 9	T	- .2	Brownsville . . .	82	- 2	0	- .2
Ft. Myers . . .	81	- 2	3.4	+ 1.4	Havre . . .	79	+ 8	.1	- .2	Corpus Christi . . .	84	- 1	0	- .4
Jacksonville . . .	80	- 1	2.1	+ .4	Helena . . .	75	+ 6	T	- .2	Del Rio . . .	86	- 1	T	- .2
Key West . . .	84	- 1	T	- .9	Kalispell . . .	69	+ 4	T	- .2	El Paso . . .	78	- 4	.6	+ .2
Lakeland . . .	82	- 1	.2	- 1.6	Miles City . . .	84	+ 9	0	- .3	Fort Worth . . .	86	+ 1	0	- .4
Miami . . .	83	+ 1	.4	- 1.1	Missoula . . .	72	+ 5	.1	- .1	Galveston . . .	82	- 1	1.9	+ .9
Orlando . . .	81	0	.9	- 1.0	NEBR. Grand Island . . .	85	+ 8	0	- .6	Houston . . .	81	- 2	.4	- .5
Tallahassee . . .	79	- 2	.4	- 1.7	Lincoln . . .	86	+ 8	0	- .7	Lubbock . . .	80	0	0	- .5
Tampa . . .	81	- 1	.2	- 1.8	Norfolk . . .	84	+ 8	T	- .7	Midland . . .	83	+ 1	T	- .4
W. Palm Beach . . .	82	0	1.1	- .3	N. Platte . . .	80	+ 5	0	- .7	San Angelo . . .	84	- 1	.1	- .2
GA. Atlanta . . .	80	+ 2	1.2	0	Omaha . . .	85	+ 10	.1	- .7	San Antonio . . .	82	- 3	.1	- .3
Augusta . . .	79	- 1	.2	- 1.0	Valentine . . .	82	+ 7	.1	- .5	Victoria . . .	84	0	T	- .6
Macon . . .	82	+ 1	.2	- .9	NEV. Ely . . .	68	0	.1	0	Waco . . .	87	+ 1	T	- .3
Savannah . . .	80	- 1	.9	- .9	Las Vegas . . .	86	- 4	.1	0	Wichita Falls . . .	86	0	.3	- .2
HAWAII. Hilo . . .	76	+ 1	3.7	+ 1.5	Reno . . .	67	- 3	0	- .1	UTAH. Blanding . . .	70	- 4	.6	+ .4
Honolulu . . .	78	- 2	.3	+ .2	Winemucca . . .	73	+ 1	0	0	Salt Lake City . . .	78	0	.1	0
Kahului . . .	76	- 2	.5	+ .4	N.H. Concord . . .	66	- 4	.4	- .3	VT. Burlington . . .	67	- 3	.9	+ .1
Lihue . . .	78	0	1.5	+ 1.1	N.J. Atlantic City . . .	74	- 2	T	- 1.0	VA. Lynchburg . . .	75	- 1	T	- .9
IDAHO. Boise . . .	79	+ 3	T	0	Trenton . . .	75	- 1	.4	- .7	Norfolk . . .	78	- 1	.2	- 1.1
Lewiston . . .	77	+ 3	T	- .1	N.MEX. Albuquerque . . .	73	- 6	.2	- .2	Richmond . . .	77	- 1	.1	- 1.2
Pocatello . . .	74	+ 1	.1	0	Roswell . . .	78	- 1	T	- .4	Roanoke . . .	74	- 1	.8	0
ILL. Cairo . . .	83	+ 2	0	+ .7	N.Y. Albany . . .	67	- 5	.4	- .3	WASH. Colville . . .	67	- 2	.4	+ .3
Chicago . . .	75	0	T	- .9	Binghamton . . .	68	- 1	.9	0	Omak . . .	69	- 3	.1	0
Moline . . .	77	+ 2	.4	- .6	Buffalo . . .	68	- 2	.6	- .1	Quillayute . . .	56	- 3	2.6	+ 2.1
Peoria . . .	77	+ 2	T	- .8	New York . . .	77	0	T	- .9	Seattle-Tacoma . . .	58	- 7	.9	+ .8
Rockford . . .	77	+ 4	.1	- .9	Rochester . . .	69	- 3	T	- .6	Spokane . . .	69	- 3	.2	+ .1
Springfield . . .	81	+ 5	0	- .9	Syracuse . . .	67	- 5	.4	- .3	Walla Walla . . .	75	- 1	T	- .1
IND. Evansville . . .	82	+ 4	.1	- .8	N.C. Asheville . . .	74	0	- 1.0	0	Yakima . . .	69	- 3	.1	+ .1
Ft. Wayne . . .	75	+ 2	T	- .9	Charlotte . . .	78	- 1	0	- 1.1	W. Va. Beckley . . .	67	- 3	.9	- .1
Indianapolis . . .	77	+ 2	.2	- .6	Greensboro . . .	77	0	T	- 1.0	Charleston . . .	74	- 1	1.1	- .1
South Bend . . .	75	+ 3	.1	- .7	Hatteras . . .	77	- 1	.1	- 1.2	Huntington . . .	75	0	.4	- .6
IOWA. Burlington . . .	79	+ 3	.5	- .3	Raleigh . . .	77	- 1	T	- 1.2	Parkersburg . . .	73	- 2	1.1	+ .1
Des Moines . . .	85	+ 10	0	- .7	Wilmington . . .	79	- 1	2.2	+ .2	WIS. Green Bay . . .	70	+ 1	.3	- .4
Dubuque . . .	76	+ 4	.9	0	N.DAK. Bismarck . . .	79	+ 8	.3	- .1	La Crosse . . .	78	+ 5	.9	+ .1
Sioux City . . .	85	+ 9	0	- .7	Fargo . . .	77	+ 6	3.0	+ 2.3	Madison . . .	73	+ 3	T	- .8
KANS. Concordia . . .	87	+ 9	0	- .7	Williston . . .	82	+ 11	T	- .4	Milwaukee . . .	71	+ 1	T	- .8
Dodge City . . .	86	+ 6	0	- .7	OHIO. Akron-Canton . . .	70	- 2	T	- .9	WYO. Casper . . .	74	+ 2	.3	+ .1
Goodland . . .	81	+ 5	.4	- .2	Cincinnati . . .	74	- 2	2.3	+ 1.3	Cheyenne . . .	72	+ 2	.1	- .3
Topeka . . .	82	+ 4	0	- .9	Cleveland . . .	71	- 1	0	- .8	Lander . . .	72	0	.2	+ .1
Wichita . . .	87	+ 6	0	- 1.0	Columbus . . .	74	0	T	- 1.0	Sheridan . . .	75	+ 4	T	- .2
KY. Lexington . . .	83	- 3	3.7	+ 2.6	Dayton . . .	79	+ 4	T	- .8	P.R. San Juan . . .	84	+ 3	.3	- 1.2
Louisville . . .	76	- 1	T	- .8	Toledo . . .	72	0	T	- .7					

Based on 1941 - 70 normals.

## CONDENSED STATE SUMMARIES

The Bulletin capsulizes nationally important weather and crop conditions. Every Monday SRS publishes more detailed data in State Weekly Weather and Crop Bulletins in cooperation with the National Weather Service, NOAA. Voluntary weather observers, crop reporters, and county extension agents contribute weekly observations for these reports.

**ALABAMA:** Scattered thundershowers most frequent south with weekly average 1.00 to 1.50 in. Temperatures near normal, highs mostly in 90's; lows upper 60's or low 70's.

Thundershowers boosted prospects for cotton, corn, soybeans and peanuts tremendously. Growth and development favorable. Cotton fruiting freely, 50% setting bolls, 18% 1973. Corn was 46% in or beyond dough stage and 18% dented compared with 31% and 14% in 1973. Soybeans in various stages of development with late planted fields just emerging while earlier beans are blooming. Peanuts growing vigorously with plants lapping middles of most fields. Pastures provided short to adequate grazing.

**ALASKA:** Temperatures averaged near normal. Precipitation remains below normal for all stations. Ground moisture supply generally adequate.

Prospects for most crops reported average. Barley and oats almost all headed. Second crop bromegrass about 12 in.

**ARIZONA:** Temperatures 2 to 6° below seasonal norms. All areas received precipitation from thunderstorms.

Cotton cultivation, irrigation, haying main activities. Cotton good condition, putting on good boll set. Sorghum fields progressing normally. Safflower harvest continues. Alfalfa hay harvest third and fourth cuttings, no major problems. Harvest deciduous fruit completed. Mixed vegetables harvest mostly complete. New crop fruit sizing well. Areas receiving no moisture, still severely dry. Livestock conditions poor to fair not improved even with precipitation received. More rain needed to get runoff, replenish stock water.

**ARKANSAS:** Temperatures 1° below normal to 5° above. Maximums in 90's, 100's by weekend. Little or no rain. However, isolated amounts in excess of 2.00 in. Other reports of rain generally averaged between 0.50 to 1.00 in.

Hot, dry weather slowed plant growth. Soil moisture short. Cotton 10 days to 2 weeks late but making good growth. Bug infestations increasing; some squares lost to hot weather. Rice growing well in good condition. Few soybeans planted. Soybeans about 3 weeks later than normal. Corn and sorghum in good condition, need rain. Very little hay being cut. Pastures in poor condition. Cattle fed supplemental hay on poorer pastures. Some livestock marketed because of short pastures. Watermelon and cantaloupes moving to market. Tomato harvest declining.

**CALIFORNIA:** Scattered showers and thundershowers southern Sierra Nevada southward early in week, over northern mountains and southern deserts later. Temperatures began below normal inland but above later with highs near 100° Central Valley and over 100° southeast interior. Average temperatures slightly below normal inland, but mostly above normal coastal sections.

Wheat, barley harvest continues Central Valley. Corn fields normal, pest control measures being applied. Safflower fields in bloom. Cotton

fields blooming, setting bolls, irrigation, pest control measures continue. Milo, rice fields developing well. Sugarbeet harvesting continues Imperial Valley, beginning southern San Joaquin Valley. Alfalfa harvesting continues. Grapes growing well, almond orchards prepared for harvest. Early clingstone peaches seriously damaged brown rot. Prunes sizing well some fruit splitting. Valencia harvest active. Table grapes, nectarine, plum, peach, pears, early figs, avocado harvest continues. Broccoli supplies moderate, cauliflower slightly heavier. Cantaloupe full swing westside. Carrot digging continues. Celery increased central coast. Lettuce continues central coast. Potato slowing Kern, increasing Fresno. Sweet corn heavy south, increasing San Joaquin, market tomato winding up southern San Joaquin, increasing Stockton-Tracy. Processing tomato beginning westside. Watermelon continues Central Valley. Range pastures good condition. Fire danger rising all elevations. Supplemental feeding many areas. Stock water supplies adequate.

**COLORADO:** Widespread moderate to heavy rain. Weekly totals generally 0.50 to 1.50 in. Akron and Sedgwick had over 2.00 in. for week, as did parts of mountain areas in central and south central. Over 1.50 in. at Breckenridge and Grand Junction. Very heavy rains parts of northeast on 21st and golf ball hail near Weldon. Driest area was southeast where some localities got 0.50 to 1.00 in. but most under 0.25 in. Mean temperatures averaged 1 to 4° above normal east Continental Divide and 2 to 6° below seasonal west. Temperature extremes: 102° at La Junta on 20th and 37° at Leadville on 19th.

Wheat harvest 86% complete, active west slope, ending in east. Winter barley 86% cut, normally 69%. Spring barley harvest active, 19% complete. Summer potatoes 10% out, harvest active northeast and Arkansas Valley. Corn 54% tasseled, 5-year average 17%. First cut alfalfa 93% completed, second cutting 22% complete. Dry beans flowering. Sorghum in good condition except southeast. Livestock in good flesh. Pastures fair condition, except southeast, very poor.

**FLORIDA:** Temperatures near to slightly below normal. Widely scattered showers and thundershowers brought light to moderate precipitation.

Soil moisture excessive south, adequate central and north, short west. All crops good condition except dry areas. Harvest early corn underway. Soybeans, cotton and peanuts in good condition, except west. Hay making active. Flue-cured tobacco harvest active, nearing completion. Shade tobacco harvest complete. Sugarcane condition good. Pastures in fair to excellent condition. Cattle and calves fair to good condition in Panhandle and good to excellent in peninsula.

**GEORGIA:** Scattered thundershowers late in week mainly central and south with 0.50 to 0.75 in. common. More thundershowers over weekend; excess of 0.25 in. Little precipitation north. Temperatures averaged 2 to 4° below normal east; 1 to 2° below west.

Soil moisture short many areas. Corn fair to mostly good. Tobacco harvest and curing active,

harvest 59% complete. Cotton continues good condition, 85% setting bolls. Peanuts good, spraying for leaf spot and insects active. Soybeans mostly good, many acreages blooming, weeds becoming a problem. Pastures mostly fair, showing stress. Haying active. Cattle mostly good. Harvest short peach crop 86% complete. Pecans mostly fair. Vegetables and melons moving in good.

**HAWAII:** Variable amounts of rain fell over most crop areas and added needed moisture. Crop progress generally fair to good. Heavy spraying necessary to curb insects and diseases. Vegetables in adequate supply. Banana production holding steady. Papayas gradually decreasing. Cattle in good condition. Pastures benefitted by rains. Pineapple harvesting in peak.

**IDAHO:** Panhandle experienced slightly below seasonal normal temperatures with moderate precipitation. Rest of State warmed with maximum in upper 90's and low 100's averaging in 70's. Southeast and mountain areas received light precipitation end of period.

Continued stress east on dryland crops due to lack of rain. Potato crop progress good. Most southwestern fields closing middles, 80% south central, 30% east. Winter wheat harvest underway, majority of crop in turning stage. Barley harvest begun north and southwest, overall crop is headed and turning. Spring wheat is 33% turning, some advanced fields ripe. Second cutting hay in progress.

**ILLINOIS:** Temperatures 2 to 5° above normal. Precipitation north on 18th, most areas 19th, not exceeding 0.50 in.

Corn about 35% silked; 37% 1973, 3-year (1971-73) average 58%. Condition mostly fair to good. Soybeans blooming 20% of fields, 37% 1973, average 57%. Condition mostly fair to good. Oats 90% ripe, 72% 1973, 40% harvested, 20% 1973, 34% average. Second cutting alfalfa hay 60% complete, 51% 1973. Barley harvest 90% complete. Pastures fair to good condition. Soil moisture 87% short, 13% adequate. Fieldwork: 6.5 days suitable.

**INDIANA:** Another dry hot week. Some showers in narrow band. Temperatures from 98° on 17th to 48° on 21st. Low humidities, high evaporation and high soil temperatures.

Fieldwork averaged 6 days. Topsoil moisture short. Subsoil moisture mostly short to adequate. Wheat 95% combined, 90% in 1973, 80% average. Oats 25% harvested, same as 1973, 35% average. Corn 15% silked, 35% average. Soybeans 10% blooming, few fields setting pods, both behind 1972 and 1973. Alfalfa hay 40% cut second time, 35% in 1973. Pastures on decline, rated fair.

**IOWA:** Temperatures averaged 7° above normal. Over 100° west each day. Scattered showers and thunderstorms extreme north, east, extreme south late in week. But 0.25 to 1.25 in. not enough to hit normal, and the 4-6 weeks deficiency continues. Over 2.00 in. rain at Norway and Hubbard.

Crops development normal, considerable stress due to hot dry weather, mainly in western half. Fieldwork: 6.9 days suitable, average 5.1. About 40% corn fields 75% or more silked, same at 5-year average. Some stalk borer damage reported. Soybeans blooming 40%, average 50%. Oat harvest 40%, average 38%. Second cutting alfalfa 55%. Red clover second cutting 22%. Pastures deteriorated, brown in many areas. Topsoil moisture 84% short, 16% adequate.

**KANSAS:** Temperatures 6 to 8° above normal. Extensive dry weather continued. Precipitation limited to a few scattered showers early in week.

Hot dry weather caused further decline in row crop prospects. Topsoil and subsoil moisture short. Some corn and sorghum firing. Soybean development sharply curtailed. Irrigators behind schedule southwest. Wells pumping at limit. Stock water becoming short. Sorghum 5% headed, equal to 1973, average 10%. Corn acreage tasseled 55%, 35% 1973, 50% average; dough stage 10% equal to average. Soybean acreage 5% podded, equal to a year ago, average 15%. Alfalfa second cutting 90% harvested. Third cutting 10% harvested. Pasture and range feed deteriorating. Cattle beginning to move off native pasture.

**KENTUCKY:** Temperatures averaged near normal. Precipitation varied from 0.33 in. west to 1.75 in. east.

Good week for outside work. Dry weather damage expanding, much of State now reporting shortage soil moisture. Corn twisting and firing in drier locations, 50% tasseling compared 17% 1973 - in very critical stage. Soybeans stands better, late seedings hurt most by dry weather. Plants now average 13 in. high, 15% crop blooming. Tobacco growing fast, under generally favorable conditions, 70% now over 2 ft. tall, 1 plant in 8 reached bloom stage. Pastures getting short in dry areas.

**LOUISIANA:** Temperatures averaged within 2° of normal. Temperature extremes: 98° at Alexandria on 14th and 64° at Covington on 19th. Precipitation occurred several days, heaviest amount was at Boothville where 6.47 in. was measured. Weekly totals in other areas ranged well below 2.00 in.

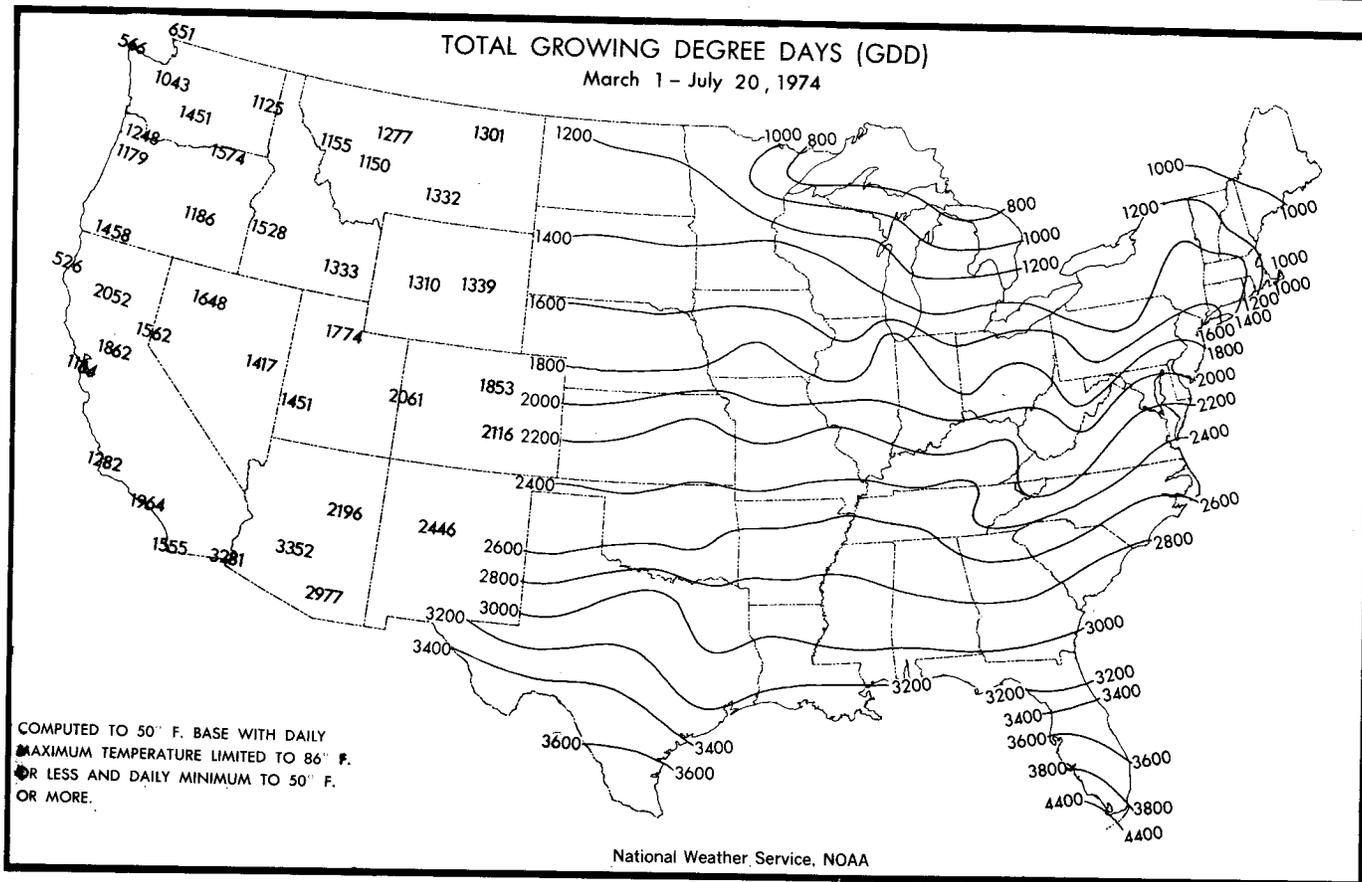
Soil moisture short northeast, northwest and scattered elsewhere. Fieldwork possible 5.5 days. Major activities were: Cotton irrigation and layby, cultivation, haying and livestock management. Cotton deteriorated slightly, mostly good, fruiting well, 80% setting bolls. Soybeans good drought stress northeast. Crop blooming and setting pods where sufficient moisture available. Corn and grain soybean fair to good. Rice good. Sugarcane growth good to excellent. Hay harvest good progress, pastures normal, cattle good to fair.

**MARYLAND AND DELAWARE:** Temperatures normal or near. Highs low to mid 90's, and lows from low 50's to 60's except low 80's to 44 in Garrett County. Precipitation light, less than 0.25 to 1.10 in. heavier amounts in scattered thunderstorms.

Showers helped, but soils generally dry. Most crops showing moisture stress, damage not serious. Corn 50% silked, same as 1973, ahead of normal. High temperatures unfavorable for pollination and ear formation. Early soybeans starting bloom, later fields good stands but limited growth. Wheat harvest 90%, barley done, spring oats starting. Tobacco being irrigated where possible, harvest started. Irrigation also used on vegetables, potatoes and orchard.

**MICHIGAN:** Temperatures near normal. Maximums upper 80's to mid 90's. Rain totaled 0.10 in. or less south and central lower to 0.40 to 0.80 in. northern lower and upper peninsula with local amounts up to 1.20 in. central upper.

Hot sunny weather pushed crop growth where soil moisture adequate. Growth limited by lack of moisture lighter soils. Fieldwork: 6.0 days



favorable. Corn grew rapidly; average height 39 in. equal to 1973. Dry soils causing corn to roll. Soybeans need rain. Sugarbeets growing well. Winter wheat 20% harvested. Oats 28% yellow, some ripe. Potatoes being irrigated. First cutting hay ending. Pastures deteriorating rapidly. Sweet cherry harvest about finished southwest, active northwest. Tart cherry harvest well along southwest. Heat pushed vegetable growth, non-irrigated fields showing stress from moisture deficiency.

**MINNESOTA:** Another hot dry week with temperatures averaging 5 to 8° above normal most areas. Temperatures averaged 90° most of state 17th through 19th, with low 100's southwest. Precipitation below normal except locally heavy in a narrow band Fargo to Duluth 20th and 21st. Amounts 0.33 to 0.66 in. below normal.

Rains urgently needed as hot dry weather and depleted soil moisture supplies have placed crops under considerable stress. Row crops still fair to good condition, but need moisture as entering critical development stages. Hot, dry weather has pushed maturity small grains. Moisture would still benefit crop in northern one-third. Small grains southern two-thirds nearing maturity and a few oats, rye and winter wheat fields swathed.

Corn height 49 in., average 51; silked or tasseled 35%, 1973 52%, average 43%. Soybeans height 18 in., average 17; blooming 61%, 1973 76%, average 60%. Spring wheat turning ripe 24%, average 45%, 1973 93%. Winter wheat swathed 19%, average 19%, 1973 30%. Barley 23% turning ripe. Oats

45% turning ripe. Rye 25% swathed. Flaxseed 62% setting bolls.

**MISSISSIPPI:** Scattered thundershowers, warm temperatures. Average temperatures near normal; extremes from 100° Columbia on 13th to 62° Waynesboro on 19th. Largest one day rain at Merrill, 2.50 in. hot weekend. Thunderstorms across state on 20th.

Fieldwork: 5.7 days suitable. Soil moisture mostly short, adequate northeast and southwest. Planting of soybeans 94% complete, normally complete by July 20. Cotton is 92% squaring, 52% is setting bolls. Normally 92% is squaring and 75% is setting bolls. Planting of sorghum 97% complete, 100% 1973. Harvest of peaches 85%, cucumbers 90%, watermelons 45%, hay 40%, corn silage 10%, and sorghum silage 5% complete. Cotton and pastures mostly fair to good, soybeans mostly good to fair condition.

**MISSOURI:** Very dry and hot; and little or no rain for more than three weeks has dried soil to as much as two feet in many areas. Temperatures mid to upper 90's; western Missouri 100° or higher. Drought critical in many areas.

Fieldwork: six days suitable. Wheat harvest 99% complete. Oat harvest 86% complete, 59% 1973, 71% 5-year average. Corn, soybeans and cotton crops poor to fair condition. Corn 52% silked, 25% 1973. Soybeans 17% blooming, 12% 1973. Cotton 65% squaring, 75% 1973. Second cutting alfalfa 79% harvested, 78% 1973. Clover-Timothy 85% harvested, 75% normal. Soil moisture in short supply. Pasture 53% poor, 46% fair condition.

**MONTANA:** A hot week with scattered thunderstorms. Temperatures averaged 5 to 10° above normal with maximums reaching the 90's and lower 100's over some areas east of the mountains. All divisions averaged below normal precipitation although there were spotty areas with precipitation above normal.

Hot, dry weather hastened maturity of spring grain crops. Condition, growth spring planted crops poor to fair northcentral areas, fair to good elsewhere. Winter wheat 25% ripe, 2% combined. Spring wheat, 30% "turning." Barley 40%, oats 25% "turning." First cutting alfalfa 90%, wild hay 60% harvested.

**NEBRASKA:** Temperatures 5 to 9° above normal. Only rainfall northwest 0.50 to 1.00 in.

Fieldwork: 7 days suitable. Topsoil moisture supplies 98% short. Subsoil moisture supplies 91% short, 9% adequate. Wheat harvest completed. Corn condition mostly fair to poor, 50% silked, normal 40%. Drought severely damaging dryland corn. Sorghum condition mostly fair to poor, 15% headed. Soybean 10% podded and very short. Oats and other small grain harvest ending. Alfalfa second cutting 80% harvested. Pasture and range feed supplies 93% short. Livestock good to fair condition, some culling herds due to low feed supplies.

**NEVADA:** Temperatures near normal averaging 2° above northeast and south central to 2° below extreme south. Extremes: 104° Las Vegas and Hawthorne to 35° Mountain City. No precipitation northwest, increasing to 0.21 in. south central. Heaviest amount 0.58 in. Caliente.

Second crop alfalfa under way northwest, fourth crop beginning southern valleys. Small grain harvest started northwest. Range feed fair higher elevation, dry with fire hazard lower. Lamb losses to coyotes heavy in upper ranges.

**NEW ENGLAND:** Cool temperatures, frequent showers. Upper 80's and 90's early and late in week; 70's and 80's remaining portion. Showers or thunderstorms about every day, especially in central and north.

Hay made midweek and between showers. Corn made good growth. Potato crop looks good Aroostook County, Maine, many growers finishing hilling and cultivating. Apples sizing well all areas. Massachusetts cranberry growers irrigating, fruit set and crop prospects good. Sweet corn harvest beginning south.

**NEW JERSEY:** Temperatures averaged 70° north to 74° south. Extremes: 46° Newton; 96° Hammonton. Rain averaged 0.16 in. north to 0.03 in. south. Heaviest daily total 0.30 in. Flemington on 19th.

Soil moisture averaged 45% field capacity north 34% central and 27% south. A good soaking rain is needed. Irrigation of vegetable crops going strong. Harvest of sweet corn, tomatoes, peppers, cucumbers, white potatoes, blueberries and peaches going strong. Second hay cuttings underway. Wheat harvest nearing completion. Moisture supplies short. Pastures providing little feed. Corn starting to curl from lack of moisture. Soybeans need rain.

**NEW MEXICO:** Still very dry eastern plains. Rains southern desert and southwestern mountains for week up to 2.14 in. at Rodeo. Many points there got more rain in week than previous year. Temperatures near normal eastern plains; 4 to 10° cooler west. Highest Statewide 98°.

Mositure, short to very short. Cotton plants knee high, fruiting well. Alfalfa good; 2nd cut, virtually complete; 3rd cut, 50 to 75%, south. Irrigated sorghum good, 40% headed. Dryland sorghum, mostly poor. Irrigated corn good,

dryland, poor to fair. Small grain harvests, virtually complete. Onions harvest in Mesilla Valley. Lettuce harvest, potatoe digging underway. Peanuts, sweet corn, tomatoes, good. Livestock fair, supplemental water and feed. Ranges poor; rainy areas, grass greening.

**NEW YORK:** Average temperatures at or below normal. Coolest was 45° at several stations. Albany's 45° set record low. Highs mid to upper 80's to around 90. Massena 1.90 in. of rain, Rochester none; average weekly precipitation elsewhere in the half-inch category.

Weather favorable for field activity. Moisture supply short. First cutting alfalfa 90% cut. Second cutting underway. Clover-timothy 80% harvested. Wheat ripening. Lack of moisture slowed pasture growth. Upstate potatoes in bloom moisture needed. Long Island irrigating continues on potatoes and sweet corn. Harvest of transplant onion and celery beginning in Organe County. Tomato, sweet corn, lettuce, cabbage, beets, cucumbers, snap beans and summer squash increasing. Hudson Valley tree fruit in fair to good condition. Tart cherry harvest underway.

**NORTH CAROLINA:** Hot dry weather. Scattered thundershowers but only light rain. Temperatures near seasonal. Light winds, stable air meant haze and pollutants.

Soil moisture 27% very short, 48% short, 25% adequate. Fieldwork: 4.9 days suitable. Crops showing stress caused by dry conditions. Flue-cured tobacco 17% harvested, 18% 1973. Small grain harvest complete. Corn prospects critical as moisture badly needed. Cotton and soybeans fair to mostly good. Irish potato harvest 90% complete, 83% 1973. Peach harvest 57% complete, 47% 1973. Rain needed badly throughout.

**NORTH DAKOTA:** Temperatures 7° above normal northwest and west central; 3° above north central. Highs 103° at Watford City to 77° at Devils Lake, Petersburg, and McHenry. Lows 47° at Upham to 78° at Williston. Precipitation from 0.51 in. above normal north central to 0.57 in. below normal west central. Greatest weekly rainfall 2.79 in. at Bottineau which included 2.61 in. on the 16th. Weekend hot, variable moisture; Fargo reported 2.97 in. on 21st.

Generally hot, dry weather continued to lower small grain prospects. Some counties north central and eastern areas received weekend rains, which will help grains and row crops. Swathing in southern counties with start of combining. Haying and summer fallow tillage continues.

**OHIO:** Only precipitation extreme south 19th making up to 1.52 in. for week. Highs 95° 19th, record low 47° 17th.

Wheat 95% harvested, 85% 1973, and 75% normal. Oats 20% harvested, 15% 1973 and 25% normal. Corn average height 55 in., 30% silked; both normal. Soybeans at 15 in. and 15% setting pods, slightly below normal. Corn and soybean condition continues to decline, fair to good. All days favorable for fieldwork. Soil moisture 83% short, 15% adequate, most areas very dry.

**OKLAHOMA:** Temperatures averaged 2° below normal south central to 4° above northeast. Precipitation light with greatest average 0.30 in. northeast. Weekend very hot and dry.

Row crops mostly fair condition after another

week of dry, hot weather. Panhandle irrigated corn good to fair, burning other areas. Sorghums 40% headed, early for date. Rains needed to revive all row crops. Cotton 66% squaring, 10% fields setting bolls. Peanuts spiking on 9% acreage, 66% blooming or more advanced. Soybeans 25% blooming, well ahead of 1973. Condition peanuts and soybeans fair to good. Haying active in eastern areas. Third cutting alfalfa nears halfway mark but later cuttings dependent on rain. Pastures and range grasses burning. Supplemental feeding becoming widespread.

OREGON: Central, north coastal locations recorded 2.00 to 3.00 in. of rain; Willamette Valley 0.50 to 0.75 in.; up to 0.25 in. along east slopes central, northern Cascades. Little or no rain elsewhere. Temperatures continued cool, to 3° below normal. Maximums upper 80's to low 90's. Minimums upper 30's in high eastern valleys.

Harvest 1 to 2 weeks late most crops. Rain delayed grain, grass seed harvest. Damaged hay crops, grass seed unknown. Willamette Valley barley, eastern wheat ready. Dry pea, spearmint, potato harvest underway. Willamette Valley onions approaching 2" bulb. Green pea harvest near completion. Broccoli and bean harvest continues. Harvest continues summer canberries. Sweet cherry harvest underway Union County. Early apricot, peach harvest started. High elevation ranges good, rain helped pastures. Livestock condition good.

PENNSYLVANIA: Temperatures averaged 2 to 7° below normal; coolest week since June. Highs mostly 70's to low 80's, lows 40's and 50's. Extremes: 92 and 35°. Rain much below normal third week with amounts generally less than 0.10 in. Few spots measured over 0.25 in. Driest week since early June.

Soil moisture is diminishing, 50% short, 50% adequate. Barley and wheat harvests nearing completion, oat harvest beginning. Corn height now averages 44 in. Second cutting alfalfa finishing up. Regrowth of hay crops and pasture are very slow. Harvesting of early varieties of apples and peaches is underway.

PUERTO RICO: Average rainfall 0.91 in. or 0.48 in. below normal. Highest weekly total 7.09 in. at Hacienda Constanza followed by 6.00 in. at Maricao. Temperatures averaged about 81° on coasts and 75° interior.

Water rationing continued as storage levels continued going down seriously, the lack of rain delaying development of new sugarcane plantings and ratoons along south coast. Coffee zones in western/interior have improved conditions due rain showers. In other sections the drought has seriously hindered the flowering and bean development. Pasture lands affected seriously due dry weather. The lack of rain is affecting cultivation of food crops.

SOUTH CAROLINA: Hot and humid; temperatures above 90° most areas. Rainfall very spotty. Heavy rain near centers of scattered thunderstorms, otherwise, moderate or light. Weakened front reached State 20th increasing thundershowers.

Soil moisture short some areas, weekend thundershowers helped. Tobacco 56% harvested, 47% 1973, condition good; cured leaf color good--thickness medium; 5 to 10% marketed. Cotton condition good; 96% squaring, 71% setting bolls, 92% and 50% respectively in 1973. Corn condition fair to good; 96% silked, 76% dough stage, 10% mature. Soybean planting practically complete; condition good. Peanut condition good. Peaches 76% har-

vested, 52% 1973. Hay crops, pastures fair to good condition. Watermelons 70% harvested.

SOUTH DAKOTA: Third consecutive week of extremely hot weather--mostly 90 to 105°. Extremes: 108° at Gettysburg, 54° at Faulkton and Castlewood. Moisture continues short. Growing season deficit generally 2.00 to over 5.00 in. below normal. Scattered thunderstorms parts of State. Heaviest was in southwest with scattered amounts of 2.00 to 3.00 in. Precipitation elsewhere averaged 0.30 in. except southeast mostly less than 0.10 in.

Winter wheat 100% ripe, 72% normally, 85% harvested; 36% normally, 68% 1973. Rye 100% ripe, 40% harvested. Barley 86% ripe, normal 47%; oats 78% ripe, normal 53%; spring wheat 65% ripe, normal 22%. Spring grain harvest well ahead of normal; Barley 42%, oats 32%, spring wheat 22% complete. Corn acreage 20% tasseled. Livestock generally good condition, flies and pinkeye continue bothersome. Pastures getting short and dry.

TENNESSEE: Scattered thundershowers most of State but rain averaged light most places. Showers 22nd and 23rd produced as much as 2.50 in. in a few places, but most of State got much less. No precipitation some places. Temperatures normal except southwest around 4° above.

Corn showing damage by dry weather, 65% silked and 15% in dough. Progress is ahead of last year but behind average. Many late planted soybean fields failed to emerge or have poor stands. Soybeans 20% blooming, 25% 1973, 33% normal, 5% have set pods. Cotton crop late, in fair condition, needs rain. Boll weevil becoming a problem. Cotton plants 80% squared compared to 90% 1973 and average. Most tobacco plants have started blooming, although quite short and uneven. Pasture conditions have dropped sharply the past 3 weeks and are now considerably lower than 1973 and average.

TEXAS: Scattered showers early in week gave way to hot, dry conditions most areas by weekend. Showers were numerous southeast and west of the Pecos, northward across central Texas and portions of High Plains. Much of north, west, and far south received no rain. General rains southeast with an inch or more along much of upper coast. Average near normal most of State, but 2 to 4° cooler than usual west of Pecos River Valley.

Sorghum harvest excellent progress south half. Harvest cotton, corn, rice gaining momentum, gradually moving northward. Farmers high, Low Plains turning under wheat, oat stubble, preparation fall seeding. Crops percent harvested: Cotton 1, 1973 0; corn 3, 1973 0; sorghum 28, 1973 13, rice 10, 1973 2.

High Plains: Onion, potato harvest underway. Vegetable development good. Some blackeyed peas still being planted. Trans-Pecos: Harvest Pecos cantaloupes. East: Watermelon harvest in full swing. Late plantings need rain. Harvest tomatoes, squash continues. Central: Tomato, okra harvest continues. San Antonio-Winter Garden: Heavy irrigation vegetables necessary. Land preparation for fall vegetables underway. Planting bell pepper, cucumbers, cabbage, spinach active. Lower Rio Grande Valley: Land preparation for fall vegetables. Okra harvest active. Peach harvest slowing Stonewall area. Growers hauling water to increase sizing. Peach harvest underway Gaines County. Harvest continues active northern, eastern areas where only fair crop developed. Irrigation improved pecans west, excellent condition. San

Saba County pecans good. Citrus development good. Range, pasture conditions continue decline most areas. Livestock condition fair to good, supplemental feeding necessary maintain condition. Hay baling active east, Blacklands, Upper Gulf Coast. Quick action checked spread anthrax central.

UTAH: Scattered showers and thunderstorms most sections. Amounts very spotty but locally moderate. Showers not as helpful to ranges as amounts might indicate. Average temperatures near normal but locally 3 to 5° above and below.

Soil moisture on nonirrigated land very short. Irrigation water short or nonexistent for small stream irrigators. Large reservoir and deep well irrigation water generally ample. Range feed poor most areas. Winter wheat 28% harvested. Spring grain harvest just beginning. Sweet cherries about 95% picked. Tart cherries about 39% harvested and apricots about 83% picked. Alfalfa second cutting 25% completed. Second cutting wild hay 53% completed.

VIRGINIA: Continued abnormally dry especially east of Blue Ridge. Widely scattered thunderstorms brought only light precipitation.

Extremes: 98 and 51°.

Topsoil moisture 88% short, 12% adequate. Fieldwork: 6.5 days suitable. Some areas too dry to plow. Condition of most crops dropped as moisture shortage became critical. Corn hardest hit by drought in central Piedmont and southeast. The next 7 to 10 days will be critical for all crops. Soybeans showing stress, poor germination in some late planted fields. Flue-cured tobacco - 3% harvested, 1973, 6%. Wheat harvest 92% complete, 1973, 93%. Potato harvest 66% complete. Pastures very dry, hay needed to supplement poor feeding.

WASHINGTON: Temperatures averaged 2 to 4° below normal west. Precipitation from 0.10 to 1.00 in. Temperatures averaged 3 to 5° below normal east. Scattered thunderstorms delivered precipitation from 0.02 to 0.50 in.

West: Wet weather hampered haying. Pastures remain in very good condition for time of year. Strawberry harvest virtually complete, raspberry harvest reached peak and blueberries started. Fruit rot is continuing problem in berries. Green pea harvest active. Corn and bush bean growth slowed due to cool, wet conditions. Potatoes growing well, cucumbers setting flowers, broccoli and cauliflower making heads. Wheat and barley fields turning, with some lodging. Silage making continued.

East: Apricot harvest active, cool nights

causing premature Red Delicious apple coloring. Early potatoes, sweet corn, and other fresh vegetables being harvested. Wheat and barley harvest progressing between showers. Bluegrass seed fields are swathed but combining delayed by rain. Aphid spraying in wheat and lentils underway. Dry pea harvest beginning. Pasture and ranges look very good.

WEST VIRGINIA: Temperatures near normal. Rain near normal except northeast which averaged only 0.12 in.

Soil moisture short eastern panhandle, adequate remainder. Fieldwork: Favorable 4.9 days. Harvesting hay, gardening and combining small grains. Most growing crops in good condition except tobacco. Upland corn good, Lowland corn fair condition with uneven growth. Small grains harvested: Barley 81%, wheat 53% and oats 23%. Potatoes 10% dug. Livestock in good condition, flies a chronic problem.

WISCONSIN: Temperatures averaged above normal west, near normal elsewhere. Cooler beginning and end of week, but 90's 18th and 19th. High 98° at Baldwin, low 38° at Eagle River. Rain generally light and spotty, less than 0.50 in. except north where good showers occurred 17th. Rain spread over State late 23rd.

Corn continues to grow well. Average height of corn 41 in., 1973 44 in., normal 42 in. Corn ranges from a few inches to over 6 feet high and well tasseled. Hot weather caused rapid development of corn borer larvae. Winter wheat harvest started. Rye and barley ready for combines. Oats ripening fast. Small grains look good but heat and dry weather have affected crops on light soils. Harvesting of second crop hay 10% done, same as 1973 and normal. Pastures deteriorated due to moisture deficiencies. Soybeans and tobacco developing good but need rain. Late peas hurt by hot, dry conditions. Early sweet corn in silk. Snap bean harvest in central sands good. Early potatoes ready for digging and cherries being picked. Cranberries in bloom. Soil moisture 80% short, 20% adequate.

WYOMING: Substantial rain many areas, only Big Horn Basin showing none. Temperatures warmer, 4 to 6° above normal. Maximums in 90's.

Topsoil moisture supplies short. Winter wheat 75% mature, 15% harvested. Spring wheat 50% turning color, 5% mature. Barley 90% headed, 30% turning, 5% mature. Oats 85% headed, 15% turning, 5% mature. Corn 25% tasseled. First cutting alfalfa 85% complete, second cutting beginning. Other hay 25% harvested. Irrigating continues.

## WORLD AGRICULTURAL WEATHER WATCH

In a continuing effort to increase the information provided in the World Agricultural Weather Watch, the narrative below provides a brief, but concise, review of crop-weather conditions in various parts of the world. This information has been prepared through the cooperative efforts of the Foreign Agricultural Service and Economic Research Service of the U.S. Dept. of Agriculture, and the Agricultural Weather Support Service office of the National Weather Service, NOAA.

The maps showing the weather conditions for June in the Africa-India area, the USSR, and for South America and Australia appear on the next 6 pages of the Bulletin.

## WORLD AGRICULTURAL WEATHER SUMMARY

**HIGHLIGHTS:** Rains, persistent and excessive, have delayed maturity, disrupted harvesting, and lowered quality of crops in much of Eastern Europe and parts of European U.S.S.R. It has been relatively dry east of the Urals. By mid-July, summer rains had only partially relieved the prolonged drought that has reduced crop prospects in China. India's southwest monsoon rains picked up in July--a month late and late enough to cause concern about yields. Showers took the edge off the drought but could not correct spotty stands in parts of the U.S. Southwest, northern Mexico, and in much of England. Dry conditions persisted into the fourth month, however, in Denmark and Sweden. Mostly hot weather for several weeks has taken some of the lag out of the development in the U.S. corn, cotton and spring wheat crops. Growing conditions in Canada were generally good.

**GRAINS:** Abundant rain since May in Eastern Europe enhanced grain development and relieved the dry spell that had persisted from late fall. However, persistent rains have delayed crop maturity, disrupted harvesting, and lowered quality and production. The same pattern has affected parts of the Ukraine and Byelorussia. The generous fall rains that made planting difficult in China sustained crops through the winter and spring drought which was severe in places, and only considerable increases in acreage and irrigation facilities tempered the losses.

The southwest monsoon picked up in India in early July, but has not started in earnest. Only two of India's major grain producing states--Punjab and Rajasthan--had normal or better June rainfall. The other states were mostly much below normal. After disappointing winter grain production, lagging rainfall is causing concern because seriously delayed planting often means lower yields of summer grains that make up about two-thirds of India's cereal grain production. Late planting increases the need for plentiful late-summer and early-fall rains, a time when rainfall usually declines sharply.

Hot weather and less frequent rain has made it easier to harvest winter grains in the U.S. and helped improve summer crops there and Canada. Drier weather has also aided planting in Australia. Rains set back winter planting in Chile and Brazil.

**FIBERS:** New crop cotton continues to make good progress throughout much of the world. Excellent July weather made up some of the delayed growth and development in Greece, and permitted catch-up weeding in the Mississippi Delta. Some rain fell on the parched Texas High Plains. India and China are

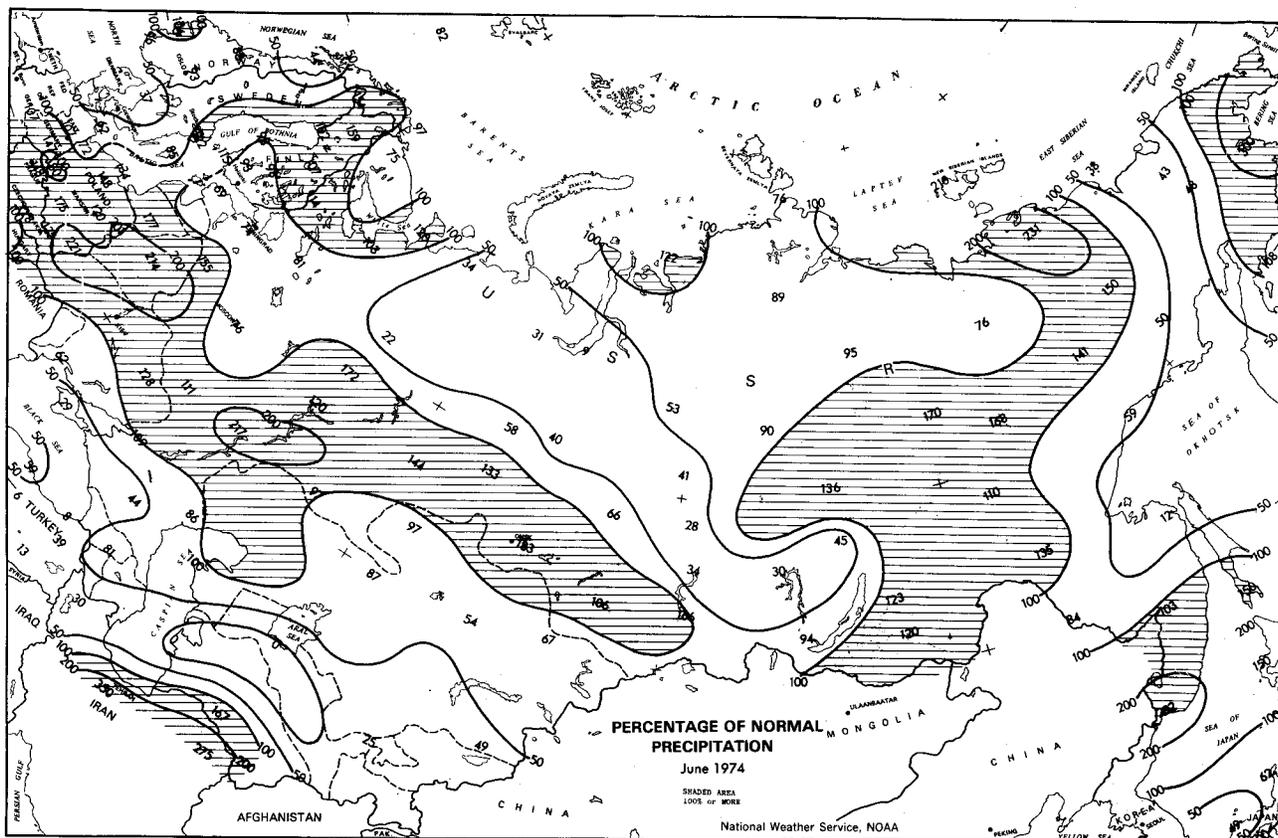
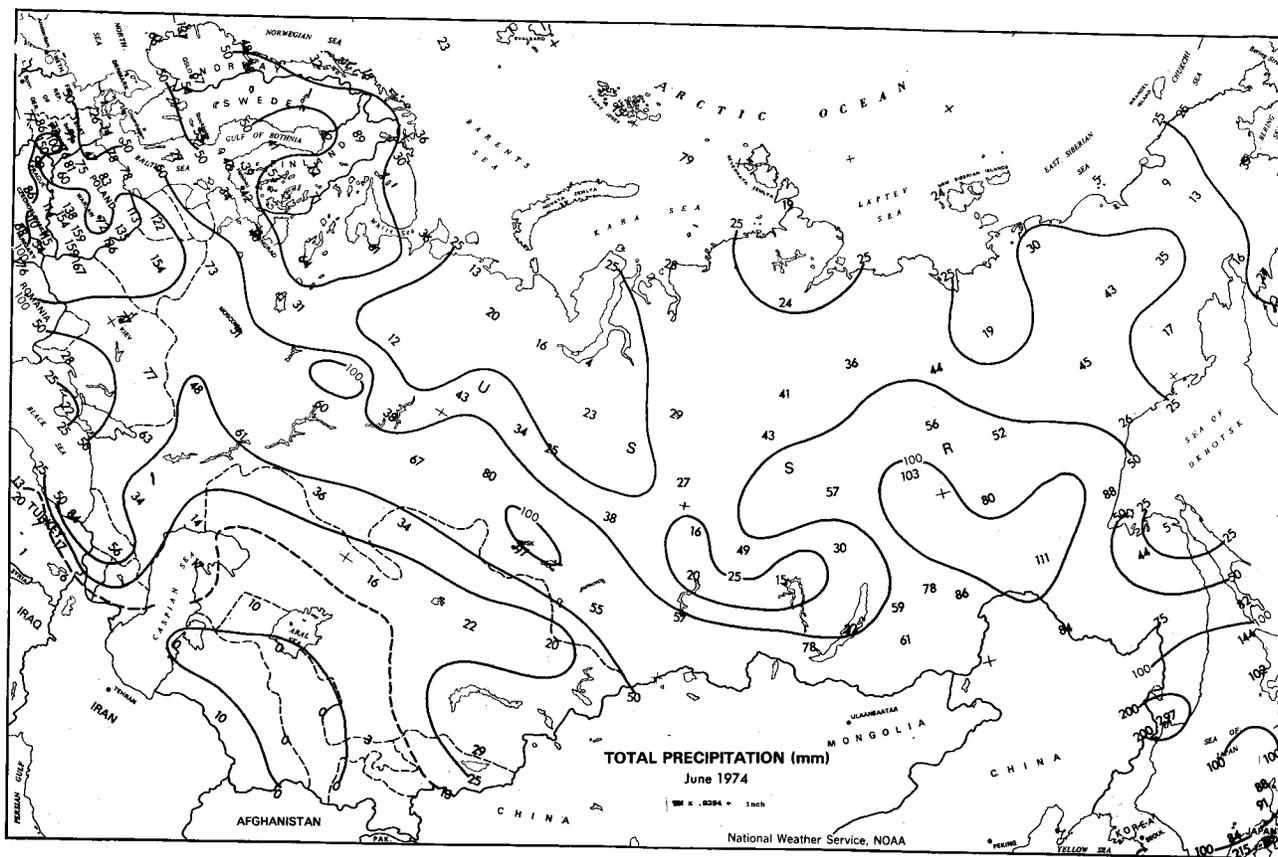
very "iffy" after eight months of below normal rainfall in much of each country; seasonably heavy summer rains appear to have begun and prospects more than usual depend on substantial rain in July, August, and September in India and China. Rain at harvest reduced Brazil's cotton crop by about 15%.

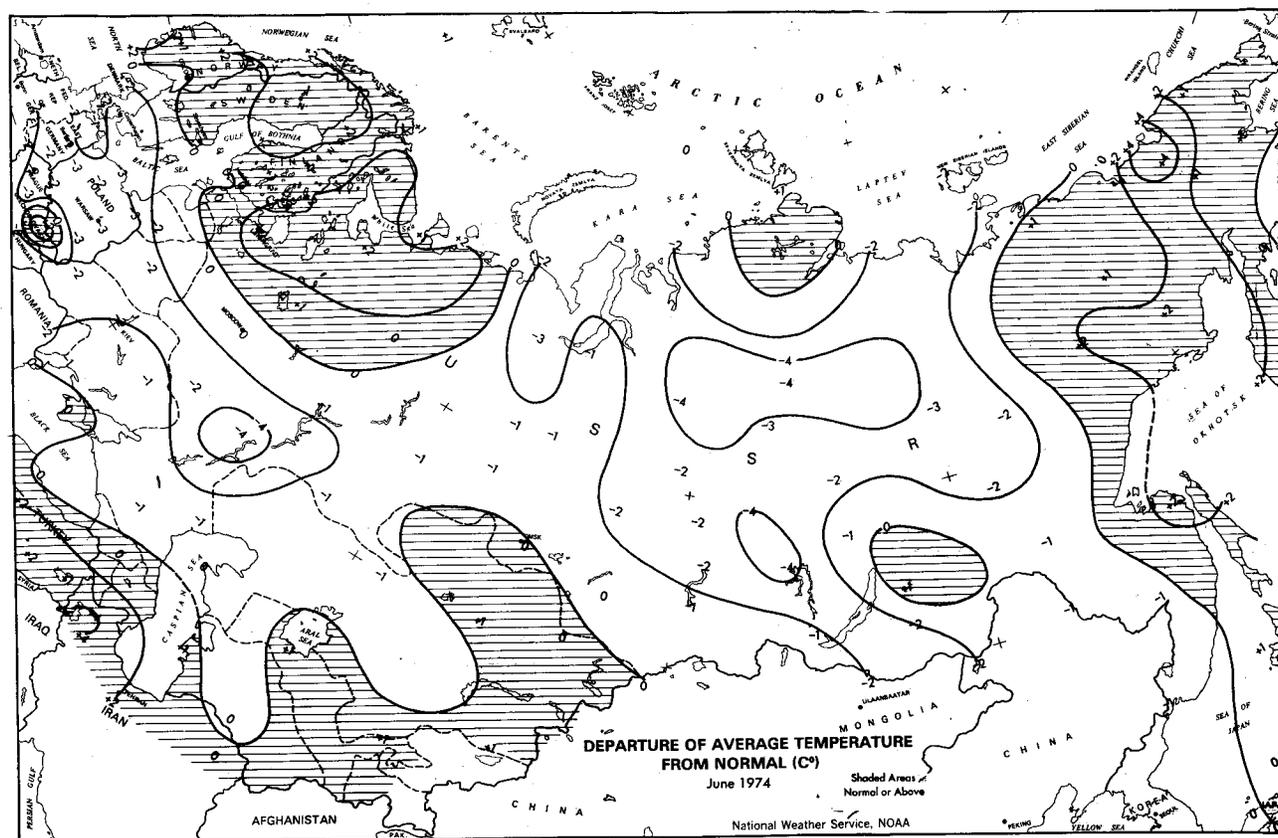
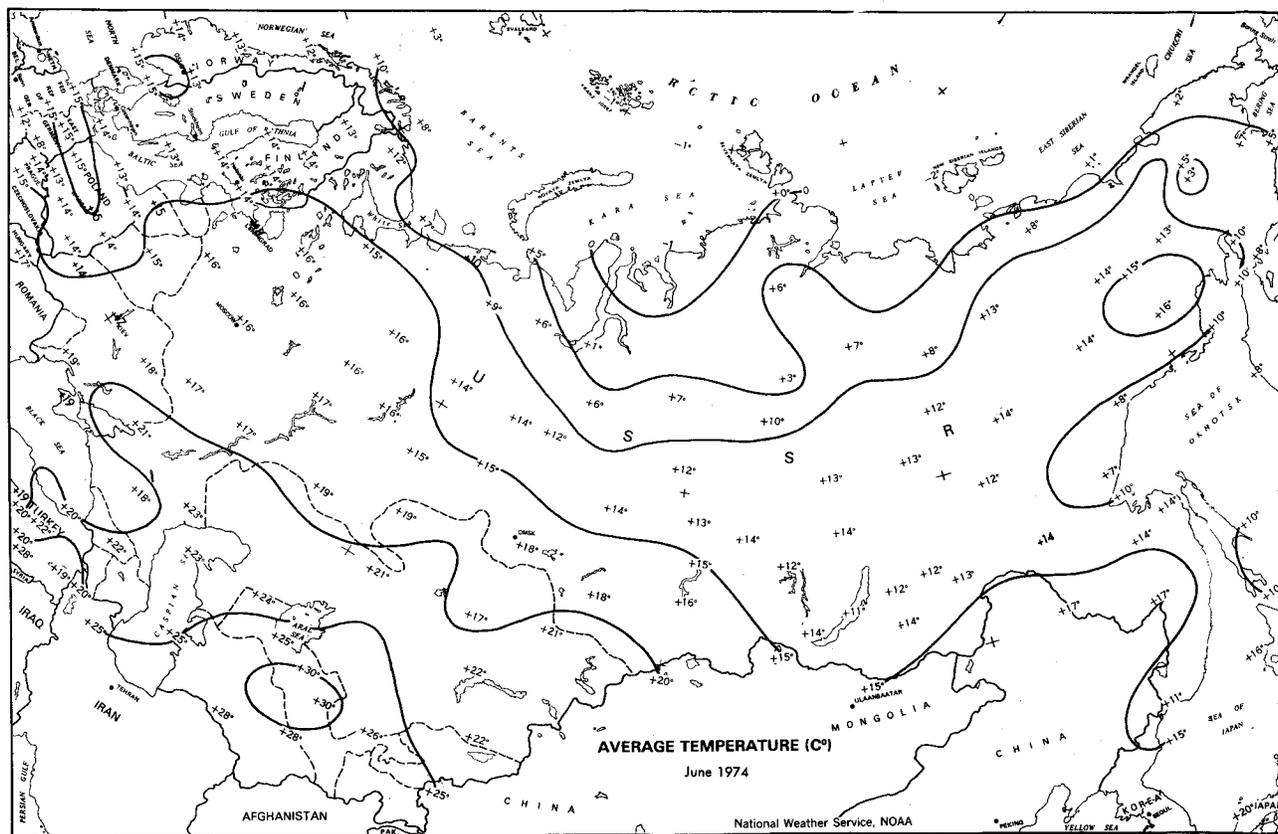
**OILSEEDS:** The U.S. soybean crop is mostly planted and developing well with better weather. In China, exceptionally dry weather through the winter and spring in many provinces would be expected to cause planting delays and erratic germination. Rainfall appears to have picked up in July, yet the crop has little soil moisture reserve. Drought impact will be reduced by a substantial increase in irrigated acreage. The same applies to peanuts in China. India does not have as extensive an irrigation system to fall back on and conditions were very dry in most peanut areas through June. The amount and frequency of rain increased in July but the crop is heavily dependent on timely rains throughout the summer. Soil moisture, appears adequate for sunflowers in the U.S.S.R perhaps excessive in spots.

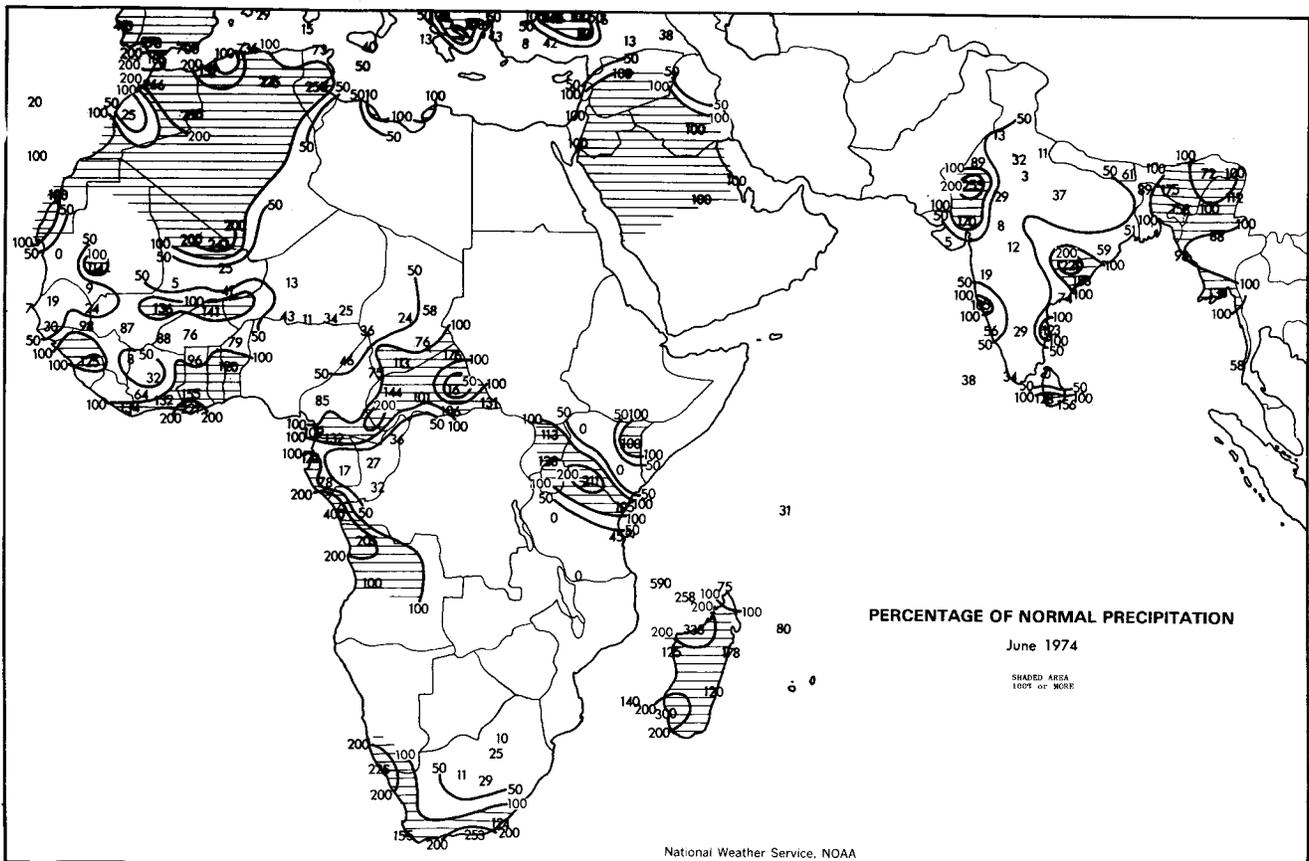
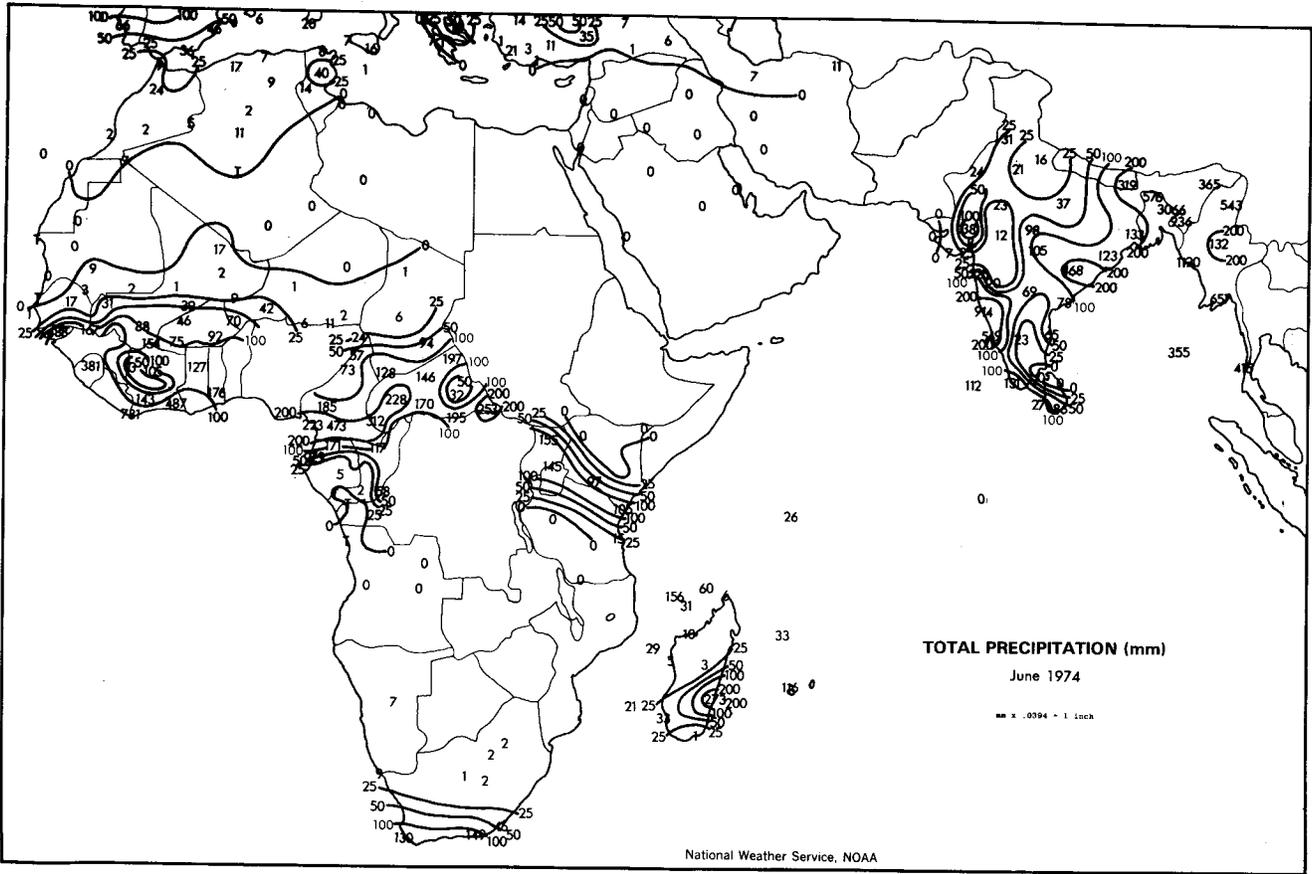
**HORTICULTURE:** Excessive rain damaged fruits and vegetables in much of Eastern Europe, while drought took the toll of these crops in Sweden, Denmark, India, and China. Growing conditions in North America have been generally favorable. The Dutch onion crop is described as fair to bad because of the dry growing season.

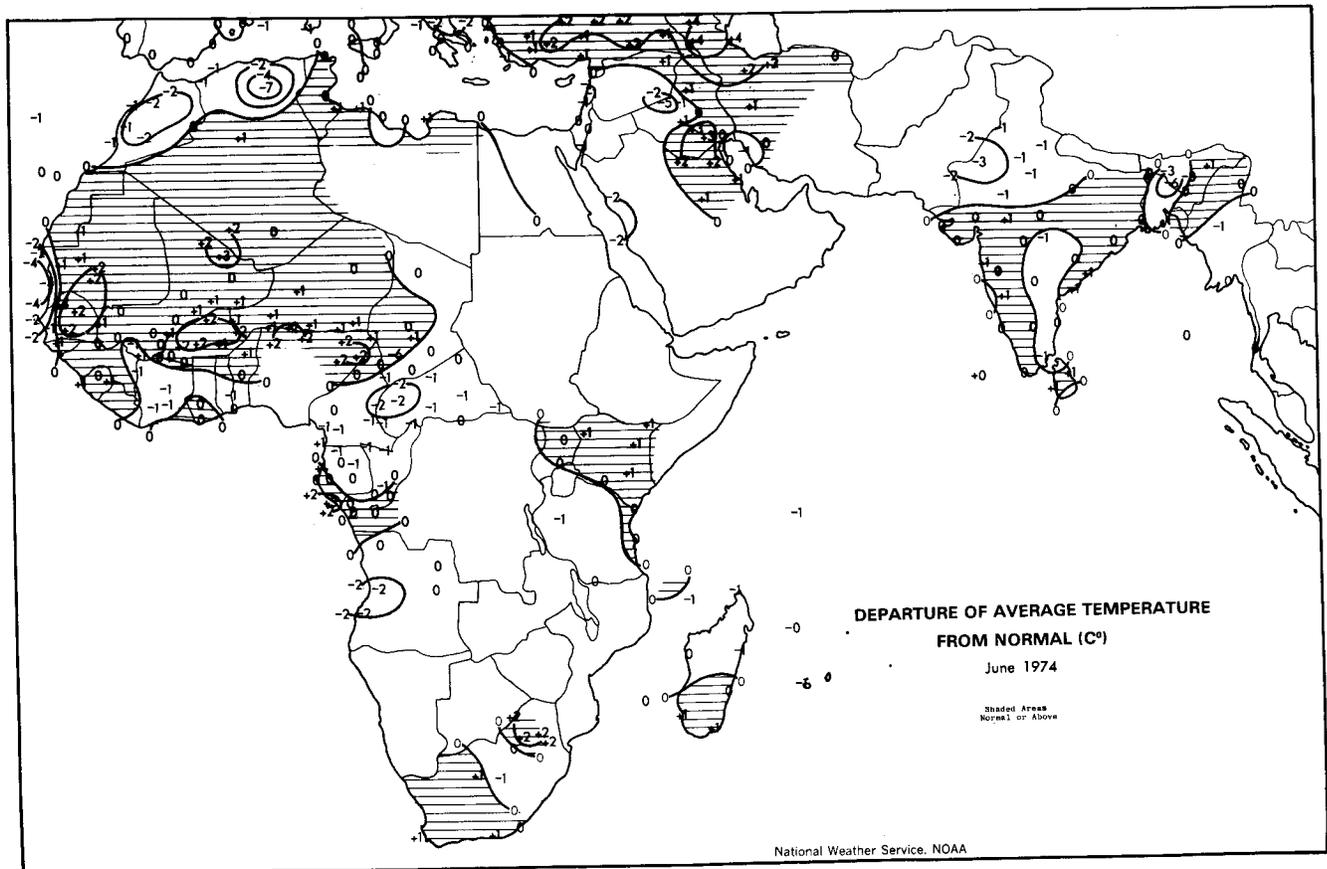
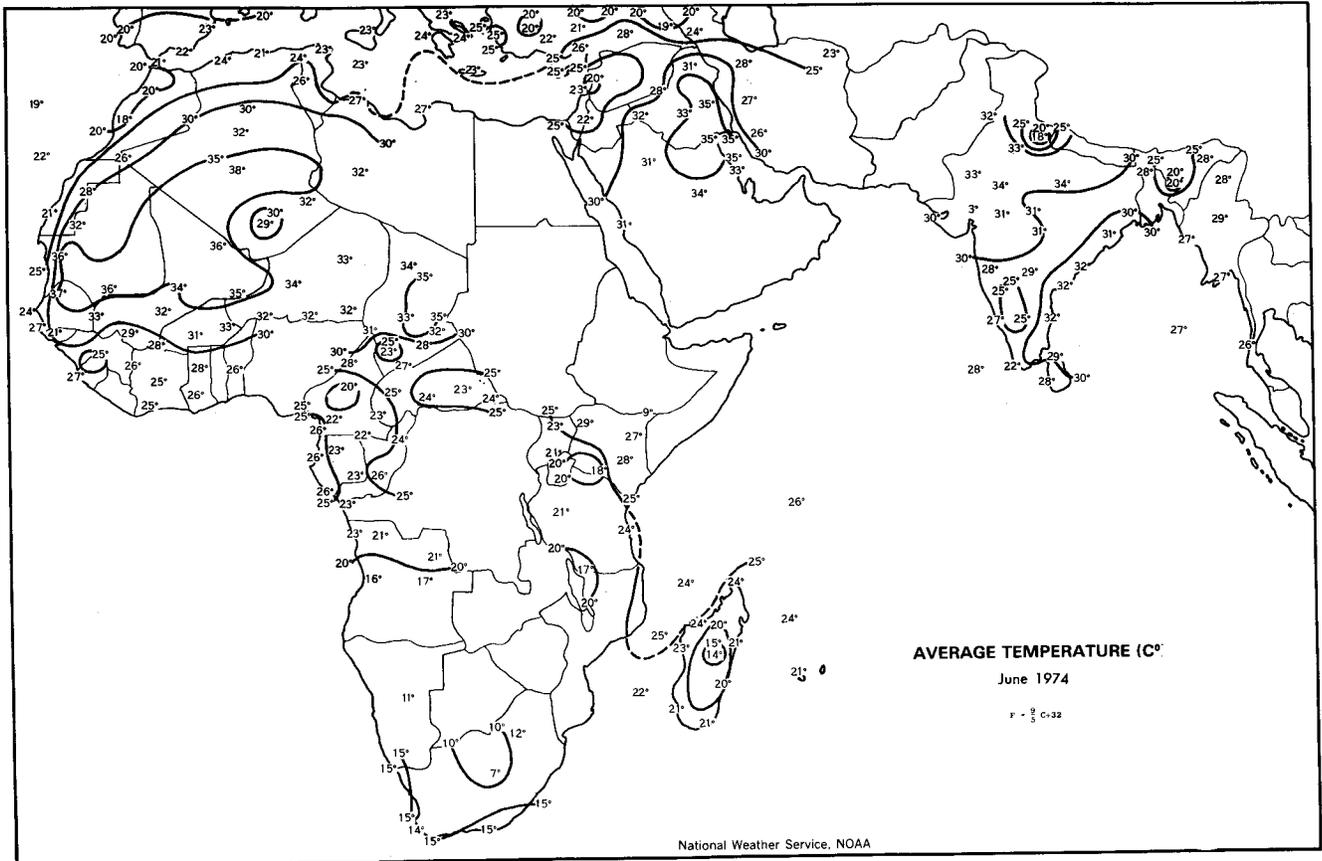
**PASTURES and LIVESTOCK:** Dairy production declined in the British Isles following cooler and drier weather than usual. England benefited from near normal rain in June. New Zealand and Australian forage crops continued recovery from prior drought. Some relief came by way of showers to ranges in the U.S. Southwest and northern Mexico. Too much rain and some flooding disrupted haying and impeded use of pastures in Eastern Europe but built up depleted soil moisture. Chile profited by rains in its central and dry northern sectors at some expense to row crops. With spotty exceptions, Sub-Sahara rainfall remained below normal, however rain activity increased in mid-July.

**OTHER CROPS:** Sugarbeets need moisture in much of Scandinavia, the British Isles, and the lowlands of Western Europe. Africa and Brazil have had good rains for early development of the cacao and coffee crops. Summer rains arrived late in much of India and China, suggesting reduced prospects for tobacco and many other specialty crops.

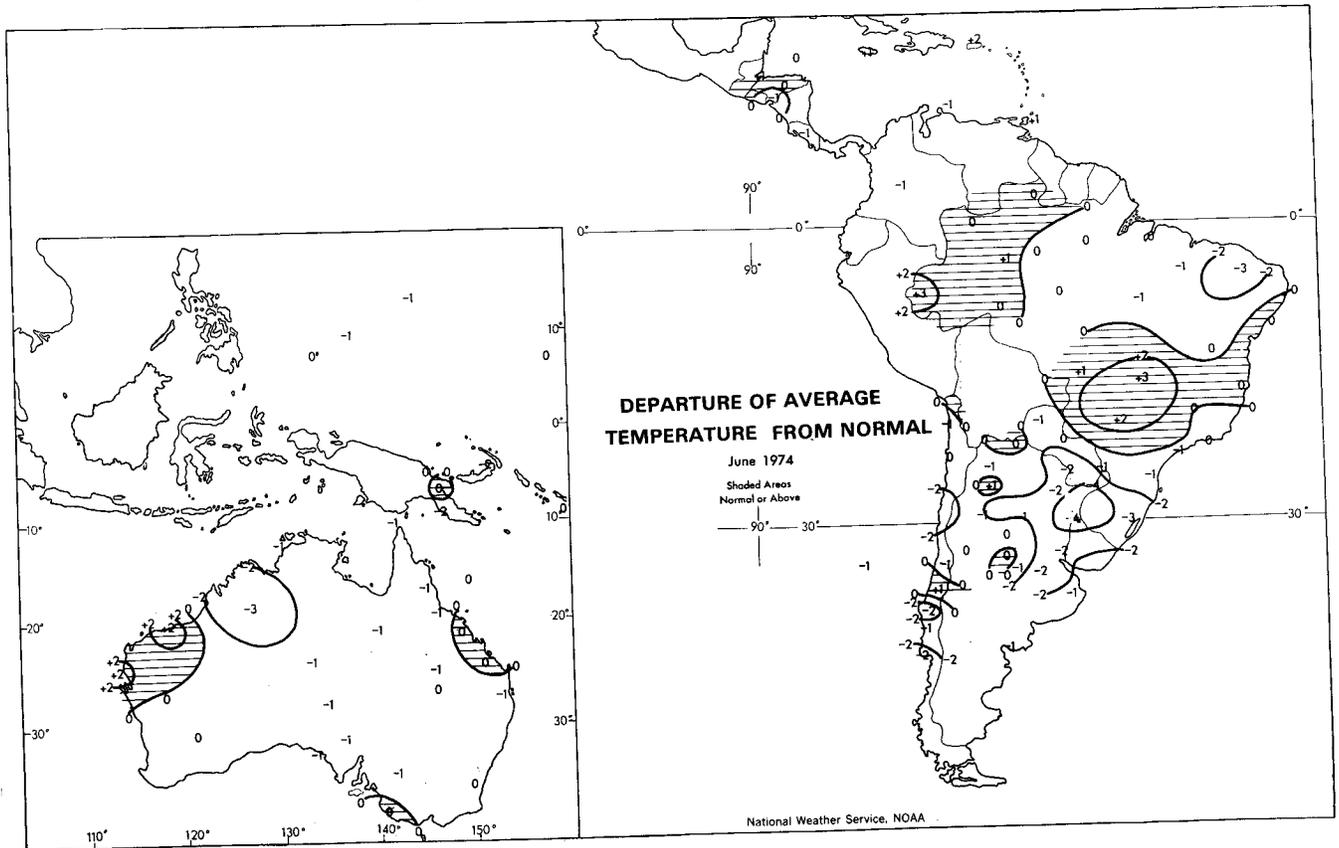
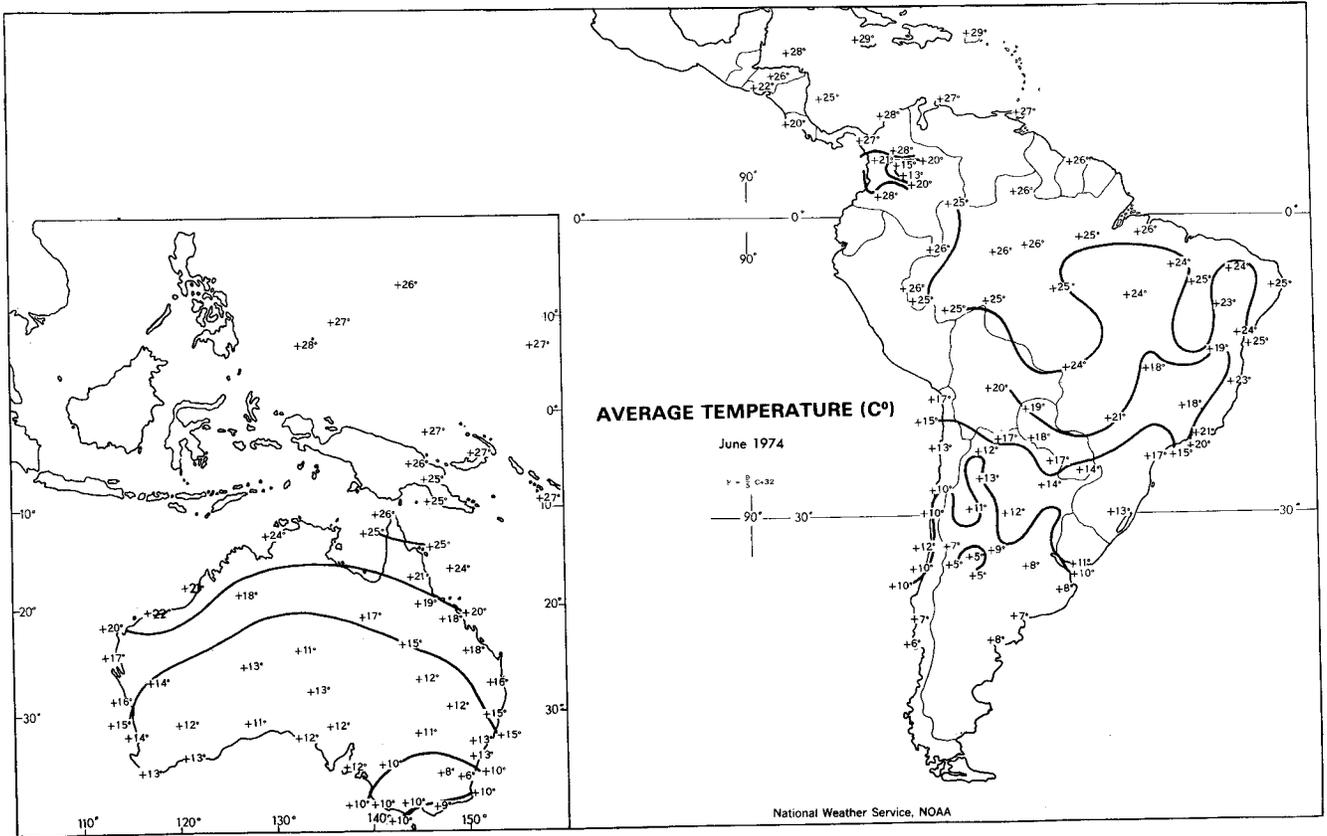


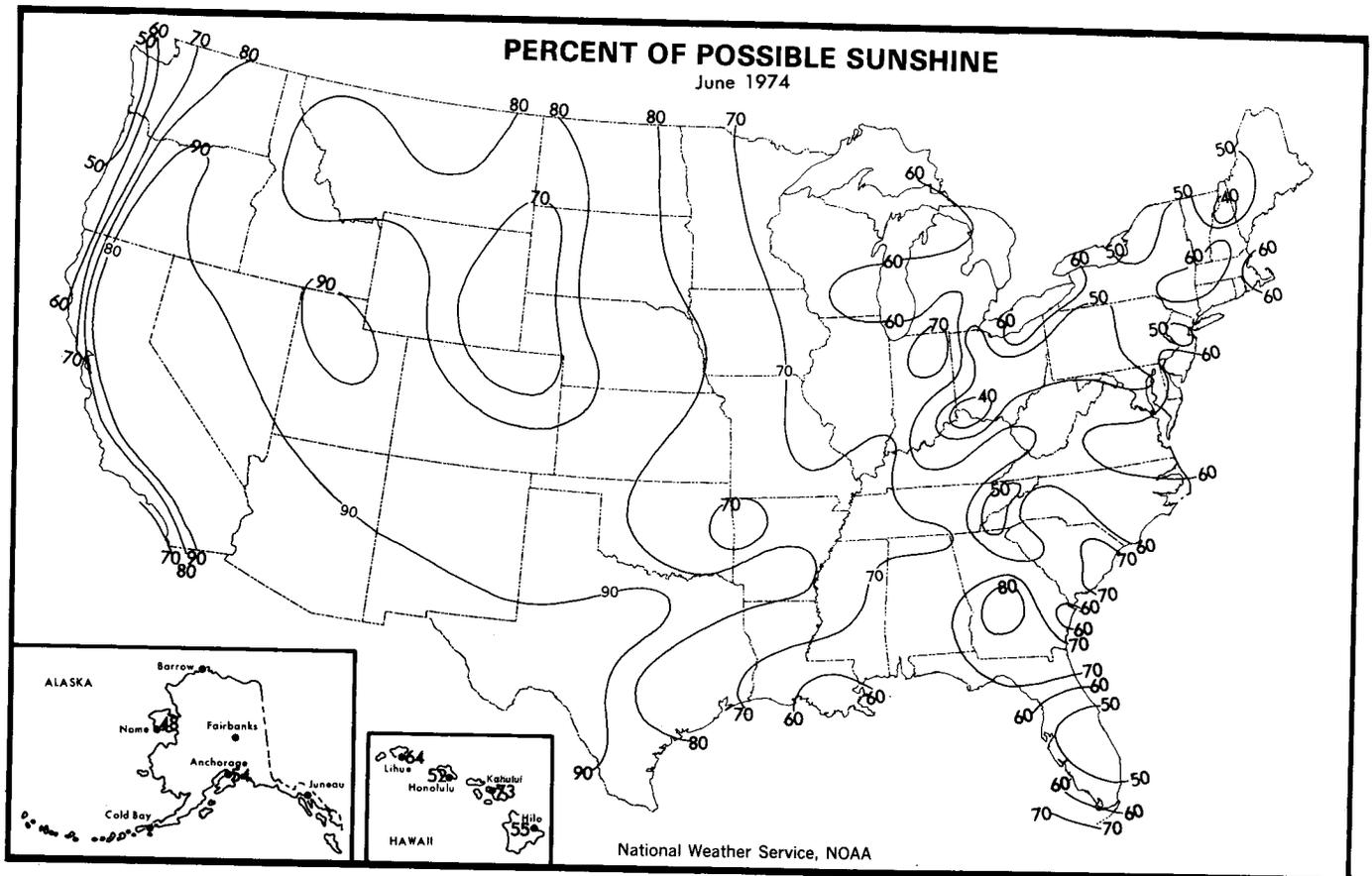










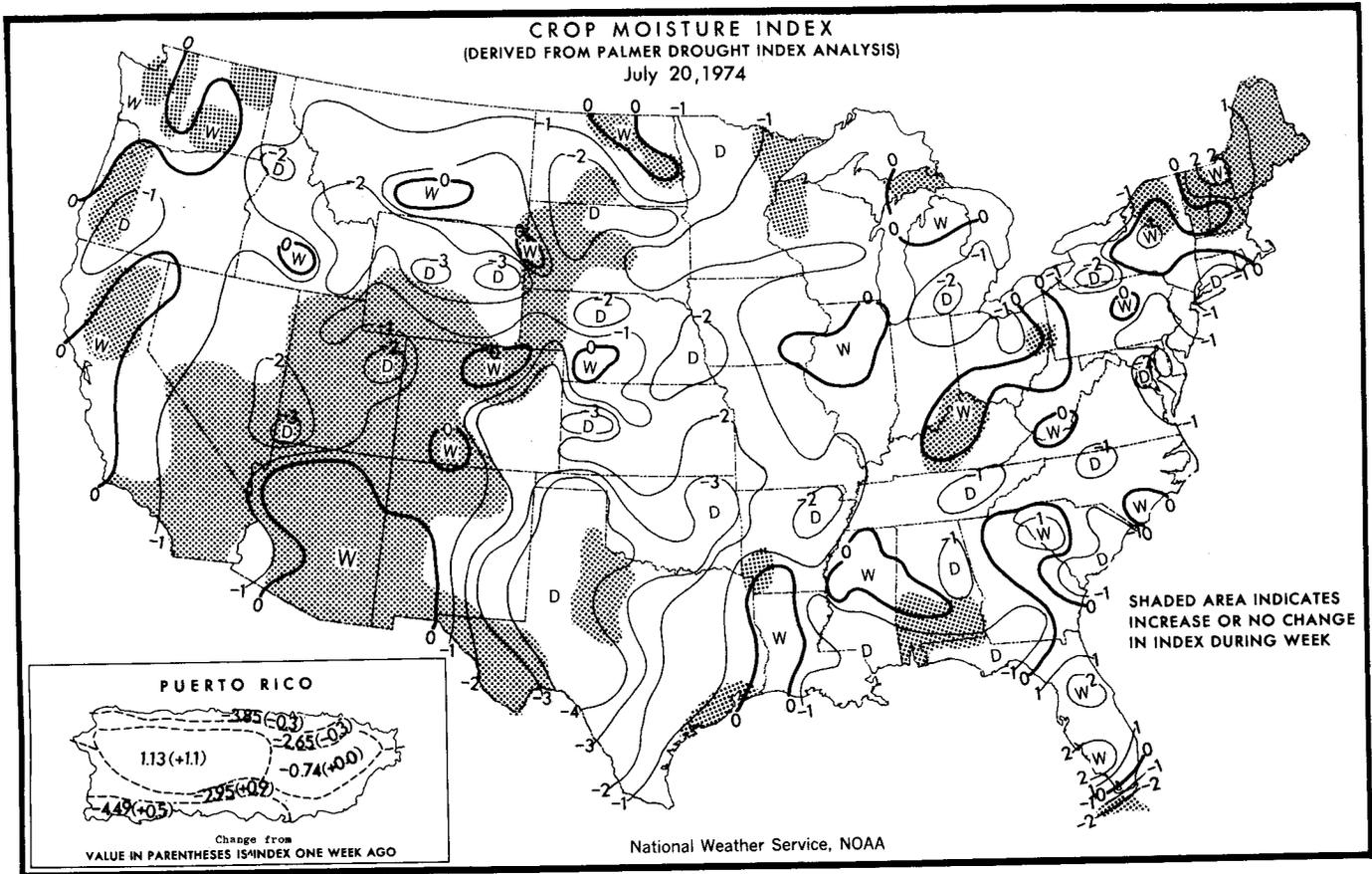


### NATIONAL FLOOD SUMMARY JULY 22, 1974

Considerable flooding occurred during the weekend in western Arizona and some nearby areas in California and Nevada. Some of the areas affected included Lake Havasu, Ariz.; where three lives were reported lost by drowning; and Bullhead City and Kingman. Several roads and highways were closed by high water. The Needles, Calif., Airport was closed. Flash flooding was reported also near Phoenix, Ariz. in the Apache Junction area and along State Highway 88.

Heavy local rains fell during thunderstorm activity last weekend in many widespread areas from southern Nevada and the California/Arizona border area through the Rockies and eastward to the Atlantic Coast. Several stations in Mohave County, Arizona received totals of 1.00 in. to more than 3.00 in. Harwood, N. Dak. received 4.24 in. yesterday morning.

Heavy rains Sunday morning in the Duluth/Superior area flooded the West End Business District in Duluth, Minn. Water was knee deep on the Airport ramp.



**SHADED AREAS:** Index increased or did not change last week

**UNSHADED AREAS:** Index decreased last week

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 good, 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
Below	-4.0	Not enough rain, still extremely dry

Index

Above	3.0	Some drying, but still excessively wet
2.0 to	3.0	More drying weather needed, work delayed
1.0 to	2.0	Favorable, except still too wet in spots
0 to	1.0	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	Extremely dry, most crops near ruin

The map gives a general picture of how wet or dry the Nation was last week. It shows areas where abnormal wetness or dryness have hindered crops and areas where moisture conditions have favored them.

The lines show the crop-moisture situation according to an index computed from values of temperature and precipitation by areas...350 climatological divisions, which correspond roughly to SRS's crop reporting districts. Previous weekly computations of soil moisture account for the effects of prior weather.

Shaded areas are those where precipitation increased the index last week or where soils did not dry. Unshaded areas dried last week.

The centers of wet or dry areas are marked: W=wet; D=dry. The map lines mark off crop situations. Use the legend to interpret.

Local variations caused by isolated rain or by soil differences are not shown. While shallow rooted crops in poor soils may suffer more than the map shows, conditions may be better where soils are good. Also, legends apply to growing rather than mature plants. Any map interpretation must consider both the growth stage and moisture status and trend. In irrigated regions, the index values reflect only departures from ordinary irrigation requirements.

Agricultural Climatology Service Office  
South Building Mail Unit  
U. S. Department of Agriculture  
Washington, D.C. 20250

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