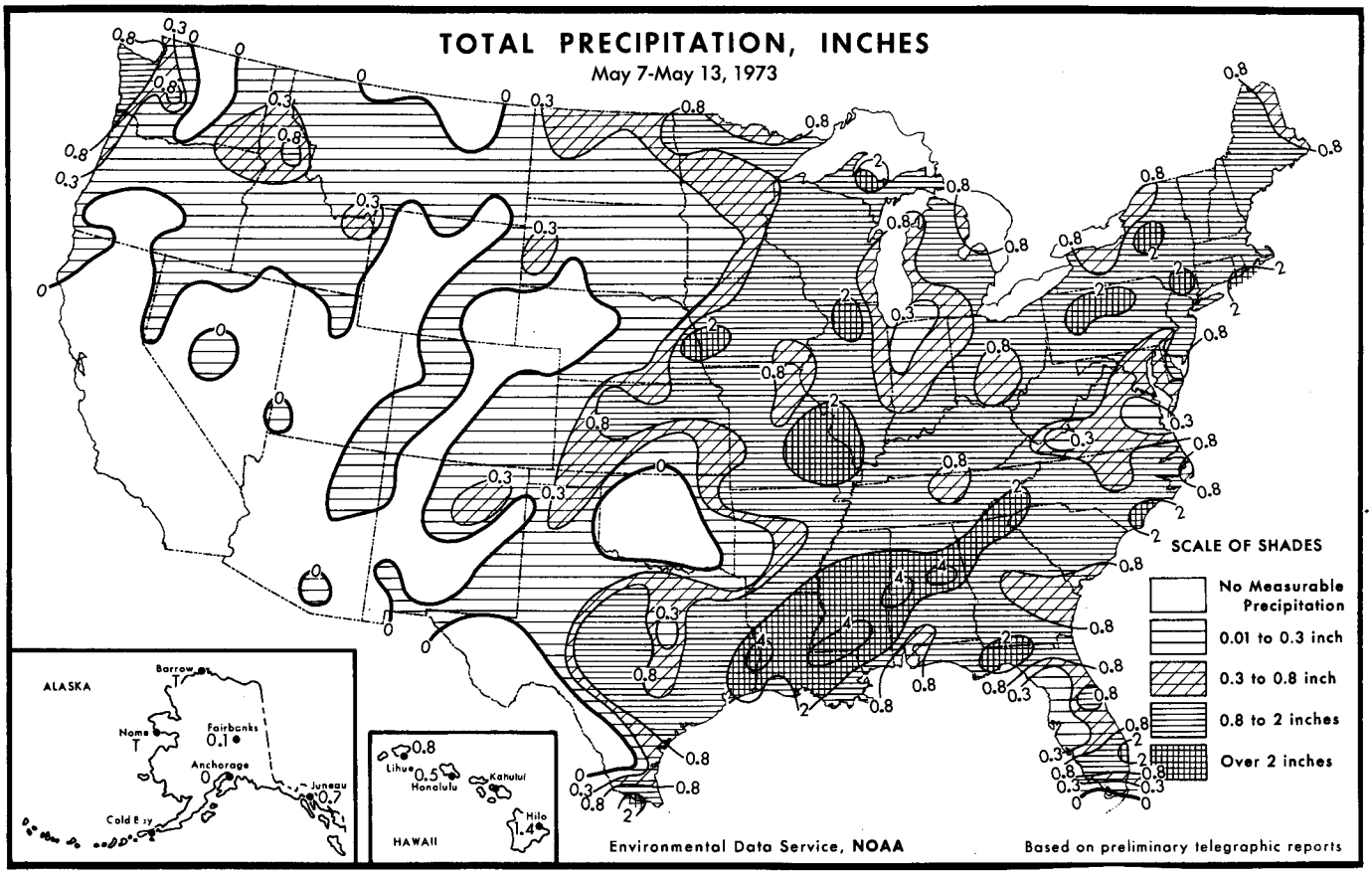
Weekly Weather & Crop Bulletin

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

U. S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service

Volume 60, No. 20 May 14, 1973 Washington, D. C.



NATIONAL WEATHER SUMMARY

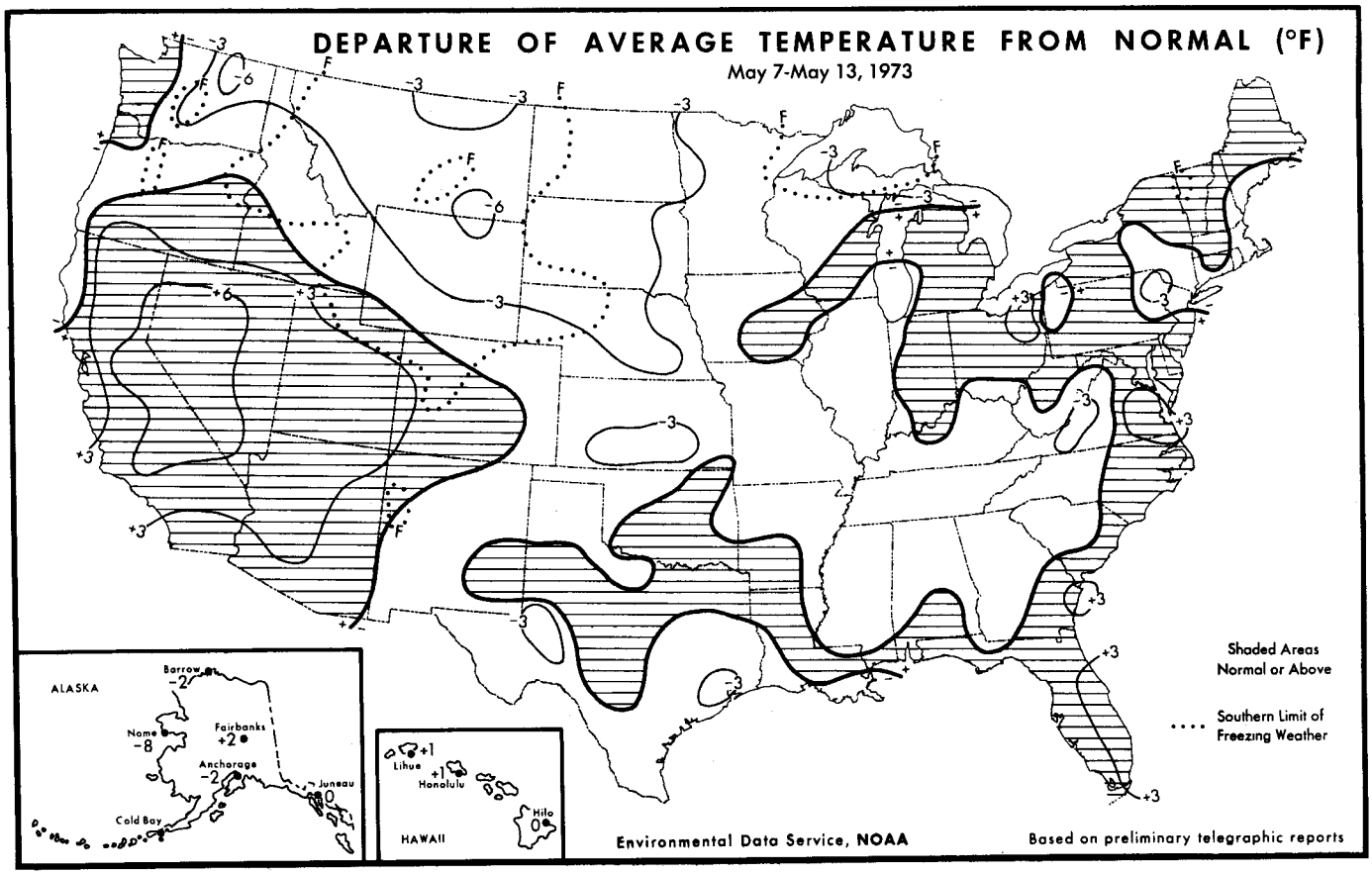
HIGHLIGHTS: Early in the week one major storm passed through the Nation's midsection. After a brief day of sunshine, another followed. Tornadoes, high winds, and hail were more characteristic of the two storms than excessive moisture; however, scattered sections in the Deep South did receive more than 4.00 in. Meanwhile, the drought plagued Pacific Northwest remained mostly rainless. What little fell was not enough to relieve the drought.

PRECIPITATION: West of the Rockies, precipitation was either totally lacking or very light. The flooded Mississippi Valley, where 13.6 million acres lay under a flood last Monday, received from 0.80 to 2.00 in. of rain and hail. Areas in the water-logged Deep South got from 2.00 to 4.00 in. of unneeded, unwanted rain, plus some hail.

On Monday a Low over Iowa had a front that situated itself about over the Mississippi. While it rained in the Mississippi Valley's northern half, severe thunderstorms, large hail, tornadoes, and damaging winds struck southeast Texas, Louisiana, Arkansas, and west Tennessee. Trimble, Miss., reported 3.00 in. of rain in 12 hours. At Poplar Bluff, Mo., a tornado overturned boxcars and winds up to 90 m.p.h. were reported.

Tuesday the thunderstorms spread into the Ohio Valley and the eastern Gulf States. At Geraldine, Ala., a tornado touched down, killed one and injured 18. Portions of Georgia and Alabama had flash floods. By late Tuesday the storm moved on to the East Coast and dumped more rain, while it cleared over the Corn Belt.

The Corn Belt enjoyed 1 clear day before the whole show repeated itself. A strong system developed and intensified over the northern Rockies early Wednesday. By late Wednesday severe weather returned to the Upper Mississippi Valley.



At St. Wendell, Minn., a tornado touched down, caused one death, 11 injuries, and ravaged a trailer camp.

The Midwestern Low continued to drift east, until it reached the Mississippi, where it broke up into a freak collection of small High and Low pressure systems, which scattered around the Nation's midsection. Omaha, Neb., reported winds up to 60 m.p.h.; golf-ball-size hail pelted Columbia, Mo.; 0.75 in. of rain fell into the Mississippi flood at St. Louis; 3-inch hail struck Bernie, Mo. Afternoon tornadoes struck three States. At Mansfield, Ohio, a tornado killed one and damaged a motel and homes.

Friday, violent thunderstorms reached south into Kentucky and Tennessee. Two tornadoes visited each State. Marble-size hail pelted an area near Harrison, Ark., where winds of almost 50 m.p.h. were also reported. Also, winds of 89 m.p.h. were clocked at the Birmingham, Ala., airport. The Corn Belt remained cloudy all day; rain was light and scattered.

Saturday, a large High over the northern Rockies brought clear weather to the Central States. By Sunday the clear cool weather extended to the Appalachians. Cloudiness remained over the Upper Mississippi Valley. Light rain fell over Lakes Erie and Ontario, while light snow blanketed upper Michigan. Otherwise, thunderstorms were widely scattered across the Nation, notably in the Florida Peninsula and across the central and southern Rockies.

TEMPERATURE: Most of the Nation's midsection and the Northwest spent a cooler than average week--mainly due to a late week High moving south from Canada into the Dakotas. Higher than average temperatures prevailed over most of the East and West Coasts, the Gulf areas of the Deep South, and parts of the Corn Belt and the Southwest.

Monday and Tuesday morning temperatures were mild. Only a few scattered areas fell below freezing, mainly near the Canadian border and in higher Rocky Mountain elevations.

While Wednesday was fair and pleasant over most of the Nation, it did get cold enough to snow in western Washington. During the night temperatures dipped to 29° at Butte and Lewistown, Mont., Douglas, Wyo., and Salmon, Idaho, because cold air pushed in from Canada. In the Nation's southern third, however, Thursday temperatures reached the 80's and 90's. They pushed above the 100° mark in the California desert. Miami Beach, Fla., reported a record for May, 95°.

On Friday cool Canadian air streamed into a tier of States from the Pacific Northwest to the northern Appalachians. Afternoon highs reached only the 40's and 50's from North Dakota to the upper Great Lakes. By Saturday the cold air was centered just east of the northern Rockies, where the thermometer fell into the lower 20's around sunrise. The air spread east. Marquette, Mich., had a high of 38° Saturday, 20° below normal. Sunday was unseasonably cool with readings in the 40's as far south as northern Louisiana. However in the Pacific Northwest, it was unseasonably warm: Portland, Ore., recorded 92°, 24° above the normal high for the date.

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Corn planting increased in Corn Belt--good progress in western portion. * Good progress made planting cotton, but Delta States far behind normal. * Winter wheat responded well to favorable weather. * Some additional acreage soybeans planted.

SMALL GRAINS: Good growing weather benefited winter wheat in the Great Plains and the crop responded well. Development continues slower than normal but condition is generally good to excellent with ample soil moisture. Wheat fields are beginning to head in Kansas, and Colorado. Streak mosaic is increasing in western Kansas and parts of Colorado. Nebraska wheat condition is improved--mostly good to fair. Oklahoma and Texas wheat maturity advanced rapidly. Condition of eastern Montana's winter wheat is good while rain is critically needed in Idaho, Washington and Oregon. In California, early planted small grains are nearing maturity with some combining in the desert.

Spring wheat and oats seeding continued to make better than average progress from Montana to Minnesota. Spring wheat seeding in North Dakota is 79 percent complete and is about finished in Minnesota and South Dakota. Oats seeding in other North Central States is far behind the usual progress.

CORN: Last week was the best for fieldwork Corn Belt farmers have had this year as corn planting for the North Central States advanced to 21 percent complete compared to 6 percent the previous week. This also compares with about 26 percent planted in the Corn Belt a year earlier and average progress of 45 percent planted. Some additional rain last week and muddy fields still slowed growers in the eastern Corn Belt and in Iowa and Missouri, but progress was good in other western Corn Belt States. Progress in Minnesota was excellent as growers seeded one-third of their acreage last week advancing to 50 percent complete. Both Nebraska and South Dakota increased to 29 percent complete from 6 percent a week earlier. Some progress was made in Iowa late in the week as planting gained 12 percentage points to 18 percent complete with only about 2 days suitable for fieldwork. The situation was similar in Illinois and Indiana with planting moving up to 15 percent complete for a 10-point gain. Ohio acreage is 20 percent planted.

The Southern corn crop is about 59 percent planted compared to about 76 percent normally planted. The outlook for planting progress improved with the expectation of near normal precipitation for the next 30 days across the North Central and South Central Regions.

COTTON: Generally open weather after midweek enabled Southern farmers to make good progress planting cotton in an effort to catch up to normal progress. Cotton acreage is 29 percent planted from Texas and Oklahoma east to the Atlantic Coast compared to 13 percent the previous week and about 60 percent normally planted by this date.

Cotton planting in Texas, the leading producing State, advanced to 30 percent complete, a 17-point gain. Last year Texas cotton was 38 percent planted, and 43 percent is average. Growers in the Delta States along the Mississippi River made the best planting progress of the year, although considerable acreage remains flooded. About 17 percent of the cotton acreage has been planted in the Delta States compared to an average of 75 percent normally planted. Cotton planting advanced to 25 percent complete in Mississippi, to 18 percent in Arkansas and to 10 percent complete in Tennessee and Louisiana. Planting progress in the Southeast is somewhat behind normal while the Western States are on schedule with most acreage planted.

SOYBEANS: Planting of soybeans started in a few more States last week, but the emphasis was on corn and cotton planting as fields dried. Only about 2 percent of the soybean acreage has been planted in the North Central States compared to 6 percent last year and an average of 10 percent. About 3 percent of the Southern crop is in the ground compared to the average of 14 percent usually planted by now. Both North Carolina and Georgia are most advanced at 12 percent planted followed by Minnesota at 10 percent complete. Illinois soybean acreage is 2 percent planted versus a normal 10 percent.

OTHER CROPS: Sorghum planting in Texas is almost normal at 52 percent complete. Sorghum planting is only about 1 percent complete in Kansas and Nebraska, normally 10 percent done. Flue-cured tobacco in North Carolina is 54 percent set, ahead of 49 percent average.

South Carolina tobacco is 95 percent transplanted. Georgia peanuts are 77 percent planted, well behind normal, and the fair condition is the lowest in many years. Potato and sugar beet planting in Idaho is moving along on schedule. Colorado sugar beet acreage is nearing 50 percent planted. Rice planting in Texas is 72 percent complete compared to 100 percent last year. Arkansas rice acreage is 43 percent seeded versus 92 percent normally, while Louisiana acreage is about 55 percent seeded compared to 95 percent last year.

Fruits and Nuts: California fruit and nut crops are progressing and sizing normally. Harvesting of early cherry varieties is active there with freestone peach harvest underway in Kern County. Spraying is active in orchards across the country. Early peaches in Texas moved to market. Most apples in New York and New England are in the petal fall stage. Valencia orange harvesting continues active in Florida and southern California. Texas citrus harvest is still active.

Vegetables: Planting of vegetables made good headway in the North Atlantic States. The Florida spring vegetable output is up about 20 percent with increasing supplies of potatoes, sweet corn, tomatoes and watermelons. Onion harvesting continues in the Texas Winter Garden area, but declining seasonally in the Lower Rio Grande Valley. California mixed vegetable harvesting continued under favorable weather.

PASTURES AND LIVESTOCK: Ranges in the southern Rocky Mountain States are improving with warmer weather. The movement of livestock to summer ranges in the West is well underway. California rangeland is drying rapidly, but feed is plentiful. Non-irrigated pastures in the Pacific Northwest need moisture. Pasture conditions continue above average most areas. Feedlots in the Great Plains dried considerably last week. Calving is nearing completion in Montana and Wyoming.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., May 13, 1973

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
ALA.Birmingham	69	0	3.8	+3.0
Mobile	75	+ 2	.3	- .8
Montgomery	72	+ 1	1.1	+ .3
ALASKA.Anchorage	42	- 2	0	- .1
Barrow	14	- 2	T	0
Fairbanks	47	+ 2	.1	0
Juneau	45	0	.7	0
Kodiak	--	---	---	----
Nome	25	- 8	T	- .2
ARIZ.Flagstaff	56	+ 6	T	- .2
Phoenix	80	+ 4	T	- .1
Tucson	72	+ 1	T	0
Winslow	65	+ 1	.1	0
Yuma	80	+ 1	0	0
ARK.Fort Smith	67	- 1	.2	-1.0
Little Rock	69	0	.4	- .9
CALIF.Bakersfield	76	+ 7	0	- .1
Eureka	51	- 1	T	- .6
Fresno	72	+ 5	0	- .1
Los Angeles	65	+ 5	0	- .1
Red Bluff	71	+ 4	0	- .3
San Diego	62	- 2	0	- .1
San Francisco	59	+ 1	0	- .2
Stockton	72	+ 7	0	- .1
COLO.Denver	55	0	T	- .6
Grand Junction	64	+ 3	T	- .2
Pueblo	60	+ 1	.1	- .3
CONN.Bridgeport	55	- 2	1.9	+1.1
Hartford	58	+ 1	1.5	+ .8
D.C.Washington	66	+ 2	.5	- .4
FLA.Apalachicola	74	0	1.1	+ .5
Daytona Beach	78	+ 4	1.0	----
Ft. Myers	79	+ 2	.8	+ .3
Jacksonville	77	+ 2	1.8	+1.0
Key West	81	+ 2	T	- .5
Lakeland	75	- 1	.9	+ .3
Miami	80	+ 3	.3	+1.1
Orlando	79	+ 4	1.1	+ .4
Tallahassee	74	0	2.8	+2.0
Tampa	77	+ 1	.2	- .5
W.Palm Beach	80	+ 3	2.1	----
GA.Atlanta	67	- 1	1.1	+ .4
Augusta	70	0	1.6	+1.0
Macon	71	- 2	.6	- .2
Savannah	76	+ 4	.4	- .4
HAWAII.Hilo	73	0	1.4	-1.1
Honolulu	77	+ 1	.5	+ .2
Kahului	--	---	---	----
Lihue	75	+ 1	.8	+ .1
IDAHO.Boise	58	+ 1	.2	- .1
Lewiston	57	- 1	.5	+ .2
Pocatello	54	- 1	.1	- .2
ILL.Cairo	65	- 3	2.1	+1.2
Chicago	57	- 2	.5	- .3
Moline	59	- 1	1.1	+ .2
Peoria	59	- 1	1.5	+ .6
Rockford	56	- 2	2.2	+1.3
Springfield	59	- 2	1.0	+ .2
IND.Evansville	63	- 1	1.9	+1.0
Ft. Wayne	59	+ 1	.7	- .1
Indianapolis	62	+ 2	.8	- .1
South Bend	58	+ 1	.1	- .7
IOWA.Burlington	60	0	.8	- .1
Des Moines	60	0	1.1	+ .3
Dubuque	57	+ 1	.9	0
Sioux City	58	- 1	.3	- .4
KANS.Concordia	60	- 2	.6	- .1
Dodge City	57	- 5	.3	- .4
Goodland	55	- 2	.2	- .3
Topeka	62	- 1	1.4	+ .4
Wichita	61	- 4	.1	- .8
KY.Lexington	62	- 1	1.6	+ .8
Louisville	64	+ 1	1.8	+ .9

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
La.Baton Rouge	74	+ 1	3.6	+2.7
Lake Charles	72	- 2	1.9	+ .9
New Orleans	72	- 1	2.0	+1.0
Shreveport	73	+ 1	1.1	0
MAINE.Caribou	49	+ 1	.8	+ .2
Portland	50	- 1	1.8	+1.0
MD.Baltimore	63	0	.3	- .5
MASS.Boston	56	- 1	1.3	+ .5
Chatham	51	---	1.7	----
MICH.Alpena	51	0	.8	+ .2
Detroit	58	+ 2	1.2	+ .4
Flint	55	0	.8	+ .1
Grand Rapids	55	0	.8	0
Houghton Lake	51	+ 1	1.1	+ .5
Lansing	55	0	.8	0
Marquette	43	- 5	2.1	+1.5
Muskegon	51	- 2	.8	+ .1
S. Ste. Marie	44	- 4	1.3	+ .7
MINN.Duluth	48	0	.7	0
Internatl Falls	48	- 1	.5	0
Minneapolis	53	- 3	.3	- .3
Rochester	53	- 2	1.0	+ .3
St. Cloud	52	- 2	.4	- .3
MISS.Jackson	71	- 1	2.0	+1.0
Meridian	71	- 1	3.0	+2.1
MO.Columbia	60	- 3	.6	- .4
Kansas City	62	- 1	1.1	+ .2
St. Louis	62	- 2	2.6	+1.8
Springfield	62	- 2	.9	- .3
MONT.Billings	50	- 5	T	- .4
Glasgow	52	- 3	T	- .3
Great Falls	49	- 4	.1	- .3
Havre	52	- 1	T	- .3
Helena	48	- 4	.1	- .2
Kalispell	47	- 5	.2	- .1
Miles City	52	- 5	.1	- .2
Missoula	49	- 3	T	- .4
NEBR.Grand Island	57	- 3	.2	- .6
Lincoln	58	- 3	1.4	+ .7
Norfolk	57	- 2	.2	- .5
N.Platte	54	- 3	T	- .6
Omaha	57	- 2	2.5	+1.7
Valentine	52	- 3	T	- .5
NEV.Ely	54	+ 5	T	- .2
Las Vegas	78	+ 6	T	0
Reno	59	+ 6	T	- .1
Winnemucca	59	+ 6	0	- .2
N.H.Concord	53	- 1	1.2	+ .5
N.J.Atlantic City	60	+ 1	.8	0
Trenton	61	0	.9	+ .1
N.MEX.Albuquerque	63	- 1	.2	0
Roswell	67	+ 2	.1	- .2
N.Y.Albany	56	0	1.5	+ .7
Binghamton	53	- 1	1.0	+ .3
Buffalo	55	+ 3	.9	+ .2
New York	59	- 1	.9	+ .1
Rochester	57	+ 2	.4	- .2
Syracuse	55	- 1	1.2	+ .4
N.C.Asheville	62	- 1	2.0	+1.4
Charlotte	67	- 1	.7	0
Greensboro	64	- 1	1.1	+ .4
Hatteras	68	+ 1	.8	0
Raleigh	67	+ 1	.5	- .4
Wilmington	71	+ 2	2.2	+1.6
N.DAK.Bismarck	51	- 3	.1	- .3
Fargo	50	- 4	.3	- .1
Williston	51	- 3	.2	- .1
OHIO.Akron-Canton	59	+ 3	1.2	+ .3
Cincinnati	61	- 1	.8	- .1
Cleveland	60	+ 4	1.1	+ .3
Columbus	62	+ 1	.4	- .5
Dayton	61	+ 1	1.2	+ .4
Toledo	59	+ 2	.7	- .1

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
Youngstown	56	- 1	1.7	+ .8
OKLA.Okla. City	67	+ 1	T	-1.1
Tulsa	68	+ 1	T	-1.2
OREG.Astoria	54	+ 2	.9	+ .1
Burns	53	0	T	- .2
Medford	61	+ 4	T	- .3
Pendleton	58	0	.3	+ .1
Portland	59	+ 2	.2	- .3
Salem	55	- 1	.2	- .3
PA.Allentown	57	- 2	1.2	+ .3
Erie	54	- 1	1.0	+ .1
Harrisburg	60	+ 1	1.1	+ .2
Philadelphia	62	+ 1	.8	- .1
Pittsburgh	59	+ 1	1.5	+ .7
Scranton	54	- 3	1.6	+ .7
R.I. Providence	56	0	1.6	+ .8
S.C. Charleston	72	+ 1	.7	0
Columbia	70	- 1	1.6	+ .7
Greenville	68	- 1	1.5	+ .8
S.D. Aberdeen	55	0	T	- .5
Huron	53	- 4	.1	- .4
Rapid City	51	- 4	.3	- .2
Sioux Falls	55	- 2	T	- .7
TENN.Chattanooga	67	0	1.0	+ .2
Knoxville	65	- 2	1.5	+ .7
Memphis	69	- 1	1.8	+ .8
Nashville	66	- 1	.8	0
TEX.Abilene	72	+ 2	.9	- .1
Amarillo	63	- 1	.3	- .3
Austin	73	- 1	.5	- .4
Beaumont	72	- 2	2.5	+1.3
Brownsville	78	0	1.1	+ .7
Corpus Christi	77	0	.6	+ .1
Dallas	--	---	---	----
Del Rio	77	0	T	- .6
El Paso	68	- 2	.2	+ .1
Fort Worth	72	+ 1	.6	- .4
Galveston	75	0	1.4	+ .7
Houston	72	- 4	1.2	+ .2
Lubbock	68	+ 1	.1	- .4
Midland	69	- 3	T	- .4
San Angelo	74	+ 1	1.0	+ .1
San Antonio	74	0	1.4	+ .6
Victoria	76	0	1.1	+ .2
Waco	72	- 1	.2	- .8
Wichita Falls	69	- 1	.2	- .8
UTAH.Blanding	59	+ 4	.1	- .1
Salt Lake City	61	+ 3	T	- .3
VT.Burlington	54	0	.8	+ .1
VA.Lynchburg	63	- 1	.8	+ .1
Norfolk	69	+ 3	.3	- .5
Richmond	68	+ 3	.3	- .5
Roanoke	61	- 4	.3	- .5
WASH.Colville	51	- 3	.1	- .2
Omak	51	- 6	0	- .2
Quillayute	53	+ 2	1.8	+ .7
Seattle-Tacoma	56	+ 1	.6	+ .2
Spokane	52	- 3	.3	0
Walla Walla	59	- 1	.5	+ .2
Yakima	55	- 3	T	- .1
W.Va.Beckley	59	0	.8	- .2
Charleston	63	0	1.2	+ .4
Huntington	61	- 3	1.4	+ .6
Parkersburg	63	0	.9	+ .1
WIS.Green Bay	53	+ 1	1.8	+1.1
La Crosse	55	- 2	1.2	+ .4
Madison	56	+ 2	1.5	+ .8
Milwaukee	51	- 1	.5	- .2
WYO.Casper	48	- 4	T	- .5
Cheyenne	49	- 1	T	- .5
Lander	49	- 3	0	- .7
Sheridan	47	- 6	.1	- .4
P.R.San Juan				

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: Locally heavy rains, severe weather, local flooding early week. Partly cloudy or fair followed Wednesday with slightly cooler temperatures averaging near normal. Friday afternoon highs reached upper-80's and low 90's north to Tennessee Valley. Severe thunderstorms across north and central Friday and early Saturday. Abrupt change to cooler followed north Saturday proceeding to south early Sunday. Sunny skies with cool nights and mild days weekend. After midweek farmers made good progress planting cotton, corn and peanuts. Planting soybeans active several localities and will gain momentum next few weeks. Planting cotton almost 50% completed, slightly over 90% last year. Early plantings emerging to scattered stands due to packing rains and cool temperatures. Many fields being replanted. Corn planting delayed as cotton took priority. Slightly less than 50% expected corn acreage planted, 80% last year. Planting peanuts made good progress, 50% of acreage in ground. Small grains maturing rapidly, prospects favorable. Irish potato harvest active Baldwin, Mobile, Escambia Counties. Few small grain fields and pastures cut for hay.

ALASKA: Normal temperatures. Nighttime lows still dipped below freezing, daytime readings ranged from low 60's to low 40's. Anchorage, Matanuska Valley and Kodiak averaged subnormal, the Kenai Peninsula and Tanana Valley near or slightly above normal. Precipitation unusually heavy in Kodiak, variable amounts in Tanana Valley and little or none Matanuska Valley and Anchorage area. Little fieldwork in Rail Belt, due mostly to slow drying fields. Soil moisture supply generally adequate. Some fertilizer applied, especially in Matanuska Valley. Frost still near soil surface many low areas.

ARIZONA: Temperatures generally above normal, from 5° central mountains, northwest to near or slightly above normal southeast. Influx of tropical moisture on weekend. Significant rain along and near eastern Mogollon Rim and southeast. Cotton planting continues, southeast. Large percent crop emerged. Yuma area early planting began squaring. Small grains excellent progress, good yields expected. Pinal County safflower small, late. Yuma County good bloom developing. Sorghum making good growth, planting continues southeast. Sugarbeet making progress though later than normal, harvest Yuma good yields. Harvest first cutting alfalfa hay except Yuma, second cutting Yuma well advanced. Lettuce harvest continued central. Lettuce Cochise County appears good. Harvest expected underway end month. Harvest other mixed vegetables, seasonal progress central, west. Cantaloupes Yuma area good progress. Crown set fruit developing well, vine turning, pollination underway. Valencia orange harvest underway, demand good. Limited picking, shipping grapefruit, Groves good, excellent new bloom. Insect controls applied as needed. Ranges good, warm temperatures higher elevations accelerated thaw--runoff heavy. Lower elevation ranges green. Desert ranges drying, temperatures above average. Stockwater adequate, excellent spring runoff. Cattle, calves good--calving underway. Sheep, lambs fair to good. Movement from desert pastures underway.

ARKANSAS: Mean temperatures mid-60's north to low-70's south. Departures -3° to +3°, mostly near normal. Warming trend. Cooler on weekend. Extremes: Highest 93°, 36°. Precipitation heaviest northern third and in southeast with amounts 0.50 in. to 1.84 in. Largest total at Fayetteville 1.84 in. Most rain late week or on weekend. Best fieldwork progress this year. Considerable acreage still flooded or too wet. Cotton 18% planted, 85% normal. Planting most advanced southeast, lagging most northeast. Rice 43% planted, 92% normal. Early fields emerging. Few soybeans planted, 15% normal. Sorghum and corn being planted. Cotton emerging poor stand. Wheat and oats fair to good, except flood damaged--beginning to ripen. Oat hay cutting started. Hay crops good, first cuttings progress. Fruit prospects mostly good. Strawberry picking underway, volume light. Tomatoes fair to good, staking and pruning. Pasture feed good except flooded area. Cattle gaining weight.

CALIFORNIA: Temperatures near normal coast, warming. Trend began central valley, high desert early week, bringing averages slightly above normal. Precipitation spotty, confined northern mountains, Sierras. Winds generally light after Monday. Fieldwork rapid progress. Weather favorable. Early small grains nearing maturity, available moisture generally adequate. Late plantings showing signs limited surface moisture. Cutting small grain hay active. Combining desert barley and wheat increasing. Sugarbeet harvest, planting remain active. Thinning, weeding, irrigating underway more advanced sugar beets, cotton, stands good. Rice seeding continues, early plantings above water. Corn, milo and dry bean planting and cultivation active. First cutting alfalfa active north, second cutting well along south. Harvest early cherry varieties active, light picking Bings underway. Sulfuring grapes control mites, mildew. Bunch set good. Harvest freestone peaches underway Kern County. Harvest apricots expected this week. Plums, nectarines sizing normally, good sets. Almonds normal. Walnuts set well, control codling moth underway. Normal sets reported prune orchards. Harvest Valencia oranges southern California continues active. San Joaquin above normal elimination necessary water separators. Picking lemons continues active south, starting decline. Delta asparagus continues, mostly processing. Broccoli and cauliflower good supply Salinas. Carrots peak Imperial, declining Coachella Valley. Celery unchanged south. Santa Maria harvest to start. Sweet corn light picking Coachella Valley. Onion increase Imperial, few dug Stockton area. Potato increase Kern district. Strawberries increase Santa Maria, more berries to processing south. Market tomatoes light Imperial Valley, San Diego. Rangeland drying rapidly; mature feed plentiful, water very good. Permanent pastures irrigated. Livestock good. Sheep shearing active Sacramento Valley.

COLORADO: Major storm moved out Monday. Precipitation east, amounts were around 0.50 in. most areas, 1.50 in. Yona. Pacific cold front Tuesday night and Wednesday, shower activity mostly mountains. This surge cool air followed by second surge from north Thursday night. Cooling enough to keep temperatures near normal. High extremes: 90°, 16°. Field preparation spring planting rapid. Warmer temperatures enhanced seed germination, plant emergence. Soil moisture supplies adequate to surplus. Winter wheat and barley good-excellent, 60% winter wheat, 34% winter barley jointing. Winter wheat beginning head southeast. Mosaic and cutworms causing light damage wheat. Seeding oats and spring barley 61% and 72% complete. Oats 46% emerged, spring barley 45% emerged. Condition emerged acreage good to excellent. Corn planting 21% complete, 2% emerged. Sugar beet planting reaching 50%, 26% emerged. Late summer potatoes 54% seeded, 18% emerged, condition fair. Fall potato seeding made good progress. Small area sorghum seeded. Condition alfalfa improving, growth 2 weeks behind. Range and pasture condition generally good, grass good growth. Livestock fair. Supplemental feeding continuing.

FLORIDA: Cool first of week north. Showers Wednesday, Thursday, and Sunday, mainly on Peninsula. Weekly temperatures averaged 1° to 2° subnormal north, near normal central but 2° to 3° above normal south. Rainfall averaged 0.75 to 1.75 in. with a couple of locations 3.00 to 4.00 in. Planting corn and peanuts almost complete. Land preparation for soybean planting continues. Small grains almost ready for harvest. Rains improved grazing but some locations remain dry. Cattle and calves good. Citrus tree condition improved greatly. Condition remaining Valencias very good, new crop fruit still shelling off, normal. Spring vegetable output up about 20% with increasing supplies potatoes, sweet corn, tomatoes, watermelons. Cabbage, celery, peppers, beans, cucumbers in good supply. Leaf crops rapidly disappearing while radishes, carrots, eggplant, squash steady. Okra, peas, other southern vegetables increasing.

GEORGIA: Moderate rains midweek, scattered light showers Friday and Saturday. Weekly totals: from near 2 in. northwest to about 0.50 in. southeast. Temperatures near normal; warmest southeast Saturday--low-90's, coolest north this Monday morning--40's and a few 30's in mountains. Soil moisture adequate except surplus northwest and scattered counties. Conditions were year's most favorable for fieldwork but rains still interrupting and soils too cool. Stands not good for most crops, replanting widespread. Very early and heavy infestation of army worms central. Peanuts 77% planted, 20 points subnormal, condition mostly fair, lowest in many years. Corn 83% planted, 95% normal, fair to good. Cotton 72% seeded, usual about 90%; 35% emerged, about 50% normal. Soybeans 12% seeded, 50% normal. Tobacco transplanting near complete, cultivation and pest control active. Small grains fair to mostly good, army worms attacking. Peaches fair to good, harvest underway south. Haying more active. Pastures and cattle good.

HAWAII: Light showers, warm weather favor crop growth and maturity. Insects increase on some crops. Irrigation heavy. Sugarcane harvesting to date 16% above last year. Seasonal increase pineapples. Supplies watermelons, papayas up. Vegetables, bananas ample. Pastures, cattle fair to good.

IDAHO: Temperatures near or slightly subnormal. Showers Saturday left from 0.02 to 0.43 in. south and east. Tuesday precipitation more general, amounts 0.25 to 0.50 in. common and locally to more than 1.00 in. Thunderstorms numerous Tuesday with sleet, rain, snow and damaging winds mostly in north and east. Flooding in and near Rupert, may have occurred locally elsewhere. Sharp warming trend no precipitation weekend. Weather favored farmwork. Crops good growth. Rain needed dryland areas except east. Spring grain seeding 90% done north, 60% east, complete other areas. Emerged stands average to good. Potato planting 90% done southwest, 50% south-central, over 20% east. About 50% potato fields emerged southwest, 5% southcentral, no emergence east. Sugar beet planting complete southwest; southcentral, east 70%. Beet stands average, thinning and blocking active southwest. Corn planting over 60% complete. Dry bean planting started southwest.

ILLINOIS: Temperatures near normal northwest to 3° subnormal south. Warming early week. Temperatures from 60's and low 70's Monday to 70's, low 80's Thursday. Sharply cooler Friday through Sunday. Highs Sunday 50's and 60's. Precipitation 0.33 in. north, over 2.00 in. southwest, most falling early week. Less than 2 days suitable most areas. Corn planting 15% complete, 38% last year and 1970-1972 average 48%. Soybean planting started, 2% planted, 10% both last year and average. Plowing 60% complete, 84% last year, 90% average. Oat seeding 80% complete, 91% last year, 97% average. Winter wheat mostly good, 20% headed. Legumes good to excellent. Pastures good to excellent, supplying 80% livestock roughage requirements. Soil moisture 83% surplus, 17% adequate. Main activities plowing, discing, oat seeding, fertilization, corn planting as conditions permitted.

INDIANA: Weather favored agriculture from midweek thru weekend with good drying and considerable sunshine. Rainfall confined to early week except south where problem until weekend. Amounts ranged from 0.2 in. north to 0.7 in. central to 1.3 in. south. Air temperatures 1° to 2° subnormal and in warm 70's and low 80's midweek, then cool over weekend with scattered light frost northeast on 14th. Soil temperatures in 50's to low 60's. Evaporation highest of season totaling 1.3 in. central. Four days suitable for fieldwork. Topsoil and subsoil moisture declined to adequate to surplus levels. Fieldwork 14 days late. Plowing 50% complete, 75% average, 70% in 1972. Corn 15% planted, 30% average, 20% in 1972. Oats 75% seeded. Clover 85% seeded. Wheat 15% headed, 10% average. Rye 40% headed. Barley 30% headed. Oats 4 in. high. Pastures good condition.

IOWA: Temperatures seasonal to slightly subnormal, but higher than previous week. Wide belt southwest to northeast moderately heavy rainfall, elsewhere below average. Some progress end week, 2 days suitable fieldwork. Planting 61%, 90% 1972 and 1967-1972 average 95%. Oats seeding 80%, behind virtual completion 1972 and normal. About 18% corn planted, 30% 1972 and average 61%. Northwest corner about 30%. Soybean planting started scattered areas. Condition of growing crops--oats, clover and alfalfa hay, pastures--reported mostly good to fair. Topsoil moisture 84% surplus and 16% adequate.

KANSAS: Some early week flooding. Light rainfall midweek east and northcentral. Considerable damage

extreme southeast 11th from severe thunderstorms. Temperatures: week near normal, weekend subnormal. Wet fields slowed row crop planting early but late week progress substantial. Corn 17% planted, 37% year ago, 57% average. Sorghums 1% planted, 5% year ago, 10% average. Soybean planting limited to few fields eastern third. Sugar beet planting active west. Wheat responded well to good growing weather. Many wheat fields heading southcentral and southeast but little wheat heading other areas. Wheat 8% headed, 47% year ago, 42% average. Streak mosaic increasing western third. Alfalfa first cutting underway south, 4% cut, 8% last year, 10% average. Alfalfa weevil infestation light to severe east, some central. Pasture feed now providing 85% roughage for cattle, moderately above last year. Livestock continued to graze out some wheat, rye.

KENTUCKY: Frequent showers and thunderstorms until drier weekend. Rainfall totals around 2.00 in. parts of central and east. Temperatures several degrees above normal most of week, then fell to 5° to 10° subnormal weekend. Outdoor activity limited by continued showers, 2 days suitable fieldwork. About 86% cropland too wet to till. Corn planting 13% completed, 42% last year, 60% 1968-72 average. Tobacco beds fair to good condition--50% size half dollar or more. Wheat 16% blooming, another 52% heading. Very few soybeans planted, 7% last year, 12% average. Pasture condition excellent.

LOUISIANA: Thundershowers beginning and end week followed by cool and clear weather. Sharp warming trend late week. Temperatures from 1° above normal to 4° subnormal. Extremes 92°, 49°. Precipitation: 1.00 to 3.00 in. Greatest 1-day total 2.32 in. at Baton Rouge. Excessive moisture held up most fieldwork until Thursday. Some land preparation and planting followed in lighter soils. Increased activity next week if no more rain. Mississippi rising, backwater causing more flooding. About 10% cotton planted, 75% 5-year average. Some replanting necessary after last week's heavy rainfall. Corn 33% planted, normally nearing completion. Some early plantings ready to lay by. Rice 50% to 60% planted, 95% a year ago. Less than 5% soybeans planted. Sorghum grain 10% to 15% planted, small acreage expected. Sweetpotatoes 33% transplanted, about normal. Sugarcane cultivation more active, growth several weeks behind. Some hay harvested. Pasture feed about average. Livestock fair to good.

MARYLAND AND DELAWARE: Temperatures near normal. Cool early week, warming through 10th. Extremes: low 28° extreme west, high in low 80's. Precipitation 1.00 to 1.75 in. extreme west, 0.25 to 0.60 in. from west central Maryland eastward to central Delaware, 0.15 to 0.40 in. south, 0.50 to 1.35 in. southern Eastern Shore. General rains 9th, scattered showers 11th. Weekend: cool, partly cloudy, a few sprinkles. Progress favorable especially south. Corn 52% planted, normal 55%. Wheat 50% headed south, starting to head north. Tobacco setting just starting, vegetable planting well advanced commercial areas of Southern Shore. Strawberry picking starting, peak expected about May 25 southern shore.

MICHIGAN: Mild, cooler over weekend. Generally wet, cloudy, little sunshine. Storm center passed over northern lower State Tuesday and another over upper State Wednesday followed by several weak cold fronts. Temperatures 2° subnormal west central to 2° above normal west and northern lower while averaging 2° to 5° subnormal upper peninsula. Light freeze in spots upper peninsula weekend. Precipitation daily. Totaled 0.50 to 0.75 in. most of lower peninsula, but locally over 1.00 in. north and east to 1.00 to 2.00 in. upper peninsula. Fieldwork further delayed by wet weather. Soil moisture mostly surplus. Average 2.3 days suitable fieldwork. Only 45% acreage intended for spring planting plowed, 56% last year, 80% in 1971. Oats 66% planted, normal 74%. Corn 13% planted, normal 29%. Sugar beets 73% planted, normal 75%. Potatoes 26% planted, normal 35%. Soybean planting not started. Cool temperatures retarding wheat development. Pasture feed supplies average to above. Tart cherries bloom northwest.

MINNESOTA: Temperatures near normal except central 2° above normal. Extremes: 80's in northwest to upper 20's in northcentral. Precipitation 0.90 to 1.20 in. north and east thirds. Remainder 0.20 to 0.40 in. Excessive precipitation 1.6 to 2.20 in. fell on already wet southern sections of southeast. This is first week since mid-April for adequate precipitation northwest. Topsoil moisture adequate northwest, subsoil moisture short. Soil moisture southeast surplus, elsewhere generally adequate moisture. Fieldwork possible 5 to 7 days north, central 2 to 4, south 2 to 6. Fieldwork ahead of normal except 10 days behind southeast. Spring wheat 99% planted, 76% emerged. Oats 97% planted, 78% emerged. Barley 91% planted, 63% emerged. Flax 63% planted, 29% emerged. Corn ground prepared 68%, 50% planted. Soybean ground 36% prepared, 10% planted. Potatoes 41%, sugar beets 57%, processing peas 60%, processing sweet corn 32%, sunflowers 22% planted. Hay and pasture growth fair to good. Rye and spring wheat condition good, growth fair to good.

MISSISSIPPI: Severe thunderstorms south Tuesday, north Friday. Tornado near Waynesboro early Tuesday. Severe thunderstorm Laurel Tuesday uprooting trees, disrupting power, damage heavy. No injuries. Rainfall near 1.00 in. north to over 3.00 in. south. Temperatures rather cool, 1° to 6° below normal. Extremes: 38°, 94°. Generally fair skies, mild temperatures weekend. Fieldwork 2.8 days, 2.2 days last week, 2.0 days last year. Cotton 25% planted, last year 83%, normal 75%. Corn 36% planted, 76% a year ago, normal 65%. Soybeans less than 1% planted, last year 6%, normal 14%. Rice 25% seeded, 86% last year, normal 63%. Sorghums 10%, 36% a year ago, normal 30%. Sweetpotatoes 17% planted, 34% last year. Wheat and oats ripening. Field crops fair to good. Fruit and truck crops fair. Pastures and livestock good.

MISSOURI: Rainfall: Average over 2.00 in. Totals from 1.25 in. to almost 5.00 in. Many stations reported total rainfall of 15 to 20 in. for February thru April. About half yearly normal. Temperatures few degrees above normal northwest to few degrees subnormal in southeast. Heavy rains first half week with intense thunderstorm activity, hail, damaging winds and a few tornadoes. Heavy rains of last 2 weeks produced secondary crests on Missouri and Mississippi Rivers at week's end and kept thousands of acres underwater. With fair weather late week continuing into current week and rivers beginning to recede, things were looking a little brighter for those affected by record floods. Fieldwork 1 day suitable. Plowing 17% complete, virtually finished last year. Corn 5% planted, 49% year ago, normal 48%. Soybean planting just beginning, 7% complete in 1972, normal 9%. Grain

sorghum planting 1% complete, 10% year ago. Cotton 4% planted, 77% finished last year, normal 61%. Alfalfa weevil infestation less than last year. Wheat 28% headed, 53% headed last year, mostly fair. Pasture good. Soil moisture surplus.

MONTANA: Cool dry week. Temperatures 3° to 6° subnormal. West and southwest received most significant precipitation, north-central and southeast dry. Freezing nighttime temperatures Friday and Saturday. Winter wheat condition good eastern third and southcentral where soil moisture adequate, fair to good elsewhere where soil moisture reduced. Spring wheat seeding 70% complete, barley and oats 60%, corn 25%, potatoes 30%, dry beans 20%, and sugar beets 85%. Cattle and sheep generally good. Range feed supplies sufficient eastern third, short portions remaining areas. Stockwater supply mostly adequate except locally short north-central and northeast. Supplemental feeding to 45% cattle and sheep. Calving and lambing nearing completion. Shearing 80% complete. Cattle and sheep 30% moved to summer ranges.

NEBRASKA: Temperatures 2° to 4° subnormal. Thunderstorms first half produced spotty rainfall, heaviest 2.00 in. extreme southeast. No precipitation late week. Some frost north and west late week. Farmers made good progress on fieldwork, 4.5 days suitable for shredding stalks, preparing seedbeds, planting corn, and applying herbicides and fertilizer. Other farm work consisted of branding calves, moving cattle to summer ranges and pastures, and working summerfallow land. Corn planting 29% complete, 10% a year earlier, average 46%. Soybeans and grain sorghum planting just begun. Normal 10% grain sorghum and 5% soybeans planted by this date. Sugar beet planting nearing completion with much of crop emerged. Some damage from frost, high winds, and black root. Winter wheat condition improved, generally good to fair. Reports on condition indicate 7% excellent, 66% good, 24% fair and 3% poor. Some grass tetany. Most spring calving operations complete. Feedlots dried considerably. Flooding along Platte River west, some livestock moved to higher ground.

NEVADA: Temperatures 7° to 10° above normal. Extremes: 99°, 21°. General precipitation negligible, Austin 0.25 in. Fieldwork progressed rapidly. Planting most spring crops near completion. Crops doing well, moisture adequate. Ranges good to excellent. Calving and lambing nearing completion.

NEW ENGLAND: Temperatures near normal. Near or below freezing north and west Monday. Rain frequent, average 1.00 to 1.50 in. south and central, 0.50 to 1.00 in. elsewhere. Thunderstorms with hail south and central Friday. Small planting progress as fieldwork hampered by midweek rains. Silage corn planting continues, some on lighter soils. Pastures and hayland making lush growth. Most apples in petal fall. Fruit growers spraying and still concerned about late frost. Strawberries good. Potato planting nearing completion Rhode Island, Connecticut. Planting beans and squash active, some tomato plants out. Early cutting asparagus underway. Few herds on pasture. Soil moisture surplus, available grazing good.

NEW JERSEY: Increasing by midweek and cool again by end of week. Temperatures from low 80's Thursday afternoon to upper 30's on Tuesday morning. Showers daily Tuesday through Saturday. Precipitation: 2.50 in. over northwest to 0.75 in. over south coast. Soil moisture adequate - excessive. Asparagus volume and quality improved. Leaf, Bibb, Boston and Romaine lettuce harvest increasing. Spinach and greens moving. Planting sweet corn, tomatoes, snap beans and peppers. Transplanting sweetpotatoes. Strawberries full bloom. Cranberry bogs drained. Field corn planting general. Alfalfa being seeded -- some weevil damage reported, spraying recommended. Barley and rye in head.

NEW MEXICO: Temperatures near normal, cool, fair early week, dry and warming past midweek, then cloudy and rain northeast Friday spreading through most of State weekend. Temperatures east near 20° subnormal weekend. Rainfall 0.20 in. or more generally to near 1.00 in. locally south and southwest, no rain extreme northwest. Field operations slowed due cooling trend end week. Wind, hail caused limited cotton damage Carlsbad area. Cotton good, 100% planted, 75% acceptable stands Mesilla Valley; more northern areas just started planting. Hay first cutting very active south, 25% to 30% complete. First cutting north expected late May, early June. Lettuce, onions doing well all areas, cutting lettuce Mesilla Valley. Chili peppers good some fields, poor others Mesilla Valley. Apples north good, full bloom, heavy sets. Cattle and calves mostly good. Ranges improving under warmer weather.

NEW YORK: Temperatures extremes 79°, from 23°. Temperatures 1° to 2° above normal. Rain fell 6 days generally well above normal and varied from 0.33 to over 2.00 in. Five-week rainfall is showing the largest positive departures central sections, Long Island. Greatest negative departures over west and south. Cool, wet weather and wet soil delayed planting. Corn about 10% planted. Weather favorable for growth of wheat, hay, pastures. Vegetable planting delayed by wet conditions. Potatoes 20 to 25% planted west, Long Island planting complete. Onions emerging, few fields to be planted west. Lettuce blocking underway. Sweet corn planting increasing. Early cabbage good. Planting kraut cabbage getting started. Apples, tart cherries full bloom west. Rain and wet slowed spraying, mowing and tree planting. Scab present in some orchards. Potential for good apple set exists Hudson Valley with trees in petal fall or later stage. Grapes remain good development ahead normal.

NORTH CAROLINA: Rainfall: 0.25 in. to 5.00 in. mostly near 1.00 in. Few heavy thunderstorms west and south. First 90° temperatures since September on 11th. Other days, near normal. Fine week for farming. Rains kept soil moisture supply, but did not stop fieldwork more than 1 or 2 days. Farmers averaged 3.6 days fieldwork. Corn 75% planted, 10-year average 72%. Corn plants early emerged fields 18 in. high. Spraying and cultivating underway. Flue-cured tobacco 54% set, behind last year's 69%, but ahead 10-year average 49%. Cotton 74% seeded, 10-year average 72%. Soybeans 12% sown, 10-year average 22%. Peanuts 52% planted. Planting sweetpotatoes started. Haymaking underway. Winds and rain damaged small grains Piedmont. Grain fields starting to ripen east. Picking strawberries.

NORTH DAKOTA: Temperatures near normal. Warmest early week. Highs to low - 80's southeast. Precipitation from 0.10 in. subnormal north to as much as 0.60 subnormal south. Scattered light showers all week. Strong northerly winds 11th. Good fieldwork progress. Percent of crops planted: Hard red spring wheat 79; durum 62, oats and barley 75, flax 30, corn 11, soybeans 23. Ten-year

average percent planted this date: Hard red spring wheat 66, durum 52, oats 51, barley 56, flax 15, corn 5, soybeans no average available. Light precipitation late week helped with dryness but central and east need more. Grass growth improving.

OHIO: Severe storms. Tornado touched down briefly, caused some damage vicinity Dublin, Galena, and Sunbury.Another small tornado reported Olmstead near Cleveland. Tornadoes and thunderstorms hit parts northern two-thirds State afternoon and evening 10th, causing widespread damage, some loss of life. Hardest hit Willard, Huron County, and Kenton, Hardin County. Hail also some localities. Temperatures near normal most of week, turned much colder 12th and 13th. Extremes: 79°, 38°. Measurable amount rainfall reported somewhere every day. Heaviest on 8th and 10th. Dayton reported over 1.00 in. on 8th, Bucyrus, Mt. Gilead, Delaware, and Prospect each reported 1.00 inch or more on 10th. Favorable weather early week changed to wind and rain, leaving many areas again with wet, muddy fields. Average 3 days favorable for fieldwork, best week this spring. Soil moisture supplies surplus 91%, adequate 9%. Plowing for corn and soybeans nearly 60% complete, 1972, 85%, 5-year (1968-72) average 90%. Corn 20% planted, normal almost 50%. Soybeans 5% planted, same as last year; 5-year average 10%. Oats 70% seeded, 85% 1972, normal 95%. Potatoes 40% planted, last year 45%, normal progress over 60%. Sugar beet acreage 75% planted. Winter wheat fair to good.

OKLAHOMA: Temperatures slightly subnormal in north-central and southeast to about 4° above normal northeast. Precipitation over 1.00 in. east third and southcentral. Other areas trace to about 0.60 in. Weekend mild, very light rains in panhandle, southwest, and northeast. Small grain maturity advanced rapidly. Wheat 2% dough stage, 70% headed, 41% dough, 99% headed year ago. Scattered reports rust, mosaic west. Oats 52% headed, 99% year earlier. Barley 66% headed, 100% year ago. Small grain development about 1 week behind last year. Open weather allowed fieldwork but most spring crop planting about 1 week behind last year. Corn 28% planted, 57% year ago; 75% average. Planting panhandle district just beginning. Grain sorghum 4% seeded, 10% last year, 20% average. Soybean and peanut seedings about 1 week behind last year. Cotton 7% planted, 8% year ago, 15% average. First cutting alfalfa hay 52% completed - yields mostly fair. Weevils continue to plague growth. Pecan set heavy -- fruit prospects good. Watermelon planting behind normal southern counties. Livestock and range mostly good - continuing to improve.

OREGON: Cool, wet weather with drying trend at close. Temperatures mostly subnormal. Departures up to 10° below subnormal northcentral. Some lows east in mid-20's, low 20°. Precipitation general, almost daily coast. Midweek precipitation brought 0.33 to 0.50 in. to much of east. Soil moisture problems eased slightly, could use more rain. Drought symptoms showing shallow soils. Barley heading out. Seed crops good. Wheat nearing flag leaf stage. Some first cutting hay in bale east, in windrow west. Corn for silage being planted. Potato planting active Union County in central, Klamath County, Willamette Valley. Cherry fruit fly emerged Dalles. Spraying apples, pears for worms. Strawberries full bloom, berries developing. Nonirrigated pastures, ranges need moisture.

PENNSYLVANIA: Cool, wet week. Temperatures 3° to 5° subnormal low readings early and end of week. Brief warming to seasonable levels midweek. Extremes: 81°, 29°. Almost daily showers and numerous thunderstorms. Totals 1.00 to 2.00 in. most places and to 2.40 in. some western sections. Up to 1-inch hail reported in Dauphin County Thursday night. Unfavorable weather hampers fieldwork. Topsoil moisture 75% surplus, remainder adequate. Corn planting 20% complete, oats 75% and potatoes 50%. Barley heading, wheat entering boot stage. Hay prospects good. Pastures average to above average. Erie County grape development 10 days early.

PUERTO RICO: Weather conditions generally dry except for a few heavy showers northwest and southeast. Rainfall averaged 0.59 in. or 1.30 in. subnormal. Highest weekly total 6.00 in. east interior. Heaviest rainfall centered south east. Temperatures averaged 80° on coasts and 75° interior. Extremes: Highest 94°, 55°. Sugar cane harvesting operation continuing normal favored by dry condition. Ratoons being attacked by the yellow aphid south. Coffee developing well except for central and south where growth retarded by drought. Dry weather tobacco zone favored drying of leaves. Pastures south drought affected. Northern zones not yet recovered from floods of last weekend. Minor crops: Development and planting operations retarded by dry condition.

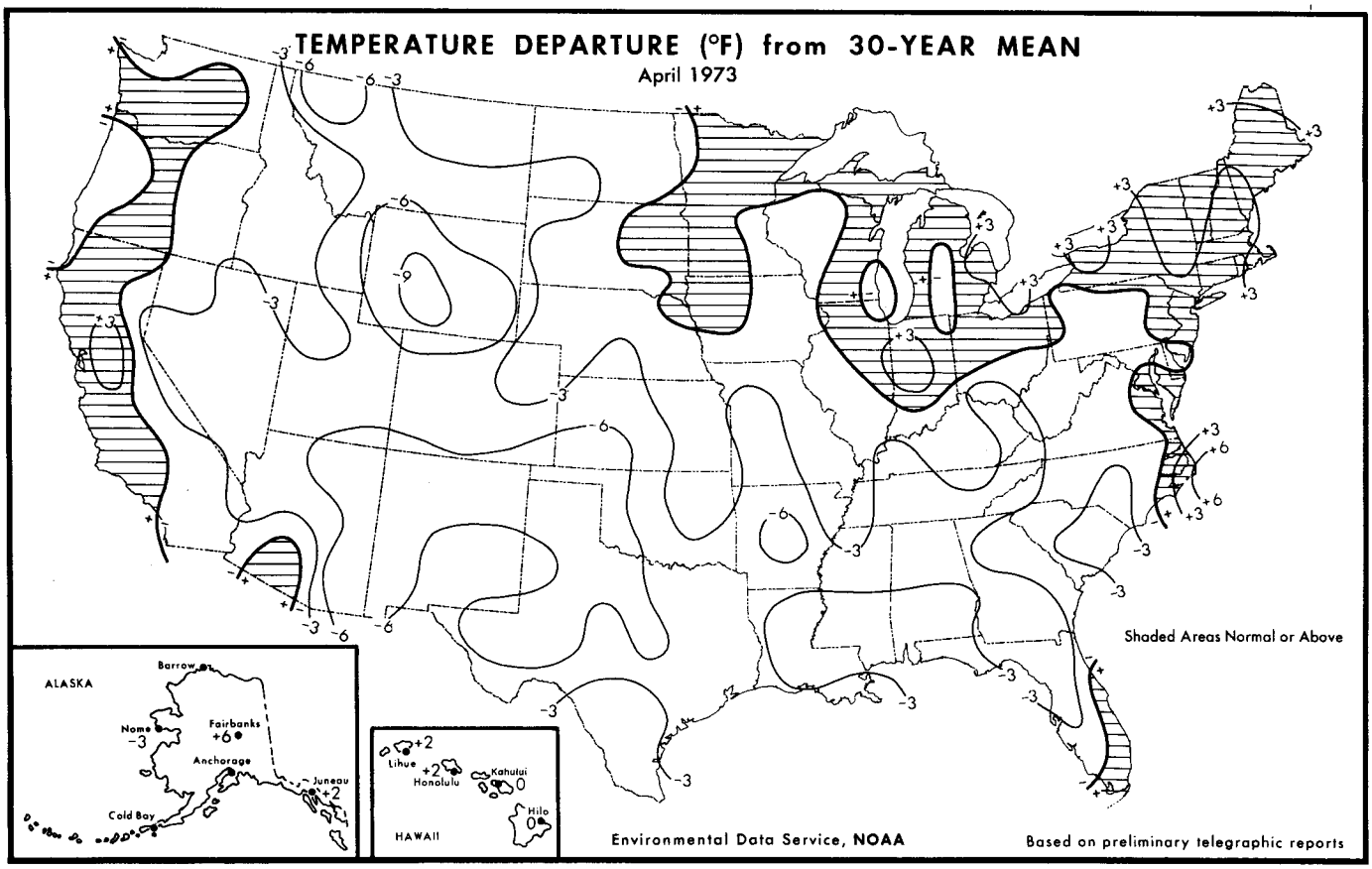
SOUTH CAROLINA: Rainfall: 3.00 to 5.00 in. mountains to 0.50 to 1.50 in. rest. Temperatures 5° to 7° subnormal mountains and Piedmont, slightly subnormal south. Cool first of week, warmer midweek, showers and cooler weekend. Good, progressive farming week. Soil moisture adequate. Tobacco 95% transplanted, 96% year ago; stands, plants fair to good. Cotton 84% planted, 89% 5-year average; stands, plants fair to good. Corn 89% planted, 95% 5-year average; stands, plants good. Soybeans 6% planted, 13% 5-year average. Sorghums 8% planted, 15% 5-year average. Small grains good. Wheat 86% headed, 15% turning color. Oats 85% headed, 16% turning color. Grain, hays good, 27% harvested; 29% year ago. Peanuts 78% planted, 62% year ago. Sweetpotatoes 23% transplanted, 37% last year. Pastures good. Peaches good. Vegetables fair to good.

SOUTH DAKOTA: Temperatures near to 3° subnormal. High 82°; low 19°. Dry, windy weather with widespread freezing or near freezing temperatures over weekend. Light precipitation. Adequate topsoil moisture except band of short topsoil moisture across northern part. Spring wheat, oats and barley seeding essentially complete. Flax seeding 56% complete; normal 55%, last year 9%. Corn planting 29% complete; normal 28%, last year 6%. Sorghum planting 5% complete. Soybean planting 4% complete. Cool dry weather slowed crop and pasture growth. Most stock on pasture still getting supplemental feed.

TENNESSEE: Two periods of cold front rains. Amounts of 1.00 in. to 3.00 in. common. Fair Wednesday. Cool and dry weekend. Temperatures about 2° subnormal. Soil preparations and planting progressed uplands, standstill in west lowlands. Several weeks behind schedule elsewhere. About 20% corn, less than 10% cotton planted; normal 60%. Considerable acreage hay ready for harvest but weather not permitting. Barley 80%, wheat 75% and nearly 60% of oats headed, nearly normal. Spring freeze-damaged some grains.

TEXAS: Warming trend midweek. Scattered thunder-

Continued on p. 14.



WEATHER - APRIL 1973

PRECIPITATION: The monthly precipitation pattern varied greatly, particularly in the Nation's western half. While parts of Minnesota, the Dakotas, and Nebraska received well below normal precipitation, areas to the east and west received well above normal amounts. Parts of Iowa, Wisconsin and Illinois again received more than twice the normal precipitation: LaCrosse, Wis., 261%; Moline, Ill., 353%; and Rockford, Ill., 319%.

Nearly all of Montana and Wyoming received from 150 to 450% of normal precipitation. Most of the moisture came from a snowstorm which dumped several feet of snow, starting on the 19th. This storm broke many existing records for a single snowstorm at any time of the season.

Snow was the word in Iowa. Nearly 20 in. fell in parts of the State on April 8-10 and destroyed over $19 million in livestock and poultry.

Heavy rains continued to fall over the Lower Mississippi Valley adding 8 in. or more to already swollen rivers during the month. Record flood crests occurred, breaking records established nearly 200 years ago. On April 28th, at St. Louis, Mo., the Mississippi River crested at 43.3 feet breaking the old record of 42.0 feet established in 1785.

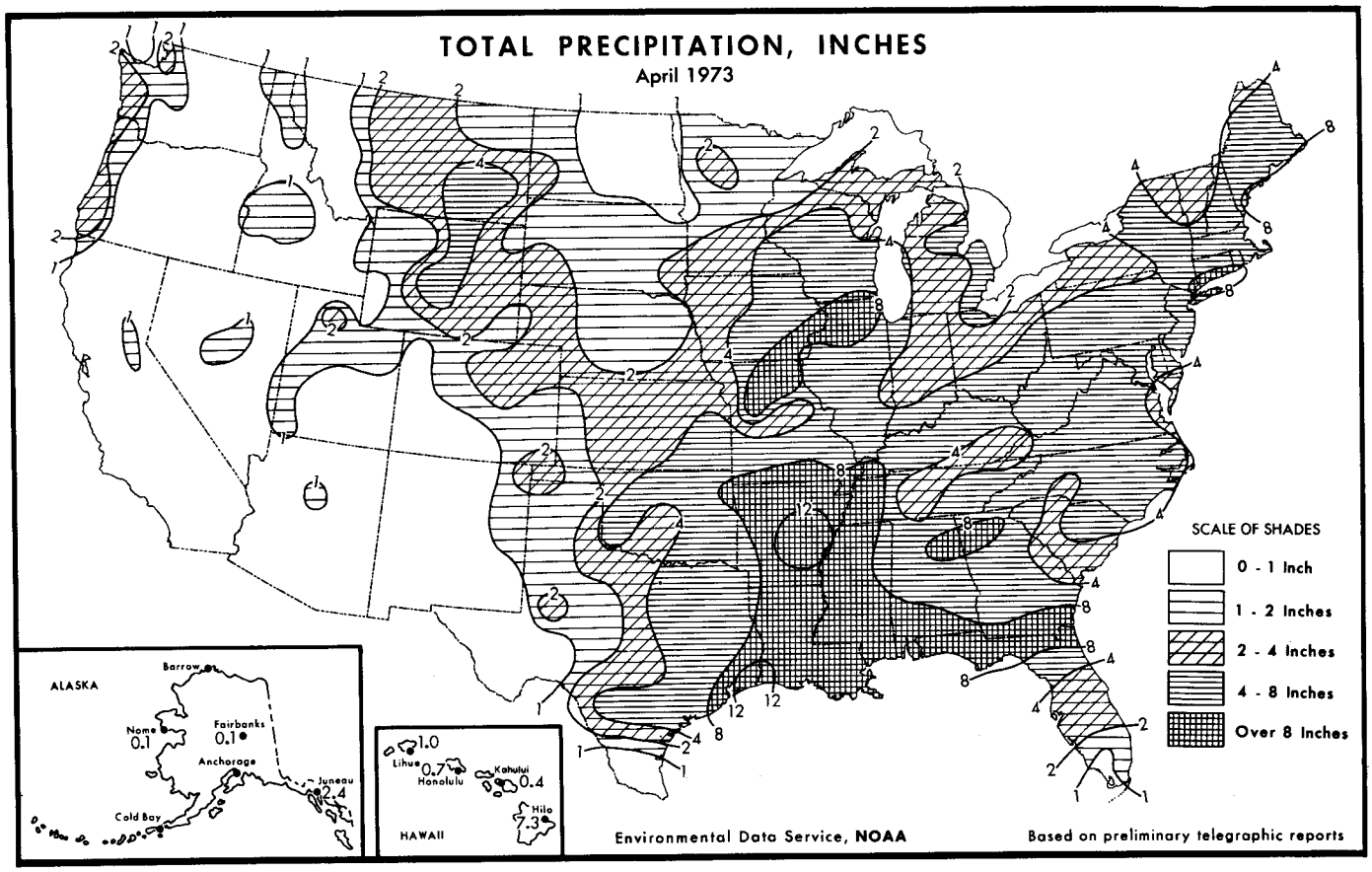
The Mississippi River Valley received it's greatest precipitation during the week of April 16-22. A sprawling low pressure system which extended from the Texas Gulf Coast to the Great Lakes drew moisture-laden tropical air up the length of the Mississippi River Valley and dumped 2.00 to 4.00 in. of rain over parts or all of 11 States. Although not as heavy the rest of the month, rain persisted almost daily in some areas, with only intermittent periods of sunshine.

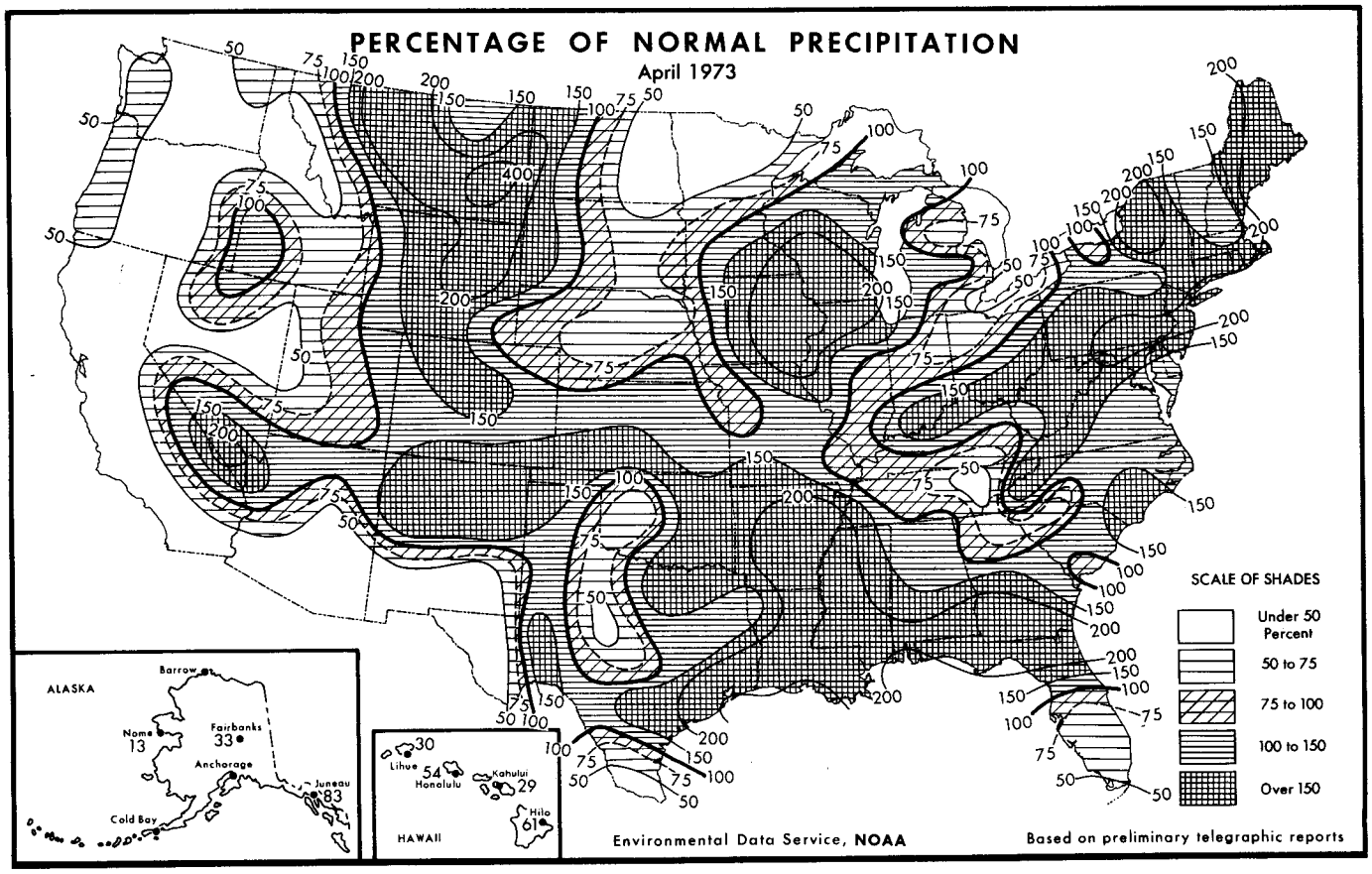
The west coast was dry the entire month, with little or no precipitation. Drought conditions in the Pacific Northwest continued to deteriorate as precipitation was from 0 to 50% of normal. Less than 0.50 in. fell during April in much of this area.

TEMPERATURE: With the exception of the third week, April temperatures were generally below normal over most of the Nation. Temperatures were below normal except along the Pacific Coast, over the north-central States and New England, and southeastern Florida. Much of New Mexico and the Texas Panhandle were 6° to 8° below normal. A mean temperature of 59.7° at Tucson, Ariz. was the coolest April since 1920. At Yuma, an 80° temperatures was recorded on April 5 for the first time this year, a new record. The previous record for the first 80° occurrence was March 14, 1891.

The month started with temperatures far below normal, particularly in the Southwest where temperatures were 6° to 12° below normal. During the week of April 9-15, winter-like conditions struck much of the Nation. The eastern half of the Nation was 6° to 12° below normal with freezing temperatures reaching down almost to the Gulf. On April 10, McComb, Miss., reported 30°, Birmingham, Ala., and Atlanta, Ga., 26°. A 24° reading at El Paso on the 9th marked the coldest April morning low since readings began in 1879.

A large High pressure system followed the cold air passage and brought very mild temperatures to the Nation during the 3rd week. Temperatures were 6° to 18° above normal in much of the northeast. Temperatures again cooled as the month ended.


TOTAL PRECIPITATION, INCHES
April 1973
SCALE OF SHADES
0 - 1 Inch
1 - 2 Inches
2 - 4 Inches
4 - 8 Inches
Over 8 Inches
ALASKA
Barrow
Nome 0.1
Fairbanks 0.1
Anchorage
Juneau 2.4
Cold Bay
Lihue 1.0
Honolulu 0.7
Kahului 0.4
Hilo 7.3
HAWAII
Environmental Data Service, NOAA
Based on preliminary telegraphic reports

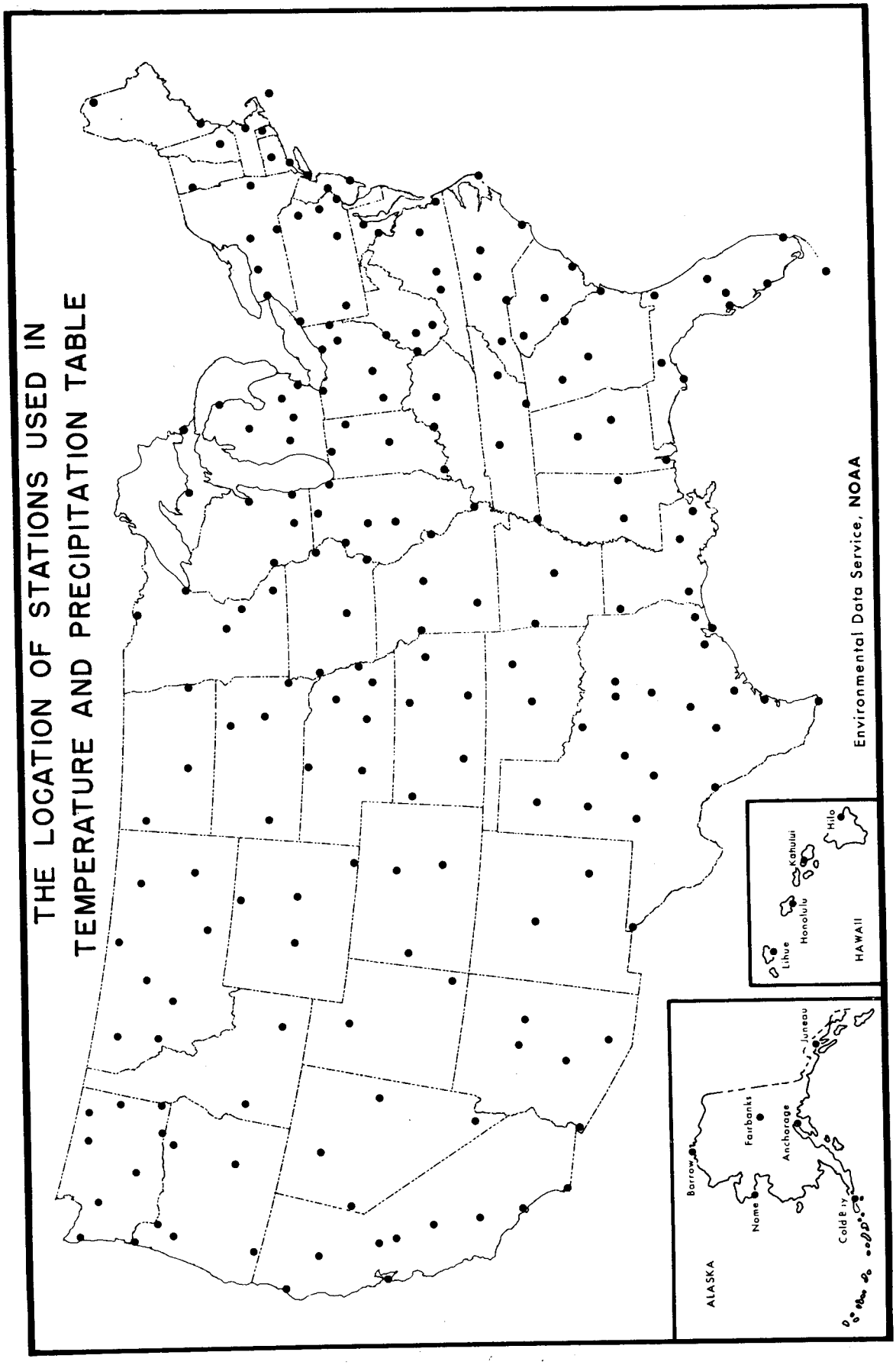

PERCENTAGE OF NORMAL PRECIPITATION
April 1973
SCALE OF SHADES
Under 50 Percent
50 to 75
75 to 100
100 to 150
Over 150
ALASKA
Barrow
Nome 13
Fairbanks 33
Anchorage
Juneau 83
Cold Bay
Lihue 30
Honolulu 54
Kahului 29
Hilo 61
HAWAII
Environmental Data Service, NOAA
Based on preliminary telegraphic reports

Temperature and Precipitation Data for April 1973

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
ALA.Birmingham	58	- 5	5.3	+ .8
Mobile	66	- 2	9.9	+3.5
Montgomery	63	- 1	7.7	+2.8
ALASKA.Anchorage				
Barrow				
Fairbanks	35	+ 6	.1	- .2
Juneau	40	+ 2	2.4	- .5
Kodiak	38		5.3	
Nome	18	- 3	.1	- .7
ARIZ.Flagstaff	38	- 5	1.2	0
Phoenix	67	0	.1	- .2
Tucson	60	- 6	T	- .3
Winslow	50	- 6	.1	- .4
Yuma	69	- 2	T	- .4
ARK.Fort Smith	58	- 4	6.8	+2.6
Little Rock	60	- 7	14.2	+9.3
CALIF.Bakersfield	65	+ 2	.2	- .6
Eureka	50	0	.4	-2.3
Fresno	61	0	.1	-1.0
Los Angeles	63	+ 1	0	-1.2
Red Bluff	61	+ 1	.1	-1.7
San Diego	62	0	.1	- .7
San Francisco	57	+ 1	.1	-1.2
Stockton	62	+ 4	.2	-1.2
COLO.Denver	43	- 3	3.7	+1.6
Grand Junction	48	- 4	.9	+ .1
Pueblo	47	- 4	1.6	+ .4
CONN.Bridgeport	49	+ 1	8.1	+4.3
Hartford	50	+ 1	6.5	+2.8
D.C.Washington	56	0	4.2	+1.0
FLA.Apalachicola	66	- 2	7.9	+3.6
Daytona Beach				
Ft. Myers	72	- 1	1.7	- .9
Jacksonville	66	- 3	11.6	+8.0
Key West	77	+ 1	.2	-2.3
Lakeland	69	- 3	2.5	-1.0
Miami	76	+ 2	2.2	-1.7
Orlando	71	0	2.8	- .6
Tallahassee	64	- 4	13.1	+8.5
Tampa	69	- 2	2.4	- .4
W.Palm Beach				
GA.Atlanta	58	- 2	4.0	- .5
Augusta	60	- 3	3.7	+ .1
Macon	62	- 4	6.3	+2.5
Savannah	64	- 2	4.4	+ .7
HAWAII.Hilo	72	0	7.3	-4.6
Honolulu	76	+ 2	.7	- .6
Kahului	73	0	.4	-1.0
Lihue	75	+ 2	1.0	-2.3
IDAHO.Boise	49	- 1	1.5	+ .3
Lewiston	50	- 1	.1	-1.0
Pocatello	43	- 4	.7	- .4
ILL.Cairo	57	- 2	3.6	- .5
Chicago	49	0	5.5	+2.5
Moline	50	0	11.3	+8.1
Peoria	51	0	4.3	+ .3
Rockford	48	0	9.9	+6.8
Springfield	52	- 1	5.3	+1.7
IND.Evansville	55	- 3	5.5	+1.5
Ft. Wayne	49	0	2.2	- .9
Indianapolis	55	+ 4	2.8	- .9
South Bend	50	+ 2	3.9	+ .3
IOWA.Burlington	50	- 1	6.7	+3.3
Des Moines	49	0	4.7	+2.2
Dubuque	45	- 2	6.3	+3.2
Sioux City	50	+ 1	1.3	-1.0
KANS.Concordia	51	- 2	2.4	+ .3
Dodge City	47	- 7	3.2	+1.4
Goodland	45	- 3	1.9	+ .3
Topeka	53	- 1	4.0	+ .7
Wichita	52	- 5	3.8	+1.5
KY.Lexington	53	- 1	5.7	+1.7
Louisville	54	- 1	5.8	+2.0

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
La.Baton Rouge	66	- 2	10.1	+5.3
Lake Charles	65	- 3	11.0	+6.6
New Orleans	64	- 4	10.5	+5.9
Shreveport	62	- 3	6.4	+1.8
MAINE.Caribou	38	+ 2	5.3	+2.7
Portland	46	+ 3	9.9	+6.2
MD.Baltimore	54	0	6.4	+2.8
MASS.Boston	50	+ 2	5.7	+1.9
Chatham	45	---	5.9	----
MICH.Alpena	41	+ 2	2.3	- .3
Detroit	49	+ 1	1.4	-1.6
Flint	47	+ 3	2.8	+ .1
Grand Rapids	47	+ 1	3.5	+ .6
Houghton Lake	43	0	1.7	- .6
Lansing	46	0	2.2	- .7
Marquette	40	+ 1	3.0	+ .3
Muskegon	45	+ 1	3.6	+1.0
S. Ste. Marie	40	+ 2	2.8	+ .6
MINN.Duluth	38	+ 1	1.4	-1.0
Internatl Falls	38	+ 1	1.3	+6.3
Minneapolis	44	0	2.3	+ .4
Rochester	42	- 2	4.3	+2.1
St. Cloud	43	0	1.7	- .3
MISS.Jackson	63	- 1	9.4	+4.9
Meridian	62	- 2	9.0	+3.7
MO.Columbia	52	- 3	3.6	+ .3
Kansas City	52	- 4	2.9	- .7
St. Louis	54	- 1	4.3	+ .6
Springfield	53	- 3	6.5	+2.4
MONT.Billings	41	- 5	3.0	+1.7
Glasgow	42	- 1	1.2	+ .2
Great Falls	40	- 4	2.9	+1.9
Havre	41	- 2	2.4	+1.4
Helena	40	- 3	.7	- .1
Kalispell	47	- 7	.5	- .5
Miles City	42	- 4	4.9	+3.8
Missoula	43	- 1	.3	- .7
NEBR.Grand Island	47	- 3	1.6	- .7
Lincoln	50	- 2	2.6	+ .1
Norfolk	48	0	1.6	- .6
N.Platte	46	- 2	1.4	- .6
Omaha	49	- 1	2.4	- .1
Valentine	45	- 1	1.9	- .1
NEV.Ely	39	- 4	.2	- .8
Las Vegas	62	- 3	.4	+ .2
Reno	44	- 4	.1	- .4
Winnemucca	44	- 2	.7	- .1
N.H.Concord	45	+ 1	4.6	+1.3
N.J.Atlantic City	51	0	4.4	+1.0
Trenton	53	+ 1	6.6	+3.4
N.MEX.Albuquerque	50	- 6	.9	+ .4
Roswell	55	- 4	.2	- .5
N.Y.Albany	49	+ 3	4.5	+1.7
Binghamton	45	+ 1	3.7	+ .8
Buffalo	47	+ 3	3.6	+ .6
New York	53	+ 2	7.2	+3.6
Rochester	48	+ 3	2.2	- .5
Syracuse	47	+ 1	6.9	+3.8
N.C.Asheville	53	- 3	5.7	+2.5
Charlotte	58	- 2	2.1	-1.4
Greensboro	55	- 2	4.3	+ .9
Hatteras	61	+ 7	3.4	+ .4
Raleigh	56	- 3	5.2	+1.7
Wilmington	61	- 2	5.3	+2.4
N.DAK.Bismarck	41	- 3	.9	- .3
Fargo	41	- 1	.7	-1.0
Williston	41	- 1	1.8	+ .9
OHIO.Akron-Canton	50	+ 1	3.5	+ .2
Cincinnati	51	- 3	5.8	+2.2
Cleveland	50	+ 3	3.4	0
Columbus	51	0	3.7	+ .2
Dayton	51	0	3.5	+ .2
Toledo	48	+ 1	1.8	-1.0

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
Youngstown	48	+ 1	4.4	+ .7
OKLA.Okla. City	56	- 4	2.3	- .8
Tulsa	58	- 1	7.2	-3.2
OREG.Astoria	49	0	2.4	-2.8
Burns	44	- 2	.2	- .6
Medford	52	+ 1	.8	- .3
Pendleton	50	- 2	.3	- .8
Portland	52	0	1.3	- .8
Salem	49	- 2	1.7	- .6
PA.Allentown	50	+ 1	5.9	+2.1
Erie	46	0	2.7	- .9
Harrisburg	51	- 1	6.2	+3.2
Philadelphia	53	+ 1	6.7	+3.3
Pittsburgh	49	0	4.7	+1.6
Scranton	48	0	4.4	+1.1
R.I. Providence	50	+ 3	7.2	+3.4
S.C. Charleston	62	- 3	2.6	- .3
Columbia	60	- 4	4.5	+ .5
Greenville	58	- 3	4.0	+ .1
S.D. Aberdeen	46	+ 1	1.0	-1.0
Huron	46	+ 1	1.2	- .6
Rapid City	43	- 2	2.7	+1.0
Sioux Falls	46	0	2.1	- .2
TENN.Chattanooga	57	- 4	5.2	+ .9
Knoxville	56	- 3	5.2	+1.5
Memphis	60	- 1	9.4	+4.8
Nashville	56	- 4	2.8	- .9
TEX.Abilene	59	- 5	1.1	-1.2
Amarillo	50	- 8	1.9	+ .6
Austin	63	- 5	3.1	- .5
Beaumont	64	- 5	15.3	+10.9
Brownsville	72	- 2	.7	- .9
Corpus Christi	69	- 3	1.7	- .4
Dallas	--	---	---	----
Del Rio	68	- 3	2.1	+ .7
El Paso	58	- 5	0	- .3
Fort Worth	61	- 4	6.1	+2.5
Galveston	66	- 3	10.4	+7.8
Houston	65	- 4	7.2	+4.0
Lubbock	55	- 5	1.4	+ .2
Midland	57	- 8	1.4	+ .6
San Angelo	61	- 6	1.7	- .3
San Antonio	66	- 2	5.4	+2.6
Victoria	67	- 3	4.7	+2.1
Waco	61	- 6	5.4	+1.5
Wichita Falls	56	- 8	3.5	+1.0
UTAH.Blanding	--	---	---	----
Salt Lake City	48	- 2	1.6	- .2
VT.Burlington	45	+ 4	3.8	+1.2
VA.Lynchburg	54	- 2	4.6	+1.5
Norfolk	58	0	3.4	+ .2
Richmond	58	0	4.6	+1.4
Roanoke	54	- 2	5.4	+2.3
WASH.Colville	47	0	.7	- .3
Omak	50	0	.1	- .7
Quillayute	47	0	2.9	-4.5
Seattle-Tacoma	49	0	1.4	-1.0
Spokane	46	- 1	.4	- .5
Walla Walla	53	- 1	.4	-1.0
Yakima	52	+ 1	T	- .5
W.Va.Beckley	49	- 3	5.1	+1.5
Charleston	54	- 1	5.4	+1.7
Huntington	53	- 3	4.9	+1.2
Parkersburg	52	- 2	5.7	+2.4
WIS.Green Bay	44	+ 1	3.2	+ .7
La Crosse	45	- 2	7.3	+4.5
Madison	45	+ 1	7.1	+4.5
Milwaukee	43	- 1	7.3	+4.8
WYO.Casper	36	- 7	3.9	+2.2
Cheyenne	37	- 6	1.8	- .1
Lander	34	- 9	4.0	+1.5
Sheridan	39	- 5	4.0	+1.8
P.R.San Juan				


THE LOCATION OF STATIONS USED IN
TEMPERATURE AND PRECIPITATION TABLE
Environmental Data Service, NOAA
Lihue
Honolulu
Kahului
Hilo
HAWAII
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay

Continued from p. 9.
storms, some locally severe with golfball-size hail, spread across portions of north. Warming reached peak Friday reaching upper 90's portions west and central. However, cool air following a cold front out of panhandle spawned severe thunderstorms in north. Cooling trend and thunderstorms accompanied cold front across State Friday night and Saturday. North Texas thunderstorms dumped 5.20 in. rain at Strawn. Some severe weather in El Paso area. Planting cotton, corn, sorghum, peanuts and rice good progress. Farmers got first full week work since first of year. Wheat, oats rapid maturity. Few fields wheat, oats harvested south, southcentral. Many wheat, oat fields southern half cut for hay. Major crops percent planted: Cotton 30; 1973, 38; average 43; corn 89; 1972, 93; average 92; sorghum 52; 1972, 53; average 56; soybeans 7; 1972, 0; peanuts 20; 1972, 21; rice 72; 1972, 100. Lower Rio Grande Valley onion supplies beginning seasonal decline. Light supplies carrots and cabbage remain available. Potato digging continues active. Picking of few early cantaloupe fields should begin soon. Laredo onion harvest active. In Coastal Bend few late onion fields remain for harvest. Cucumber and squash picking. Dryland watermelons need rain to help sizing. Winter Garden-San Antonio area onion harvest continues. Light supplies of lettuce. Potato digging continues. North Texas tomatoes continue to be field set. Knox-Haskell area potatoes irrigated regularly. Trans-Pecos area lettuce harvest underway El Paso County. Onions good progress. Early cantaloupes good growth. High Plains onions and potatoes good growth. Cucumber planting underway. Early varieties of peaches continue to ripen south. First peaches from Gillespie County to market. Citrus harvest active harvest expected complete late May.

UTAH: Rainfall totals generally less than 0.20 in. Temperatures: near normal to 3° above. First time in over 2 months with above normal temperatures. Soil temperatures 4-inch depth ranged from low 50's Cache Valley to mid-50's Richfield, near 60° Salt Lake City and mid-70's St. George. Best week this spring, at least 6 days suitable for fieldwork. Fields dried and conditions were favorable for full scale planting, fertilizing, insect spraying, and other field work. No freeze damage of consequence. Fruit prospects mostly good-excellent. Heavy invasion of Painted Lady butterflies probably helped pollination of fruit trees. Winter wheat condition--poor in San Juan County--fair to good all other areas. First cutting alfalfa hay will be week or more later than usual. Planting 90% completed sugar beets, 85% spring wheat and barley, 70% green peas, 40% field and sweet corn, 40% potatoes in the northern counties but not yet started in south, and just started for tomatoes. Range feed supplies currently average only fair. Completion 90% for calving, 80% shearing, 55% range lambing, 50% movement of cattle, and 60% movement of sheep to spring range lands.

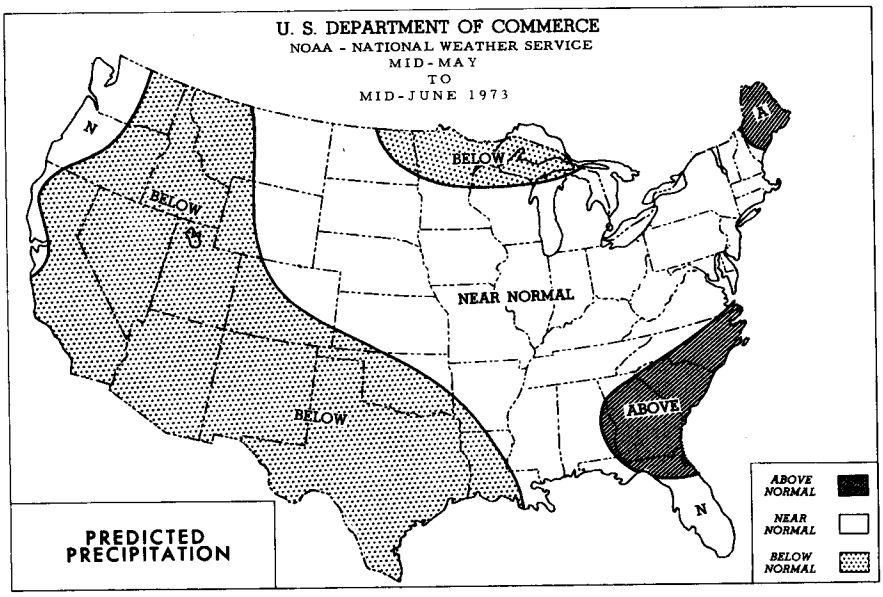
VIRGINIA: Rain fell midweek; showers Friday. Totals 0.5 inch, heaviest over 2.00 in. Temperatures 2° subnormal, range 9° below to 2° above. Extremes--88° to 32°. Scattered frost southwest and central mountains on 5th. Fieldwork progressed well as soils dried, 3.9 days suitable. Corn planting advanced rapidly but still lagging. Corn 52% planted, 56% in 1972, 70% average. Prepared fields for soybeans; 9% sown, 12% in 1972, 10% average. Flue-cured tobacco 9% set. Fire-cured 7% set. Peanut planting progressed rapidly, nearly 50% completed. Cut alfalfa and orchardgrass for hay and small grain for green chop and silage. Set cabbage. Transplanted tomatoes. Marketed strawberries. Pastures excellent. Sheared sheep.

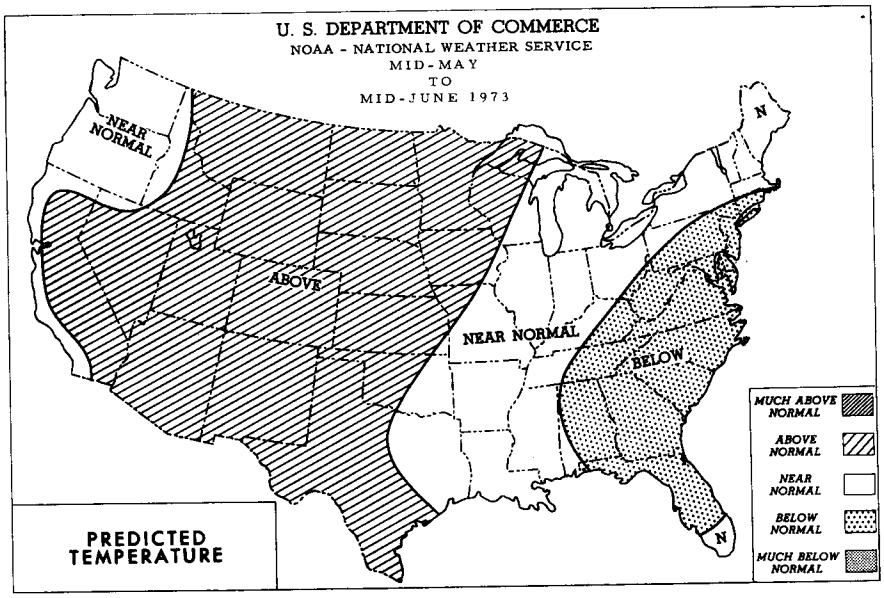
WASHINGTON: Western Washington: Temperatures subnormal with scattered showers. Seeding green peas and corn continues on schedule. Strawberries in early areas blooming. Raspberries starting bloom. Field rhubarb, tulip harvest ended. Pastures growing well. Eastern Washington: Temperatures 3° plus subnormal. Moisture critically short many areas. Cutting asparagus continues. Pea planting finished, corn continues. Early cutting alfalfa hay started. Pasture short due to low soil moisture. Wheat, barley, hay, pea crop prospects depended on additional rain soon. Working summerfallow, spraying, weeding wheat continues. Orchardists spraying for insects and thinning soft fruits.

WEST VIRGINIA: Week began cold and dry. Temperatures: 20's rising into 80's Monday. Strong southerly flow warm, moist and unstable air brought thunderstorms, hail, strong winds and a threat of tornadoes in northern panhandle. Delay for many crops. Field work 2 days favorable. Soil moisture surplus except southeast and east. Some field work but limited mostly to garden and potato planting. Corn planting 14% complete. Situation poor peaches; poor to good apples. Too early for damage assessment. Pastures good but need warm, dry weather.

WISCONSIN: Wet and cool most of week. Showers in some part of State every day. Snow reported in extreme north Saturday. Strong winds with thunderstorms Thursday. Temperatures 2° subnormal. Rainfall totals 0.50 to 3.00 in. A small resumption of fieldwork toward weekend. Oats 55% seeded, last year 75%, normal 98%. Corn planting less than 5% done, last year 10%, normal 15%. Spring plowing nearly 50% done, last year 50%, normal 75%. No soybeans planted, normal none. Lowlands and heavier soils very wet. 1973 crop season latest since 1960 and 1965. Early oats doing well. Winter grains very good. Pastures, hay fields good but growth slowed by cool temperatures. Some new seedings poor. Planting of vegetable crops behind normal due to wet fields. Tobacco beds being planted. Soil moisture 95% surplus, 5% adequate.

WYOMING: Light and scattered moisture early week. Highs 60's or low-70's. Lows 20's or low-30's. Extremes: 84°, 17°. Dry fields permitted rapid fieldwork: 50% spring wheat, 45% oats, 45-50% sugarbeets, 45% spring barley, 15% corn planted. Planting most crops 3-4 weeks behind 1972. Soil moisture adequate to surplus. Calving nearly over.





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

WORLD WEATHER AND AGRICULTURE

INDIAN WINTER RAINFALL

The winter rainfall season in India extends from January 1 through February 28. This year the rainfall during the period was normal or above normal in Nagaland, Manipur, Mizoram and Tripura, Assam and Meghalaya, Bihar Plains, hills of West Uttar Pradesh, Punjab, Himachal Pradesh, Jammu Kashmir, east Madhya Pradesh, Saurashtra and Kutch. Rainfall was deficient or scanty over the rest of the country.

Cumulative rainfall over the country as a whole was 74 percent of normal. In 1972 the rainfall was 90 percent of normal for the same period. However, the distribution and timeliness of rainfall, which are highly important factors from the stand point of agricultural production, during 1973 were as favorable or more favorable in the northern wheat producing areas than in 1972.

Fairly widespread moderate to heavy rains in north and west India (excluding West Rajasthan) during the last week of February were highly beneficial for the upcoming wheat and other rabi foodgrain crops. Some areas in the important wheat producing north Indian States received additional showers during early March.

CYPRUS AFFECTED BY SEVERE DROUGHT

The island of Cyprus normally receives about 90 percent of its total annual rainfall during the period October 1 to March 31. On the average, the rainfall over the island during the period October 1, 1972- March 31, 1973, has been 37 percent of normal. Rainfall has averaged 154 mm. for the period. Rainfall in the cereal growing plains was only 25 percent of normal for the period. Rainfall in the western district of Paphos was best at 50 percent of normal. As expected under these conditions, crops and livestock losses are high. Most cereal crops have been lost.

MIDDLE EAST GRAIN PRODUCTION

Early-season dry weather raised questions about grain production in the Middle East this year. Rains provided relief in some areas as the season progressed. However, crops in Jordan, Israel, and Lebanon are still suffering, and, with harvest starting in May, their wheat production is expected to be about half the 600,000 ton bumper crop last year.

Conditions have improved after early-season dryness in Syria and Iraq, but crops may still be below average. These two countries grow wheat and barley in semiarid areas, and yields are normally low. Last year's abundant moisture doubled normal yields.

In Turkey general rains have relieved drought conditions. Crop prospects are still below normal, but good rains in April and May could bring sufficient production. Iran was not affected by drought and prospects are for yields close to those of 1972.

CHINESE CROP WEATHER

Patterns of rainfall and moisture reserves in China on the whole appear to be about normal for this time of the year. Some areas in the northern tier of Provinces and in Szechan Province were plaqued with drought conditions last year, and such conditions have persisted up to the present time in some areas.

The fact that dry conditions have continued during the winter months is not, however, unusual, since northern China is normally dry during the winter. Hence, while the pattern of scanty rainfall in the northern Provinces can be considered normal for the winter, rains which usually come with warmer weather from March to May could correct this situation. But if the rains do not come as they usually do, the crop situation in North China will be serious this year.

In East China, the problem is not too little rain, but too much. Recently, heavy rains have fallen in the three agriculturally rich coastal Provinces of Kiangsu, Anhwei, and Chekiang. These rains hampered the growth of winter crops - notably winter wheat, barley, and rapeseed - scheduled for harvest in the summer.

Kiangsu Province has had a succession of rainy days, insufficient sunlight, and reports of excessive soil moisture, possibly verging on waterlogging, all of which have affected the growth of winter wheat and barley. Kiangsu ranked fifth among all Provinces in the mid-1960's in winter wheat acreage.

In nearly all localities of Anhwei, heavy rains accompanied by cold temperatures have hampered spring farming operations. Anhwei Province in the mid-1960's ranked third in winter wheat acreage. The winter grain crops account for about one third of its annual grain output. Although some counties claim to have drained off the rainwater from fields, it has been reported that there has been rotting of the roots of wheat and rape.

Frederick W. Crook
Sheldon K. Tsu
Foreign Agriculture
April 9, 1973

CONDITIONS DRY IN UNITED KINGDOM

The past nine months have been unusually dry in the United Kingdom. After one of the mildest and driest winters on record, February and March were ideal for spring cultivation and planting and good progress was made in the sowing and drilling of most crops. The lack of frost in the winter, however, caused some cultivation problems in areas with heavy soils. Soil moisture levels are, however, said to be the lowest for forty years. The dry conditions have inhibited germination and have been checking spring growth. Furthermore, after the warm, sunny condition of February and March, April has been cold and stormy with some places experiencing their heaviest snowfalls of the year. The unsettled weather of the past month has brought some much needed moisture, but more rain is needed to restore conditions nearer to normal.

WEST EUROPEAN GRAIN PROSPECTS GOOD

Prospects are for a good grain crop in Western Europe in 1973, the third in a row. Generally speaking, fall seedings were large because of fair weather from last fall on into the spring. Because of the mild winter there was very little winter damage and crops have had an early spring start.

Precipitation over the winter was generally below normal. However, actual yields for all grains will be determined more by weather conditions in the next two months than by conditions which have prevailed until now.

These general conditions pertain in most of the northern countries -- Sweden, Finland, Ireland, the United Kingdon, Belgium, France, Switzerland, and Austria. Denmark and the Netherlands report excellent crop conditions, apparently with no moisture problems. In West Germany poor fall weather inhibited fall wheat planting, but there has been an increase in spring sowings. Spring rains have improved an earlier limited moisture condition..

Foreign Agriculture Circular FG 6-73
April 1973

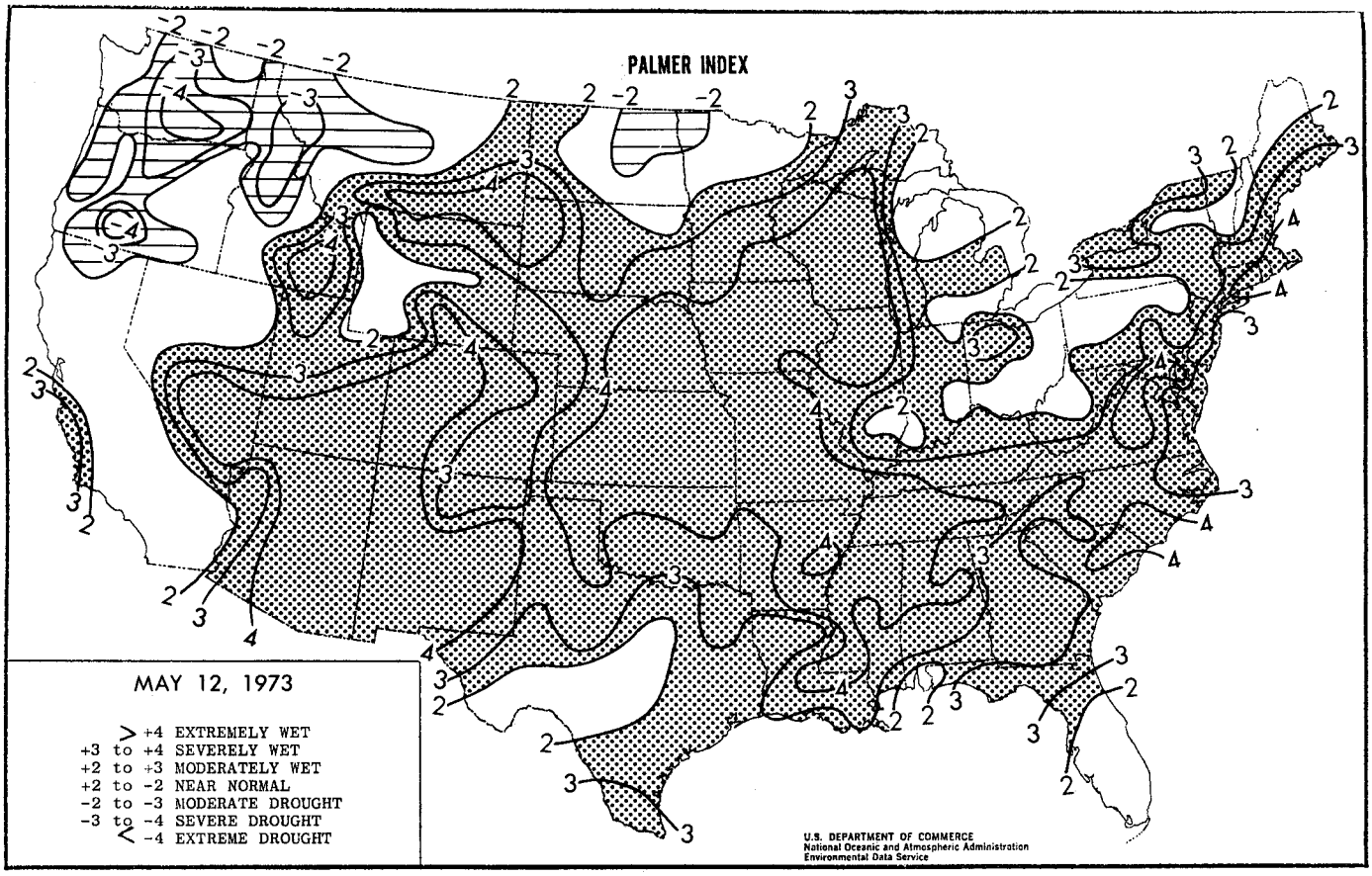
DAMAGE TO SICILY'S CITRUS CROP

The weather in Sicily has been marked by constant rain coupled with snow, hail, floods and unusually cold temperatures. The result has been disastrous for Sicilian citrus growers. The important spring harvest will be reduced by from thirty to fifty percent for each product. The damage will also be reflected in next year's harvest because in many cases the trees have been damaged as well as the fruit.

AUSTRALIAN NAVY BEAN CROP

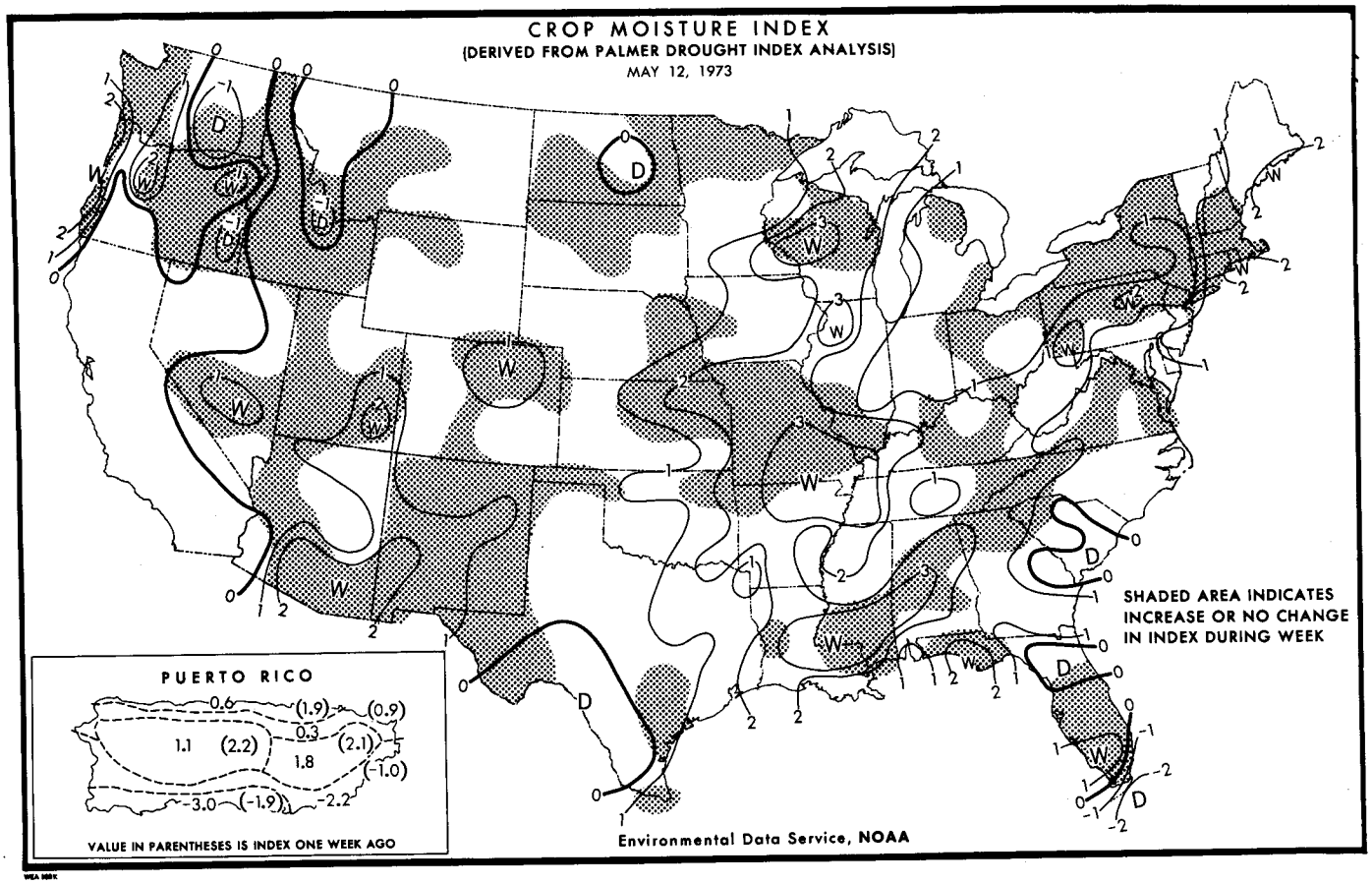
According to recent reports from the Queensland Navy Bean Marketing Board, production of navy beans this season will be substantially reduced. Under heat stress experienced in the past month, many well-grown crops have aborted their flowers, and losses could amount to 30 percent. During recent rains some plantings showed significant signs of recovery, and provided current mild temperatures continue, late plantings may still yield good crops, while the mid-season crop planted in January could also benefit.

Standard copy for the Weekly Weather and Crop Bulletin is prepared by: Dr. Richard E. Felch, Agricultural Climatologist; Arlon M. Scott, Agricultural Statistician; John C. Ryan, Editor.



Large areas of abnormal wetness continue with some return toward normality in the eastern Corn Belt. Indiana made good progress in the fields this week. In the map above the higher index values indicate that the moisture conditions have been abnormally wet for a long period of time. In the Central and Eastern States, where fairly humid conditions are normal, the soil, rivers, and lakes are filled causing any current rainfall to stand in the fields and to further flood the rivers. In the normally more arid west, the high indexes reflect an abnormal amount of rain in the past several months but the soils are not necessarily saturated--just much wetter than normal.

Some relief from the drought occurred in the Pacific Northwest especially west of the coastal mountains. Rain also relieved some of the dryness in Northwestern Oregon but more is needed. West and South Central Washington and Central Oregon remain very dry.



INDEX DECREASED DURING WEEK
(Unshaded Areas)

INDEX

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

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

INDEX

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

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

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

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

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WATER SUPPLY OUTLOOK FOR THE WESTERN UNITED STATES
May 1, 1973

Operations and Field Services
Division
National Weather Service

The table below shows the most probable May 1 forecasts in percent of the 15-year (1953-67) average. The most probable runoff forecasts are for the residual period, except water-year for the Sacramento and San Joaquin Basins; and April 1 to July 31 for the Snake River Basin. The publication "Water Supply Outlook for the Western United States," issued as of May 1, 1973 contains water supply forecasts for about 375 stations in the Western United States.

River	Station	Forecast 1,000 acre-feet	Percent 15-year average 1/
Columbia	Grand Coulee, Wash.	48,400	77
Columbia	The Dalles, Oreg.	67,100	73
Snake	Clarkston, Wash.	14,700	66
Sacramento	Red Bluff, Calif.	9,300	106
San Joaquin	Big Creek, Calif.	1,600	125
Weber	Gateway, Utah	291	147
Jordan	Utah Lake, Utah	220	120
Truckee	Lake Tahoe to Farad	160	76
Colorado,	Lake Powell, inflow	8,400	128
Green	Green River, Utah	3,000	120
San Juan	Bluff, Utah	1,500	174
Rio Grande	San Marcial, N. Mex.	580	227
Arkansas	Pueblo, Colo.	464	140
Missouri	Ft. Peck, Mont.	2,228	59
Yellowstone	Sidney, Mont.	5,555	95
North Platte	Glendo, Wyo.	801	148

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