

# Weekly Weather & Crop Bulletin

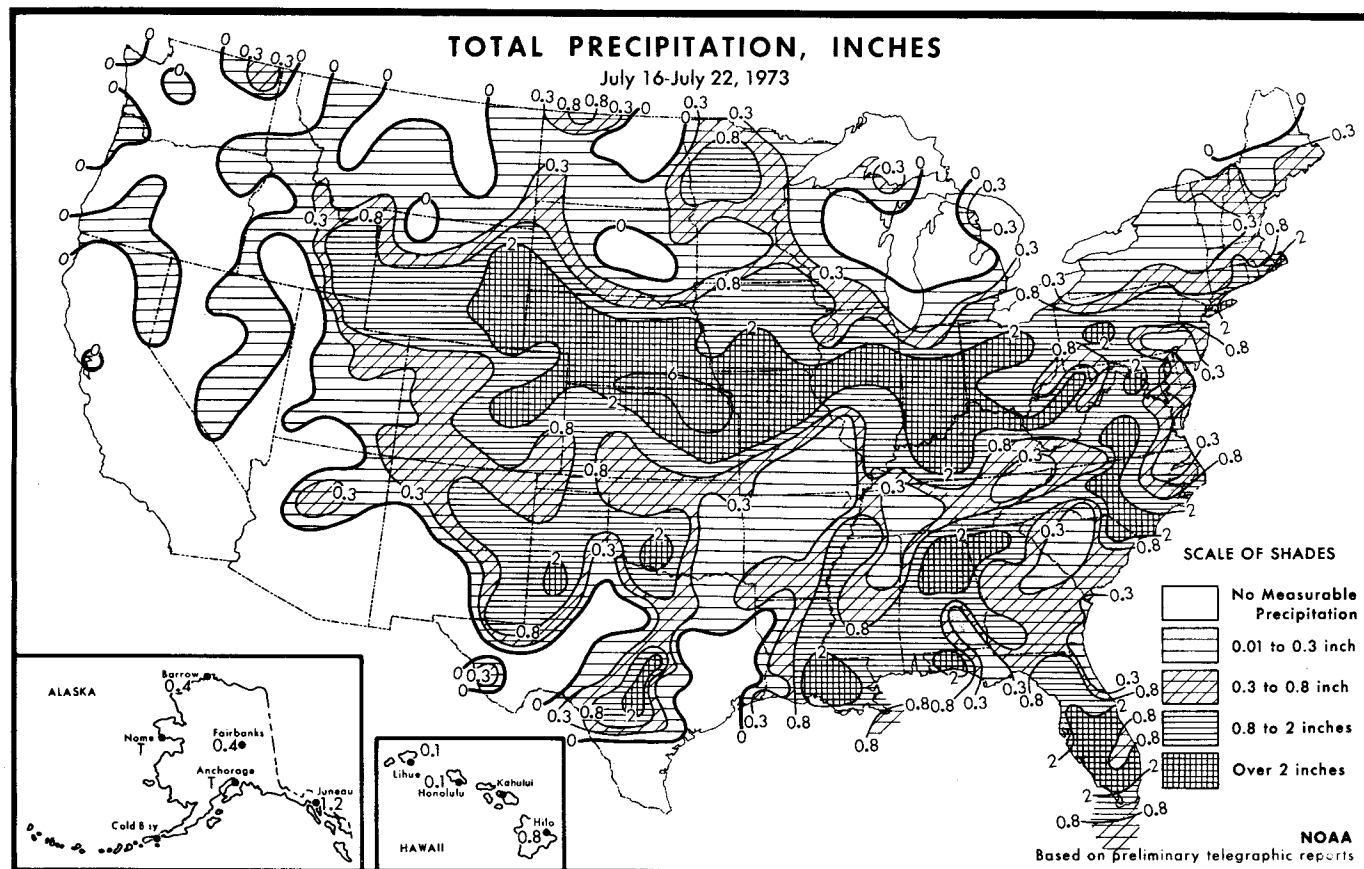
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## NATIONAL WEATHER SUMMARY

**HIGHLIGHTS:** While rains provided short term relief in parts of the Northwest drought area, they drenched Kansas, another dry area, with from 2.00 to 6.00 in of water. Temperatures stayed mostly subnormal, except in the Northwest, the Gulf and Great Lakes areas.

**PRECIPITATION:** While some rain fell over parts of the Northwest drought area, it will provide only short term relief. Kansas, another dry area, received 2.00 in over most of the State. The week's highest concentration of rain occurred along the Kansas-Nebraska border where 6.00 in fell. The 2.00 in pattern stretched from Kansas east through the Corn Belt.

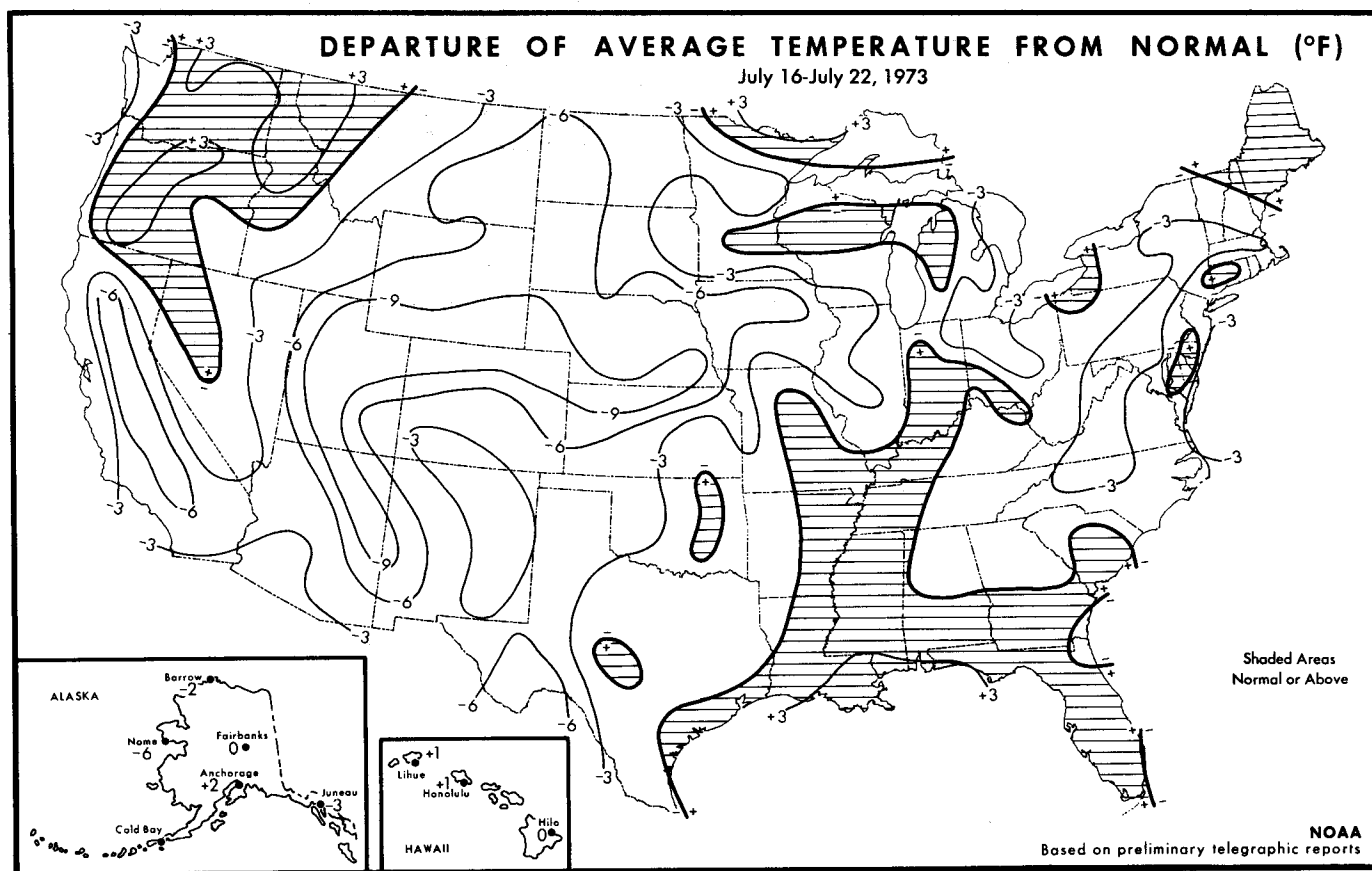
Monday a High in the Gulf pumped warm moist air into the face of a cold front stretching from the Carolinas through the Deep South, Arkansas, and Texas. Showers and thunderstorms erupted

along the front. San Antonio, Tex., got 0.81 in in the wee hours, with 0.77 in pouring down in 1 hour. The San Antonio area had by then received over 6.00 in rain over several days, with considerable flooding. By late Monday Ft. Worth, Tex., had accumulated 8.65 in rain, making this the wettest July on record.

Monday evening thundershowers erupted from Mississippi to the Carolina coast and north into Maryland. Hickory, N. C. received 2.00 in. Lynchburg, Va., got 2.61 in Tuesday morning.

Wednesday a band of thunderstorms erupted across Nebraska and the upper Mississippi Valley along a cold front that extended from a Low over Hudson Bay. Many of these storms produced heavy thundershowers and some violent weather.

Wednesday night and Thursday morning torrential rains hit northwest Kansas. Over 4.00 in fell in numerous places there, 5.00 in fell



in some. Over 1.00 in fell at Topeka in 1 hour Wednesday night. By Thursday afternoon, Topeka had received 4.00 in during 24 hours. While some flash flooding did occur, it was not severe because of the extremely dry conditions before the rain. Thursday, the rains moved east over Kansas and into Iowa and north Missouri. During the evening central Kansas got 2.00 in more rain.

Also, Thursday night, hurricane Doreen, with her 115 mph winds lay 850 miles southwest of Mexico. Moving west and posing no threat to California weather she threatened California's coast with dangerous surf.

Friday, the storm system moved east, but Kansas continued to receive rain. An additional 2.50 in fell at Topeka bringing the 24-hour total to over 7.00 in. Kansas City, Mo., also received 1.50 in rain Friday morning.

Saturday morning 3.70 in rain fell in 1 hour just north of Columbia, Mo. Widespread flooding occurred, isolating some people. Louisville, Ky., got 2.04 in rain in 51 minutes. A second storm raised the Louisville total to 4.00 in. The storm spread eastward, arriving late Saturday at Atlantic beaches to drench weekenders. Sunday was mostly sunny across the Nation, except in the East.

**TEMPERATURE:** The Nation enjoyed a cooler than average mid-July week. Most of the western Corn Belt, the Plains, the Rockies, and Pacific areas averaged from 3° to 6° below the norm. One area, embracing parts of six States from Nebraska to

Utah, then curving south into Arizona and New Mexico, was 9° subnormal.

Areas where the mercury averaged above normal--the Gulf area, the western Great Lakes, and the Northwest drought area--were by-and-large within 3° of the norm.

Early Monday cool air spread across the Nation, except for the West and Gulf. Morning temperatures averaged 10° subnormal throughout the mid-Mississippi Valley and part of the Plains. Midday temperatures got to the 70's and 80's, although low 90's were common along the Gulf.

Tuesday morning temperatures cooled to lows in the 50's and 60's over North Dakota, as a cold front pushed south through the Plains. Ahead of the front, South Dakota hit 100°; behind it, afternoon temperatures in Montana reached only into the 60's.

Wednesday, a Canadian high gave the front a push, and by the end of the day it had crossed most of the northern Plains.

Thursday morning was cold: 42°, at Bradford, Pa., and Flagstaff, Ariz. Temperatures stayed mostly in the 70's and 80's nationwide, and California recorded both extremes: 56° at Arcata on the north coast and 104° at Palm Springs.

Friday, the cool air mass still remained in the northern Plains: Lowest reading 43° Grand Forks, N. Dak. Then cool air invaded Wyoming, holding afternoon highs in the 50's. The cold then spread east: South Wisconsin readings averaged 20° subnormal on Saturday. Sunday highs in the mid-Missouri Valley held in the 60's.

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Small grain harvest advancing ahead of normal in northern Great Plains. \* Rains boost corn and soybeans over much of Corn Belt. \* Northern portion Corn Belt dry, rain needed. \* Insect controls applied actively to cotton.

**SMALL GRAINS:** Combining of winter wheat and other small grain crops made good progress in the North Central States despite interruptions from showers while small grain harvesting is well underway in the Northwest under dry, hot weather. The Nebraska winter wheat crop is nearly all ripe and 75 percent harvested, near normal progress. Colorado winter wheat is 65 percent harvested. In South Dakota, small grains continued to mature faster than normal and harvesting proceeded rapidly with winter wheat and rye over half harvested, spring wheat 21 percent harvested and oats 45 percent harvested. Combining of oats in Minnesota is ahead of normal at 6 percent combined while the pace in Illinois is behind normal at 33 percent cut. The New York winter wheat harvest is underway while farmers made good progress harvesting small grains in Pennsylvania, Maryland and Delaware. Combining is in the wrap-up stage in Virginia.

Moving westward, Montana winter wheat is 20 percent ripe and harvesting will begin soon. Small grain combining is underway in Idaho, Washington and Oregon under dry, hot conditions. Yield prospects are well below last year in drouth-plagued areas.

**CORN:** The Corn Belt corn crop got a boost from an average of 2 inches of rain which fell in a band from Nebraska and Kansas to Ohio. Mostly sunny days and near seasonal hot temperatures promoted corn growth and development as the crop continued in mostly good to excellent condition. Most corn is generally not as far along as last year and normal. Silking throughout the Corn Belt is widespread. The Iowa crop is 40 percent silked compared to 44 percent last year and an average of 38 percent. Corn in Missouri is only 25 percent silked compared to 59 percent last year. Soil moisture supplies continued to decline from last week and last year as most major corn producing North Central States reported short to mostly adequate levels. Rain is needed in Minnesota, Michigan, Wisconsin and South Dakota.

In the South, corn is growing well although 1 to 2 weeks late generally in development. Prospects appear good in many areas but additional rain would help. Silking progress ranges from 40 percent in Tennessee to 91 percent in South Carolina.

**COTTON:** Cotton made good progress in the South under seasonally hot weather and spotty rainfall. Insect populations increased in all areas and farmers applied controls actively. The crop remains in fair to good condition with heavy squaring and blooming. Most acreage is setting bolls. Development is behind normal in the Delta, but is about on schedule in the Southeast. Mississippi cotton is 55 percent setting bolls compared to 76 percent last year.

In California and New Mexico, cotton blooming was widespread and many bolls were setting while in Arizona much of the crop has not yet bloomed. Pink bollworm control programs were operating in Maricopa and Yuma counties.

**SOYBEANS:** The Corn Belt soybean crop developed well last week aided by seasonally hot weather and good rains across the southern part of the Corn Belt. Most of the crop is in good condition although conditions vary from fair to excellent. Development is generally behind last year and normal progress, except in Minnesota, Indiana, Nebraska, and also in Iowa where 52 percent of the crop is blooming and 15 percent setting pods, the same as last year. The Illinois crop is lagging with 40 percent of the crop blooming and 10 percent setting pods versus 58 percent and 25 percent last year, respectively. Many Corn Belt fields are drying especially in northern areas. Good rains are needed from the Dakotas to Michigan.

Virginia and North Carolina farmers completed soybean planting following small grain harvesting last week while many southern growers were having troubles controlling weeds in soybean fields. Most soybeans are in good condition and making good growth although late planted acreage is spotty. Early fields are blooming.

**OTHER CROPS:** Sorghum harvesting in Texas advanced to 13 percent complete compared to 19 percent last year, but early yields and grades were disappointing. Rains boosted the crop in the Texas High Plains, Kansas and Nebraska. The Kansas crop is 4 percent headed versus 8 percent last year while Nebraska acreage is 10 percent headed. Hot weather aided tobacco harvesting in the Carolinas and Georgia. Kentucky tobacco is showing damage from excessive rain and hail, most acreage is only fair. The Idaho potato crop is making good progress while Aroostook Co., Me., late potato plantings are catching up fast. Some early rice acreage was harvested in Texas while the Arkansas crop is progressing well. Growth of dry beans in Michigan is slow due to dry conditions.

**Fruits and Nuts:** Tart cherry harvesting is in full swing in the Great Lakes area and Oregon while peach picking continued in the South and increased in New Jersey and Pennsylvania. Some summer apples are being picked from Virginia to New York. Active harvesting of fruits continues in California as almond orchards are being readied for harvesting. Raspberry and blueberry harvesting is underway in Washington.

**Vegetables:** Vegetable harvesting continued to increase in the North Atlantic States with tomato, pepper, and cucumber supplies increasing. Fall vegetable crop fieldwork is active in Florida. Vegetable harvesting increased in northern areas of Texas with the high plains onion harvest in full swing. In California, fresh market tomatoes harvesting reached a peak at San Diego and were starting in the Tracy-Stockton area. In Oregon, harvest is underway for bush beans, broccoli, and beets.

**PASTURES AND LIVESTOCK:** Many pastures in the North Central Region declined seasonally although feed supplies remain average to above. Pastures in Wisconsin declined sharply while rain boosted ranges in Kansas and Nebraska. Dryness intensified in the Dakotas and Northwest. Stockwater shortages are growing in these areas and some supplemental feeding is occurring.

## Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., July 22, 1973

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 . . .	79	- 3	2.4	+1.2	LA. Baton Rouge . . .	86	+ 3	3.5	+2.7	Youngstown . . .	69	- 2	1.6	+ .6
Mobile . . . . .	86	+ 3	.8	-1.4	Lake Charles . . .	84	+ 1	T	-1.8	OKLA. Okla. City . .	80	- 3	1.5	+ .9
Montgomery . . .	83	+ 1	.1	-1.2	New Orleans . . .	86	+ 4	1.5	0	Tulsa . . . . .	83	+ 1	T	- .7
ALASKA Anchorage .	60	+ 2	T	- .4	Shreveport . . .	82	+ 2	T	- .9	OREG. Astoria . . .	58	- 3	T	- .3
Barrow . . . . .	37	- 2	.4	+ .2	MAINE. Caribou . .	67	+ 2	T	- .9	Burns . . . . .	70	- 1	T	- .1
Fairbanks . . . .	60	0	.4	0	Portland . . . . .	69	0	.6	- .1	Medford . . . . .	76	+ 3	T	- .1
Juneau . . . . .	53	- 3	1.2	+ .2	MD. Baltimore . .	74	- 3	1.8	+ .9	Pendleton . . . .	77	+ 3	T	- .1
Kodiak . . . . .	-	-	-	-	MASS. Boston . . .	72	- 3	.6	- .1	Portland . . . . .	69	+ 1	.1	0
Nome . . . . .	44	- 6	T	- .5	Chatham . . . . .	67	-	3.5	-	Salem . . . . .	67	+ 1	T	- .1
ARIZ. Flagstaff . .	61	- 5	.4	- .2	MICH. Alpena . . .	64	- 3	.4	- .3	PA. Allentown . . .	73	- 2	.9	- .1
Phoenix . . . . .	90	- 1	T	- .2	Detroit . . . . .	71	- 2	1.5	+ .8	Erie . . . . .	69	0	.2	- .6
Tucson . . . . .	83	- 4	T	- .5	Flint . . . . .	69	- 1	.2	- .4	Harrisburg . . . .	73	- 4	.3	- .5
Winslow . . . . .	72	- 9	.2	- .1	Grand Rapids . . .	72	0	T	- .7	Philadelphia . . .	77	+ 1	T	- .9
Yuma . . . . .	91	- 2	0	- .1	Houghton Lake . .	67	0	T	- .7	Pittsburgh . . . .	71	- 2	.6	- .3
ARK. Fort Smith . .	81	- 2	.1	- .5	Lansing . . . . .	68	- 4	T	- .6	Scranton . . . . .	70	- 3	1.1	0
Little Rock . . .	82	0	.1	- .7	Marquette . . . .	66	- 1	.3	- .5	R.I. Providence . .	71	- 2	.7	0
CALIF. Bakersfield .	80	- 5	0	0	Muskegon . . . . .	71	- 1	T	- .6	S.C. Charleston . .	83	+ 2	.3	-1.2
Eureka . . . . .	56	- 1	T	0	S. Ste. Marie . . .	64	- 1	T	- .6	Columbia . . . . .	84	+ 2	.3	-1.0
Fresno . . . . .	76	- 7	0	0	MINN. Duluth . . .	64	- 3	.3	- .5	Greenville . . . .	78	- 2	.6	- .4
Los Angeles . . .	69	- 5	0	0	Internatl Falls . .	69	+ 3	.3	- .5	S.D. Aberdeen . . .	72	- 2	.2	- .4
Red Bluff . . . .	76	- 8	0	0	Minneapolis . . .	75	+ 2	.2	- .6	Huron . . . . .	71	- 5	T	- .4
San Diego . . . .	68	- 3	0	0	Rochester . . . .	70	- 3	1.1	+ .2	Rapid City . . . .	68	- 7	1.1	+ .6
San Francisco . .	62	- 1	T	0	St. Cloud . . . .	69	- 3	.6	- .2	Sioux Falls . . . .	72	- 3	.3	- .4
Stockton . . . . .	71	- 8	0	0	MISS. Jackson . .	84	+ 2	.6	- .5	TENN. Chattanooga .	79	- 2	1.1	- .1
COLO. Denver . . .	68	- 6	.9	+ .6	Meridian . . . . .	83	+ 1	1.4	0	Knoxville . . . . .	77	- 2	.1	- .9
Grand Junction . .	73	- 6	.4	+ .3	MO. Columbia . . .	78	+ 1	3.0	+2.2	Memphis . . . . .	83	+ 2	3.2	+2.4
Pueblo . . . . .	73	- 4	1.4	+1.0	Kansas City . . .	75	- 7	3.4	+2.5	Nashville . . . . .	80	- 1	.2	- .6
CONN. Bridgeport .	74	- 1	2.1	+1.2	St. Louis . . . .	78	- 1	.1	- .8	TEX. Abilene . . .	82	- 1	0	- .6
Hartford . . . . .	73	0	.6	- .2	Springfield . . .	77	- 2	.1	- .9	Amarillo . . . . .	77	- 4	.9	+ .3
D.C. Washington . .	78	- 1	1.0	0	MONT. Billings . .	69	- 7	.2	- .1	Austin . . . . .	84	- 1	.1	- .5
FLA. Apalachicola .	84	+ 2	.2	-1.7	Glasgow . . . . .	68	- 4	.1	- .2	Beaumont . . . . .	83	+ 1	.4	- .9
Daytona Beach . .	82	+ 2	T	-	Great Falls . . .	70	- 1	T	- .3	Brownsville . . . .	84	- 1	0	- .4
Ft. Myers . . . .	82	0	3.9	+1.8	Havre . . . . .	70	- 1	T	- .3	Corpus Christi . .	85	0	0	- .6
Jacksonville . . .	82	- 1	.2	-1.6	Helena . . . . .	68	- 2	T	- .2	Dallas . . . . .	-	-	-	-
Key West . . . . .	84	+ 1	.7	- .2	Kalispell . . . . .	71	+ 4	T	- .3	Del Rio . . . . .	81	- 6	.7	+ .4
Lakeland . . . . .	82	0	3.4	+1.6	Miles City . . . .	69	- 7	.2	- .1	El Paso . . . . .	78	- 4	.1	- .1
Miami . . . . .	82	0	1.1	- .4	Missoula . . . . .	71	+ 3	.1	- .1	Fort Worth . . . .	85	- 1	.5	+ .1
Orlando . . . . .	85	+ 2	1.4	- .4	NEBR. Grand Island	71	- 7	1.7	+1.1	Galveston . . . .	84	+ 1	0	-1.1
Tallahassee . . .	83	+ 2	.6	-1.3	Lincoln . . . . .	70	-11	2.4	+1.6	Houston . . . . .	83	0	0	-1.0
Tampa . . . . .	83	+ 1	1.1	- .9	Norfolk . . . . .	71	- 7	3.4	+2.7	Lubbock . . . . .	76	- 4	2.1	+1.6
W. Palm Beach . .	82	- 1	3.4	-	N. Platte . . . . .	69	- 8	2.1	+1.5	Midland . . . . .	78	- 5	.4	0
GA. Atlanta . . . .	77	- 2	.7	- .4	Omaha . . . . .	70	- 7	1.4	+ .6	San Angelo . . . .	85	0	T	- .3
Augusta . . . . .	80	- 1	.1	- .9	Valentine . . . .	70	- 6	.6	0	San Antonio . . . .	83	- 1	2.9	+1.4
Macon . . . . .	82	0	.3	-1.0	NEV. Ely . . . . .	64	- 5	.1	- .1	Victoria . . . . .	86	+ 2	.1	- .7
Savannah . . . .	82	0	T	-1.6	Las Vegas . . . .	88	- 2	T	- .1	Waco . . . . .	85	- 1	0	- .5
HAWAII. Hilo . . .	75	0	.8	-1.6	Reno . . . . .	68	- 1	.2	+ .2	Wichita Falls . . .	84	- 2	1.8	+1.3
Honolulu . . . . .	80	+ 1	.1	0	Winnemucca . . .	72	0	T	- .1	UTAH. Blanding . .	68	- 5	.4	+ .2
Kahului . . . . .	-	-	-	-	N.H. Concord . . .	68	- 2	.2	- .6	Salt Lake City . .	68	-10	.4	+ .3
Lihue . . . . .	79	+ 1	.1	- .3	N.J. Atlantic City	73	- 3	.4	- .4	VT. Burlington . .	67	- 2	T	- .9
IDAHO. Boise . . .	76	0	T	0	Trenton . . . . .	76	- 1	.4	- .5	VA. Lynchburg . . .	73	- 4	3.3	+2.4
Lewiston . . . . .	79	+ 4	T	- .1	N.MEX. Albuquerque	74	- 5	.4	+ .1	Norfolk . . . . .	77	- 2	.1	-1.2
Pocatello . . . .	69	- 5	1.7	+1.6	Roswell . . . . .	78	- 1	.5	+ .1	Richmond . . . . .	77	- 1	1.0	- .2
ILL. Cairo . . . .	82	+ 1	.8	+ .1	N.Y. Albany . . . .	69	- 4	.1	- .7	Roanoke . . . . .	73	- 4	.8	- .1
Chicago . . . . .	75	- 1	.6	- .1	Binghamton . . .	68	- 1	.4	- .5	WASH. Colville . .	72	+ 2	.3	+ .2
Moline . . . . .	72	- 4	.5	- .2	Buffalo . . . . .	71	+ 1	.1	- .5	Omak . . . . .	74	+ 2	.1	0
Peoria . . . . .	74	- 2	3.6	+2.8	New York . . . . .	75	- 2	1.3	+ .5	Quillayute . . . .	57	- 3	T	- .6
Rockford . . . . .	71	- 4	1.2	+ .3	Rochester . . . .	71	- 1	.2	- .5	Seattle-Tacoma . .	65	0	T	- .2
Springfield . . .	75	- 4	2.0	+1.2	Syracuse . . . . .	70	- 3	.1	- .6	Spokane . . . . .	72	0	T	- .1
IND. Evansville . .	79	0	1.0	+ .3	N.C. Asheville . . .	73	- 2	1.8	+ .9	Walla Walla . . . .	78	+ 1	.1	0
Ft. Wayne . . . .	72	- 3	1.0	+ .2	Charlotte . . . . .	77	- 2	T	-1.0	Yakima . . . . .	74	+ 2	T	- .1
Indianapolis . . .	76	+ 1	4.4	+3.7	Greensboro . . . .	74	- 4	3.3	+2.3	W. Va. Beckley . . .	71	- 1	1.0	0
South Bend . . . .	73	- 1	.1	- .7	Hatteras . . . . .	77	- 1	.9	- .3	Charleston . . . .	74	- 1	2.4	+1.2
IOWA. Burlington .	73	- 4	1.9	+1.1	Raleigh . . . . .	75	- 3	1.3	+ .1	Huntington . . . .	76	0	1.5	+ .4
Des Moines . . . .	73	- 4	2.4	+1.8	Wilmingon . . . .	79	- 1	5.1	+3.3	Parkersburg . . . .	74	- 2	.5	- .5
Dubuque . . . . .	69	- 4	.9	+ .1	N.DAK. Bismarck . .	66	- 6	.1	- .5	WIS. Green Bay . .	71	0	0	- .6
Sioux City . . . .	71	- 7	1.0	+ .3	Fargo . . . . .	69	- 3	1.0	+ .3	La Crosse . . . . .	73	- 1	.3	- .5
KANS. Concordia . .	72	- 9	4.0	+3.4	Williston . . . . .	65	- 7	.2	- .3	Madison . . . . .	69	- 3	.4	- .5
Dodge City . . . .	77	- 4	.7	+ .2	OHIO. Akron-Canton	71	- 2	1.6	+ .8	Milwaukee . . . . .	68	- 1	.3	- .4
Goodland . . . . .	69	- 9	.8	+ .2	Cincinnati . . . .	75	- 1	2.3	+1.4	WYO. Casper . . . .	65	- 8	1.5	+1.3
Topeka . . . . .	77	- 3	7.2	+6.4	Cleveland . . . .	71	- 1	1.7	+ .9	Cheyenne . . . . .	61	-10	3.8	+2.3
Wichita . . . . .	79	- 2	1.0	+ .2	Columbus . . . . .	72	- 3	1.6	+ .7	Lander . . . . .	64	- 7	1.1	+ .9
KY. Lexington . . .	77	- 1	1.3	+ .4	Dayton . . . . .	75	0	1.9	+1.0	Sheridan . . . . .	67	- 5	.3	0
Louisville . . . .	79	+ 1	5.4	+4.7	Toledo . . . . .	69	- 5	1.0	+ .3	P.R. San Juan . . .	82	+ 2	.7	- .7

## 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:** Cloudiness during early week with scattered afternoon and evening thundershowers common northern half of State. South fair and warm. Frequent precipitation resulted in temperatures 5° to 10° subnormal north with normals slightly exceeded south. Mostly fair and sunny weather across State by Friday with slightly lower humidities. Statewide, temperatures averaged 2° or 3° above normal over weekends. Scattered showers slowed fieldwork north and central. Several southern counties received needed moisture, but good rain needed to boost crops, especially corn. Most cotton squaring and about 20% setting bolls. Insect counts high many fields, growers taking control measures. About 30% corn in dough stage, 10% dented. Few fields high moisture corn harvested for grain Baldwin County. Peanuts lapping middles most fields. Soybeans made good growth with earliest fields beginning to bloom. Limited amount of hay saved.

**ALASKA:** Rainfall near or above normal in Tanana Valley. Dry weather continued from Matanuska Valley south through Homer with little or no rain. Temperatures in agricultural areas near normal. Small grains virtually all headed; a small amount in dough stage. Prospects for all crops average, but below averaged reported on Kenai Peninsula. Grain averages about 2 ft tall with second cutting of brome at about 6 in tall. Potatoes virtually all hilled throughout Railbelt. Soil moisture supply adequate only in Tanana Valley.

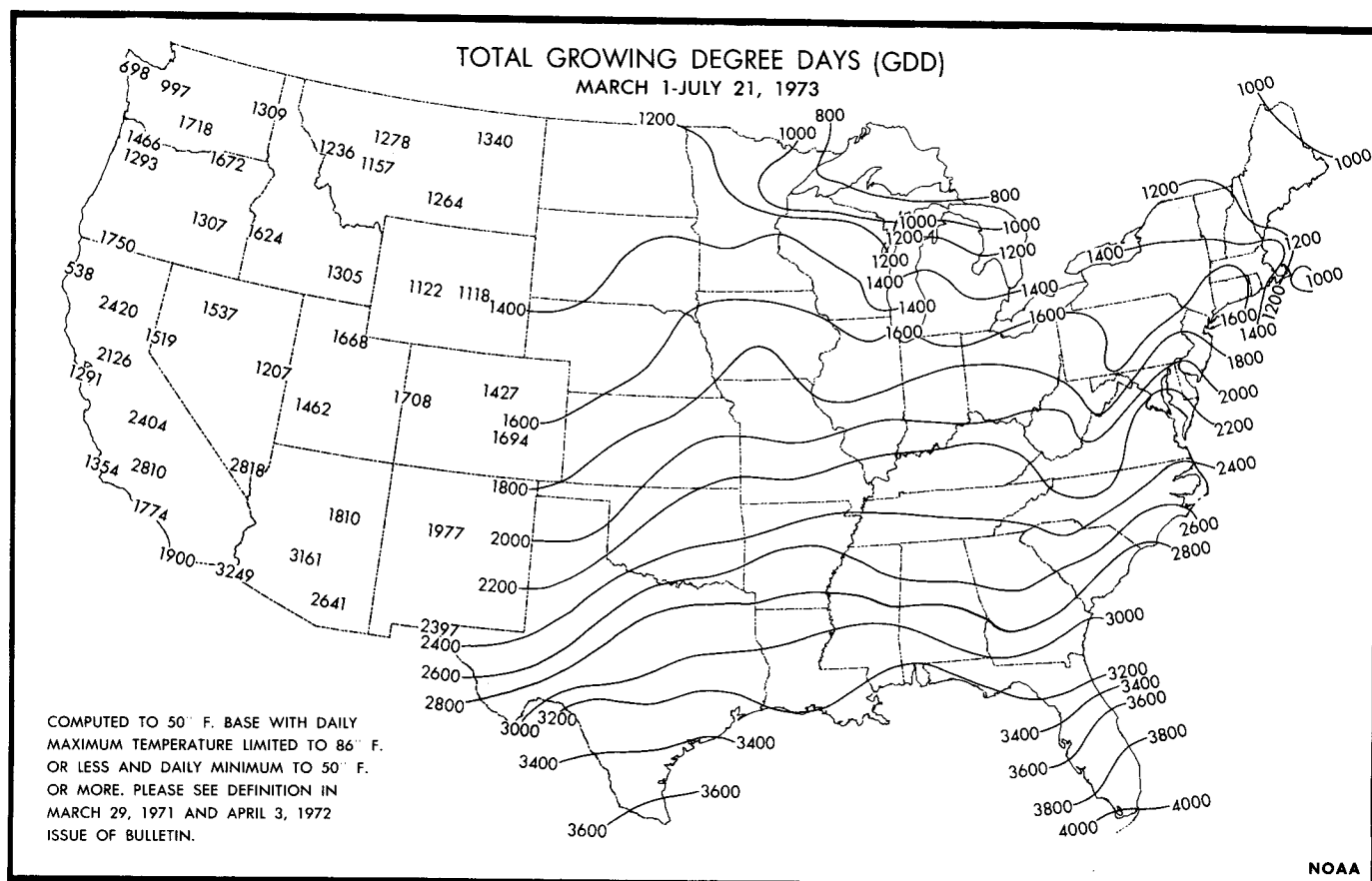
**ARIZONA:** Scattered showers first half of week north, east. Otherwise, no rain fell. Cotton progress satisfactory, southwest setting bolls, much not yet blooming southeast, central areas vary between these extremes. Insect controls necessary, pink bollworm control programs operating Maricopa, Yuma Counties. Sorghum normal progress statewide, insects controlled as necessary, mainly southeast. Safflower almost ready for harvest. Sugar beets satisfactory development Cochise County. Alfalfa hay fair to good condition. Harvest cantaloupes active, Salt River Valley, central areas. Watermelon harvest active central areas, limited Yuma. Potato harvest Salt River Valley. Grape harvest active central, west. Limited picking grapefruit, Valencias Salt River Valley areas. Groves good condition. Ranges generally good. High elevation ranges good forage, adequate stockwater. Low elevation ranges dry but generally fair. Desert ranges poor, very little grazing. Stockwater generally adequate even at lower elevations, few scattered areas reported short. Cattle, calves good. Sheep, lambs on summer pasture fair to good.

**ARKANSAS:** Hot, humid, scattered showers. Temperatures upper 70's northwest to mid 80's southern border, 2° subnormal to 2° above with negative departures mostly northwest and westcentral. Calico Rock, northcentral had both highest and lowest, 101° on 21st and 22nd, and 59° on 17th. Cool early in week followed by warming at mid-week with warm, humid weather continuing through weekend. Rainfall northern half mostly less

than 0.25 in. Over southern half, amounts mostly in excess of 0.50 in with portions southcentral and southeast receiving 1.00 to over 3.00 in. Largest weekly totals Dumas southeast 3.15 in, Dardanelle westcentral 2.75 in, and Warren southcentral 2.17 in. Most rain early in week. Cotton good, setting fruit, blooming and squaring heavy, insect infestation and control increasing. Rice progressing well, internodes elongating, midseason application of nitrogen and fertilizer underway. Soybeans blooming, lapping middles, weed control active. Sorghum harvest some areas, budworm and aphid controls active. Later planted corn tasseling and silking, irrigation on some fields. Haying active, yields good. Grape prospects good. Apple and peach harvest continues. Cucumber, cantaloupe, watermelon harvest underway. Pastures and cattle good.

**CALIFORNIA:** Few mountain showers, otherwise no rain. Temperatures 2° to 5° subnormal over entire State except northeastern interior where normal. Cooling trend dropped central valley highs about 20° from last week into low 80's and upper 70's. Milo harvest started Imperial Valley. Digging new crop sugar beets Imperial, San Joaquin Valleys. Safflower harvest started. Cotton bloom widespread, many bolls setting. Grape harvest active, southern areas complete end of July. Thompson Seedless harvest underway Bakersfield area, volume will increase. Insect and disease controls continue all crops. Apricot harvest about complete. Active harvest continues peaches, plums, nectarines, Bartlett pears and Gravenstein apples. Split pits in cling peaches causing above normal collapse. Almond orchards being prepared for harvest, husk splitting becoming more general. Walnut husks fly emerging, controls being applied. Avocado harvest continues light. Lemon harvest about complete. Valencia orange and other grapefruit picking continues active. Broccoli and cauliflower very light Salinas, moderate Santa Maria. Cantaloupe nearly finished Kern, increasing San Joaquin. Celery increase Santa Maria, carrots active. Sweet corn active southern California, increasing San Joaquin. Honeydew about finished Palo Verde, increasing San Joaquin Valley. Lettuce very light Salinas, moderate Santa Maria. Onions normal Stockton. Potatoes nearly completed Kern district, increase Delta. Fresh market tomatoes peak San Diego, starting Tracy-Stockton. Processing tomatoes just start in San Joaquin and Sacramento Valley. Strawberries light central coast. Watermelon increasing San Joaquin Valley. Rangelands provide good feed, some areas short, limited supplemental feeding. Water supplies remain satisfactory. Fire danger critical, cooler temperatures lessen danger. Livestock good. Central valley sheep moving on grain stubble as available. San Joaquin bees moved seed areas, moving into cotton areas.

**COLORADO:** Cloudy, cool and generally wet. Showers and thunderstorms daily. Precipitation significant all areas although amounts varied from less than 0.25 in several spots to over



3.00 in. Precipitation averages ranged from 0.60 in in Rio Grande River Basin to 2.15 in in Kansas River Basin. Heaviest weekly total observed 4.90 in at Wray. Hail 3/4 inch in diameter fell near Lamar on 22nd and smaller hail scattered areas several other days. Temperatures averaged 2° to 8° subnormal. Extremes: 97°, Lajunta; 33°, Fraser. Scattered thunderstorms, locally heavy rain and hail damage to crops. Topsoil moisture improved some areas, mostly short to adequate. Excellent growth irrigated crops. Insect damage light most areas. Winter wheat and barley harvest progressed most areas. Winter wheat 91% ripe and 65% harvested. Winter barley 70% ripe and 57% harvested. Spring barley and oats excellent. Sorghum fair southeast, very good to excellent other areas. Sugar beets very good. Corn very good to excellent; final cultivation 89% complete; 7% tasseled. First cutting alfalfa nearly complete, second cutting 19% complete. Dry beans excellent most areas. Potatoes very good to excellent. Lettuce harvest progressed rapidly. Range and pasture good southeast, very good to excellent other areas. Livestock very good.

**FLORIDA:** Warm, humid. Temperatures averaged 2° above normal. Widespread showers almost daily. Rainfall mostly moderate except heavy portions central. Soil moisture quite variable. Scattered showers generally beneficial. Cotton, soybeans, peanuts fair to good. Early planted field corn maturing rapidly, late planted fields need rain. Hot days, adequate soil moisture conducive to excellent growth sugarcane. Shade tobacco harvest completed in Gadsden County. Flue-cured har-

vest nearly finished most counties. Tobacco auctions to open July 24. Grazing good to excellent. Some local areas fair, short to adequate moisture. Fall vegetable crop fieldwork active. Seedbeds growing for August transplanting. Seeding, transplanting of sweet corn, eggplant, tomatoes, celery, cucumbers, peppers expected late July, early August. Citrus trees excellent, moisture adequate, new crop fruit very good size, excellent cover crop growth.

**GEORGIA:** Temperatures averaged near seasonal norms with no major daily changes. Precipitation moderate to heavy north; generally light to moderate south and central. Soil moisture generally adequate except southwest and central, shortages these areas lessened. Crop condition improved but variable. Corn fair to mostly good. Cotton fair to good, 73% setting bolls. Tobacco harvest 67% complete, some fields completely cropped. Peanuts mostly good. Soybeans mostly good, weed control troublesome. Peach harvest 88% complete. Haying active between showers. Sweet potatoes mostly good. Pasture and cattle good to excellent. Pecans mostly good. Vegetables and melons fair to good. Watermelons and cantaloupes at harvest peak.

**HAWAII:** Weather favored crop progress. Showers benefited crops in windward sections...heavy irrigation leeward areas. Insects continued a problem. Production of most vegetables adequate. Watermelon harvest declined. Banana supplies heavy. Sugarcane and pineapple harvest very active. Pastures in higher elevations fair to good, low lands very dry--little feed.

**IDAHO:** Generally cooler early and late week with highs midweek. North and southwest remained dry with above normal temperatures. Extremes of 103°, Lewiston and Orofino. Southcentral and east subnormal temperatures with thundershowers bringing heavy precipitation in east end week. Idaho Falls reported 1.80 in, Blackfoot 1.57 in, and Montpelier 1.40 in. Dryland crops suffered moisture lack. Nonirrigated grain, hay and pea crops showed drought stress. Wheat, barley harvest early north, east due heat and drought. Livestock were marketed north due feed shortages with supplemental feeding on pastures and ranges. Irrigation water supplies adequate, irrigated crops made excellent growth. Small grain harvest active, about 5% winter wheat harvested. Barley 10% harvested southwest, starting elsewhere. Potatoes making good progress, 90% middles closed southwest and southcentral, 25% east. First cutting alfalfa complete, second cutting active southwest and southcentral.

**ILLINOIS:** Dry early week, heaviest precipitation central sections midweek, light past weekend. Temperatures 2° to 4° subnormal. Corn behind normal; about 40% silked, 64% last year, 1970-72 average 63%. Corn 13% excellent, 67% good, 19% fair, 1% poor; 1972 good to excellent 84%. Soybeans 40% bloom stage, 58% last year, average 66%. Pod setting just started; about 10%, 25% last year, average 26%. Soybeans 10% excellent, 63% good, 26% fair, 1% poor; 1972 good to excellent 80%. Oats turned yellow virtually all acreage, 90% last year, average 96%. Oats 70% ripe, 72% last year, average 88%; 33% combined, 40% last year, average 59%. Second crop alfalfa hay about 50% cut, same 1972, average 63%; condition good to excellent. Pasture 21% excellent, 54% good, 23% fair, 2% poor. Soil moisture 58% short, 41% adequate, 1% surplus. Fieldwork possible 6.5 days. Main activities cultivating soybeans, cutting, baling second crop alfalfa hay, combining oats.

**INDIANA:** Rains exceeding 6.00 in Friday and Saturday westcentral severely flooded lowlands. Less than 1.00 in extreme northwest and south. Temperatures and humidity near normal. Fieldwork averaged 6 days. Topsoil moisture mostly short to adequate. Subsoil moisture short to mostly adequate. Wheat 95% combined, 75% in 1972, 85% average. Oats 25% combined, 15% in 1972, 35% average. Barley 70% combined. Rye 60% harvested. Corn 20% silked, 40% average. Soybeans 20% in bloom, 5% setting pods, close to 1972 progress. Alfalfa hay 40% cut second time, 50% in 1972. Pastures continue decline, rated fair.

**IOWA:** Sunny, warm early week gave way to clouds and general rain. Temperatures averaged 2° to 6° subnormal while rainfall was above normal except in extreme northwest and northeast corners. Crops mostly good to excellent. Small grain harvest and haying slowed toward end week by welcome rains. Nearly 6 days suitable fieldwork. Weed control in soybeans mostly good to fair. Soybeans 20% excellent, 65% good, 15% fair. Statewide 52% of soybeans blooming, same as last year. Bloom ranges from 75% northwest to about 25% southeast. Soybeans 15% setting pods, normal for date. Corn mostly good to excellent, 40% of fields 75% or more silked, last year 44% and 5-year average 38%. Oats 36% harvested, last year 20%, 5-year average 43%. Winter wheat harvest over 80% complete. Second cutting alfalfa hay 50% complete, first cutting clover hay near

completion. Hay mostly good to excellent. Pasture fair to excellent. Topsoil moisture before weekend rains 6% surplus, 61% adequate, 33% short.

**KANSAS:** Much above normal precipitation; much below normal temperatures. Unofficial 48-hour precipitation amounts: 8.00 in or more recorded from Marshall through Pottawatomie Counties into Shawnee County resulting in some agricultural flooding northeast. Most areas received beneficial amounts. Temperature averages ranged from 8° subnormal northcentral to 2° subnormal southeast and southcentral. Severe weather activity at a minimum. Rain and cool weather improved crops and livestock. Corn 37% tasseled, last year 45%, average 57%. Corn entering dough stage eastern half; overall, 2% in dough, 7% last year, range 5%-26% other recent years. Sorghum heading southern part with 4% headed, 8% last year, 1963-71 average 10%. Light damage from greenbugs and corn leaf aphids. Soybeans continue slow development with 7% setting pods, 14% last year, 1963-71 average 19%. Second cutting alfalfa near completion at 92%, 88% last year, average 91%. Third cutting 12% harvested, 11% last year, average 18%. Pasture greatly improved. Livestock good to excellent.

**KENTUCKY:** Near normal temperatures: Highs in 80's and 90's and lows in 60's and 70's. A stationary front remained just north of the Ohio Valley and very warm moist air caused scattered thundershowers. Weekly rainfall ranged from very heavy northcentral (5.00 to 6.00 in) to sparse along south and extreme western sections less than 0.25 in. Five days suitable for outdoor work. Soil moisture 28% short, 67% adequate, 5% surplus. Shortages mostly west, row crops there began to show stress. Corn 34% tasseled, generally 1 to 2 weeks later than usual. Corn grew well, but wide development range reflected various planting periods. Soybean average height 13 in, 19 in last year. Soybeans 11% blooming. Tobacco showing damage excessive rain and hail, over half tobacco still under 24 in compared to 32% a year ago. Tobacco condition mostly fair, well below last year. Pastures, hay crops, livestock good.

**LOUISIANA:** Temperatures 2° subnormal northwest, normal to 4° above elsewhere as extended summer heat wave continued. Extremes 100°, Winnsboro; 69°, Curtis and Minden. Scattered thundershowers all sections, measurable amounts reported most stations 1 to 5 days. Totals highly variable, ranging less than 0.25 in to more than 3.00 in Baton Rouge. Farm work excellent progress; few shower interruptions. Soil moisture short to adequate, southeast mostly short. Fieldwork 6 days. Cotton grew well, early cotton being laid by, all except late planted squaring. Insect control increased. Soybeans grew well, some bloomed; late fields spotted, some insect problems, need moisture. First rice sold July 20. Rice many stages. Some fields being topdressed, others being drained. Sugarcane good, needs rain, borer infestation light. Early corn maturing, rest needs rain. Sorghum good to fair, army worms in late fields. Sweetpotatoes good growth. Watermelon harvest accelerated. Pecans good prospects. Haying active. Pasture average. Army worms damaging pastures and hay southeast.

**MARYLAND-DELAWARE:** Temperatures near normal except slightly below on lower Eastern Shore.



Extremes mid-90's to mid-50's except lower in Garrett County. Precipitation light except in isolated showers. Dover, Del., reported 1.97 in in one storm, 2.71 in for week. Lightest amounts south and west. Topsoil becoming dry before weekend rains except northeast. Corn 53% silked, last year 30%, average 37%. Barley harvest over. Wheat 86% combined, about normal. Tobacco being topped early fields. Good progress hay harvest. Vegetable harvest active with cantaloupes and tomatoes starting. Summer apple and peaches being picked, need moisture to continue sizing.

MICHIGAN: Cool temperatures started week. A slow moving cold front accompanied by a few showers and thunder showers pushed south near end week. Extremes: 40°, Pellston; around 90° southern lower. Temperatures: Near to 4° subnormal most areas. Most rain fell after midweek and totaled 1.00 to 1.50 in southeast. Field crops grew well but need rain. Soil moisture short to adequate. Average 5.4 days suitable for fieldwork. Winter wheat 42% harvested. Oats 38% turning yellow or more advanced, harvest started. Early planted corn made excellent growth, late planted spotty growth. Average corn height 39 in. Soybeans developed well. Dry bean growth slow to fair, rain needed. First cutting hay active north, about finished south. Pasture feed about average. Tart cherry harvest active northwest, nearing completion southwest. Picking summer apples and sweet corn early peaches started southwest. Blueberry harvest underway.

MINNESOTA: Temperatures averaged 3° to 4° subnormal except for about 2° subnormal southeast. Week began warm but cooling set in by early midweek. A dry week with about 0.80 in northcentral. Soil moisture remains short except northeast which is mostly adequate. Small grains and row crops still under stress due to lack moisture but remain fair to good condition. Second cutting alfalfa generally light but quality fairly good. Some scattered army worm infestations. Cool night temperatures helped hold crop prospects several areas and a few areas benefited from scattered showers. Corn 58% tasseled, 5-year average 41%. Soybean crop 79% bloomed, 5-year average 59% and 15% set pods. Average 7%. Over 80% flax set bolls, 40% average. Slightly over 25% rye crop combined, 3% average, mostly swathed. 75% swathed, average 15%. Few fields spring wheat combined, winter wheat 13% combined, average 4%, 9% swathed. Crop mostly ripe. Barley 7% combined, 33% swathed, nearly all ripe. Oats 6% combined, 25% swathed, average 9%.

MISSISSIPPI: Temperatures averaged slightly subnormal north to slightly above south. Extremes: 65°, 99°. Thundershowers provided substantial rainfall many areas; however, some locations received little or no rain. Meridian had 3.51 in, Ripley 3.18 in. Scattered thundershowers and near normal temperatures weekend. Soil moisture short to surplus, mostly adequate. Average 4.7 days suitable for fieldwork. Cotton fair to good, 85% squaring, 55% setting bolls, year earlier 97% squaring, 76% setting bolls. Soybeans fair to excellent, mostly good; made good progress. Corn 33% silked, year ago 85% silked. Hay 60% peaches 80% watermelons 45% and cucumbers 70% harvested. Field crops and pecans fair to good. Hay, pastures, livestock mostly good.

MISSOURI: Precipitation heavy across north and westcentral; totals mostly from 1.50 in to over 4.00 in. Elsewhere rainfall spotty and generally deficient with totals averaging less than 0.50 in. Temperatures for week a few degrees subnormal, cool first few days but warmed generally to near or above 90° rest week. Fieldwork: 5 days suitable. Second cutting alfalfa 78% harvested, 89% year ago. Clo-tim hay 86% cut, finished 1972. Oats 59% harvested, 82% cut in 1972. Cotton 75% squaring, 90% last year; 21% setting bolls, 61% year ago. Corn fair to good 25% silked, in 1972 crop 59% silked and fair to good. Soybeans fair to good, 12% blooming; 1972 fair to good, 40% blooming. Pastures fair to good. Soil moisture supply 45% short, 51% adequate, 4% surplus.

MONTANA: Warm, dry through midweek. Cool with showers late week. Temperatures 3° to 4° above normal west to 7° below east. Subnormal moisture statewide. Most significant precipitation over mountainous areas of southwest and foothills central. Soil moisture mostly short all areas. Winter wheat 20% ripe, 60% turning, 15% headed. Spring wheat 5% ripe, 40% turning, 50% headed, Barley 5% ripe, 55% turning, 35% headed. Average date spring wheat harvest expected to start August 9. First cutting alfalfa 85% complete, wild hay 60% complete. Grass-hopper damage light all districts, some moderate activity northwest. Stockwater below average northwest, northcentral, and central; below average to average elsewhere. Cattle and sheep 10% moved from summer ranges.

NEBRASKA: Temperatures into midweek well above normal, readings in 90's. Wednesday in 80's and Thursday into 60's and 70's to remain thereafter. Heavy precipitation statewide Wednesday continued to weekend. Wheat crop nearly all ripe and 75% harvested, slightly ahead of 1972 but near normal. Spot harvesting common west because crop matured unevenly. Corn 67% good, 28% excellent, 5% poor; 40% silking, slightly ahead of average. Sorghum 69% good, 29% excellent, 2% fair; 10% heading, about average. Soybean crop improved with 98% good to excellent; 6% podding, about normal. Second cutting alfalfa 75% harvested. Alfalfa 69% good, 20% excellent, 11% fair. Wild hay 64% good, 22% excellent, 11% fair, 3% poor. Sugar beets excellent, similar to 1972 and above average. Weeding virtually completed. Topsoil moisture 63% adequate, 24% surplus, 13% short. Subsoil supplies 9% short, 89% adequate. Main farm activities harvesting wheat, cultivating, irrigating, spraying weeds, haying. Range and pasture 13% below average, 78% average, 9% above average.

NEVADA: Temperatures 2° to 4° subnormal. Extremes: 105°, Las Vegas; 34°, McDermitt. Precipitation: 0.02 in extreme south to 0.17 in northeast. Ely heaviest with 0.57 in. Small grain harvest started northwest. Second cutting alfalfa underway northwest and fourth cutting beginning south valleys. Livestock good. Few fall contracts signed. Range feed excellent upper ranges: Lower ones dry with fire danger high.

NEW ENGLAND: Temperatures near or slightly subnormal except east Maine, 2° to 3° above. Some rain areawide end week, heaviest extreme south, Chatham, Maine, 3.98 in. Five good days until Friday's rain. Much hay made. Corn planted,



growing crop sidedressed north. Aroostook County, Maine, Late potato plantings catching up fast, spraying aphids, blight. First potatoes dug Rhode Island. Vegetables good supply south, demand good. Blueberry prospects good, cranberries fair.

NEW JERSEY: Temperatures near to slightly subnormal. Warm and dry week; cooler with showers weekend. Temperatures: Near 90° to low 50's. Precipitation, mostly beneficial showers Friday night and Saturday. Newton reported 3.61 in. Most crops good condition. Good sweet corn volume moved. Tomato, pepper, cucumber supplies increasing. Cabbage, escarole, endive harvest light. Potato digging continued light. Blueberry volume heavy. Peach harvest increased. Summer apple supplies light but steady. Field corn and soybeans grew well. Early planted corn in tassel. Second cutting of hay active. Barley harvest nearing completion. Wheat combining advancing.

NEW MEXICO: First half wet, very cool, Substantial rain reported statewide. Showers most sections again Saturday. Temperatures averaged 4° to 7° subnormal. Rainfall totals ranged to more than 2.00 in at Tucumcari, Clovis, Carrizozo, and Las Cruces. Periodic rains interrupted field activities. Soil moisture adequate south, short to adequate in north. Wheat, barley harvest complete except in later north areas. Sorghum grain good, few early fields heading. Cotton mostly good, squaring active in south, boll setting started. Haying at standstill due rains, some damaged in windrows. Rains beneficial to ranges, mostly fair to good; grasshoppers a problem, spraying underway. Livestock good.

NEW YORK: Temperatures fairly constant. Began slightly subnormal early week, then above normal by midweek, late week subnormal again. Extremes: 89°, low 40's. Precipitation remained subnormal over much of State except lower Hudson Valley and the Long Island area. East shores of Lake Ontario have been particularly hard hit having gone 9 straight weeks with subnormal precipitation. Dry, sunny week was for fieldwork. Soil moisture reduced, now ranges from short to adequate. Second cutting alfalfa hay about 20% harvested. First cutting clover-timothy over 85% complete. Oats starting to turn. Wheat harvest underway, about 10% harvested. Corn good but lack of moisture slowed growth some areas. Pasture poor to good. Vegetables harvest increasing. Orange County celery deal got underway, as onion set and transplant harvest continued. Sweet corn picking active. Light digging of early variety potatoes began Long Island. Tomato harvest started few areas. Tart cherry harvest full swing. Wind whip lowered quality of some fruit. Apple harvest begun on Lodi and Wellington varieties.

NORTH CAROLINA: Early week quite warm and showery. Cooler temperatures and generally dry weather last half. Hot weather stimulated farm work which averaged 4.3 days. Priming tobacco main farmwork, harvest 20% complete. Small grains 98% combined. Growers completing late soybean planting after grain harvest. Soybeans 13% excellent, 72% good, 15% fair. Haymaking 67% complete. Peaches over 50% picked. Vegetable harvest active. Pasture prospects improved, nearly 85% good to excellent.

NORTH DAKOTA: Temperatures around 5° subnormal, lowest 9° subnormal northcentral. Cool with brief showers weekend. Northeast and east-central sections had well above normal precipitation, remaining regions well below normal. Fortuna with 0.87 in and Fargo with 0.82 in got most amounts. Harvest small grains continued central and southern areas. Scattered light precipitation weekend temporarily stopped harvest. Temperatures moderate, more favorable for late planted crops. Conditions still dry, general rains needed.

OHIO: Mostly sunny days and clear nights early week. Showers and thundershowers produced locally heavy rains 20th and 21st. Scattered showers and thundershowers persisted over central and south 22nd. Overnight lows generally in 50's to 70°. Daytime highs mostly in 80's. Lunken airport, Cincinnati 1.82 in in 6-hour period afternoon of 21st. Washington and Hillsboro received approximately 2.50 in in 24-hour period ending 7.00 a.m. on 21st. Hot, dry weather enhanced fieldwork and promoted crop growth. More than 6 days favorable fieldwork. Soil moisture continued to drop; 39% short, 60% adequate, 1% surplus. Corn averages 50 in high, normal 57 in; 15% crop silked, 25% 1972, normal 35%. Wide variation soybean planting dates. Crop averages 16 in high, normal 20 in. Pods setting on 15% of crop; 10% 1972; normal 25%. Small grain harvest greatly aided by hot weather. Wheat 85% combined, 1972 60%, normal 70%. Barley 80% harvested. Oats 15% harvested, normal 30%.

OKLAHOMA: Temperatures normal northeast to 4° subnormal westcentral. Precipitation light to moderate. Weekend very warm with all sections receiving precipitation. Amounts ranged from light to heavy. Wheat harvest virtually complete. Ground preparation slowed by dry soils some areas. Row crops made fair growth but general rains needed throughout western half. All row crops behind average development. Some eastern corn near maturity. Panhandle corn 25% tasseled. Sorghum 15% headed compared 30% usual, some insect damage reported. Moderate spraying of cotton with 25% acreage squaring. Soybeans all planted and in good condition. Third cutting alfalfa hampered by showers and shortage baling wire. Alfalfa seed prospects good. Insect damage increased in pecan groves. Range feed condition down as grasses mature and moisture short. Cattle mostly good to excellent.

OREGON: Very hot interior, 6° to 10° above normal; 6 consecutive days maximum 100° or above Medford, 90° or above, Willamette Valley. All stations except coast had highs upper 90's, mid 100's; lows from mid-50's to upper 60's. Coast normal. Rainfall at end of period light and spotty but first measurable over interiors since late June. Amounts mostly less than 0.10. Irrigation water supplies dwindling. Processing vegetables will suffer. Grain, grass seed harvest full swing, slowed by showers. Grain yields west near normal, east mostly subnormal. Some not as low as anticipated. Second cutting hay well underway, yields reduced by moisture shortage. Farmers baling grass straw, all available forage for winter feed. Hot weather good for mint development. Sweet cherry harvest complete except La Grande. Tart cherry harvest underway. Raspberry harvest complete. Marion blackberry harvest underway. Apricot, Red Haven peach harvest underway. Filbert kernels sizing, Bush bean, broccoli, beet harvest underway. Fresh

market potato harvest continues Umatilla Basin, quality, yield good. Potatoes other areas developed normally. Early fresh market sweet corn, tomatoes coming on. Stockwater becoming very short. Some cattle being moved from ranges.

**PENNSYLVANIA:** Cloudiness haze through week and overcast skies weekend kept temperatures several degrees subnormal. Overnight lows 50's and 60's to afternoon highs 70's and 80's. Extremes 46° and 93°. Only rainfall of week Saturday. Amounts 1.00 to 3.00 in west and 1.00 in most central and northern mountains. Southeast 0.25 to 0.50 in or less except isolated spots getting up to 1.00 in. Topsoil moisture supplies 50% adequate, 50% short. Combining small grains made good progress during favorable weather. Barley 80% harvested, winter wheat 33% and spring oats just underway. Hay baled, 67% good quality, remainder fair. Pastures continue seasonal slump. Crops grow well, but need rain. Tart cherry harvest progressed slowly. Early peaches, summer apples, limited sweet corn, potatoes, tomatoes, cabbage and snapbeans reached local markets. Snapbeans for processing went machine harvested.

**PUERTO RICO:** Moderate rainshowers and few isolated thundershowers except south; minor floods in San Juan metropolitan area. Rainfall averaged 0.64 to 2.03 in above normal. Highest weekly total 6.61 in southeastern slopes. Temperatures averaged about 81° on coasts and 75° interior. Average temperatures ranged from 67° at Pico Del Este to 85° at Maguies Island. Extremes: 96°, Utuado; 60°, Adjuntas, Pico Del Este and Cerro Maravilla. Soil preparation for sugarcane planting continued most sections. Ratoons developed favorably. Coffee fields were prepared and fertilized. Very little activity on tobacco plantations. Rains favored pastures north and interior but most south still suffered from lack of rain.

**SOUTH CAROLINA:** Weak cool front pushed down across State early week, increasing shower activity, but rest of week mostly dry. Temperatures noticeably cooler behind front, but normal by weekend. Daytime temperatures mostly mid and upper-80's, overnight lows averaged from mid-60's upstate to low 70's on south coast. Upstate rain fell 4 days with totals averaging little over 2.00 in. Soil moisture short central, adequate elsewhere. Tobacco fair, 49% harvested, 47% last year. Cotton fair to good, 92% squaring, 54% setting bolls, 1% bolls opening. Corn good to excellent, 91% silked, 71% dough stage, 12% mature. Soybeans, peanuts, grapes, apples good. Pastures good to excellent, Lespedeza good, cutting hay silage. Small grain harvest practically complete, completed week earlier last year. Peaches good, 56% picked, same as last year.

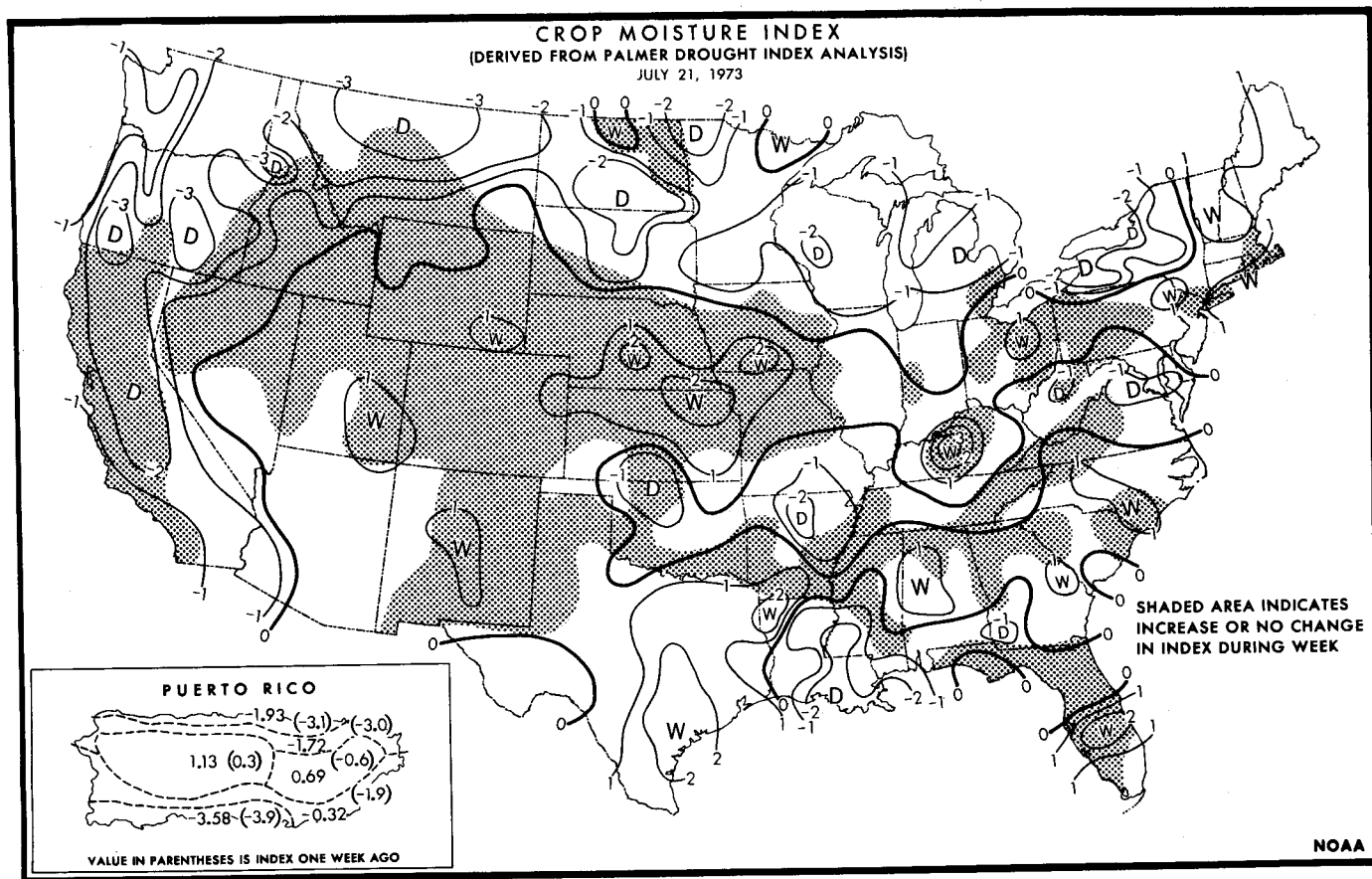
**SOUTH DAKOTA:** Temperatures 1° to 6° subnormal. Highs first of week upper 90's to above 100°. Cooler air midweek lowered weekly averages to upper 60's to 70's. Scattered showers west and south. Moisture shortage becoming critical. Nine counties declared drought disaster areas. Precipitation up to 6 in below seasonal average. Small grain harvest considerably ahead of normal. Virtually all winter wheat and rye ripe. Rye 20 points ahead of normal; wheat 15 points ahead of normal. Over half rye, winter wheat harvested with about average yields, good test weights. Spring small grain yields better than expected, but yields, test weights variable. Barley 90% ripe, normal 51%, last year 40%. Oats 83% ripe; 57% normal 31% last year. Spring wheat 64% ripe,

last year 10%, normal 25%. Barley 35% harvested, twice normal. Oats 45% harvested, 3 times normal. Spring wheat 21% harvested, 5 times normal. Second cutting alfalfa behind normal due to dry conditions and slow regrowth. Wild hay 59% cut, ahead of normal. Rain needed for pastures and row crops. Livestock generally good

**TENNESSEE:** Scattered thundershowers mostly early week ranging from a trace to near 4.00 in. Warm and dry rest of week. Temperatures 2° above normal west, near normal middle and 2° subnormal east. Heavy but spotted rainfall past few weeks resulted in considerable variation in condition of crops. Corn showing good progress but 1 to 2 weeks late, bud worms causing considerable damage, 40% silked, less than 10% in dough; normal 70% silked and 25% in dough. Cotton late, generally good; boll weevil infestation heavy; 75% crop squared, normal 90%; 16% set bolls, normal 33%. Earlier planting of soybeans have good stands but late crop have poor stands, suffering from blight, insects. Soybeans 20% bloomed, normal 33%, very few fields have set pods. Tobacco crop outlook poor, severe black root and black shank infestation.

**TEXAS:** Above normal rainfall brought sub-normal temperatures to high plains and area west of Pecos River. Heavy showers fell portions of central and southeast Monday. Otherwise, rainfall spotty. Temperatures warm from east of Pecos and low rolling plains to Louisiana border. Heavy showers produced flash flooding west of Midland Tuesday and 2.00 in deluged Lamesa Tuesday night. San Antonio got 2.35 in during week, most fell Monday, causing flash flooding in Bexar County. Sorghum 13% harvested, last year 19%. Sorghum harvest picking up south, early yields, grades disappointing. Early rice cut. Early peanut fields south harvested, general harvest several weeks away. Farmers busy harvest preparations. Plowing up wheat, oat stubble. Cotton satisfactory progress, insect problems increasing. High Plains: Onion and potato harvest full swing. Cucumber picking continued. Trans-Pecos: Pecos cantaloupe harvest underway. Knox-Haskell: Watermelon harvest underway. North Texas: Sweet corn, cucumbers, tomatoes picked. Light harvest watermelons, cantaloupes underway. East and Central Texas: Watermelon supplies increasing. Tomato supplies started seasonal decline. Coastal Bend: Melon harvest complete. San Antonio-Winter Garden: Only few late fields of onions remain unharvested. Harvest of cantaloupes and watermelons almost complete. Lower Rio Grande Valley: Fall land preparation, vegetable planting underway.

**UTAH:** Recurring scattered showers and thunderstorms, generally moderate to heavy accumulations. Local flash flood damage reported heavier thunderstorm areas. Temperatures generally 1° to 10° subnormal. Average soil temperatures at 4-in depth ranged from near 70° Cache Valley to mid-70's Richfield, upper 70's Salt Lake City and low 90's St. George. Week favored crop growth. Scattered rains delayed hay, grain harvests. Second crop alfalfa 15% harvested. Clover-timothy, wild hay harvests vary from not started to over half complete, except Washington County where harvest complete. Spring wheat, oats, and barley less than 10% ripe; harvest barely started and generally good yield prospects. Winter wheat harvest 5% done with most counties none, Washington County 50% done. Sweet cherry harvest 95%



**SHADED AREAS:** Index increased or did not change 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
-3.0 to -4.0	Drought continues, rain urgently needed
Below -4.0	Not enough rain, still extremely dry

**UNSHADED AREAS:** Index decreased last week

#### 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.



# FIRST CLASS MAIL

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through in Davis, Weber, and Box Elder Counties, 85% in Utah Co. Tart cherry harvest just started. Ranges generally good. Livestock doing very well.

**VIRGINIA:** Temperatures 1° subnormal ranging from 4° above to 5° subnormal. Highs mostly 90's, lows mainly around 60°. Showers and thunderstorms early week. Weekly totals varied widely, heaviest amounts in excess of 5.00 in. Favorable week for crops and farm activities. Moisture improved, 67% adequate, remainder short. Averaged 4.7 days suitable for fieldwork. Wheat harvest 93% complete. Last late soybeans planted mostly Tidewater area. Soybeans good, few areas need rain, weed and grass problems some areas. Grain sorghums following small grain. Corn prospects promising, particularly east and southeast where crop 85% silked and nearing maturity. Flue-cured tobacco full attention, growers topping applying sucker and insect controls and stepping up harvest. Irrigation required on some farms. Burley good progress. Peanuts good, cultivating and some hoeing. Haying active; yield quality good except light yields drier areas. Pasture good, some decline north and central where moisture needed.

**WASHINGTON:** West: Temperatures 2° above normal. Precipitation not recorded most areas. Green pea harvest full operation, yields good. Broccoli harvest continued. Cucumbers beginning to set blossoms. Corn plantings, seed potatoes good. Raspberry, blueberry harvest underway. Wild blackberries in prime, good set. Strawberry fields being cut back, fertilized. Haying major activity. Pastures continued to suffer from dry weather. East: Temperatures 6° above normal. Precipitation slight. Cherries good quality late areas. Early peaches were harvested, packed. Pears, apples sizing well. Potato fields being defoliated, some early digging. Sweet corn tasseling, some plants setting ears. Haying continued; second cutting alfalfa, first cutting timothy underway. Hay supplies low, demand high. Grass seed harvest near completion some areas, yields low. Harvest wheat, barley underway; yield prospects well below 1972, some shriveling anticipated.

**WEST VIRGINIA:** Temperatures near normal. Warmer beginning and end. Lows 50's and 60's. Scattered showers and thundershowers Saturday, Sunday and Thursday. Statewide soil moisture shortages indicated, still 56% adequate and 5% surplus. About 5.1 days favorable fieldwork; mostly hay making, gardening and clipping pastures. About 60% wheat, 90% barley harvested. First cutting hay nearly complete, second cutting 14% done. Crops fair to good with slight shift downward for all except corn. Despite late planting, corn made excellent progress, but continued moisture needed.

**WISCONSIN:** Temperatures near normal except south where slightly below because it was cooler weekend, when cloudy conditions prevailed. Sunny, in the 80's through Thursday. Crops urgently need moisture. Corn grew well; average height 44 in, last year 48 in, normal 41 in. Early corn silking. Small grain harvest underway on early oats, barley, rye, and wheat. Oat straw short, yields may suffer due to heat and dryness. Crown rust severe on oats south. Second crop hay short, about 10% harvested, last year 10%, normal 5%. Soybeans, tobacco grew well but need moisture. Irrigated potatoes and vegetables did well but nonirrigated crops hurt for moisture. Pastures deteriorated sharply. Cherry harvest underway on light crop. Apple crop prospects down from 1972. Soil moisture 95% short, 5% adequate.

**WYOMING:** Early week warm, scattered showers, latter part cool, cloudy, much steady rain and showers, 1.00 to 3.00 in common...all topped by Cheyenne's 3.87 in. Temperatures near normal in northwestern mountains and 3° to 9° below elsewhere. Highs mostly 80's west of divide, 85° to 95° elsewhere. Lows mostly 35° to 45° west of divide, 40's east. Extremes 95°, several stations; 37° Jackson. Winter wheat 20% soft dough stage, 25% hard dough and 55% mature. About 5% winter wheat harvested. Spring wheat 90% soft dough stage, 10% hard dough. Oats 95% soft dough and 5% hard dough. Barley 70% soft dough, 30% hard dough. First cutting alfalfa almost done. Second cutting started. Row crops fair to good: Some corn tasseled, few fields dry beans in bloom.

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