

# Weekly Weather & Crop Bulletin

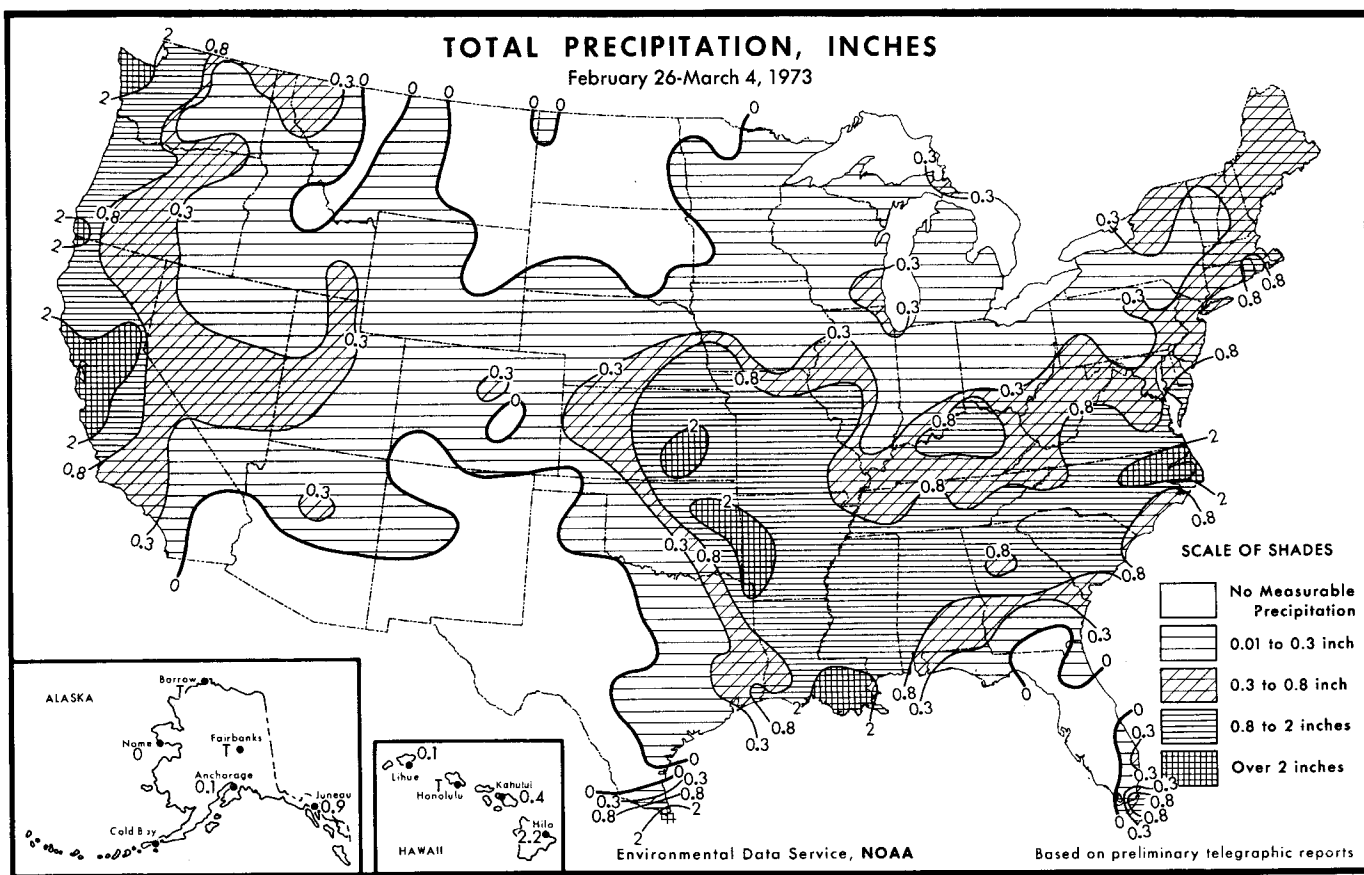
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Edited by Lucius W. Dye

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## NATIONAL WEATHER SUMMARY

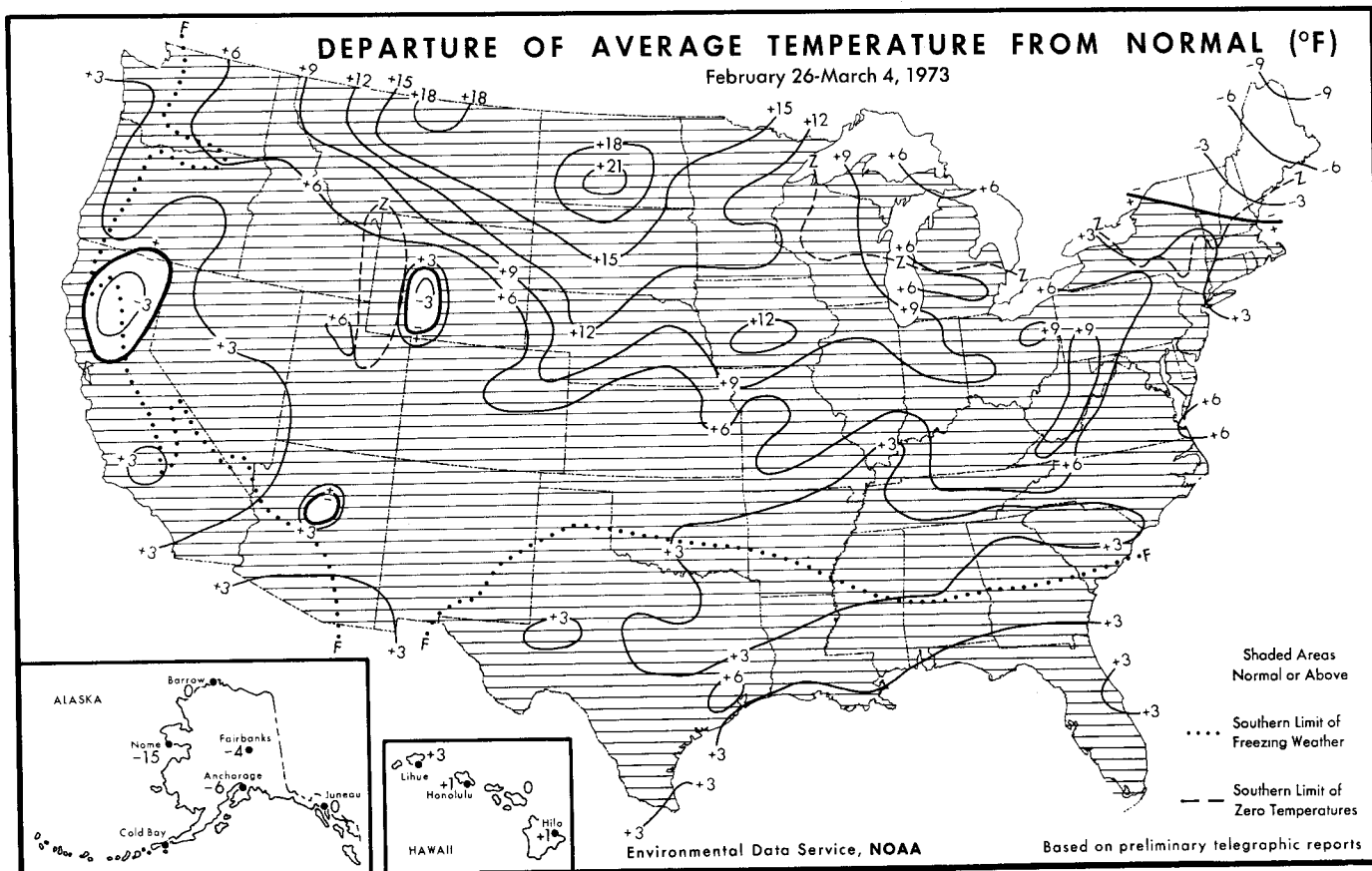
**HIGHLIGHTS:** A warm week—the warmest in several months in some areas. A late winter storm brought a blanket of white to the central and southern Rocky Mountains. Fog and rain or drizzle occurred over much of the eastern half of the Nation.

**PRECIPITATION:** A storm centered off the Pacific Coast early in the week dumped light to heavy rain along the coast from Washington to California. Snow fell in the nearby hills and in the mountains. Mount Wilson, Calif., received 3.05 inches of rain in the 24-hour period ending Wednesday evening. In some places along the coast the rain was accompanied by gales. The winds gusted to 45 m.p.h. at Crescent City, Calif., Thursday morning. By Thursday, the precipitation in the West had spread eastward dropping rain along the coast and snow eastward across the northern Great Basin to the northern Rocky Mountains.

Moist air covered most of mid-America last week. Fog prevailed over the Great Plains and parts of the Mississippi River Valley early in the week. Freezing drizzle fell over spots in the northern Great Plains on one or two days. Two inches of snow fell at Sault Ste. Marie Wednesday bringing the depth on the ground to 16 inches. Thunderstorms developed in the central and southern Great Plains. Some large hail fell in the Waco, Texas, area.

A storm moved across Georgia and the Carolinas early in the week and continued northeastward along the Atlantic Coast. It brought rain from the Carolinas to Virginia and mixtures of rain, snow, and sleet from the Virginias to New England.

Weekend precipitation included rain along the Pacific Coast, light snow over the western edge of the central Great Plains, and rain or drizzle over the eastern half of the Nation. Thunderstorms



spotted the lower Mississippi River Valley. Fog and clouds covered much of the area from the Great Lakes to the Gulf of Mexico and advanced eastward to the Atlantic Ocean by late Sunday or early Monday. Freezing drizzle slicked the roads in northern Maine. A late winter storm moved through Nevada, Utah, and northern Arizona late Sunday. It left snow amounts ranging from 2 inches to over a foot before moving eastward across the Rocky Mountains to the Great Plains. Several inches of snow fell in eastern Colorado, western Nebraska, and western Kansas.

**TEMPERATURE:** On Monday, February 26, a cold High was centered north of Lake Superior with a high-pressure ridge extending southward across the central Great Plains to northern Texas. Cold air pushed southward east of the ridge. Subzero weather occurred in northern New England and northeastern New York. Houlton, Maine, registered 24° below zero Tuesday morning. In spite of sunny skies, temperatures hovered near zero in northern Maine Tuesday afternoon. Houlton recorded 4° above zero. Early-morning temperatures remained above

60° in southern Florida.

Mild temperatures pushed northward across the southern and central Great Plains at midweek. Hill City, Kans., registered 62° and Philip, S. Dak., 63° Wednesday afternoon. Temperatures along the Canadian Border ranged from 32° at Williston, N. Dak., to 16° at Caribou, Maine, Wednesday afternoon. The warmest weather occurred along the Atlantic Coast of Florida early in the week and in southern Texas at midweek when afternoon maximums reached the 80's. In the Far West, afternoon temperatures ranged from the 50's in Washington to the upper 70's in southern California.

The weekend brought a warming trend to much of the Nation. Montana and western North Dakota warmed to 50's and southern Texas warmed to the 80's Saturday afternoon.

Almost the entire Nation averaged warmer than normal. In some sections, the weather last week was the warmest since last fall. Much of the northern Great Plains averaged 10° to 20° warmer than normal.

L. W. Dye

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Warm temperatures increased winter wheat greening. \* Cotton harvesting inched closer to completion. \* Thawing temperatures over North Central States caused problems with muddy feedlots. \* Southern pastures benefited from warmer weather.

**SMALL GRAINS:** Warmer than normal temperatures favored winter wheat growth in the southern Great Plains last week. Winter wheat remains in good to excellent condition with ample moisture throughout the important wheat producing areas of the central and southern Great Plains. Wheat greened up in Kansas, Oklahoma and Texas and made some growth under the warm weather. Topdressing of winter wheat and fall planted grains was in full swing in Oklahoma. Wet fields limited this activity to lesser degree in Kansas. Only very light wind damage has occurred to the Colorado wheat crop. Almost no snow cover remains to protect winter wheat in Montana and the Dakotas, but so far very little wind damage has occurred. The condition of Montana winter wheat continues fair to good. Farmers in Washington were busy last week reseeding winterkilled wheat and seeding small grain crops; water has eroded many grain fields. Small grains in Oregon look good and wheat fields in Idaho were starting to green up. California small grain crops benefited from the warmer temperatures, but rain halted seeding and added to excessive moisture conditions causing stress to fall planted small grains. Early small grain plantings in Arizona are making excellent progress, but aphid populations are rising.

Warmer weather across the South promoted the growth of small grains generally in fair to good condition in most States. Farmers were quite actively topdressing fields as conditions permitted.

Oklahoma growers made good progress this week seeding small grains -- spring oats are one-half complete and spring barley three-fifths complete. In Kansas, oats and barley seeding made some progress getting started, but were behind normal.

**OTHER CROPS:** The Texas cotton harvest at 98 percent complete is inching toward completion with an increase over the previous week of 1 point. Mississippi growers made some progress with the cotton harvest now 95 percent complete, an increase of 2 points from a week earlier. In some areas of western Tennessee, cotton was being picked by hand. Some remaining cotton fields were harvested in Arkansas and Louisiana. Nebraska farmers attempted without much success to harvest the final 3 percent of corn acreage and 7 percent of sorghum grain acreage. Farm marketing of corn in many North Central areas is still limited by availability of rail cars and elevator storage. The late soybean harvest in Mississippi advanced 4 points to 94 percent com-

plete. The final harvest of soybeans continued on a few farms in Virginia, North Carolina, Kentucky, Tennessee and Arkansas. Tobacco growers in the South Atlantic States continued preparation of seedbeds. The sugarcane harvest continues to make progress in Florida. The winter potato harvest is nearly finished in the Kern district of California. Irish potato planting is nearing completion in some areas in Alabama. Sugar beet planting in Arizona is making excellent progress. Mild weather in southern areas of New England resulted in the first significant maple sap flow of the season.

**Fruits and Nuts:** Warm weather in Florida last week was conducive for citrus bud development as citrus trees continue in excellent condition. Moisture is adequate, but more rain would be helpful. The Texas citrus harvest gained momentum as picking crews were able to get back into some of the drier groves. Rains continue to hamper citrus harvesting in California. The Valencia orange harvest is in full swing near Yuma and Salt River Valley areas of Arizona. Work in the Nation's orchards became more active last week. Many California fruit and nut orchards are blooming. Peach trees are blooming in northern areas of east Texas. Strawberry picking is increasing in southern California, Louisiana strawberries are blooming.

**Vegetables:** Florida vegetables are recovering from recent adverse weather. The warmer weather favored the growth of young crops. Spring planting in the southern areas of Florida is nearing completion. Florida sweet corn, tomatoes, peppers, potatoes and cabbage are gradually increasing in volume. Wet weather in the Lower Rio Grande Valley of Texas curtailed vegetable harvesting and disrupted spraying and fertilizing of onion fields. In the Winter Garden-San Antonio area cabbage, spinach, lettuce and carrot harvesting resumed as fields dried. In California, lettuce harvesting is steady in the Imperial Valley, asparagus harvesting is increasing and carrot digging is steady. Lettuce and mixed vegetable harvesting continued near Yuma, Arizona.

**PASTURES AND LIVESTOCK:** Warm weather during the week eased the winter stress on livestock, but thawing and rain created problems with muddy feedlots and pastures. Supplemental feeding requirements diminished some in the southern Plains as grazing of winter wheat pastures increased. Pastures in most South Central and South Atlantic States are still recovering from previous adverse weather and heavy supplemental feeding continues. Hay shortages in the South are widespread. Stockmen are eager for pastures to green up and provide more grazing. In the West, calving and lambing are progressing normally and livestock in most States are in good condition.

Arlon M. Scott  
Agricultural Statistician

## Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Mar. 4, 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 . . .	53	+ 2	1.6	+ .2	La. Baton Rouge . . .	62	+ 4	2.8	+1.7	Youngstown . . .	37	+ 7	.2	- .4
Mobile . . . . .	61	+ 3	.8	- .4	Lake Charles . . .	62	+ 3	.5	- .7	OKLA, Okla. City . .	48	+ 3	.2	- .1
Montgomery . . . .	57	+ 4	.5	- .7	New Orleans . . . .	62	+ 3	2.0	+1.0	Tulsa . . . . .	49	+ 4	3.3	+2.8
ALASKA, Anchorage .	15	- 6	.1	- .1	Shreveport . . . .	55	+ 1	.9	- .1	OREG, Astoria . . .	47	+ 3	1.5	- .9
Barrow . . . . .	-18	0	T	- .1	MAINE, Caribou . . .	8	- 9	.5	0	Burns . . . . .	37	+ 2	.2	- .1
Fairbanks . . . . .	- 1	- 4	T	- .1	Portland . . . . .	24	- 3	.5	- .4	Medford . . . . .	46	+ 3	.4	+ .2
Juneau . . . . .	29	0	.9	+ .2	MD, Baltimore . . .	42	+ 4	.5	- .2	Pendleton . . . .	48	+ 6	.5	+ .2
Kodiak . . . . .	-	-	-	-	MASS, Boston . . .	35	+ 2	.6	- .2	Portland . . . . .	50	+ 5	1.2	+ .1
Nome . . . . .	- 9	-15	0	- .2	Chatham . . . . .	34	-	.4	-	Salem . . . . .	48	+ 4	1.3	+ .1
ARIZ, Flagstaff . .	32	- 1	.5	+ .1	MICH, Alpena . . .	28	+ 7	.1	- .3	PA, Allentown . . .	37	+ 4	.4	- .2
Phoenix . . . . .	61	+ 4	0	- .2	Detroit . . . . .	35	+ 6	T	- .5	Erie . . . . .	33	+ 6	.1	- .5
Tucson . . . . .	57	+ 1	0	- .2	Flint . . . . .	33	+ 8	T	- .3	Harrisburg . . . .	40	+ 4	.1	- .5
Winslow . . . . .	47	+ 5	.2	+ .1	Grand Rapids . . .	33	+ 5	.2	- .2	Philadelphia . . .	41	+ 5	.8	+ .1
Yuma . . . . .	63	+ 3	0	- .1	Houghton Lake . .	29	+ 8	T	- .3	Pittsburgh . . . .	41	+ 9	.5	- .1
ARK, Fort Smith . .	50	+ 2	2.1	+1.2	Lansing . . . . .	31	+ 4	.1	- .4	Scranton . . . . .	35	+ 3	.1	- .4
Little Rock . . . .	48	0	1.6	+ .5	Marquette . . . .	31	+ 9	T	- .4	R.I, Providence . .	35	+ 2	1.0	+ .3
CALIF, Bakersfield .	59	+ 4	.4	+ .1	Muskegon . . . . .	32	+ 4	.2	- .3	S.C, Charleston . .	58	+ 4	.8	- .1
Eureka . . . . .	50	+ 2	1.8	+ .4	S. Ste. Marie . . .	24	+ 5	.5	+ .2	Columbia . . . . .	53	+ 2	1.7	+ .7
Fresno . . . . .	54	+ 1	1.3	+ .7	MINN, Duluth . . .	27	+11	.1	- .1	Greenville . . . .	50	+ 2	1.8	+ .7
Los Angeles . . . .	61	+ 2	.8	+ .1	Internatl Falls . .	28	+15	T	- .2	S.D, Aberdeen . . .	36	+15	T	- .2
Red Bluff . . . . .	48	- 5	1.8	+1.0	Minneapolis . . .	35	+15	T	- .3	Huron . . . . .	36	+14	T	- .2
San Diego . . . . .	61	+ 3	.2	- .3	Rochester . . . .	32	+10	.1	- .2	Rapid City . . . .	42	+14	T	- .1
San Francisco . . .	52	- 1	2.4	+1.6	St. Cloud . . . . .	30	+11	.1	- .1	Sioux Falls . . . .	35	+10	T	- .3
Stockton . . . . .	52	+ 1	2.3	+1.7	MISS, Jackson . . .	56	+ 3	1.1	- .2	TENN, Chattanooga .	49	+ 2	1.4	+ .1
COLO, Denver . . .	41	+ 7	.4	+ .2	Meridian . . . . .	58	+ 5	1.4	0	Knoxville . . . . .	51	+ 6	1.1	- .2
Grand Junction . .	41	+ 3	.2	0	MO, Columbia . . .	43	+ 6	1.2	+ .7	Memphis . . . . .	49	+ 2	1.0	- .1
Pueblo . . . . .	42	+ 5	T	- .1	Kansas City . . . .	44	+ 5	1.3	+1.0	Nashville . . . . .	51	+ 6	1.4	+ .2
CONN, Bridgeport . .	34	+ 1	.7	0	St. Louis . . . . .	45	+ 6	.9	+ .3	TEX, Abilene . . . .	55	+ 3	T	- .3
Hartford . . . . .	34	+ 2	.8	+ .1	Springfield . . .	47	+ 6	1.1	- .6	Amarillo . . . . .	49	+ 5	.1	- .1
D.C, Washington . .	46	+ 5	.5	- .1	MONT, Billings . .	42	+12	0	- .1	Austin . . . . .	60	+ 3	.1	- .6
FLA, Apalachicola .	60	+ 1	.1	- .9	Glasgow . . . . .	38	+17	0	- .1	Beaumont . . . . .	61	+ 3	.8	- .1
Daytona Beach . . .	66	+ 4	T	-	Great Falls . . . .	44	+16	T	- .2	Brownsville . . . .	67	+ 1	2.4	+2.0
Pt. Myers . . . . .	67	0	0	- .6	Havre . . . . .	40	+18	T	- .1	Corpus Christi . .	67	+ 4	T	- .5
Jacksonville . . . .	61	+ 1	.1	- .7	Helena . . . . .	37	+ 9	T	- .1	Dallas . . . . .	-	-	-	-
Key West . . . . .	72	0	T	- .5	Kalispell . . . . .	39	+11	.4	+ .2	Del Rio . . . . .	65	+ 5	T	- .2
Lakeland . . . . .	66	+ 1	0	- .7	Miles City . . . .	43	+17	0	- .1	El Paso . . . . .	57	+ 5	0	- .1
Miami . . . . .	71	+ 1	.1	- .4	Missoula . . . . .	40	+ 9	.1	- .1	Fort Worth . . . .	56	+ 4	.1	- .5
Orlando . . . . .	67	+ 3	0	- .7	NEBR, Grand Island	37	+ 6	.4	+ .2	Galveston . . . . .	61	+ 1	.1	- .7
Tallahassee . . . .	60	+ 2	T	-1.1	Lincoln . . . . .	39	+ 6	.6	+ .3	Houston . . . . .	62	+ 6	.3	- .5
Tampa . . . . .	65	+ 1	T	- .8	Norfolk . . . . .	37	+ 9	.2	0	Lubbock . . . . .	51	+ 5	T	- .2
W. Palm Beach . . .	70	+ 1	.1	-	N. Platte . . . . .	41	+10	.3	+ .2	Midland . . . . .	54	+ 2	T	- .2
GA, Atlanta . . . .	54	+ 6	.6	- .6	Omaha . . . . .	38	+ 9	2.2	+1.9	San Angelo . . . .	57	+ 4	0	- .2
Augusta . . . . .	56	+ 4	1.3	+ .4	Valentine . . . .	41	+14	.1	- .1	San Antonio . . . .	63	+ 4	T	- .4
Macon . . . . .	58	+ 5	.9	- .2	NEV, Ely . . . . .	33	+ 3	.4	+ .2	Victoria . . . . .	65	+ 4	.1	- .5
Savannah . . . . .	60	+ 5	.6	- .4	Las Vegas . . . .	54	+ 2	T	- .1	Waco . . . . .	54	0	T	- .7
HAWAII, Hilo . . .	72	+ 1	2.2	-1.1	Reno . . . . .	40	+ 1	.5	+ .3	Wichita Falls . . .	53	+ 3	.3	0
Honolulu . . . . .	74	+ 1	T	- .8	Winnemucca . . . .	40	+ 4	.1	- .1	UTAH, Blanding . . .	39	+ 3	.2	- .1
Kahului . . . . .	72	0	.4	-1.1	N.H, Concord . . .	24	- 3	.3	- .3	Salt Lake City . . .	43	+ 6	.4	+ .1
Lihue . . . . .	74	+ 3	.1	-1.1	N.J, Atlantic City .	42	+ 5	.8	+ .1	VT, Burlington . . .	19	- 2	.1	- .3
IDAHO, Boise . . . .	44	+ 5	.2	- .1	Trenton . . . . .	40	+ 4	.6	0	VA, Lynchburg . . .	47	+ 5	.9	+ .3
Lewiston . . . . .	46	+ 6	.3	+ .1	N.MEX, Albuquerque	46	+ 3	T	- .1	Norfolk . . . . .	50	+ 6	1.7	+ .9
Pocatello . . . . .	37	+ 5	.5	+ .3	Roswell . . . . .	-	-	-	-	Richmond . . . . .	47	+ 4	.8	+ .1
ILL, Cairo . . . . .	47	+ 3	.5	- .1	N.Y, Albany . . . .	31	+ 4	.1	- .4	Roanoke . . . . .	47	+ 5	.8	+ .1
Chicago . . . . .	41	+10	.3	- .1	Binghamton . . . .	32	+ 6	.2	- .4	WASH, Colville . . .	41	+ 7	.4	+ .1
Moline . . . . .	41	+11	.7	+ .3	Buffalo . . . . .	31	+ 4	.1	- .6	Omak . . . . .	40	+ 6	.2	- .1
Peoria . . . . .	40	+ 7	.3	- .1	New York . . . . .	39	+ 3	.5	- .3	Quillayute . . . .	46	+ 4	3.5	+ .7
Rockford . . . . .	38	+ 9	.1	- .3	Rochester . . . . .	30	+ 3	.2	- .5	Seattle-Tacoma . .	46	+ 3	1.1	+ .1
Springfield . . . .	42	+ 6	1.2	+ .8	Syracuse . . . . .	29	+ 1	.6	- .2	Spokane . . . . .	42	+ 7	.2	- .3
IND, Evansville . .	45	+ 3	.6	- .1	N.C, Asheville . . .	50	+ 7	1.2	+ .4	Walla Walla . . . .	51	+ 7	.5	+ .1
Ft. Wayne . . . . .	39	+ 8	.1	- .4	Charlotte . . . . .	49	+ 3	1.5	+ .6	Yakima . . . . .	45	+ 6	T	- .2
Indianapolis . . . .	44	+ 9	.2	- .4	Greensboro . . . .	48	+ 4	1.4	+ .6	W.Va, Beckley . . .	46	+10	1.0	- .1
South Bend . . . .	42	+12	.1	- .4	Hatteras . . . . .	51	+ 3	2.9	+1.9	Charleston . . . .	47	+ 7	.4	- .5
IOWA, Burlington .	40	+ 7	.3	0	Raleigh . . . . .	50	+ 4	2.3	+1.4	Huntington . . . .	47	+ 7	.5	- .2
Des Moines . . . .	41	+13	.1	- .2	Wilmington . . . .	54	+ 3	.5	- .4	Parkersburg . . . .	46	+ 7	.8	+ .1
Dubuque . . . . .	37	+11	.2	- .2	N.DAK, Bismarck . .	42	+22	T	- .1	WIS, Green Bay . . .	30	+ 8	.2	- .1
Sioux City . . . . .	38	+11	.3	0	Fargo . . . . .	31	+14	.1	- .1	La Crosse . . . . .	34	+10	.1	- .2
KANS, Concordia . .	41	+ 5	1.2	+ .9	Williston . . . . .	36	+17	.1	0	Madison . . . . .	35	+11	.3	0
Dodge City . . . .	42	+ 4	.3	+ .1	OHIO, Akron-Canton	40	+ 9	.1	- .4	Milwaukee . . . . .	36	+10	.1	- .3
Goodland . . . . .	40	+ 6	.4	+ .2	Cincinnati . . . .	44	+ 6	.9	+ .3	WYO, Casper . . . .	35	+ 5	T	- .1
Topeka . . . . .	44	+ 7	1.6	+1.3	Cleveland . . . . .	38	+ 7	.1	- .5	Cheyenne . . . . .	34	+ 4	.1	- .1
Wichita . . . . .	45	+ 5	2.2	+1.9	Columbus . . . . .	43	+ 7	.9	+ .3	Lander . . . . .	25	- 4	.1	- .1
KY, Lexington . . .	47	+ 8	1.1	+ .2	Dalton . . . . .	44	+10	.3	- .2	Sheridan . . . . .	40	+12	T	- .2
Louisville . . . . .	47	+ 8	.9	0	Toledo . . . . .	37	+ 7	.1	- .3	P.R, San Juan . . .	79	+ 4	.5	0

## CONDENSED STATE SUMMARIES

These summaries provide brief descriptions of conditions and activities important on a national scale. Detailed reports of crop and weather conditions during the growing season are contained in State issues of Weekly Weather and Crop Bulletins published by field offices of the Statistical Reporting Service, U.S.D.A. in cooperation with NOAA Climatologists

**ALABAMA:** Widespread showers, locally heavy, ended dry spell on Friday. Additional showers Sunday, otherwise generally fair most of week. Quite warm last of week with 70's common over weekend. State high for week, 80° at Enterprise Saturday. Farmers made good progress completing harvest and preparing land for spring planting. Scattered rain slowed fieldwork in northern counties latter part of period. Major activities included shredding stalks, plowing and applying fertilizer, lime, and pre-emerge herbicides. Conditions favorable for small grains and winter grazing crops. Good grazing afforded many fields but several pastures, primarily southern counties, have been overgrazed. Producers made good progress planting Irish potatoes in Baldwin, Mobile, and Escambia Counties with this operation nearing completion. Planting of Sand Mountain crops off to a good start during week. Stockmen are eager for summer pastures to "green-up" to provide relief from hay shortage.

**ARIZONA:** Temperatures were above normal over most of State this week. Showers were light and widely scattered with snow above about 5,000 feet. Maximum water totals occurred in mountains in northern part of State but most weekly water totals were below 0.50 inch. Some early planting of 1973 cotton crop underway Yuma area. Final clean-up work 1972 crop hampered by wet fields, Graham County. Early small grain plantings making excellent progress; plantings in Yuma area nearing boot stage. Aphid populations on rise. Safflower growth excellent. Sugarbeet planting making excellent progress. Harvest lettuce, mixed vegetables continued in Yuma area. Cantaloupe planting continued, early-planted fields good stand. Lettuce for spring harvest making good growth in Maricopa, Pima, Pinal Counties. Harvest Valencia oranges full swing Yuma, Salt River Valley. Harvest grapefruit limited. All varieties flushed with new growth. Range conditions improving all areas except northeast. Warm temperatures promoted growth weeds, range grasses. Most higher elevation ranges frozen. Ground moisture supplies good most areas. Stockwater supplies adequate to surplus. Cattle, calves continue fair to mostly good. Sheep, lambs northern Indian reservations fair. Sheep on desert pastures fair to good.

**ARKANSAS:** Weekly mean temperatures ranged from near normal over southeastern half of State to 3° to 7° above normal over the northwestern half. Highest 77° at El Dorado on 3d. Lowest 21° at Calico Rock in north-central section on 28th. Cool early in week, followed by warming trend continuing through latter part of week, and turning a little cooler on weekend. Weekly rainfall totals in southwestern half of State ranged from near 1.00 inch to a little over 2.50 inches. Heaviest rainfall late in week and on weekend. Open weather early in week permitted much fieldwork. Final harvest of cotton and soybeans continued on a few farms. Stalk cutting and land preparation active on better-drained soils. Warmer weather promoted growth of small grains and winter grazing crops. Nitrogen being applied to pastures; grazing still short and heavy feeding still required. Hay supply short to very short. Spring calving in progress.

**CALIFORNIA:** Moderate to heavy rains all areas except desert most days during week; again over weekend. Snow above 5,000 feet. Precipitation totals from near 6 inches in northern mountains to 0.5 inch in southern San Joaquin Valley. Average temperatures were 2° to 4° above normal except slightly below normal in northeastern interior and Sierra Nevada. Warmer temperatures during week beneficial to growth of small grains. Most seeding halted by rain. Excessive moisture creating stress to winter grains. Over-wintered sugarbeets in north beginning to develop some rot. Prospects in Imperial Valley excellent. Warm weather aided growth of 1973 alfalfa crop. Planting new fields active; picking, shredding, disking cotton continue San Joaquin Valley, weather permitting. Spraying vineyards and orchards continues when soils dry. Pruning deciduous orchards and vineyards about completed. Tying vines continues active. Most almonds, early apricots, and plums past full bloom. Late almonds, apricots, plums, and early peaches, and nectarines at full bloom. Wet weather continues need for brown rot control on peaches and nectarines. Harvest of central valley navel oranges continues slow. In southern areas, navel harvest accelerated between rains. Harvest other citrus unchanged from last week as rains continue. Avocado harvest seasonally active. Artichoke light central coast. Asparagus increasing desert valleys, just starting San Joaquin, Salinas Valley. Broccoli and cauliflower continue central coast. Carrots steady Imperial, Coachella Valleys. Celery near completion Chula Vista, active Oxnard. Lettuce steady Imperial Valley. Spring potato planting continues, near completion Bakersfield. Kern district harvest winter potatoes near finished. Strawberry increasing southern California. Canning tomato preparation and seeding weather permitting San Joaquin Valley. Rangeland making excellent growth, supplemental feeding declining. Calving, lambing throughout central valley. Beekeepers encouraged by growth of wild flowers and other sources of honey. Bees active in almond, plum, and other deciduous fruit orchards.

**COLORADO:** Temperatures normal or slightly above normal entire State. Maximum 69° at Campo, minimum -11° at Antero. Cooler over weekend. Most of State dry all week except few areas western slopes. Light snow local areas over weekend. Condition winter wheat and barley good to excellent with very light wind damage. Evidence of winter freeze damage, none to light. Limited acreage utilized for livestock grazing--most fields too boggy or inadequate plant growth. Soil moisture supplies generally adequate statewide. Field activities limited by muddy conditions except local areas southeast. Ranges and pastures poor to fair. Crop residue providing limited forage feed eastern Plains. Heavy supplemental feeding of livestock continues statewide. Livestock condition poor to fair; calving progressing with death loss to newborn calves above normal local areas.

**FLORIDA:** Temperatures climbed to near normal as warm, moist air latter part of week brought 80's to most of State except western Panhandle. Rainfall averaged below 0.10 inch except for heavy showers on weekend in western Panhandle. Land preparation

active for spring planting of field crops. Tobacco plants in beds made good growth. Sugarcane harvest progressing. Most pasture and livestock fair. Feed supplies short in some localities. Calving active, marketings slow. Citrus tree condition excellent for upcoming bloom period. Warm weather conducive for bud development. Moisture adequate; however, rain is needed. Bloom buds in development stage, very few open flowers. Vegetables are recovering from recent adverse weather. Improved weather favorable to the growth of young crops. Spring planting in the warmer southern vegetable areas nears completion for many crops, but should continue active during March in the central and northern areas. Cabbage supplies still moderate but increasing as quality and size improve. Celery available in full volume, but some reduction in supplies possible in late March or early April from reduced plantings. Sweet corn, tomatoes, peppers, and potatoes are gradually increasing. Salad crops in good volume. Most other commodities in seasonal supply. Early watermelons showing some growth, but no fruit has set to date.

GEORGIA: Mild beginning of period, slightly cooler at midweek followed by marked warming last half. Temperatures reached highest levels of year during weekend with afternoon readings ranging from high 60's in mountains to low 80's in parts of south. Averages were 4° to 7° warmer than normal. Rain Friday and Sunday night with heaviest amounts in north and east. Totals ranged from less than 0.50 inch most of south to over 2.00 inches parts of northeast. Soil moisture adequate to excessive statewide with land preparation active where conditions permitted. Small grains mostly fair to good. Some topdressing where field condition permitted. Tobacco plant beds mostly good condition.

HAWAII: Weather cool, cloudy, and windy. Wind damage prevalent but not serious. Dry weather affecting growth and yield in Kona, but other areas ample soil moisture. Harvesting of vegetables and fruits steady. About 50% of sugar mills in operation mid-February. Harvesting pineapples light. Pastures benefiting from recent showers. Cattle fair to good condition.

IDAHO: Temperatures averaged above normal throughout State with highest recorded midperiod. The range was 6° to 10° above normal except 1° to 5° above normal east. Precipitation was generally less than normal. However, Pocatello recorded 0.53 inch which is more than twice normal while Lewiston and Idaho Falls reached normal. Fieldwork accelerating in preparation for spring planting. Wheat fields greening up. Calving weather ideal.

ILLINOIS: Temperatures trended upward throughout the past week with readings in the 50's north and 60's south by the weekend. Weekly average temperatures ranged from 3° to 11° above normal. Precipitation totals through Friday remained quite low and generally less than a quarter of an inch. Heavier and more widespread rains developed in Illinois this past weekend. Soil moisture adequate to surplus. Warm rainy weather limited fieldwork and kept feedlots quite muddy. Main activities consisted of machinery repair and routine farm chores.

INDIANA: Very warm week. Temperatures averaged 41° to 47° and were 5° to 14° above normal. After low 20's on 28th, temperatures climbed to 60's while daily minimums were in 40's. Soils thawed and soggy. Rain late in period ranged from 0.20 to 1.00 inch. Thawed, wet soils limited activities in

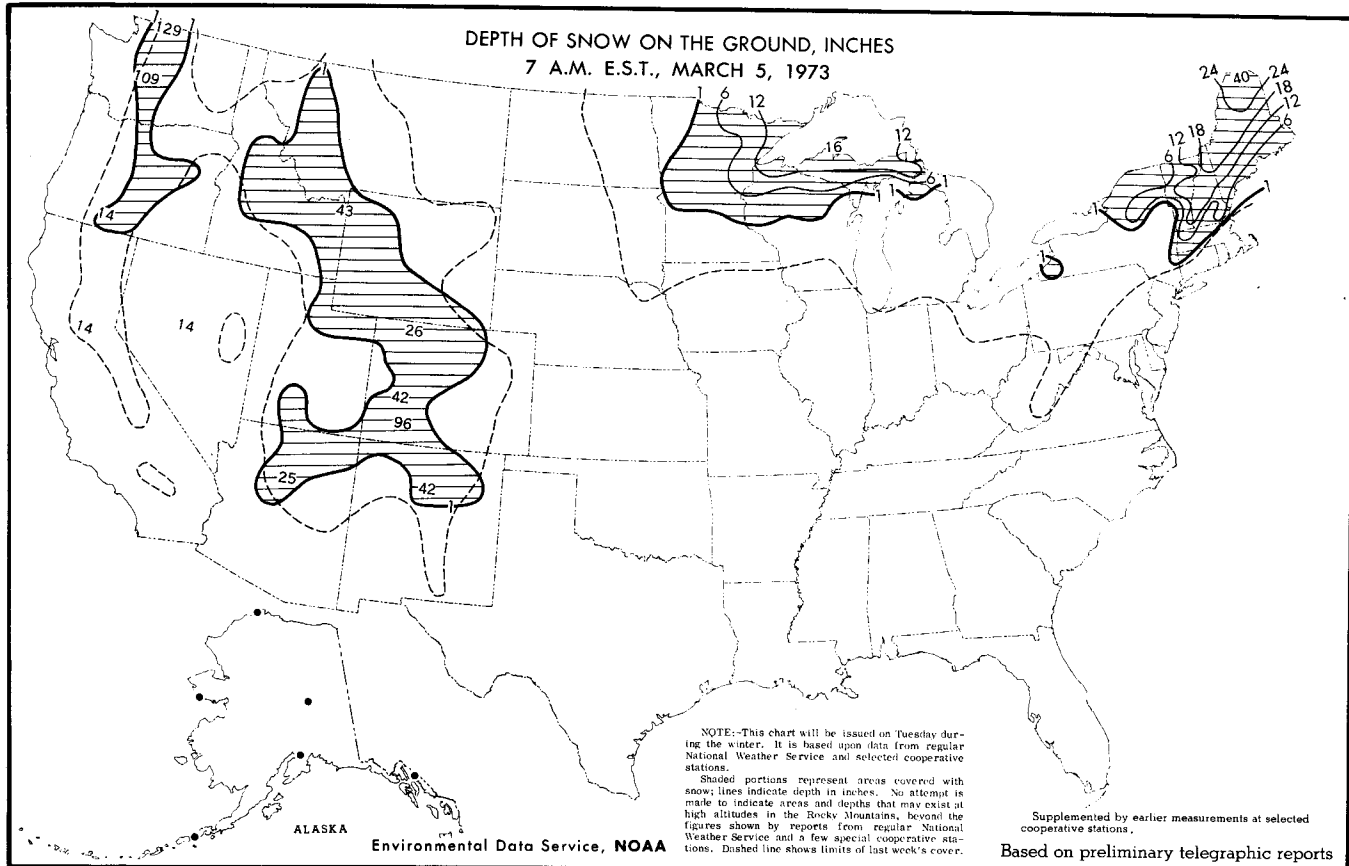
some areas of the State last week, but there was a pickup in plowing, spreading of legume seeds, fertilizing, and other outside work where conditions permitted. Otherwise, farmers were doing chores and preparing equipment for the 1973 season.

IOWA: A warm cloudy week with light to moderate precipitation on several days and considerable fogginess. Snow cover is essentially gone in all areas. Stream flow is high with some local flooding. Mud is abundant.

KANSAS: Storm late in week brought precipitation to all of Kansas. Totals generally 0.75 to 2.50 inches east and 0.25 to 1.00 inch west. Locally over 2.50 inches central and east-central. Weekly mean temperatures averaged several degrees above seasonal. Greatest departures northwest. Daily maxima 50's and 60's at midweek dropping to 30's to 50's late in period. Minima mostly 20's to 40's. Oats and spring barley seeding made some progress last week but was behind normal. Expected oat acreage was 4% seeded, 14% a year ago and average of 10%. Barley was 2% seeded, compared to 5% a year earlier and average of 4%. Wheat greened and made some growth with moisture ample nearly everywhere. Some nitrogen topdressing applied to wheat where field conditions permitted. Additional cattle grazed wheat in western and central areas but many fields too wet. Some additional grain sorghum, corn harvested. Some limited stalk cutting, plowing and other tillage. Livestock supplemental feed needs diminished and chore requirements eased with better weather. Livestock marketings active. Calving progressed well with minimum losses. Cool season pasture grasses greening some eastern, southern counties.

KENTUCKY: Temperatures averaged 4° to 10° above normal. Warmest week in about 4 months. Precipitation 0.15 to 0.90 inch, least in west, northern Bluegrass, and northeast. Maxima in 60's or above last 4 days; in low 70's some areas on 4th. 5 cloudy days with precipitation one or more areas; mostly rain but some light snow scattered locations on 27th; some thundershower activity on 4th. Springlike temperatures brought many farmers into fields on well-drained soils. Many areas too wet for plowing. Few soybean and corn fields still being harvested, soybeans bent over badly. Fall-seeded grains showing new growth. Livestock satisfactory condition. Warm temperatures welcomed for calving but damp conditions unfavorable. Feed supply mostly adequate, but high priced.

LOUISIANA: Cool to mild with weekly average temperatures 1° to 5° above normal. Temperature extremes: 80° Moisant Airport Friday; 32° at Ashland last Monday. Rainfall moderate to locally heavy. Scattered thundershowers Thursday through weekend most areas. Weekly rain totals mostly 0.50 to 1.00 inch north and central but locally more than 2.00 inches south. Greatest 1-day total, 2.02 inches measured this morning at Boothville. Progress of fieldwork fair to good until halted by moderate to heavy rainfall latter part of week. Some cotton and soybeans still being harvested. Stalk cutting, disking, and land preparation for spring planting active. Old sugarcane stubble being plowed under. Shaving and off-barring of 1973 crop underway. Planting of commercial Irish potatoes nearing completion. Bedding of sweet potatoes active in south. Strawberries blooming. Winter grain and rye grass furnishing more grazing but supplemental feeding of cattle continued. Most livestock in fair to good condition.



MARYLAND-DELEWARE: Temperatures averaged near normal through the working week then mild and wet over the weekend. Cool nights on February 25, 28, and March 1 with low temperature readings in mid-teens to low 20's. Quite warm on March 2 with high readings upper 50's to mid-60's, 15° to 20° above normal. Dry over western and central sections and the north portion of the Eastern Shore. Precipitation over the southern counties of the eastern shore measured 0.25 to 0.50 inch on 26th and 28th. Precipitation was general over the 2 states over weekend with amounts from 0.25 to 0.75 inch. Farmers made some progress topdressing with fertilizer and lime. Fruit growers continued with pruning and orchard work. Livestock continues in good condition.

MICHIGAN: Near record cold as week began, rapid warming by midweek, unseasonably mild remainder of week. Snow cover melted south, light rain as period ended. Temperatures averaged 7° to 10° above normal Upper peninsula, 3° to 10° above normal Lower Peninsula. Precipitation totals less than 0.25 inch except near 0.50 inch eastern Upper Peninsula.

MINNESOTA: Very warm week, 10° to 15° above normal across State. Extremes: 46°, -1°. Less than 0.10 inch precipitation across State. Snow depth: northeast 1/4 of State, 6 to 14 inches; southern and western districts, little to no snow on ground.

MISSISSIPPI: One to 2 days with light showers mostly under 1.00 inch. Weekly temperature averages ranged from 3° below normal to normal. Over weekend, rain was widespread with amounts mostly 1.00 to 1.25 inches. Maximum temperatures

Sunday in middle and upper 70's. Days suitable for fieldwork averaged 4.4, up from 3.2 days last week. Soil moisture adequate to excessive. Cotton acreage harvested advanced 2 percentage points to 95%. Soybean acreage harvested advanced to 94%, 4 points above previous week. Plowing 14% complete. Hay, roughage, and feed grain supplies mostly short. Irish potato planting 18% complete. Wheat and oats in poor to fair condition. Pasture and livestock condition poor to fair.

MISSOURI: A mild wet week. Temperatures averaged 5° to 10° above normal as warm humid air blanketed the State during last half of week. Considerable fog, drizzle, and light rain. Rainfall totals ranged from 0.30 inch northwest to over 1.00 inch in central and southwest.

MONTANA: Very warm and mild with precipitation confined mostly to western section. Temperatures averaged from 7° to 18° above normal. Highest 65° at Broadus, lowest 5° below zero at West Yellowstone. Precipitation in western section from less than 0.10 inch to around 0.50 inch. Winter wheat condition poor to fair central, fair to good elsewhere. Snow cover protection poor; wind damage to winter wheat moderate portions central, mostly light elsewhere. Some fertilizer applied southern counties. Stockwater supplies short portions north-central, central and north-east, adequate elsewhere. Winter pasture and range conditions good eastern 1/3, fair central and southwest, fair to good elsewhere. Grazing mostly open furnishing significant feed. Grain, concentrates, hay, and roughage supplies for balance of winter surplus portions eastern 1/3, adequate elsewhere. Calving and lambing 15%

complete, sheep shearing 30% complete. Western portions further along.

NEBRASKA: Little sunshine eastern half of State. Light precipitation and considerable fog most days. Western Nebraska clear to partly cloudy. Average weekly temperatures 6° to 14° above normal. Largest departures in northwest with maximums mostly in low 60's. Weekend had widespread precipitation. Some snow in central and Panhandle. Muddy fields and feedlots. Attempts to harvest corn and sorghum, but progress very limited. Corn harvest remains at 97% complete, and grain sorghum 93% complete. Winter wheat crop in good to excellent condition. Feedlots in most areas remain in a quagmire with gains below average.

NEVADA: Temperatures at all stations above normal from 1° above normal at Tonopah and Lovelock to 5° above normal at Winnemucca and Elko. Light to moderate precipitation all divisions. General light snowfall in north. Livestock wintered in generally good condition. Predatory animals more numerous than usual, but death losses normal. Warm winds helped dry muddy corrals and feedlots. More drying weather needed to allow widespread seedbed preparation to get underway. In south, seeding of tomatoes for transplant underway.

NEW ENGLAND: Week quite cold in Maine with temperatures 2° to 6° below normal. Milder southwest with mean temperatures 2° to 6° above normal in much of Connecticut, Massachusetts, and Rhode Island. First half of week cold and latter half mild. Presque Isle, Me., had -24° on February 27 while some maxima reached into the 60's in the south on March 2. Quite dry except much fog, drizzle, and showers over weekend. Precipitation totals varied from less than 0.10 inch in parts of northwest to mostly 0.50 to 1.00 inch in southeast.

NEW JERSEY: Another week with extremely variable temperatures. Readings averaged from 1° to 6° above normal but ranged from 7° at Newton on 28th to middle 60's over most of State on 2d. Rainfall averaged 0.60 inch over all of State, varying from 0.44 inch at Newark to 0.85 inch at Toms River. Most of the rain fell on the 3d and 4th.

NEW MEXICO: Measurable precipitation in northwest mostly on Tuesday and lesser amounts on weekend. Fair elsewhere. Temperatures averaged 2° to 6° above normal with departures greatest in east. Variable temperatures with maximums generally on Friday and minimums mostly on Sunday. Weather conditions favorable for resumption field activities. Spring plantings slightly behind schedule. Current weather good for promoting growth spring vegetables, winter small grains. Livestock, ranges good. Supplemental feeding still active.

NEW YORK: Cold early week. Minimums -10° to -15°. Saint Lawrence Valley on 27th and 28th with zero to -9° in southern plateau. Warming trend on 1st and temperatures very mild on weekend. Maximums mostly upper 40's to mid-50's from 1st through 4th but ranging on 2d from 20's extreme north up to low 60's coastal sections. No precipitation through Friday except 0.10 inch northern quarter. Rain on 3d averaged 0.50 inch extreme southeast but mostly 0.20 inch or less elsewhere. Snow cover 2 to 5 inches northern valleys and up to 20 inches in northern mountains as of weekend with mostly bare ground in southern half of State.

NORTH CAROLINA: Much warmer than previous 2 weeks, averaging near normal, with only small day-to-day changes. Rain 26th and 27th and again 2d and 3d. Totals 0.50 to 3.00 inches mostly 1.00 to 2.00 inches. Rain beginning again night of 4th. Springlike weather aided farmwork early and late week -- 2.5 days suitable for fieldwork. Tobacco plant bed preparation and seeding main farm activities. Plant bed condition 47% fair, 42% good, 11% poor. Soybeans 95% harvested, remaining beans falling and sprouting -- many fields will not be harvested. Small grains 55% good, 45% fair. Topdressing active. Hay and feed grains generally adequate but high priced.

NORTH DAKOTA: Light snow mostly in east Monday and rain later in week. Precipitation totals trace to 0.11 inch. Temperatures averaged 15° to 20° above normal. Continued mild temperatures with freeze-thaw condition. Virtually no snow cover, fall-planted crops and alfalfa fields unprotected. Conditions favorable for calving and lambing. Livestock obtaining some feed from pastures and ranges. Feed and roughage supplies generally adequate. Marketing of grain still limited by availability of cars and elevator storage.

OHIO: Past week was characterized by much above normal temperatures and generally low precipitation amounts. The daily maximum temperatures climbed into the 60's on the 1st to 4th. On the 27th and 28th, the highs were mostly in the 30's and 40's. On the 26th the highs ranged from the mid-20's to the upper 50's. Minimum temperatures were mostly in the 40's from the 2d to 4th. On the 26th and 1st the lows were in 20's and 30's. The 27th and 28th were the coldest days with the lows ranging from the low teens to the mid-30's. Unseasonably warm weather during the latter half of last week kept fields and lanes too soft and muddy to permit any extensive progress in spring fieldwork. Most livestock in good shape. Lambing and calving continuing. Winter wheat conditions fluctuate from area to area depending on when and how it was sown last fall. Good quality seed soybeans reported in short supply. Hay and straw are also extremely short in many areas.

OKLAHOMA: Temperatures averaged 2° to 8° above normal. Precipitation averaged 0.10 inch Panhandle to 2.30 inches in east-central. Some wind and hail damage south-central on March 1. Wheat fields greened up and made good growth under warmer temperatures. Topdressing with fertilizer was full swing and grazing improved. Seeding spring oats over 1/2 complete and spring barley at 3/5 showed good progress. Acreage of both crops relatively small. Fieldwork and ground preparation active until halted by Thursday rain in all but Panhandle and West. Dormant sprays being applied to orchards. Home gardening slow because of wet ground and confined to early season plants. Cattle conditions mostly fair.

OREGON: Mild wet week with slow cooling trend. Temperatures averaged 5° to 10° above normal. Minima eastside 20° to 34°, westside 35° to 42°, some fruit valleys 26° to 31°. Maxima 51° to 68°. Heavier rains western 1/3. Orchard pruning and caneberry training continue in full swing. Livestock feeding continues, hay supplies may be short. Grain and hay crops look good.



PENNSYLVANIA: Very mild dry week with general warming trend. Maxima 20's and 30's beginning of week, 50's and 60's weekend. Minima near zero to teens early in week, 30's and 40's weekend. Weekly means 4° to 7° above normal except 8° to 11° above normal southwest. Extremes: 67°, -1°. Precipitation mainly weekend, rain and drizzle. Weekly totals 0.50 to 0.75 inch southwest and southeast corners, 0.05 to 0.50 inch elsewhere. Snow cover gone. Fields muddy.

PUERTO RICO: Rainfall averaged 0.45 inch or 0.22 inch below normal. Little or no rain in extreme west. Generally less than 0.50 inch entire Island except small area in eastern mountains with highest weekly total of 2.05 inches. Crop moisture conditions near normal all divisions except parts of south where too dry and some crop yields reduced. Temperatures averaged 78° on coast and about 71° interior divisions with mean departure of 0.5° below normal. Highest temperature 92°; lowest, 50°. Sugar cane harvesting and grinding operations progressed well in dry weather but more rain needed for young crops. Coffee plantations reported good flowering. Southern pasture zones are too dry with a drop in milk production also observed. Weed control and cleaning operations underway in most zones. Minor crop zones report yields retarded in southern areas but soil preparation progressed well in dry weather. Pineapple flowering prematurely in parts of southwest.

SOUTH CAROLINA: Rainfall was light. Amounts were mostly less than 0.50 inch and the rain fell at the beginning of the week. Temperatures were about normal for the week. Favorable weather for land preparation; fertilizer application active. Peach tree pruning and planting. Too much moisture for tobacco plant beds; treating, replanting and maintenance active. Some harvesting of vegetables in Charleston-Beaufort area, but supplies short.

SOUTH DAKOTA: Temperatures averaged from 10° above normal in portions of east to 19° above normal parts of northwest. Extremes ranged from 18° at Oral on 27th to 67° at Oral on 2d. Little or no precipitation. Amounts reported were 0.05 inch or less. No significant snow cover over State. Mild weather has caused concern among corn growers who have high moisture corn in on-farm storage. Local elevators do not have storage available and rail cars are in short supply. This situation could cause problems if the weather remains warm. Livestock remain in good condition. Feed supplies are plentiful. Spring farrowings started and some calving reported. Yards and lots still muddy, especially in east where skies have been overcast most of the week. Caring for livestock and preparing for spring fieldwork are still main farm activities.

TENNESSEE: Above-normal temperatures throughout Tennessee with greatest departures in eastern half of State. Range 6° to 10° above normal. Brief cold spell midweek followed by warmer trend on weekend. Highest temperature 72° at Bristol on 4th; lowest, 26° at Jackson on 28th. Showers at beginning and near end of week as rain with totals ranging from less than 0.25 inch to about 1.50 inches. The weather most of week gave farmers a good opportunity to work the fields. In some western areas cotton was being picked by hand. Corn and soybean harvest also made some progress. Preparing tobacco beds, spring plowing, livestock feeding, and farm chores constituted farm activities for the week.

TEXAS: Typical spring weather throughout week. Daily maximum temperatures reached the low 70's in Northwest Texas and the low 80's in South Texas. Also typically spring were scattered severe thunderstorms which raked North-central and East Texas Thursday and Saturday. Precipitation was confined mostly to eastern half of State with heaviest amounts in the Lower Valley. Heavy feeding of livestock still underway most areas of State, hay stocks getting short. Wheat and oats improved with warmer temperatures. Cotton harvest inching toward completion on High and Low Plains with harvest 98% complete compared to 100% complete last year. Planting cotton, sorghum stopped in Lower Rio Grande Valley by heavy rains. Seedbed preparation lagging behind schedule from Blacklands to Lower Rio Grande Valley. In the Lower Rio Grande Valley vegetable harvest curtailed most of week by heavy rains Monday. Limited cabbage harvest underway latter part of week as fields dried. Carrot digging delayed again by wet fields. Wet weather continues to disrupt spraying and fertilizing of onion fields. Sunny warm weather needed to encourage bulb growth on onions. At Laredo most vegetables continue to show good growth. In the Coastal Bend some early plantings of melons are emerging. In other areas growers are having to replant fields of melons lost to freezes. Cucumber planting becoming active with warmer temperatures. In the Winter Garden-San Antonio area cabbage, spinach, lettuce, and carrot harvest is starting again as wet fields dry. Onions making good growth. Potato planting underway as weather permits. Peach trees are blooming from South Texas to the Red River with most trees expected to be in full bloom within a week in the latter area. Citrus harvest gained momentum toward last of week as picking crews were able to get back into some of the drier groves.

UTAH: Recurring periods rain or snow latter part last week and again over weekend. Accumulated amounts generally light to moderate. Average temperatures ranged from near normal to 7° above normal except 6° to 8° below Uintah Basin. Snow cover mostly gone at lower elevations permitting some early plowing southern areas. Farm flock lambing well along. Marketing of potatoes, dry onions, and apples from storage continues but nearing completion. Orchard pruning underway. Fruit outlook mostly good even though very severe temperatures occurred last fall before maximum hardiness in fruit trees developed. Care and feeding of cattle and sheep on winter ranges, valley farms, and feedlots, plus caring for dairy herds and poultry flocks continue major activities. Preparation of machinery for spring fieldwork, wood burning, and ditch cleaning current activities. Irrigation water stored in major reservoirs March 1 excellent.

VIRGINIA: Temperatures below normal at the beginning, warming gradually and becoming well above normal by weekend. Light precipitation early in week and over weekend, with totals ranging mostly between 0.50 and 1.00 inch. As soils dried out fieldwork gained momentum. Soil moisture 3/4 adequate. Driest since last week of October. Most remaining surplus moisture in Tidewater and Lower Piedmont. Days suitable for fieldwork averaged 2.8, highest since mid-November. Prepared, gassed, and seeded tobacco plant beds. Plowed, disked, and spread lime, fertilizer, and manure. Harvested some remaining corn and soybeans, seeded some grasses, alfalfa, and oats. Livestock healthy. Hay and roughage supply

about same as last year. Feed grain less plentiful. Condition of winter grains and grazing crops improved.

WASHINGTON: Western Washington: Mixed showers and clearing with mild temperatures 5° above normal. Crops greening up. Harvest forced rhubarb continues. Pruning, tying canberries, lifting-planting tree stock underway. Lifting strawberry plants active. Some spring grains seeded. Livestock good condition. Eastern Washington: Fruit tree pruning continues with above normal temperatures and normal precipitation. Hop growers cleaning up yards. Fieldwork active, fertilizing, spraying, seeding and reseeding winterkilled wheat and barley. Some water erosion in many grain fields. Livestock good shape, lambing and calving progressing normally.

WEST VIRGINIA: Light rain February 26 turned to light snow flurries overnight but precipitation totals were generally below 0.10 inch. Heavier rain March 3 and 5 totaled 0.50 to 1.00 inch. Warm springlike weather prevailed since February 28. Winter grains in fair condition. Ground too wet and muddy for plowing. Livestock wintering well on mostly poor quality hay. Feeding livestock and repairing machinery main farm activities.

WISCONSIN: Continued very mild winter weather with temperatures averaging 10° above normal. Daily highs in 40's in south with low 50's Saturday. Humidities high with frequent fog and cloudiness. Several periods of light rain and a few thunderstorms west and north on Thursday. Humid weather caused rapid thawing of snow cover and frost in the ground due to latent heat of condensation. Snow cover restricted to northern 1/3 of State where depths mostly range between 4 and 12 inches. Frost in the ground mostly in the southern half. Generally less than 1 foot of frost with several inches of surface thawing. Wildlife wintered well. Geese have been coming north all week. Livestock good.

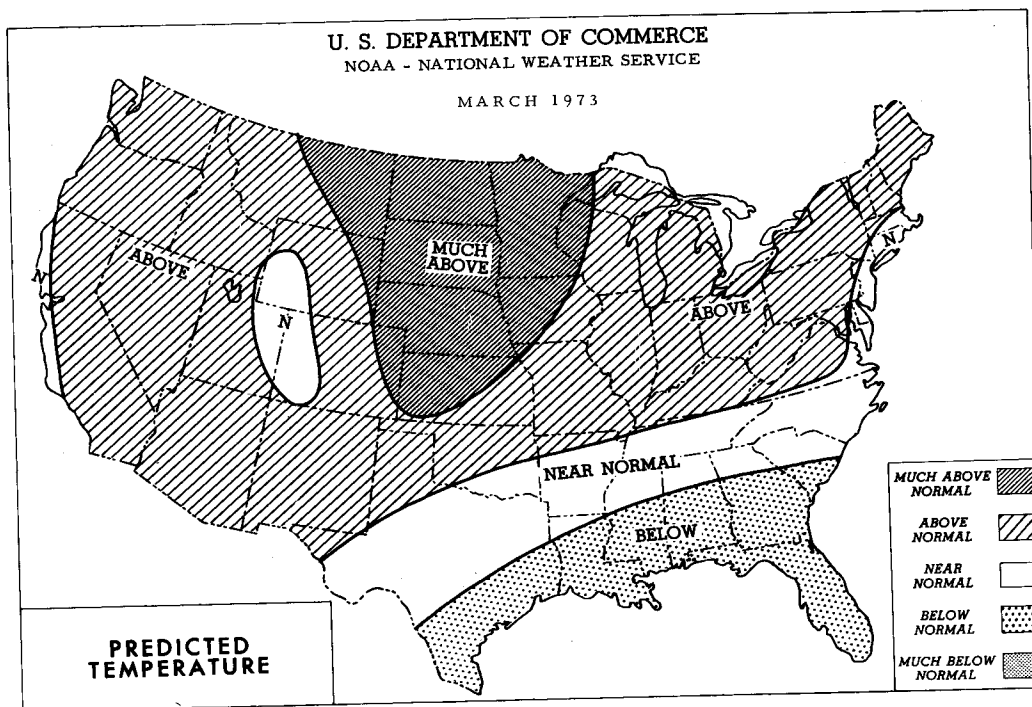
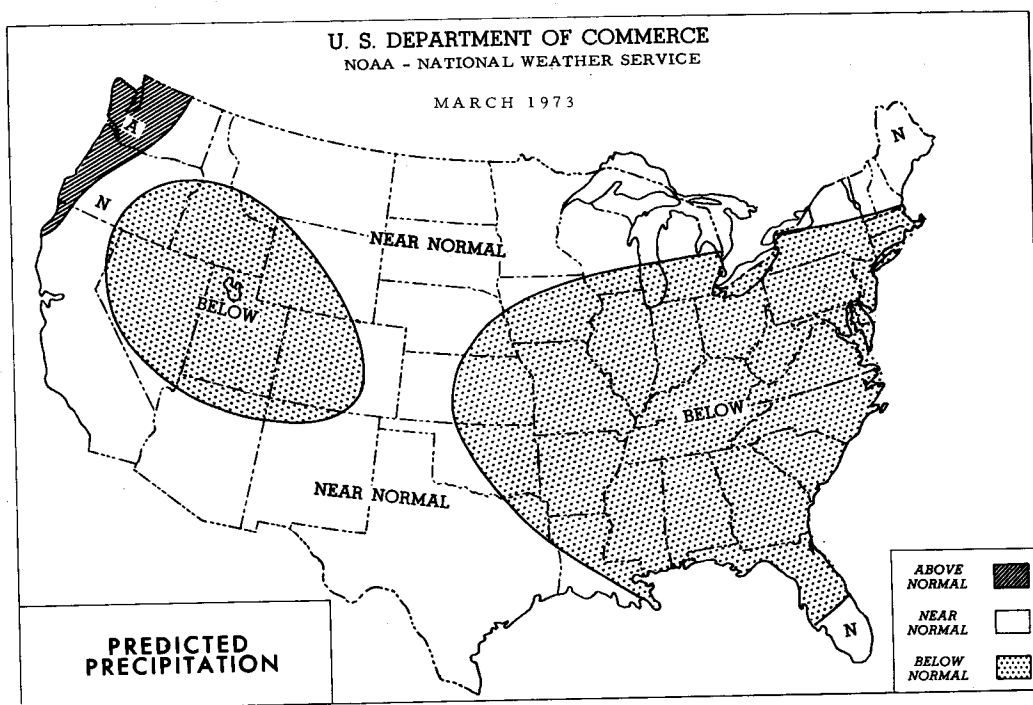
WYOMING: Scattered light rain and snow. Evanston had the most moisture with 0.50 inch. Temperatures averaged near to above normal west of Divide, below normal over the Wind River Drainage and 3° to 15° above normal elsewhere. Maxima were mostly 40's southwest half of Wyoming, 50's to low 60's northeast half. Minima were mostly 10° to -15° west of Divide and Wind River Drainage, 10° to 25° elsewhere. Temperature extremes were 65° at Torrington and -13° at Farson. Agricultural activities confined mainly to care and feeding of livestock. Snow made care of newborn calves and lambs difficult. Hay supply short in some localities. Livestock in good condition.

Heating Degree Days (Base 65° F.)

FEBRUARY 1973

ALA. Birmingham	629	MAINE, Caribou	1464	OKLA. Okla. City	701
Mobile	368	Portland	1157	Tulsa	700
Montgomery	502	MD. Baltimore	854	OREG. Astoria	574
ALASKA, Anchorage	1448	MASS. Boston	971	Burlington	857
Barrow	2189	Chatham	---	Medford	518
Fairbanks	---	MICH. Alpena	1338	Pendleton	738
Juneau	1126	Detroit	1103	Portland	560
Nome	1517	Flint	1136	Salem	586
ARIZ. Flagstaff	1006	Grand Rapids	1178	PA. Allentown	995
Phoenix	200	Houghton Lake	1307	Erie	1146
Tucson	320	Lansing	1218	Harrisburg	926
Winslow	658	Marquette	1239	Philadelphia	874
Yuma	167	S. Ste. Marie	1406	Pittsburgh	1006
ARK. Fort Smith	687	MINN. Duluth	1429	Scranton	1131
Little Rock	635	Internat'l Falls	1351	R.I. Providence	584
CALIF. Bakersfield	204	Minneapolis	1208	S.C. Charleston	524
Eureka	395	Rochester	1250	Columbia	583
Fresno	358	St. Cloud	1333	Greenville	641
Los Angeles	136	MISS. Jackson	503	S. DAK. Aberdeen	1135
Red Bluff	386	Meridian	467	Huron	1144
Stockton	344	Vicksburg	---	Rapid City	1008
San Diego	131	MO. Columbia	890	Sioux Falls	1165
San Francisco	334	Kansas City	868	TENN. Chattanooga	767
COLO. Denver	820	St. Louis	850	Knoxville	697
Grand Junction	999	Springfield	808	Memphis	679
Pueblo	832	MONT. Billings	994	Nashville	702
CONN. Bridgeport	996	Glasgow	1152	TEX. Abilene	574
Merford	1051	Great Falls	980	Amarillo	706
D.C. Washington	777	Havre	1173	Austin	405
FLA. Apalachicola	334	Helena	1174	Beaumont	389
Ft. Myers	141	Kalispell	1059	Brownsville	190
Jacksonville	329	Miles City	1062	Corpus Christi	262
Key West	37	Missoula	946	Dallas	477
Lakeland	207	NEBR. Grand Island	980	Del Rio	499
Miami	84	Lincoln	1018	El Paso	381
Orlando	169	Norfolk	1086	Ft. Worth	475
Pensacola	---	North Platte	967	Gl. eston	329
Tallahassee	393	Omaha	1054	Houston	379
Tampa	224	Valentine	1007	Lubbock	687
GA. Atlanta	617	NEW. Ely	1059	Midland	587
Augusta	563	Las Vegas	428	San Angelo	514
Macon	529	Reno	760	San Antonio	360
Savannah	423	Winneconna	780	Victoria	301
IDAH. Boise	708	N.H. Concord	1250	Waco	494
Lewiston	719	N.J. Atlantic City	842	Wichita Falls	577
Pocatello	1057	Trenton	891	UTAH, Blanding	---
ILL. Cairo	745	N. MEX. Albuquerque	811	Salt Lake City	909
Chicago	967	Roswell	594	VT. Burlington	1410
Moline	1013	N.Y. Albany	1198	VA. Lynchburg	809
Peoria	1005	Binghamton	1250	Norfolk	703
Rockford	1060	Buffalo	1173	Richmond	735
Springfield	957	New York	904	Roanoke	812
IND. Evansville	844	Rochester	1189	WASH. Colville	884
Fort Wayne	1046	Syracuse	1217	Omak	638
Indianapolis	937	N.C. Asheville	737	Quillayute	586
South Bend	977	Charlotte	693	Seattle-Tacoma	838
IOWA, Burlington	986	Greensboro	774	Spokane	705
Des Moines	1039	Hatteras	593	Yakima	760
Dubuque	1095	Wilmington	546	W. VA. Beckley	936
Sioux City	1099	N. DAK. Bismarck	1201	Charleston	876
KANS. Concordia	883	Fargo	1361	Huntington	877
Dodge City	822	Williston	1213	WIS. Green Bay	1172
Goodland	864	OHIO, Akron-Canton	1043	Madison	1143
Topeka	881	Cincinnati	888	Milwaukee	1124
Wichita	816	Cleveland	934	WYO. Casper	980
KY. Lexington	827	Columbus	941	Lander	1432
Louisville	796	Dayton	1106	Sheridan	1011
LA. Baton Rouge	381	Toledo	1116		
Lake Charles	370	Youngstown	---		
New Orleans	---				
Shreveport	429				

## AVERAGE MONTHLY WEATHER OUTLOOK



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

# WORLD WEATHER AND AGRICULTURE

## DROUGHT DEVASTATES SENEGAL AGRICULTURAL PRODUCTION

The 1972-73 crop year has been one of the worst in Senegal's history. Drought is prevalent in virtually every area of the country to some degree. In the northern region of du Fleuve, virtually no crops were harvested this year. The region du Cassamance and Sine Salaum, the main regions for feed grain production, crops were effected moderately to severely. Only 900 mm of rain fell in this area, which normally receives 1300 mm of rainfall. The Senegal River normally crests at a height of 8 meters, but this year it crested at 5.5 meters, the second lowest level since 1900.

The mid-June rains came as usual and on time, but they were lighter than usual and were followed by up to 60 days with virtually no precipitation. Millet, corn and sorghum were hit particularly hard. Farmers had planted more acres in all the feed grain areas, but due to low or no rainfall, crops came up but heads and ears never matured, resulting in a 30 to 40 percent crop loss.

The 1972-73 rice crop is the worst in several years. Lack of rain was the major problem. Farmers planted twice during the early part of the season and realized no crops. The areas where two plantings occurred, rice parched at about 8 to 10 inches high.

## WET, COLD YEAR REDUCED 1972 CROP YIELDS IN ITALY

An unusually cool and rainy year resulted in significant losses to many crops during 1972, including the three mainstays of Italian agricultural production -- wine, citrus, and olive oil. Corn was one significant exception, with a record total production of 5.0 million metric tons. Extremely good conditions for corn during pollination and grain filling were responsible for the record crop. Citrus production was down during 1972. Poor weather during blossoming and setting reduced lemon yields by 13 percent from last year. Orange production was down by 10 percent, tangerines, 12 percent.

The rainy weather which persisted all summer reduced Italian wine production by 6 percent from last year. The quality of this year's vintage is also exceptionally bad because of the low alcoholic content.

Wet weather adversely affected pollination and promoted fungal diseases, resulting in a 30 percent reduction in olive oil production from 1971 levels. Both quantity and quality of the olives was affected.

Total sugar beet tonnage increased by 3 percent despite a decline in acreage and the adverse weather conditions during both seeding and harvesting. However the wet weather dropped the sucrose content to 13 percent (16.4 percent in 1971) so that total sugar production was down 5.4 percent from 1971. This is the lowest total sugar crop in over a decade.

## COLUMBIAN DROUGHT CONTINUES TO WORSEN

The drought situation in Columbia became more widespread and serious during the month of January as rainfall was the lowest in a number of years and temperatures were unusually warm. If the dry weather continues, spring plantings may have to be delayed and possibly reduced. In addition, the dry weather could also affect the flowering of the coffee crop which will be harvested this coming fall. The year of 1972 was one of the driest in the last decade, but serious drought conditions had been generally restricted to areas along the Atlantic Coast. Until recently weather conditions in the higher elevations, including the coffee zones had been favorable.

## JANUARY WARM AND DRY IN YUGOSLOVIA

January weather in Yugoslavia was unusual in that the moisture received was much below normal in terms of either rainfall and snow, and temperatures were abnormally high (up to 55°) during the month. However, many days and most nights the temperatures dropped below the freezing mark into the high 20's F. This combined with the windy weather during the month removed a considerable amount of moisture from the soil, but not to the extent of significantly damaging the current wheat crop or affecting the prospects for the spring planted crops. The principal danger at this time is what would happen if temperatures drop to the levels normally expected at this time of the year with no snow cover to protect the winter wheat crop.

## CORN AND GRAIN SORGHUM PRODUCTION OUTLOOK GOOD IN ARGENTINA

As of January, the prospects for 1973 agricultural production were extremely favorable for most crops in Argentina. The important summer grain and oilseed crops were developing under the most favorable of conditions in many yields and excellent yields are predicted for corn, grain sorghum, sunflowerseed, peanuts, and soybeans. The one exception is the deciduous fruit crop which was affected by severe frost and hail in October and November, 1972 (see WWCB, January 15, 1973).

The outlook is extremely optimistic for the grain sorghum and corn crops that will be harvested during the next several months. Harvesting of corn has started in the far north and excellent yields have been reported in otherwise marginal production areas. Extremely timely rains fell in December during the important pollination period and sub-soil moisture reserves are excellent. The grain sorghum crop was just planted in December, but the outlook was good.

R.E. Felch

EXTREME VALUE PROBABILITIES OF HEATING DEGREE DAY ACCUMULATIONS FOR THE  
CORN BELT IN NOVEMBER 1972

Cold wet weather across much of the Nation's midsection last November created many problems, particularly for Corn Belt farmers. The wet field conditions delayed harvesting efforts and kept field grain moisture high. Grain that was harvested required some drying before storage to prevent spoilage. The concurrent intense cold created heavy demands for heating fuels. Fuel shortages resulted in some areas and many farmers found that they could not obtain fuel for their driers and were forced to leave fields unharvested. This resulted in increased lodging and deterioration of grain quality.

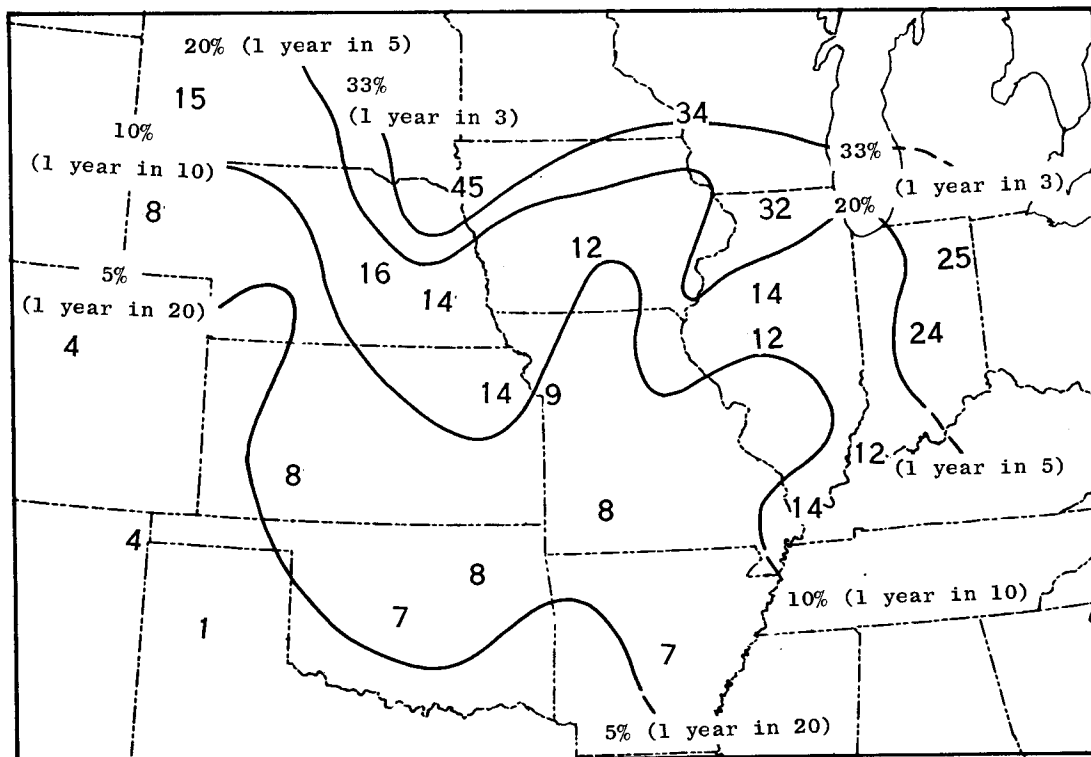
The question of just how cold the weather really was becomes important under these circumstances. Was it unusually cold? How often might one expect fuel shortages such as occurred in 1972 based solely on the reoccurrence of similar meteorological conditions? If conditions were not unusual, then the farmer must consider the possibility of planting varieties which will mature earlier, even though they may not yield as high.

The heating degree day statistic provides one means of evaluating how cold conditions really were. It is the accumulation of temperatures below 65°F and is used extensively by the heating industry for estimating fuel consumption. To look at the question of how often a Corn Belt farmer might reasonably expect conditions as occurred in November, 1972 a statistical technique was utilized

to calculate the probability associated with the heating degree day accumulations observed. The technique is called the extreme value probability. Basically it allows the estimation of the probability of equalling or exceeding a given occurrence and is calculated from a long record of past weather.

In this case 40 years of record at 38 stations in the Corn Belt and Central Great Plains were used to calculate extreme value probabilities. The results are plotted on the figure below and present an interesting picture. As presented, isolines are given for four probability levels of exceeding the November, 1972 heating degree day accumulations: 5% (1 year in 20); 10% (1 year in 10); 20% (1 year in 5) and 33% (1 year in 3). For example, the probability of having a colder November is 10% or less or 1 year in 10 or more years south of the line running through Central Nebraska into northeast Kansas, across northern Missouri and down along the Mississippi River. November temperatures in eastern Colorado, western Kansas, New Mexico and Texas would be expected less than 1 year in 20. The heating degree accumulations at Amarillo, Texas (833 HDD) was the greatest in the last 40 years by some margin. Based on the extreme value probability, a colder November would be expected about once every 100 years at Amarillo.

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The probability that the heating degree day accumulation during a given November will exceed that of November, 1972, based on the past 40 years of record (1932-1971). Values in parenthesis express the probability in terms of years.

# DEPARTURE OF LILAC BLOOM DATES IN 1972 FROM THE 10-YEAR NORMAL (1957-66) THROUGHOUT THE WESTERN REGION OF THE UNITED STATES

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Normal dates of begin bloom of purple common lilac have been determined from phenological data collected during the 10-year period, 1957-66. Recorded dates of begin bloom in the spring of 1972 were compared with the 10-year normal. These departures from the normal time of bloom were plotted on a map and lines of equal departures from normal were drawn (Figure 1).

Shaded areas on the map indicate those places where lilacs began to bloom earlier than normal in the spring of 1972. Areas not shaded were later than normal.

Earlier than normal conditions were experienced over most of the Western Region in the spring of 1972. However, some northern sections were later than normal. Lilacs began to bloom more than 10 days later than normal in western Washington and northwestern Oregon. An unusually extensive area in the southern part of the Western Region experienced extreme anomalies of more than 20 days earlier than normal. This 20 to 30 day earlier than nor-

mal zone covers southern parts California, Nevada and Utah, southwestern Colorado, most of New Mexico and the entire state of Arizona.

The extremely early bloom was associated with higher than normal temperatures over most sections in January and much higher than normal temperatures over nearly the entire Western Region in February and March. March temperatures averaged between 6 and 9 degrees Fahrenheit above normal over extensive areas in the West. Such large and geographically extensive monthly temperature anomalies are a rare occurrence in the Western Region. The late bloom in northern sections appears to be related to the lower than normal temperatures that occurred in April over these areas, particularly in the northwestern states.

The earlier than normal lilac bloom in southern and central areas was associated with early blooming of deciduous fruit trees. In many orchards this early development led to fruit crop failure due to subsequent freeze injury.

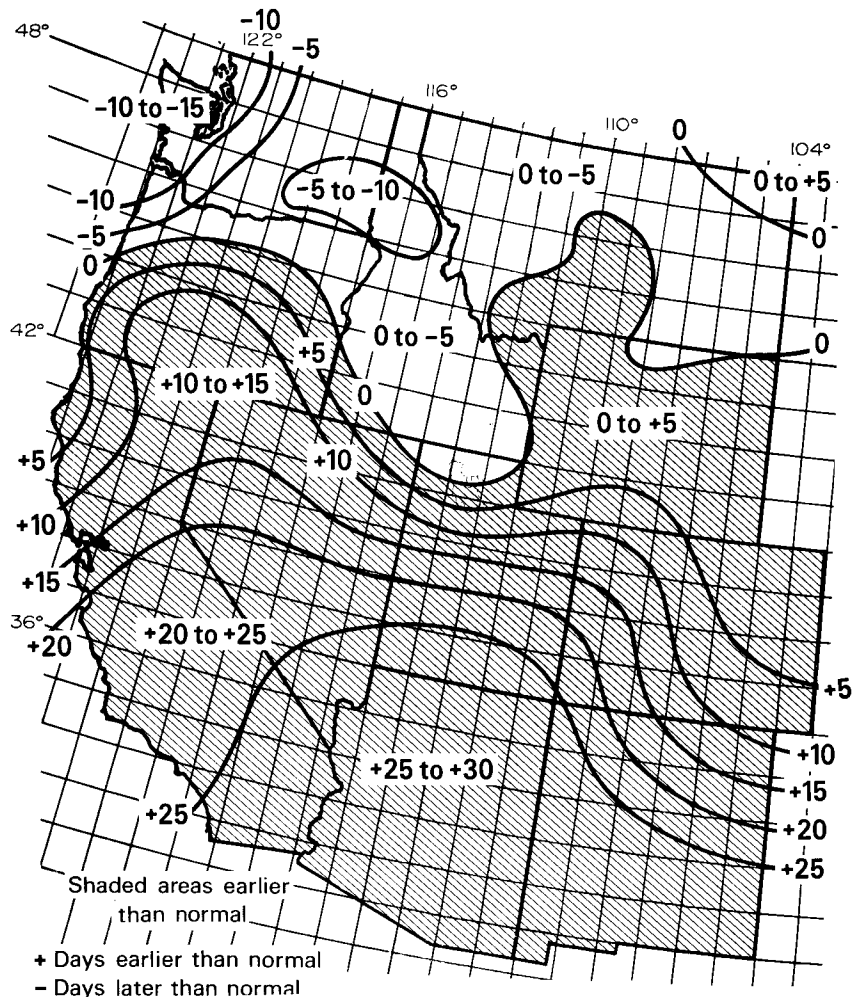


Figure 1. Departure of Begin Lilac Bloom Date from Normal, Spring 1972.

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