

Weekly Weather & Crop Bulletin

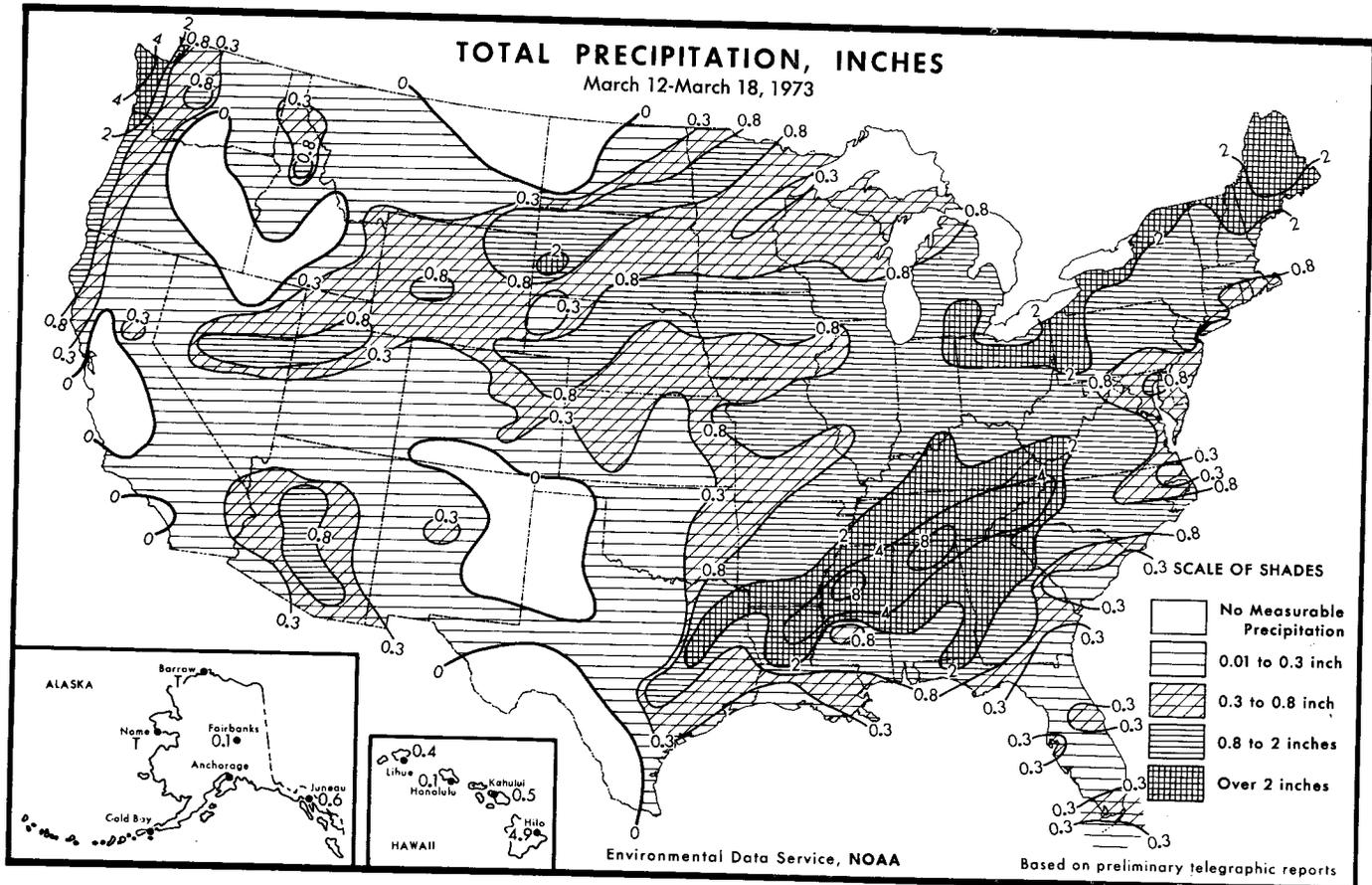
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Edited by Lucius W. Dye

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NATIONAL WEATHER SUMMARY

HIGHLIGHTS: The East had a fair flirtation with spring most of the week. But the West remained wintry with below-average temperatures. During midweek, a severe winter storm moved out of the West dumping snow, causing tornadoes, and ending early week mild temperatures throughout the center of the Nation. A low, that developed over the south, sucked moisture from the Gulf, causing torrential rains and flooding throughout the Deep South and the Appalachians. By the end of the week, the cold front extending from the southern low, and another extending from a Low in New York ended the East Coast's early spring.

PRECIPITATION: Flagstaff, Ariz., began Monday, March 12, with 6 inches of snow, bringing the total for a storm extending back into the previous week to 9 inches. The Monday snow brought Flagstaff to a total of an incredible 140 inches of snow since

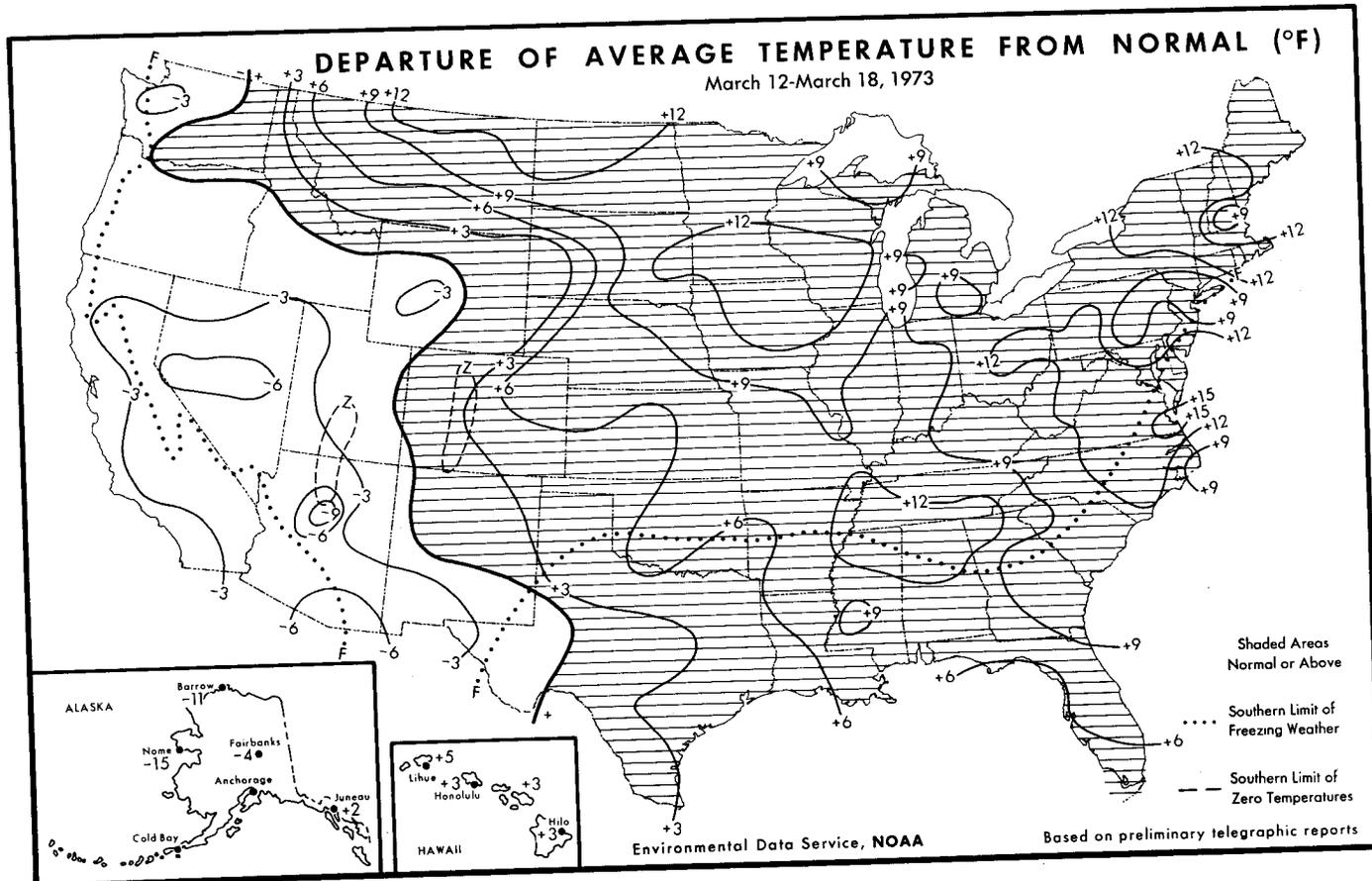
October 1.

A storm developing in the Southwest caused widespread precipitation from southern California into the Plateau Region. It rained in the valleys and snowed at higher elevations.

While the Great Lakes, Ohio Valley, and New England remained cloudy, the Southern Plains, an area across Tennessee, and the Atlantic States enjoyed sunshine.

Early Tuesday a vigorous late winter storm crossed the Rockies and blanketed north Arizona and south Utah with snow. Salt Lake City recorded 3 inches; at higher elevations over a foot of snow accumulated.

A dangerous storm moved into the Plains, and southerly winds gusted as high as 40 m.p.h. Thunderstorms developed in an explosive manner Tuesday morning in the Central and Southern Plains. and wind damage occurred at Lees Summit, Mo.,



about noon. A tornado hit Newkirk, Okla., in the midafternoon. The path of the storm measured 30 miles long, and it was one to two blocks wide as it tore through the center of town, damaging the court courthouse, schools, businesses, cars, and homes.

Ahead of the severe storm, heavy rain fell in places. Part of Kansas City, Mo., received 1.00 inch of rain in an hour; Quincy, Ill., got almost 2.00 inches. Most of the East and South remained sunny and warm.

By Wednesday the enormous storm was centered in the Central Plains and moved slowly to the northeast. Tropical air, flowing across the Mississippi Valley, provided the heat and moisture to trigger violent thunderstorms. By late Wednesday, 21 tornadoes had been sighted from Texas to Illinois since the previous day. The north side of the storm got a blizzard shaped up in the North Central States. Cheyenne, Wyo., reported 13 inches of snow driven by gusts of wind up to 60 m.p.h. The blizzard raged across the Dakotas, leaving 4 feet of new snow in the Black Hills. Rapid City, S.Dak., and Lander, Wyo., both had 14 inches of snow.

Later Wednesday, the storm subsided, but not before it had picked up a large quantity of dust in western Texas and had carried it to the shores of Lake Michigan. Wednesday visibility at Milwaukee, Wisc., was 6 miles due to Texas dust that the storm had brought.

While fair skies graced much of the Nation on Thursday, a cold front strung along the southern Appalachians generated heavy rains and thunderstorms throughout the Lower Mississippi Valley eastward into the Northern and Central Atlantic States. Local heavy rains resulted in flash floods in the

Lower Mississippi Valley and Tennessee.

Early Friday several tornadoes ripped through Alabama and Mississippi, downing trees and power lines. Then the storm dumped torrential rains throughout northern Mississippi and Alabama, and northward through Tennessee and Virginia. Some significant rainfalls reported on Friday included: Greenwood, Miss., 6.46 inches, Muscle Shoals, Ala., 6.24 inches, Huntsville, Ala., 5.36 inches, Chattanooga, Tenn., 4.49 inches. Flash floods occurred from Mississippi to Virginia. The airport at Vicksburg, Miss., had 2 feet of water on the floor. By Saturday the torrential rains diminished. The storm's main fury moved over the Atlantic, but rainfall continued along portions of the Atlantic Coast as far north as New York and parts of New England.

Another low-pressure system intensified early Saturday as it moved northeast across southern Ohio toward Pennsylvania. Early Saturday snow fell over southern Michigan, and over most of Indiana. By late Saturday, 15 inches of snow accumulated at Jackson, Mich. This late winter storm paralyzed much of lower Michigan.

The low moved into upstate New York, causing high waves on Lakes Erie and Ontario.

Sunday brought a flood to Tennessee; at Chattanooga the river stood 7 feet above the flood stage. The low in New York brought snow there and in Pennsylvania, West Virginia, and western Maryland. Snow also fell in the West; Ely, Nev., reported 5 inches.

Sunday evening, the New York low moved northeast and calmed somewhat. It had left 4 inches of snow at Binghamton, N.Y., and 3 at Wilmington, Vt.

(Continued on back Page)

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Torrential rains and wet fields keep land preparation behind schedule in the South while frost free ground in North too wet to plow. * Winter wheat growth from Kansas southward boosted by continued warm temperatures. * Peach trees reaching full bloom ahead of schedule in many Southern States. * Warmer temperatures stimulating growth of small grains and native pastures.

SMALL GRAINS: Winter wheat growth accelerated last week in the central and southern Great Plains under several weeks of warm temperatures. Most of the crop remains in good to excellent condition. Adequate to surplus soil moisture levels have limited soil blowing from high winds --very little wheat has been damaged thus far. Ground cover improved on Kansas wheat and additional cattle have been placed on wheat pastures. Soil borne mosaic noticed in many central and eastern Kansas fields indicates the need for dry, warm weather. About 15 percent of the Oklahoma wheat acreage is jointing. Wheat and oats in Texas are making excellent growth and most livestock are being moved off fields expected for grain harvesting. Topsoil moisture in central Montana continues short and winter wheat condition in areas affected is poor to fair while other areas of the State are fair to good. Winter wheat in western Montana is still dormant but is greening up in many other locations. In Washington, winterkill on winter wheat and other small grain crops remains critical. Fall grains in Oregon are in fair to good condition with the usual amount of reseeding being done. Illinois winter wheat is in good condition. Small grains are making good progress in Arizona having reached the boot stage near Yuma. Small grains are in good to excellent shape and making rapid growth in most parts of the South Atlantic and South Central Regions.

Muddy fields in Kansas and Colorado continue to keep spring oats and barley seeding behind schedule. Only 7 percent of the oats in Kansas are seeded compared with an average of 33 percent. A small amount of acreage in eastern Colorado has been seeded to spring barley. Small grain seeding is active in Washington.

OTHER CROPS: Torrential rains and wet fields in the South Central States continued to throw land preparation for planting far behind schedule. Spring plowing is at a standstill in most areas. Some land preparation progress was made in the South Atlantic Region as fields dried. In the North Central Region, the frost has gone out of the ground due to thawing temperatures, but the ground is too wet to plow. Cotton and soybean harvest progress in Mississippi both remain unchanged from the previous week at 96 percent complete. No progress was made in Nebraska completing the corn and sorghum grain harvest, but North Carolina farmers just about completed their harvest of soybeans. Planting of cotton, corn, and sorghum gained momentum in South Texas. Rains in Arizona delayed cotton planting and stand establishment. A limited amount of corn planted earlier in Baldwin County, Alabama is up

to an even stand. Tobacco beds are seeded and in good condition from Maryland to Georgia where transplanting is underway due to the advanced stage of growth. Irish potatoes were being planted on Virginia's eastern shore, in Washington, Oregon, and Texas. Sugar beet planting is underway in Washington but was delayed by rains in Arizona. Some water-planting of rice was accomplished in Louisiana early last week. Sugar-cane harvesting is active in Hawaii, but is behind schedule in Florida.

Fruits and Nuts: Rain benefited Florida citrus groves which continue in excellent condition; however, the hot, windy days are causing dehydration and more rain is needed. New growth is abundant and many groves are rapidly progressing to almost full bloom for the 1973-74 crop.

The Texas citrus harvest continues active with peak bloom expected within 2 weeks. The California navel orange harvest continues as weather permits with a large percent unmarketable in areas which had heavy winter freeze damage. Valencia orange and limited grapefruit harvesting continues in California and Arizona. Peach trees are reaching full bloom considerably ahead of schedule in most areas of the South Central and South Atlantic States. In California, apricot, peach and nectarine trees are past the peak of blooming while walnut and pear trees are beginning to bloom in early areas. Spring orchard work continues in many areas of the Country. Strawberry picking increased in California while planting continued in Washington.

Vegetables: Warm weather in Florida favored young spring vegetable crops, but sharply reduced supplies of many leafy vegetables in the Everglade and Zellwood areas. Volume of most other commodities are increasing as spring harvest approaches. In Texas, spinach supplies are decreasing; carrot supplies are increasing in the Lower Rio Grande Valley to offset decreases in the Winter-Garden-San Antonio area where melon planting is nearing completion. Onions remain in light supply. In California, lettuce harvesting began at Riverside, but slowed at Santa Barbara while harvesting continued for other vegetable crops including celery, artichoke, broccoli, cauliflower, carrots, and cabbage. Yuma, Arizona lettuce harvesting reached full swing after delays from rain.

PASTURES AND LIVESTOCK: Warm weather is stimulating pasture growth from California to Maryland. Spring grazing increased in the Southern States and lower elevations of the West. Supplemental feeding declined in these areas, but continued heavy in the Northern States. Muddy feedlots and driveways in the Corn-Belt continue to make livestock care and feeding difficult. Livestock continue in good condition generally, with calving, lambing and farrowing progressing normally.

Arlon M. Scott
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., Mar. 18, 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 . . .	60	+ 5	2.2	+ .8	La. Baton Rouge . . .	68	+ 8	.5	-.9	Youngstown . . .	45	+10	2.3	+1.5
Mobile . . .	67	+ 7	.8	-.9	Lake Charles . . .	66	+ 5	.2	-.8	OKLA. Okla. City . . .	55	+ 7	.2	-.2
Montgomery . . .	64	+ 8	1.3	-.1	New Orleans . . .	68	+ 7	.5	-.8	Tulsa . . .	56	+ 8	.3	-.2
ALASKA. Anchorage . . .					Shreveport . . .	62	+ 6	1.1	+ .2	OREG. Astoria . . .	44	- 1	2.6	+ .4
Barrow . . .	-27	-11	T	0	MAINE. Caribou . . .	34	+11	1.7	+1.2	Burns . . .	35	- 2	T	-.2
Fairbanks . . .	4	- 4	.1	0	Portland . . .	43	+12	1.3	+ .3	Medford . . .	44	0	.1	-.3
Juneau . . .	32	+ 2	.6	-.2	MD. Baltimore . . .	54	+11	1.1	-.9	Pendleton . . .	44	0	.1	-.2
Kodiak . . .					MASS. Boston . . .	48	+11	.8	-.1	Portland . . .	46	0	.5	-.4
Nome . . .	- 8	-15	T	-.2	Chatham . . .	44		.5		Salem . . .	43	- 2	.7	-.4
ARIZ. Flagstaff . . .	26	- 9	1.8	+1.5	MICH. Alpena . . .	35	+10	1.1	+ .7	PA. Allentown . . .	47	+10	1.0	+ .2
Phoenix . . .	55	- 4	.8	+ .7	Detroit . . .	43	+ 9	2.0	+1.5	Erie . . .	42	+10	2.4	+1.7
Tucson . . .	50	- 8	1.3	+1.2	Flint . . .	41	+11	1.9	+1.4	Harrisburg . . .	48	+ 8	.5	-.3
Winslow . . .	44	- 2	.4	+ .3	Grand Rapids . . .	42	+10	1.4	+ .9	Philadelphia . . .	52	+11	.6	-.3
Yuma . . .	59	+ 4	.1	0	Houghton Lake . . .	36	+10	1.1	+ .7	Pittsburgh . . .	49	+13	2.5	+1.8
ARK. Fort Smith . . .	56	+ 5	.8	0	Lansing . . .	39	+ 7	2.0	+1.5	Scranton . . .	44	+ 8	1.0	+ .3
Little Rock . . .	58	+ 7	1.8	+ .8	Marquette . . .	33	+ 7	.7	+ .3	R.I. Providence . . .	49	+12	.7	-.2
CALIF. Bakersfield . . .	53	- 4	.1	-.2	Muskegon . . .	41	+ 8	1.0	+ .5	S.C. Charleston . . .	67	+10	.2	-.7
Eureka . . .	47	- 2	.9	-.4	S. Ste. Marie . . .	33	+10	.4	0	Columbia . . .	65	+11	.6	-.4
Fresno . . .	50	- 5	T	-.4	MINN. Duluth . . .	31	+10	.3	0	Greenville . . .	59	+ 8	1.9	+ .8
Los Angeles . . .	58	- 2	0	-.4	Internat'l Falls . . .	30	+11	.8	+ .6	S.D. Aberdeen . . .	38	+11	.6	+ .4
Red Bluff . . .	50	- 4	T	-.7	Minneapolis . . .	41	+14	.4	+ .1	Huron . . .	40	+12	.6	+ .4
San Diego . . .	58	- 1	.1	-.3	Rochester . . .	40	+13	.9	+ .6	Rapid City . . .	33	+ 2	2.1	+1.9
San Francisco . . .	52	- 2	T	-.7	St. Cloud . . .	37	+12	.3	0	Sioux Falls . . .	41	+11	1.1	+ .8
Stockton . . .	51	- 3	0	-.5	MISS. Jackson . . .	65	+ 9	.6	-.7	TENN. Chattanooga . . .	55	+ 4	7.5	+6.2
COLO. Denver . . .	42	+ 6	.6	+ .4	Meridian . . .	64	+ 7	2.7	+1.2	Knoxville . . .	57	+ 7	6.3	+5.2
Grand Junction . . .	43	+ 2	.1	-.1	MO. Columbia . . .	47	+ 8	1.1	+ .6	Memphis . . .	56	+ 5	2.2	+1.1
Pueblo . . .	45	+ 5	.4	+ .3	Kansas City . . .	49	+ 4	1.3	+ .8	Nashville . . .	56	+ 7	4.0	+2.8
CONN. Bridgeport . . .	45	+ 7	1.4	+ .5	St. Louis . . .	51	+ 9	.7	+ .1	TEX. Abilene . . .	58	+ 3	T	-.2
Hartford . . .	49	+13	.8	0	Springfield . . .	51	+ 7	.7	+ .1	Amarillo . . .	51	+ 4	T	-.2
D.C. Washington . . .	57	+12	.3	-.4	MONT. Billings . . .	39	+ 5	.3	+ .1	Austin . . .	62	+ 3	1.1	+ .6
FLA. Apalachicola . . .	66	+ 5	.4	-.6	Glasgow . . .	37	+11	T	-.1	Beaumont . . .	65	+ 4	.2	-.6
Daytona Beach . . .	72	+ 8	.3		Great Falls . . .	38	+ 8	T	-.2	Brownsville . . .	71	+ 3	T	-.2
Ft. Myers . . .	73	+ 5	.1	-.5	Havre . . .	40	+14	T	-.1	Corpus Christi . . .	68	+ 3	.1	-.2
Jacksonville . . .	71	+ 9	.2	-.6	Helena . . .	37	+ 8	T	-.2	Dallas . . .				
Key West . . .	77	+ 5	.2	-.2	Kalspell . . .	39	+ 7	T	-.2	Del Rio . . .	65	+ 2	T	-.2
Lakeland . . .	72	+ 5	.3	-.7	Miles City . . .	40	+ 9	T	-.1	El Paso . . .	51	- 4	.1	0
Miami . . .	76	+ 5	.4	-.1	Missoula . . .	37	+ 4	T	-.2	Fort Worth . . .	60	+ 4	.1	-.4
Orlando . . .	74	+ 8	.4	-.3	NEBR. Grand Island . . .	43	+ 8	.4	+ .1	Galveston . . .	66	+ 5	.1	-.6
Tallahassee . . .	68	+ 7	.6	-.6	Lincoln . . .	43	+ 5	.6	+ .2	Houston . . .	63	+ 5	.6	0
Tampa . . .	72	+ 6	.3	-.5	Norfolk . . .	42	+ 9	.8	+ .5	Lubbock . . .	55	+ 4	T	-.1
W. Palm Beach . . .	75	+ 5	.2		N. Platte . . .	42	+ 7	.8	+ .6	Midland . . .	54	- 1	.1	0
GA. Atlanta . . .	60	+ 9	2.6	+1.3	Omaha . . .	45	+11	.5	+ .2	San Angelo . . .	59	+ 2	.1	-.1
Augusta . . .	65	+10	.3	-.7	Valentine . . .	40	+ 9	1.1	+ .9	San Antonio . . .	65	+ 4	.2	-.2
Macon . . .	67	+10	1.1	-.1	NEV. Ely . . .	27	- 6	.9	+ .7	San Antonio . . .	68	+ 5	.4	-.1
Savannah . . .	69	+11	.3	-.6	Las Vegas . . .	51	- 4	.2	+ .1	Victoria . . .	60	+ 2	.2	-.3
HAWAII. Hilo . . .	74	+ 3	4.9	+1.4	Reno . . .	35	- 6	.1	-.1	Waco . . .	60	+ 6	T	-.3
Honolulu . . .	76	+ 3	.1	-.6	Winnemucca . . .	35	- 3	.2	0	Wichita Falls . . .	60	+ 6	.1	-.1
Kahului . . .	76	+ 5	.4	-.7	N.H. Concord . . .	40	+ 8	1.1	+ .4	UTAH. Blanding . . .	38	- 1	T	-.1
Lihue . . .	75	+ 5	.4	-.7	N.J. Atlantic City . . .	54	+13	.4	-.5	Salt Lake City . . .	40	- 1	1.3	-1.0
IDAHO. Boise . . .	40	- 2	T	-.3	Trenton . . .	51	+ 9	1.0	+ .2	VT. Burlington . . .	41	+14	1.5	+1.1
Lewiston . . .	43	0	.1	-.2	N.MEX. Albuquerque . . .	46	+ 1	.4	+ .3	VA. Lynchburg . . .	59	+14	1.7	+1.0
Pocatello . . .	34	- 2	.3	+ .1	Roswell . . .					Norfolk . . .	63	+15	.4	-.4
ILL. Cairo . . .	54	+ 6	1.1	0	N.Y. Albany . . .	44	+12	1.0	+ .4	Richmond . . .	61	+13	.9	+ .1
Chicago . . .	44	+ 8	.9	+ .3	Binghamton . . .	41	+10	1.1	+ .5	Roanoke . . .	57	+12	1.4	+ .6
Moline . . .	46	+11	.7	+ .2	Buffalo . . .	42	+11	2.1	+1.4	WASH. Colville . . .	38	+ 1	.2	-.1
Peoria . . .	47	+10	1.4	+ .8	New York . . .	48	+ 7	.7	-.3	Omak . . .	39	- 1	.1	-.1
Rockford . . .	44	+10	1.4	+ .9	Rochester . . .	43	+11	2.1	+1.4	Quillayute . . .	41	- 2	4.6	+2.0
Springfield . . .	48	+ 8	1.1	+ .5	Syracuse . . .	45	+13	1.9	+1.1	Seattle-Tacoma . . .	41	- 3	.5	-.4
IND. Evansville . . .	52	+ 7	1.8	+ .9	N.C. Asheville . . .	56	+10	4.5	+3.6	Spokane . . .	38	0	.3	-.1
Ft. Wayne . . .	45	+ 9	2.0	+1.4	Charlotte . . .	61	+11	1.2	+ .2	Walla Walla . . .	46	0	.3	-.1
Indianapolis . . .	47	+ 8	1.0	+ .3	Greensboro . . .	60	+13	1.5	+ .7	Yakima . . .	44	+ 2	T	-.2
South Bend . . .	46	+11	.8	+ .2	Hatteras . . .	60	+ 9	.8	-.2	W.Va. Beckley . . .	52	+12	2.1	+ .9
IOWA. Burlington . . .	47	+10	.5	-.1	Raleigh . . .	64	+14	.3	-.5	Charleston . . .	54	+10	1.2	+ .2
Des Moines . . .	45	+12	.7	+ .3	Wilmington . . .	66	+12	.5	-.4	Huntington . . .	54	+10	.6	-.3
Dubuque . . .	44	+12	1.0	+ .4	N.DAK. Bismarck . . .	37	+11	.4	+ .3	Parkersburg . . .	53	+11	1.4	+ .7
Sioux City . . .	44	+11	1.3	+1.0	Fargo . . .	37	+11	.8	+ .7	WIS. Green Bay . . .	40	+12	.7	+ .4
KANS. Concordia . . .	46	+ 6	.4	0	Williston . . .	37	+13	T	-.1	La Crosse . . .	42	+12	1.9	+1.5
Dodge City . . .	46	+ 4	.4	+ .1	OHIO. Akron-Canton . . .	49	+12	2.8	+2.0	Madison . . .	43	+14	.9	+ .5
Goodland . . .	43	+ 7	.3	+ .1	Cincinnati . . .	51	+11	1.7	+ .8	Milwaukee . . .	42	+11	1.2	+ .6
Topeka . . .	48	+ 7	.7	+ .3	Cleveland . . .	46	+11	2.0	+1.3	WYO. Casper . . .	32	0	.4	+ .2
Wichita . . .	50	+ 6	.2	-.1	Columbus . . .	52	+13	1.6	+ .9	Cheyenne . . .	34	+ 2	1.1	+ .8
KY. Lexington . . .	54	+11	1.8	+ .7	Dayton . . .	49	+11	1.6	+1.0	Lander . . .	28	- 4	1.4	+1.2
Louisville . . .	54	+11	2.1	+1.0	Toledo . . .	44	+ 9	1.8	+1.3	Sheridan . . .	33	+ 3	.7	+ .4
										P.R. San Juan . . .	77	+ 2	.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: Temperatures far above normal until sharp change to colder weekend. 80's over most of State Tuesday, Wednesday, and Thursday. Coolest Sunday morning, 30's statewide, lowest 30° at Pinson. Torrential rains, the heaviest in many years, set off major flash flooding north Thursday night and Friday. Widespread 5.00- to 8.00-inch rains with 9.50 inches at Russellville and Double Springs. Russellville, in Franklin County, now 12.38 inches for month to date. Much less rainfall in south, diminishing to less than 0.50 inch extreme south. Several tornadoes central and northeast Friday but clearing statewide Saturday. Excessive rains washed fields and flooded lowlands in north causing cropland damage and livestock losses. Stockmen in Tennessee Valley spent considerable time rescuing and protecting livestock from flood waters. Only limited progress made preparing land for planting early in week. Continued wet weather has thrown land preparation behind schedule. Limited amount corn planted Baldwin County with earliest plantings up to an even stand. Small grains excellent condition, many low-lying fields in northern counties could be lost from flood waters. Growers sidedressed and sprayed Irish potatoes in Baldwin, Mobile, Escambia County area. Planting of Sand Mountain potatoes halted by rain. Supplemental feeding of cattle reduced as clovers and fescue pastures provided good grazing south and central.

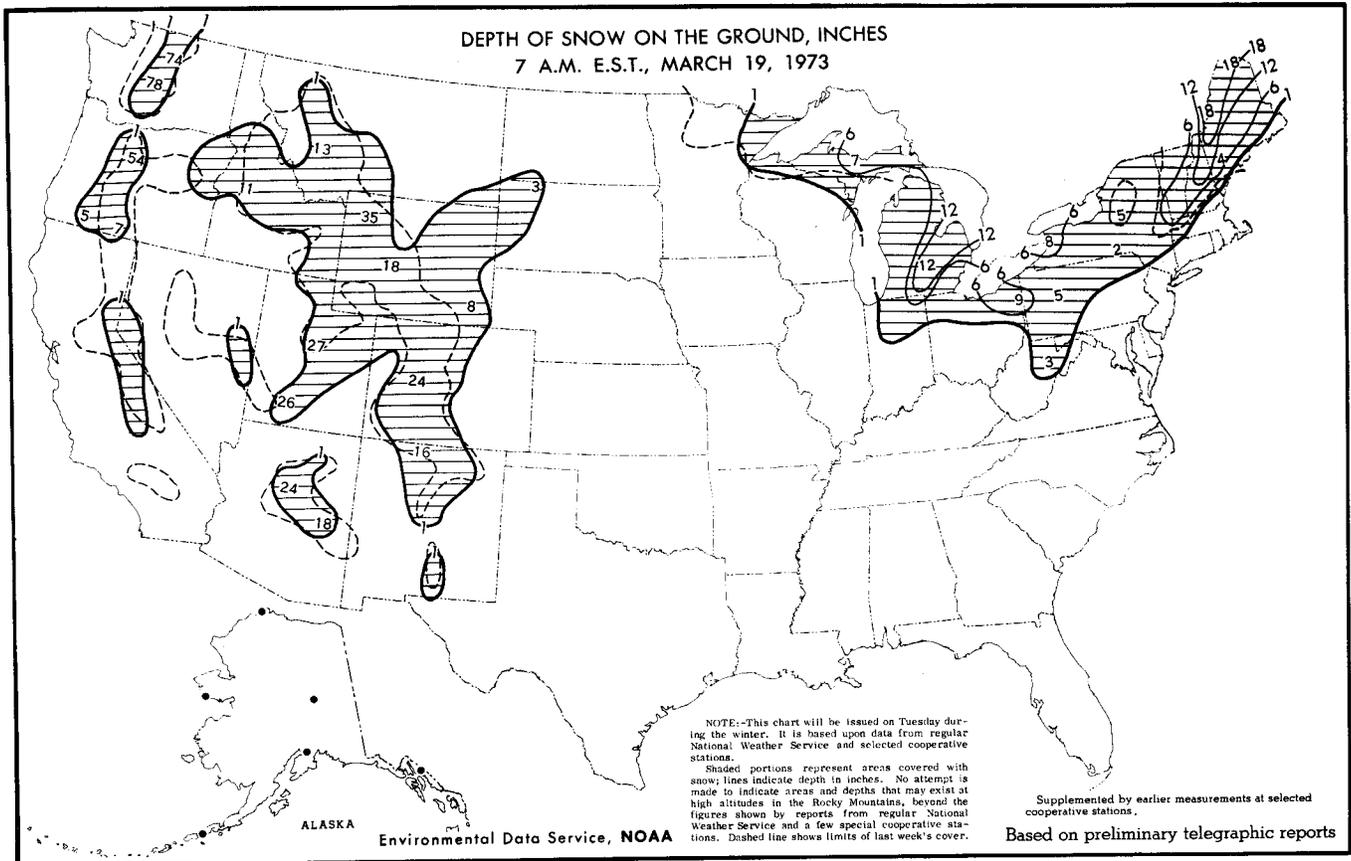
ARIZONA: Temperatures were much below normal over the State. A Pacific storm brought precipitation to most of State with snow above about 5,000 feet. Maximum water totals of nearly 3.00 inches occurred in White Mountains with up to 2.00 inches along Mogollon Rim. Rains, low soil temperatures delayed planting, stand establishment of cotton. Small grains good progress, boot stage Yuma area. Safflower growth satisfactory. Sugar beet planting Cochise County delayed due to rain, good progress Yuma. Sorghum planting, preparations delayed by rain Yuma. No activity Pima County due wet ground. Alfalfa hay harvest Yuma County as weather permits, no harvest Graham County. Harvest lettuce delayed slightly Yuma area wet fields, cutting in full swing end of week. Other spring lettuce areas making satisfactory progress. Early cantaloupes Yuma area up to good stands, planting later cantaloupes continues. Harvest Valencias, kinnows, small amount grapefruit continues Yuma, Salt River Valley. Ranges received rain, snow as largest storm of year moved through State. Many higher elevation ranges snowbound. Temperatures higher elevations too cold to promote growth new feed. Desert ranges green, providing grazing. Cattle, calves fair to mostly good. Sheep, lambs moving off desert pastures.

ARKANSAS: Weekly mean temperatures 2° to 6° above normal. Highest 84° at El Dorado on 12th. Lowest 23° at Calico Rock in north-central section on 18th. Warm first half of week with cooling trend beginning midweek and warming trend weekend. Rainfall general over State but light in northwest and heavy in southeast. Largest amount, 7.02 inches at Arkansas City, most of which fell on 15th and 16th. Least reported 0.09 inch at Calico Rock. Elsewhere, most amounts generally from 0.50 to 1.75 inches. Rain and wet fields continue to limit fieldwork. Progress of land preparation far behind normal.

Some soybeans and cotton still in field. Small grains and cool season grasses up and growing. Good grazing provided in many areas. Fruit trees in bloom most areas--particularly peach. Livestock continue in fair to good condition.

CALIFORNIA: Average temperatures 2° to 6° below normal most areas, with greatest negative departures in mountains and desert basins. Locally moderate showers desert and south coast; light rains elsewhere. Precipitation totals for week were less than 1.00 inch except Sierra Nevada. Strong winds several days. Dry warm weather during week stimulated small grain growth, some field preparation and seeding noted at week's end. Digging overwintered sugar beets increasing on lighter soil. Most fields too wet for spring planting. Some cotton harvest continues in San Joaquin Valley, spring seeding slowly moving northward. First cutting alfalfa increasing. Active spraying for brown rot, shot hole and thrips in stone fruit and almonds and for cutworms in grapes. Applying final dormant sprays on apple trees. Application of herbicides when not prevented by wet soil. Bloom past peak most areas apricots, peaches and nectarines. Most prunes about full bloom. Possible light local damage from frost late in week, too early to assess. Walnuts and pears beginning bloom early areas. Thompson seedless grapes leafing out, other varieties buds swelling. Pruning and tying vines rapidly approach completion. Trench plowing and disking as weather permits. Dates being pollinated. Navel orange harvest continues as weather permits--percent marketable ranges very low in areas with heavy winter freeze damage to good in areas escaping freeze. Valencias being harvested Coachella Valley. Lemon packing active. Desert grapefruit movement slow. Desert grapefruit blooming. Avocado harvest continues, blooming early areas. Artichoke harvest increased momentum Castroville. Asparagus slowed wet fields. Broccoli, cauliflower light Salinas, continued San Joaquin. Cabbage increased San Diego, decreased Oxnard. Carrots harvested Riverside, Imperial. Celery harvest continues Oxnard, Orange County, ending San Diego. Lettuce begun Riverside, slowed Santa Barbara. Strawberry accelerating Los Angeles, Ventura Counties, field preparation underway Salinas. Cannery tomato plantings slowed wet weather, seeded plants doing well. Warm weather stimulating native pasture growth, supplemental feeding declining. Livestock in good condition, lambing-calving continues. Sheep shearing underway San Joaquin Valley. Turkeys being moved to ranges. Bee colonies moved from almond orchards as pollination completed.

COLORADO: Heavy snows and blizzard conditions crippled east and northeast sections of State midweek. Ten-foot drifts some areas east, several major highways including 3 interstate highways closed for 24 hours. Heavy snows also in mountains, with up to 20 inches reported in 24 hours at some sites. Midweek storm interrupted otherwise warm springlike week. Highs in mid-70's early in week and 60's late over eastern plains. Lows mid-20's and low 30's. Near normal temperatures in mountains and western slope. Rain and snow limited fieldwork. Soil moisture supplies adequate to sur-



plus statewide. Winter wheat and barley good to excellent condition--wind damage none to light, evidence winter freeze damage none to light. Wheat beginning to green up and made limited growth eastern plains. Field preparation for seeding of spring barley and oats limited by wet soils. Small acreage spring barley seeded eastern plains. Seeding of onions active Arkansas Valley. Range and pastures poor to fair, some greening local areas south-east. Supplemental feeding of livestock continued heavy statewide. Livestock condition poor to fair--calving and lambing progressing with death loss to newborns average or above.

FLORIDA: Temperatures rose into upper 80's and low 90's early week. Strong cold front on weekend dropped temperatures almost 20°. Weekly averages remained 5° to 8° above normal. Rainfall mainly accompanying front averaged 0.25 to 0.50 inch. Corn planting and tobacco transplanting underway. Small grains making good recovery from cool, wet February weather. Sugarcane harvest behind schedule with harvest expected to extend into May. Warm weather stimulated grass growth but depleted soil moisture which prevented maximum benefit. Grass fertilization very active. Cattle fair or better with decreasing levels of supplemental feeding. Citrus grove condition excellent. Rain beneficial; however, more needed. Hot, windy days causing dehydration. New growth abundant. Blooming rapidly progressing with many groves almost in full bloom. Warm nights and unseasonably hot days very beneficial for young spring vegetable crops. Planting of most crops essentially completed in peninsular areas but continues active in north-central, north, and west. Hot weather sharply reducing supplies of many leafy

vegetables in Everglades, Zellwood areas. Volume of most other commodities increasing as spring harvest approaches. Watermelon cutting expected in southwest area in early April.

GEORGIA: Continued unusually warm through Friday with highs reaching high 70's and low 80's all areas. Turning much cooler Friday night and continued cool through weekend. Lows dropped to below freezing extreme north and to low 40's extreme south Sunday and Monday mornings. Averages were 8° to 10° above normal. Heavy to excessive rains in north Thursday night and Friday damaged roads and other property. Several small tornadoes in northwest Friday. Rainfall exceeded 5.00 inches parts of extreme north but decreased sharply to south and only light amounts fell in south Georgia. Soil moisture excessive except southwest. Land preparation active southern area until rains returned near weekend. Small grains fair in southwest, excellent in east, and fair to good elsewhere. Topdressing continues but nearing completion. Tobacco beds good--transplanting underway early due to advanced stage of plants. Peaches in full bloom. Livestock fair to good with more spring grazing becoming available.

HAWAII: Rainfall ranged light to heavy mainly in mountain areas. Low temperatures affecting growth and maturity. Winds stronger than usual--bruising damage expected on tender crops in exposed areas. Vegetable and fruit supplies adequate. Harvesting of sugarcane active. Pineapple harvesting light. Fire destroyed about 10,000 acres of pasture and rangeland on Island of Hawaii. Cattle in fair to good condition.

IDAHO: Temperatures for the week showed a greater range than normal. Lowest temperatures fell to the teens most stations east and to 6° Fairfield. Average was near normal except 2° to 4° below normal east. Precipitation was slightly less than normal north, southwest, and west portion of south-central and above normal east. Totals ran between 0.50 and 1.00 inch southeast. Spring fieldwork was mostly unhindered by weather and is increasing as soils become workable in east. Considerable activity in north with aerial application of fertilizer and herbicides. Cattle branding, vaccination active in preparation for movement to early spring ranges.

ILLINOIS: Another mild wet week. Temperatures averaged 6° to 10° above normal with maximum readings getting into the 60's and 70's during early and midweek. Precipitation totals commonly exceeded 1.00 inch with amounts at some locations exceeding 3.00 inches and resulting in flooding. Part of this precipitation came in the form of 1.00 to 2.00 inches of snow in central and northern Illinois on the 16th. Winter wheat, other small grains, legumes, and fruit trees in good condition. Livestock in good condition, but muddy feedlots caused some problems. Pastures started to supply some feed. Spring farrowings progressed well. Soil moisture 88% surplus, 12% adequate. Major activities included livestock care, machinery repair, fencing, routine farm chores, general planting preparation, and limited fieldwork. Most areas too wet for plowing and seeding.

INDIANA: Very warm until weekend. Temperatures average 8° to 11° above normal and ranged from 75° on 13th to 24° on the 19th. Snowstorm in northeast over weekend. Fort Wayne reported 6 inches. Some roads closed by drifts. Fieldwork continued to be limited by wet soils, but outside work accomplished under springlike conditions. Caring for livestock, chores and readying equipment remained the major activities of farmers.

IOWA: A warm wet week. Temperatures averaged 8° to 12° warmer than normal with maxima in 60's in early week. Keokuk reported a high of 70° on the 14th. Moderate to heavy showers fell 13th to 14th. Thereafter precipitation was light. Most streams full to out of banks. With frost out or going out of ground, road and field conditions improved.

KANSAS: Intense storm March 13 and 14 brought light to moderate rain to most of Kansas. Very strong winds and scattered tornadoes accompanied the storm. Winds during storm generally 20 to 30 m.p.h. gusting to over 50. Mostly fair weather after midweek. Weekly precipitation totals variable 0.10 to 1.00 inch. Unseasonably warm 12th with maxima in 70's. Cool March 15 and 16 warming to 50's, 60's and 70's by weekend. Weekly means averaged above normal. Oats and barley seeding far behind normal due to muddy fields. By March 17, oat seeding 7% completed compared with 55% year ago and average of 33%. Spring barley 9% seeded compared with 36% last year and average of 17%. Little spring fieldwork done. Wheat made good growth most areas with ground cover improved. Soil borne mosaic in many central and eastern fields indicates need for dry warm weather. High winds western areas 13th caused minor soil blowing but little damage to wheat. Additional cattle placed on wheat pastures. Brome and other cool season grasses provided some green feed eastern areas. Supplemental feeding of livestock still relatively heavy. Recent rains kept feedlots muddy, tending to limit gains.

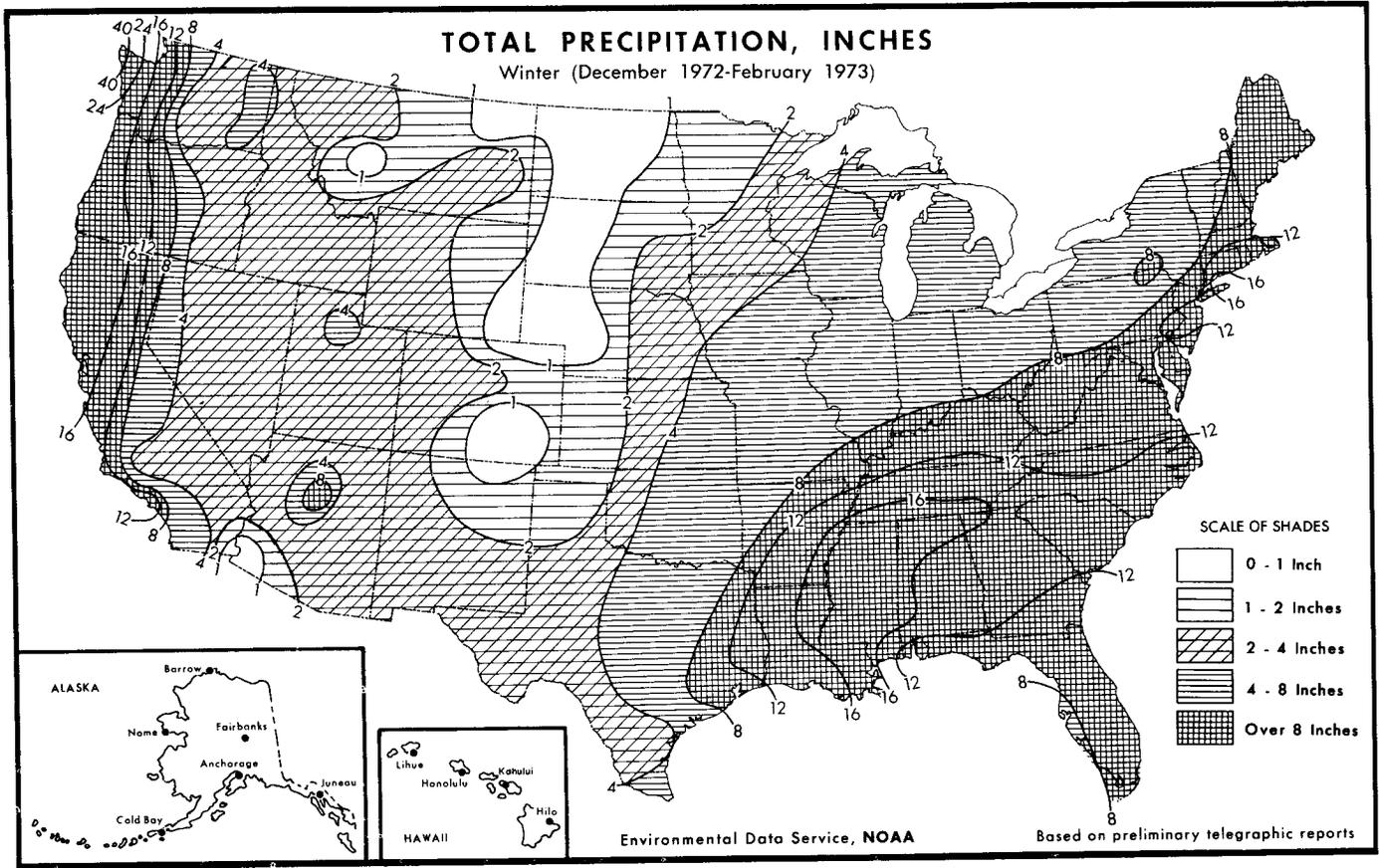
KENTUCKY: Temperatures averaged 7° to 12° above normal. Precipitation, mostly rain, about 0.75 inch in northeast; elsewhere 1.50 inches to more than 4.00 inches, heaviest in southeast. Flooding along Upper Cumberland in southeast over weekend. Temperatures that had been unseasonably mild to warm since March 1, fell to below normal over weekend. Maxima in 70's and 80's on 14th, new records several locations. Minima in upper 20's to low 30's on 18th. Mostly sunny 3 days; cloudy with precipitation on 4 days, 14th to 17th. Snow flurries on 17th, 1 inch on ground at Covington in northern Bluegrass morning of 18th. Soils saturated, too wet to plow. Vegetative growth well advanced, at least 2 weeks ahead of normal. Some damage expected from low temperatures over weekend, especially to fruit and small legumes. Peaches budding to full bloom in south and west; bloom heavy, hence some loss not too serious. Winter grain growth rapid, some 12 inches high in west. Pastures greening, starting to furnish livestock roughage and relieve short hay supplies.

LOUISIANA: Warm and windy through Thursday. Cool front with generous showers Thursday and Friday. Clear and mild weekend. Temperatures averaged 4° to 9° above normal. Extremes 86° Monday and Thursday at several stations and 39° at Shreveport Saturday and Alexandria Sunday. Precipitation moderate to excessive north and central. Weekly totals 1.00 to more than 4.00 inches. Lighter rains south with totals mostly 0.25 to 1.00 inch. Greatest 24-hour rain total, 4.60 inches, measured St. Joseph Friday morning. Land preparation and planting further delayed by excessive moisture. Torrential rainfall late in week flooded many low areas in central and northern parishes and increased threat from high waters. Some scattered plowing and cultivation of sugarcane first part of week, also some water planting of rice. Some topdressing of pastures on well-drained land. Winter pastures made excellent growth and furnished good grazing except where boggy or under water. Pasture feed average. Livestock in fair to good condition.

MARYLAND AND DELAWARE: Unseasonably warm temperatures averaging 12° to 21° above seasonal through the week. Extreme highs ranged from low to mid-70's on 12th and 16th. Lows in low 30's 10th and 14th. Precipitation less than 0.25 inch Eastern Shore and Delaware to 0.25 to 0.75 inch mostly 15th and 16th. Temperatures near 70° early Saturday, 17th, then fell sharply late in the day with onset of high winds. Precipitation Saturday 0.25 to 0.75 inch with to 6 inches snow in ridges western counties. Grain and hayfields showing new growth and are in good condition except for water damage in low spots. Plowing for early vegetable crops pushed as fields dry. Most tobacco beds seeded and plants are up in early beds. Peach buds well advanced and weekend low temperatures could damage some buds--too early to determine effect on crop prospects.

MICHIGAN: Continued mild, warmest midweek with maximums in 50's and 60's. Precipitation scattered throughout week, heaviest totals over weekend fell as 15 to 20 inches snow from Saginaw Bay-Thumb area southwestward to south-central Lower Peninsula. Extensive flooding of lowlands Saginaw Bay and Monroe County areas. Temperatures averaged 7° to 12° above normal. Precipitation: Less than 0.10 inch west to 0.30 inch in east Upper Peninsula; 0.40 inch in northwest increasing to over 2.00 inches south-central Lower Peninsula.

(Continued on page 10)



WINTER WEATHER
(December 1972 to February 1973)

TEMPERATURE: Most Americans enjoyed a mild winter this year. Temperatures throughout the Northeast and westward through Ohio, Wisconsin, the Dakotas averaged above normal, while the South, southern Great Plains, and Rocky Mountain areas had a colder than usual winter.

Winter centered itself in about the middle of Wyoming, where the temperatures averaged lowest from the mean.

December ushered in a fairly typical burst of cold weather, which covered most of the nation, except for the Gulf Coast. Bitter cold gripped the West and the mercury fell to -40° at West Yellowstone, Mont. At midmonth, winter remained its usual self--cold, strong winds, ice, snow, over much of the Nation.

However, in December's third week a warming trend thawed many parts of the country and as the Christmas weekend approached, the western Great Plains had temperatures in the 40's and 50's.

January temperatures averaged warmer than normal from the Pacific Northwest to New England. Northern Montana averaged 8° more than normal for the month. Winter did, however, hold out on the western slopes of the Rocky Mountains, where intensely cold temperatures averaged from 6° to 12° below normal. Also, the South, with the exception of southern Florida, averaged temperatures cooler than normal.

February temperatures averaged warmer than normal over the Far West and the northern and central Great Plains. Parts of the northern Great Plains averaged 6° higher than normal.

The Rocky's western slopes again led the Nation for getting colder than normal; middle

Wyoming averaged 9° below the normal.

Colder than usual weather also blanketed the South and all but the coastline areas in the Northeastern States. A cold high centered north of Lake Superior brought subzero weather to northern New England and northeastern New York as the month ended.

PRECIPITATION: Most of the Nation received normal precipitation this winter. Northern Maine, parts of the Carolinas and Georgia, southern Florida, parts of Texas and the Southwest, plus sections of Iowa and California did, however, get 50 percent or more over normal.

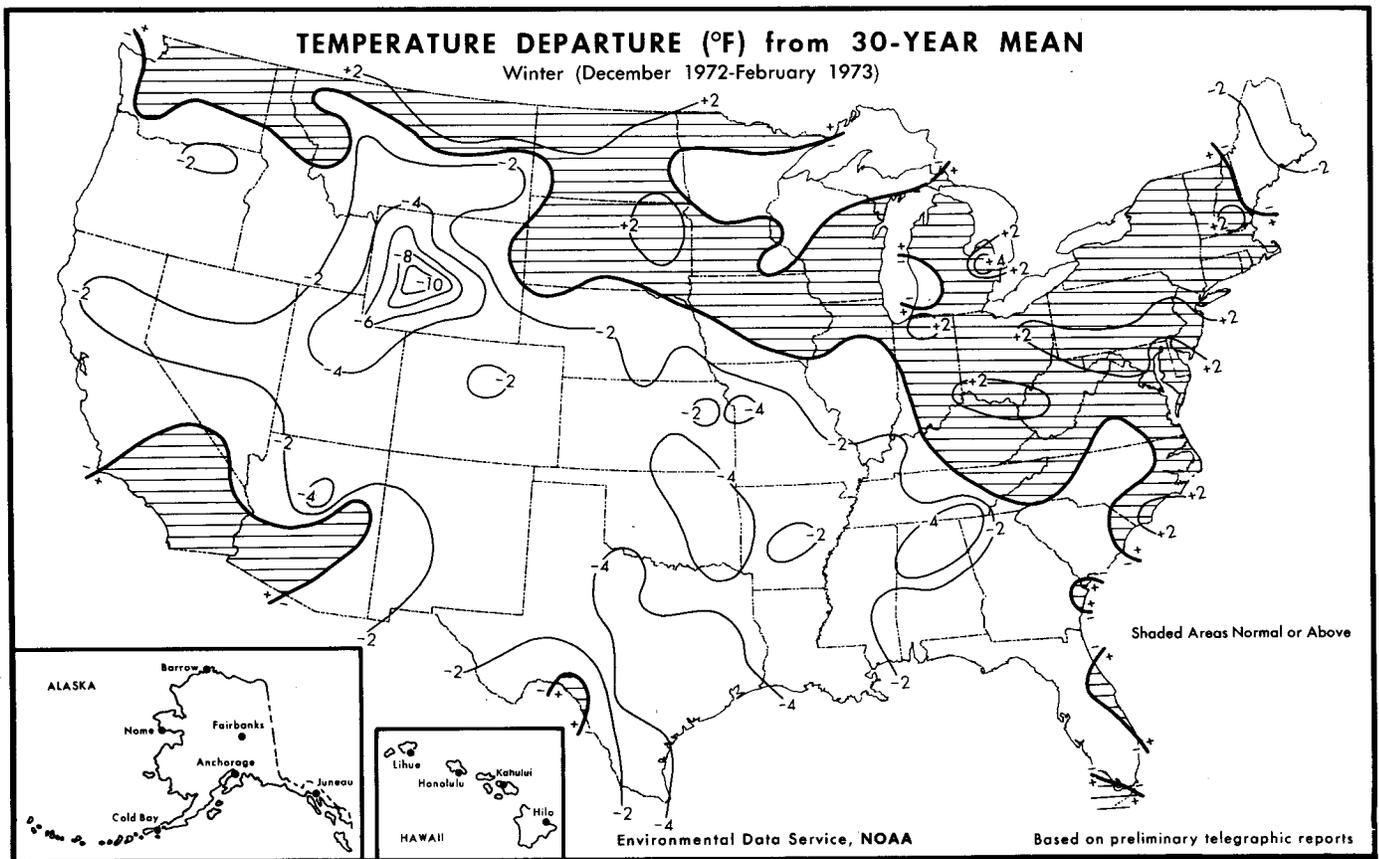
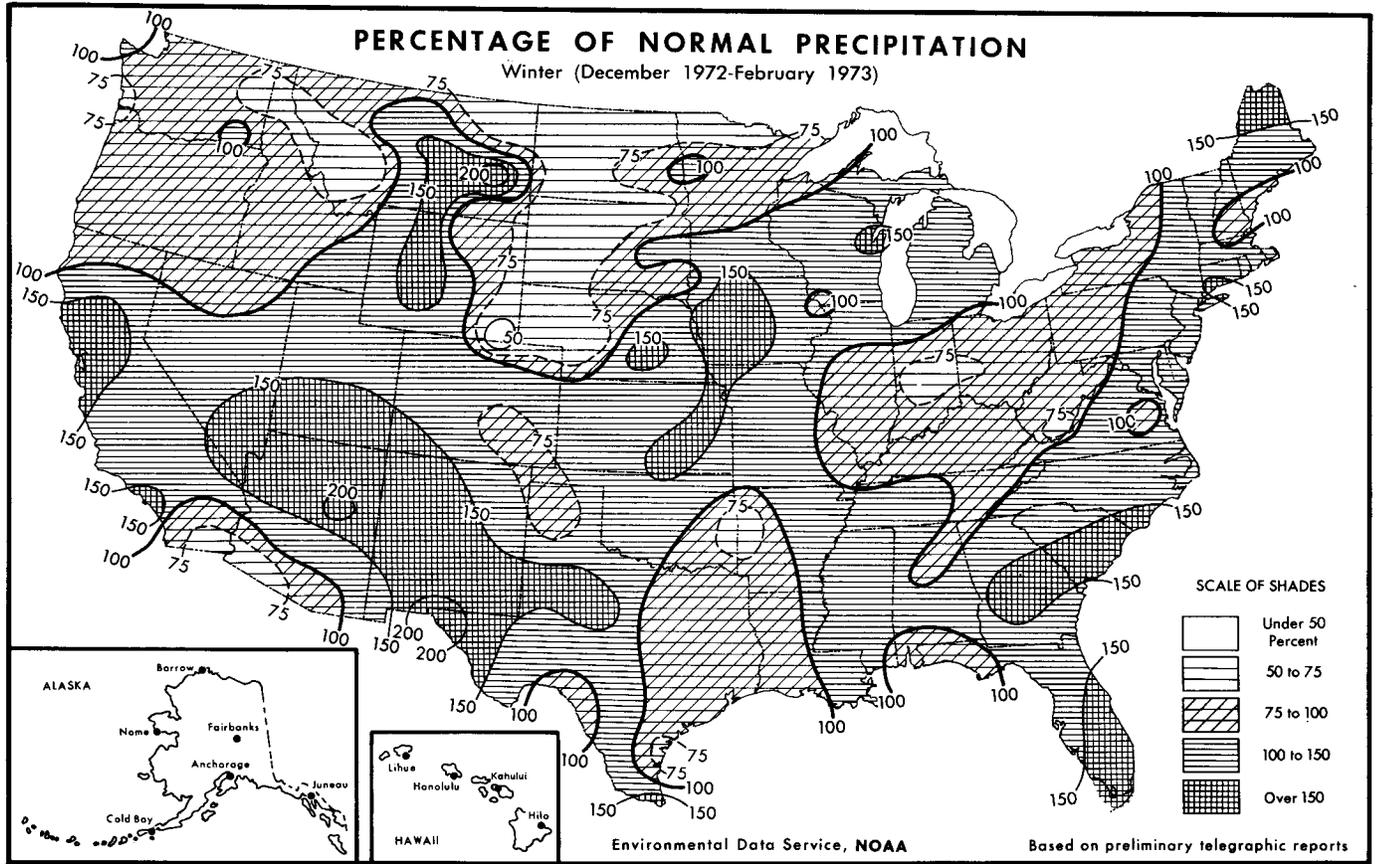
During the first few days of December, heavy snow blanketed the Northeast, while a lighter snow covered the Nation's midsection from the upper Mississippi River Valley to the northern Rockies. By the end of December's first week, snow spread over Washington and the northern California mountains.

Rain drenched the South and heavy fog shrouded parts of the Southeast some mornings.

December continued stormy over much of the Nation: Rain in the Northwest, freezing rain in the Washington and Oregon interiors, and thunderstorms over the South. On New Year's Eve, a severe blizzard blocked roads in the central Great Plains. In the southern Great Plains, rain was sandwiched between snows. The glaze broke tree limbs and power lines and made travel dangerous.

Stormy weather persisted during January's first week over much of the Nation, followed by a week of variable weather. The month ended with

(Continued on page 10)



(Precipitation continued from page 8)

freezing rain over the central Great Plains, and tornados in Texas, Arkansas, Mississippi, and central Florida.

February started with rain in New England and snow from southern Alabama to southern Virginia. A freak storm crossed Florida and dumped once-in-a-century amounts of snow from Alabama to North Carolina, with lesser amounts on other southern States. Freezing rain mixed with snow formed a sheet of ice 3 to 4 inches thick, closing schools, businesses, roads, and bridges. From 12 to 20 inches of snow filled parts of Georgia, Alabama, and South Carolina.

Toward midmonth 20 inches of snow hit southern Arizona and a blizzard hit Michigan. Houghton, Mich., measured 25 inches of snow on the ground on February 15. Later in the month, Arizona got more snow. The late February storm heaped 11.5 inches on Flagstaff, Ariz., bringing the season's total there to 116.7 inches--the greatest amount in more than two decades.

As the month ended, rain wet the Pacific Coast, turning to snow inland, fog covered the Great Plains, and rain dampened the middle Mississippi Valley.

John Ryan

(Continued from page 7)

MINNESOTA: Temperatures averaged 12° above normal. Extremes: 67°, 12°. Precipitation 0.50 to 1.00 inch northwest, north-central, and the three southern districts. Rest of State received generally less than 0.50 inch. Snow depths: Snow generally gone except forested areas where over 6 inches.

MISSISSIPPI: Second week average temperatures above normal: Range of 8° to 14° above normal. Severe weather has plagued much of northern 2/3 of State. Weekly rainfall amounts were up to 12.00 inches as 3 to 5 days of rain spread north of a line from south of Vicksburg to Meridian. Flash flooding occurred in several locations on 15th and 16th. At beginning and ending of week tornadoes, funnel clouds, wind damage, small hail, and heavy rains were reported; injuries were reported on 11th. Some March 24-hour and monthly precipitation records have been broken. Over weekend, more rain, with 2.72 inches at Meridian, greatest reported; by Sunday mostly fair. Governor estimated flood damages over \$10 million. Soil moisture southern portion of State adequate to excessive. Days suitable for fieldwork averaged 0.9 day, down from 1.5 days previous week and 2.9 days a year earlier. Cotton and soybean acreage harvested remained unchanged at 96%. Plowing at a standstill. Wheat and oats in fair to good condition. Peaches, truck crops, pastures, and livestock in mostly fair condition. Major farming activities: Feeding livestock, repairing equipment, and trying to control flood waters.

MISSOURI: Another warm week. Temperatures averaged from 6° to 12° above normal, and 3d straight week of above-normal conditions. Heavy rains in excess of 4.00 inches reported at start of week in southeast. Additional rains midweek, amounts ranging from under 0.50 inch west to over 1.00 inch some portions of central Missouri. Strong westerly winds blew during the last half of week which helped dry out soggy fields.

MONTANA: Temperatures averaged 4° to 13° above normal. Maximum temperatures in 50's and 60's at end of week with slight cooling over weekend.

Very windy over most of the area Friday and Saturday. First significant storm in months brushed extreme southeast portion with over 1.00 inch of precipitation at Broadus. Precipitation confined to southern portion of State. Topsoil moisture short north-central and central, fair to good elsewhere. Winter wheat condition fair north-central, poor to fair central, fair to good elsewhere. Winter wheat still dormant western 1/3, greening scattered areas remainder. Field tillage work started portions central 1/3 and southeast. Losses of newborn calves and lambs range from lighter than normal to normal. Calving and lambing 30% complete, shearing 45% complete. Ninety percent cattle and calves and 95% sheep and lambs receiving supplemental feed.

NEBRASKA: Major storm 13th and 14th lashed State with strong winds and much precipitation. Heavy wet snow drifted and isolated communities near Wyoming border. East and central had local rains of up to 1.00 inch and small hail. Average temperatures near normal west to 10° above normal along Missouri River. Dry weekend. Fields remained very muddy during week. No progress in harvesting corn and sorghum. Strong winds some areas caused additional crop damage in fields. Wheat crop continues good to excellent condition. Blizzard conditions in Panhandle caused some livestock losses - mostly calves and newborn sheep.

NEVADA: Temperatures 2° below normal northeast to 6° below normal extreme south. Precipitation general over State; Ely reported 1.26 inches; Yucca, 0.98 inch. Light to moderate snow as far south as Yucca; Ely 6 inches, Yucca 3 inches. Seedbed preparation continues in local areas as fields become dry enough to work. Livestock in generally good condition. Calving and lambing progressing favorably, no unusual death losses although predatory animals numerous. Most lower ranges now green, causing cattle to scatter, thus marking end of another winter feeding season.

NEW ENGLAND: Unseasonably warm for second week in row but returning to normal levels at close of week, means mostly 9° to 14° above normal. A few maxima in 70's on 12th and 16th. Dry first half of week, with daily precipitation latter half. Heavy rains Saturday, followed by snow flurries and quite windy Sunday with some snow accumulations in higher elevations of north. Total precipitation mostly 1.00 to 2.00 inches, with some less in extreme south and some heavier in central sections. With minimum temperatures most locations above or close to freezing, it was not a good week for maple sugaring operations.

NEW JERSEY: An abnormally warm week with temperatures averaging from 8° to 14° above normal. Maximum readings early in week and midweek reached the low or middle 70's throughout State. A sharp turn back to normalcy brought temperatures into the mid-20's over the weekend with maxima Sunday in 30's and 40's. Rainfall averaged 1.00 inch over northern 1/3 of State and 0.80 inch in other areas. Totals varied from 0.26 inch at Newark to 1.66 inches at Long Branch. High winds on 17th and 18th caused some damage in many areas of State.

NEW MEXICO: Mostly light showers first half of week, then clearing. Eastern Plains were nearly rainless. Temperatures averaged much below normal except in northeast. Cooling early in week until warming weekend. Minimum temperatures mostly on Thursday and Friday. Highest daytime tempera-

tures on weekend. Field condition mostly wet north, drying south. Field preparations progressing slowly. Winter wheat, barley responding well warmer weather. Grazing moderate. Vegetables doing well. Livestock generally good, calving active. Ranges fair to good.

NEW YORK: Unseasonably warm from 12th until passage of sharp cold front and very deep low pressure system on 17th. Maximums mostly 50's to mid-60's through 16th, but ranging from 40's on 13th up to 75° at Rochester on 15th. On 17th maximums ranged from 38° at Buffalo to 71° at Ithaca. Much colder all sections on 18th as maximums in upper 20's western half. Weekly precipitation totaled near 2.00 inches Great Lakes Plain with heavy showers 14th, 16th, and 17th followed by 3 to 8 inches of snow on 18th. Weekend precipitation totaled 0.30 to 0.80 inch southeastern quarter with traces of snow. Considerable flooding and property damage along Lake Ontario in vicinity of Rochester on weekend due to strong northerly winds and high lake levels. Mean temperature for March through 16th in western sections close to normal mean temperatures month of April.

NORTH CAROLINA: Very warm, turning cold over weekend. Highest of period in 80's, lowest near freezing. 16th and 17th stormy, strong winds all areas; rains 2.00 to 6.00 inches and flash floods mountains. Rain diminishing eastward, totals 1.00 to 2.00 inches central, 1.00 inch or less east. Field activities increased during early week as summerlike weather visited the Tarheel State. Rains near the end of week kept moisture supplies in mountains and Piedmont surplus; supplies in the Coastal Plains were adequate to surplus. Much progress was made in seeding tobacco plantbeds, which are in good condition. Cleanup soybean harvest active -- very little acreage remains for harvest. Small grains good, topdressing active as fields dry. Pastures lush.

NORTH DAKOTA: Temperatures averaged 10° to 15° above normal. Fourth consecutive week of much above normal temperatures. Precipitation falling partly as snow first half of week totaled over 1 inch in southeast and south-central areas. Light precipitation fell along a line extending from southwest to northeast corner of State with little or none northwest 1/3 of State. Yards and driveways are soft making care of livestock difficult. Feed supplies adequate. Farmers preparing machinery and readying supplies for spring fieldwork. Some fieldwork started in southeast counties past week.

OHIO: A return to winter in Ohio this week. On the 13th, high temperatures just reached the 70's. On the 14th and 15th many new records for high temperatures were set as the mercury climbed to 80's on the 14th and upper 70's on the 15th. From the 15th to 18th high temperatures were mostly in the 40's. Low temperatures ranged from the upper 20's to the 60's during the week. Heavy rains on the 13th and 14th brought flash flooding to portions of Ohio. More rain, strong winds, and snow occurred on the 16th and 17th. There was major flooding in the Toledo area; in Williams County drifts 4 to 5 feet high observed. In Northeastern Ohio 5 to 14 inches of snow fell with much drifting. Winds of 50 miles per hour caused near blizzard conditions on the 17th. There was also some minor flooding along the southern and western shores of Lake

Erie. Heavy rains at midweek, coupled with blizzard-like conditions of snow and high-gusting winds, held farm activities to a minimum. Drifted farm yards made care and movement of livestock difficult. Blowing snow and dropping temperatures increased the time normally spent in caring for newborn calves and lambs. Weekend freezing has damaged some advanced fruit tree crops that were as much as 6 weeks ahead of normal. Some plowing and oat seeding activity occurred earlier in week. Farmers concerned about shortage of good quality soybean seed.

OKLAHOMA: Temperatures averaged 2° above normal south-central to 9° above normal northeast. Precipitation averaged from 0.10 inch in Panhandle to 0.50 inch in southeast. Small grain growth accelerated past week due to warm temperatures and abundant moisture. Fifteen percent of wheat jointing. Spring oats, barley up to stand on 1/3 of expected acreage. Wet soil continues to hamper seeding in east. Limited spring crop seedbed preparation. First corn planted central counties, Panhandle not planting yet. Fruit trees full bloom east. Early vegetable planting in progress, gardening in full swing. Range grasses beginning to green up; grazing very limited. Stocker-feeder cattle marketing heavy. Scattered reports of alfalfa weevil larvae south-central counties.

OREGON: Continued mild with moderate moisture west of Cascades while cool and light moisture prevailed east of Cascades. Temperatures averaged 3° above normal to 2° below normal. Weekly minimums 16° to 31° east and 28° to 39° west. Weekly maximums 51° to 67°. Weekly precipitation totals ranged from 0.02 to 0.45 inch east of Cascades, and 1.52 to 3.08 inches along the Coast, elsewhere 0.26 to 1.50 inches. Fall grains and hay crops are in fair to good condition. Usual amount of reseeding being done. Spraying and fertilizing continues. Sowing green peas for processing, some early plantings already up. Early potatoes being planted. Spring orchard work also continues. Filbert trees beginning to leaf out. Livestock in good condition, feed supplies short to adequate. Seed potatoes moving from storage.

PENNSYLVANIA: Another warm week until sharply colder weekend. Maxima 40's to 70's through Saturday, 20's and 30's Sunday. Minima 30's to 50's until teens and 20's Sunday and Monday. Weekly temperatures 8° to 10° above normal. Extremes: 79°, 14°. Showers and rain some area of State most days. Heaviest precipitation Wednesday night and early Thursday and over weekend. Totals for week 0.50 to 1.00 inch south and extreme east, 1.00 to 2.00 inches central, 2.00 to 3.50 inches north and west. Intense storm moved through western sections Saturday accompanied by showers, thunderstorms, and strong winds, and followed by much colder with widespread snow or flurries. Wind gusts 50 to 60 m.p.h. many areas. Snowfall trace southeast to over 1 foot northwest snowbelt. Much blowing and drifting in northwest. Snow showers continue into Monday morning. Snow cover Monday: None southeast, 1 to 3 inches central, up to about 12 inches parts of northwest.

PUERTO RICO: Heavy showers in eastern and western interior divisions gave an Island average rainfall of 1.31 inches or about 0.75 inch above normal. Highest weekly total 5.43 inches in eastern mountains. Little or no rain in south coast.

Crop moisture conditions generally near normal all divisions except parts of south too dry and agricultural drought is slowly intensifying. Eastern interior too wet in some zones due heavy showers which delayed some agricultural operations. Temperatures averaged 77° on coast and 71° interior zones with mean departure of about 1.0° below normal. Highest maximum temperature 92°; lowest minimum, 52°. Sugarcane harvesting progressed well except in northeast where some delays occurred due heavy rainshowers which also retarded maturing cane. Southern coffee plantations generally too dry and flowering affected, but other coffee zones too wet for optimum growth. Tobacco zones good progress harvesting and drying operations under favorable weather. Pasture zones in south deteriorating due lack of rain, but other zones generally good condition with cultivating and fertilizing of new fields progressing well. Minor crop zones need more rain to improve development and yields on market. Some zones preparing soil for planting. Planting of yams, taniers, and plantains made good progress in central-interior. Sigatoka disease has appeared in some areas.

SOUTH CAROLINA: Very warm with many highs in 80's all areas. Weekly average temperatures were 10° to 12° above normal. Rainfall was in excess of 1.00 inch except in the outer Coastal Plain where amounts were about 0.50 inch. Heavy rains occurred just after week ended. Sunny, windy conditions enhanced drying conditions enabling farmers to cultivate land. Tobacco plant-beds generally fair-good. Charleston-Beaufort area--planting cucumbers, beans, squash, setting out tomato plants.

SOUTH DAKOTA: Temperatures averaged from 2° above normal parts of west to 11° above normal portions of east. This is 4th week in a row that temperatures averaged above normal. Extremes ranged from 12° at Vale on 16th to 73° at Gregory on 13th. Precipitation fell mostly first part of week in form of rain in east and in rain changing to snow in west. Heavy snow with near blizzard conditions portions of west. Snowfall of up to about 1 foot in lower elevations of west with about 4 feet in parts of northern Black Hills. Strong winds accompanied the snow. Precipitation ranged from about 0.40 inch to about 2.00 inches although Fort Meade reported 3.56 inches precipitation on the 14th. Snow and blizzard conditions moved out of west rapidly and temperatures during storm stayed around 30° so livestock stayed in good condition. Soil moisture is adequate most areas of State. Frost is nearly gone from the soil so yards and feedlots are very muddy. Early lambing mostly complete with good results. Farrowing in full swing and calving underway. Main farmwork is caring for newborn livestock and preparing for spring fieldwork.

TENNESSEE: Cloudy and mild most of week with rain 4 to 5 days. Rainfall heavy to excessive, over 6 inches in parts of central and southeast. Very heavy rains Chattanooga and Columbia areas Thursday with 24 to 72-hour totals near 8 inches; local major flooding. Temperatures averaged 6° to 8° above normal. Heavy rains and flooding brought nearly all farm work to a halt last half of week. Farmers able to do only 1.5 days of fieldwork. Spring plowing 36% complete while 2/3 of tobacco beds have been planted. Pastures in excellent condition and about 2 weeks ahead of normal. Fruit trees in full bloom, considerably earlier than usual.

TEXAS: Temperatures averaged near to slightly above normal. A light freeze was recorded in northern Panhandle on Thursday, Friday, and Saturday mornings. In southwest Texas, Marfa reported a low of 19° on Wednesday and freezing temperatures the next 5 mornings. Spotty, heavy rain accompanied thunderstorms across the State Thursday and Friday. Heaviest rains of 1.00 to 2.50 inches were fairly common in North and East Texas. Some minor overflow was reported on the Trinity and Sabine Rivers Sunday. Wheat, oats making excellent growth providing lush grazing--prospects above average. Most livestock moved off fields where grain crop expected. Planting of cotton, corn and sorghum gaining momentum southern half of State. Warm, dry weather needed for farmers to catch up on land preparation and spring planting. Major crops percent planted: Cotton 2%, last year 7%; Corn 9%, last year 35%; Sorghum 8%, last year 23%; Peanuts 1%, last year 2%; Rice 0%, last year 12%. In the Lower Rio Grande Valley cabbage supplies remain constant. Carrot supplies increasing. Onions remain in light supply with no volume expected until April 1. In the Coastal Bend most watermelons have emerged. Cucumber planting active. Spinach supplies decreasing. In the Winter Garden-San Antonio area supplies of cabbage, carrots and spinach beginning seasonal decline. Melon planting nearing completion. Cantaloupe and cucumber planting underway. In East Texas melon planting continues. In Knox-Haskell area rains delayed completion of planting the potato crop. On the High Plains onion and potato planting underway. Citrus harvest continues active, peak bloom for 1973-74 crop expected within next 2 weeks. Peach trees have partial full bloom in all areas of State except in Trans-Pecos where trees in full bloom and on High Plains where buds are swelling.

UTAH: Light to moderate precipitation over much of State forepart of week and over weekend. Little or no precipitation in eastern portion of State. Locally heavy amounts over 2.50 inches at Provo, Canyon, and New Harmony. Temperatures for week ranged from near normal to below normal with local areas in south-central division reporting 6° below normal. Lambing well along for farm flocks, not yet started range outfits. Some shearing started. Range herd calving started. Care and feeding dairy cattle, poultry flocks, beef cattle, and sheep on winter rangelands and valley farms continue major activities. No setbacks of consequence from severe weather have occurred to fruit trees to date. No apricot trees in bloom yet, but were a year ago. Soil moisture abundant nearly all farming areas. Irrigation water supplies good to excellent all areas from both reservoir storage and streamflow. Much of Utah still snow-covered. Recently cleared fields too wet for plowing and planting.

VIRGINIA: Light rain at beginning and again at end except heavy in mountains. Summerlike temperatures prevailed with high readings in the mid-80's; quite comfortable. Average temperatures continued well above normal, departures 8° to 18°. Soil with surplus moisture dropped to 41%. Days suitable for fieldwork averaged 3.4, highest since October. Plowed and disked land. Spread lime and fertilizer, sowed grass, legumes, oats, and tobacco plant beds. Pasture grazing crops and winter grains growing and excellent grazing increased. Hay supplies very good, livestock wintered well. High temperatures stimulated fruit beds. Peaches in full bloom in Burkesville area by end of week. Bloom-

ing varied from 10% to 90% by varieties in Roanoke, Nelson, and Albemarle areas. Planted Irish potatoes on Eastern Shore and cabbage plant beds in Carroll County.

WASHINGTON: Western Washington: Normal spring showers and mild temperatures. All crops show good growth. Fieldwork active; pruning, tying canberries nearly complete. Forced rhubarb harvest 80% complete. Lifting, planting strawberries and tree seedlings continued. Livestock good condition, few moved onto pastures. Eastern Washington: Light showers, near normal temperatures. Fruit and grape pruning continued. Soil preparation and planting underway on spring grains, potatoes, sugar beets, vegetable crops. Soil moisture short, water becoming available for irrigation. Dryland fertilizing and spraying continued, some summer fallow worked up. Winterkill on winter grains remains critical some areas. Livestock good shape, calving 50% most areas, lambing nearing completion.

WEST VIRGINIA: Two-week warm spell with maximum temperatures in 70's and average temperatures almost 20° above normal, finally ended March 17 with return to winter. Intense low pressure system gave heavy rains March 16 and 17 and brought Canadian air across State March 17 and 18 as rain turned to driving snow with wind gusts to 50 m.p.h. Temperatures plummeted into 20's March 18 and caused considerable damage to emerged leaves. Field preparations for spring-planted crops started where weather conditions permitted. Soil moisture adequate to mostly surplus. Supplemental feeding of livestock continues. Most livestock will come through winter in good condition.

WISCONSIN: Temperatures continued to average well above normal across Wisconsin. Every one of first 18 days of March has been warmer than normal. Lake Mendota at Madison opened on 14th for the earliest since March 9 opening in 1878. Temperatures were particularly mild on Wednesday when upper 60's and low 70's were common in south. Some moderately heavy rains Tuesday and Wednesday. Light snow most areas Friday. Cooler and drier weather since midweek has diminished flood threat. Flooding continues along Wolf River in northeast with lesser overflow experienced along Wisconsin and Mississippi Rivers. The Wisconsin River at highest level since 1938 at some points. Frost is mostly out of the ground over entire State. Snow cover also gone except for a little remaining in extreme north along Upper Michigan border. Feed supplies for livestock ample but often of poor quality. Also some concern over quality of stored corn after warm, damp, late winter.

WYOMING: A snow storm moved across State mid-week, heaviest in eastern half. La Grange reported the most moisture with 2.42 inches. Maximum temperatures were 40° west of Divide and Upper Platte Drainage, high 50's to low 60's elsewhere. Minima were -10° to teens west of Divide and Upper Platte Drainage, teens elsewhere. Temperature extremes were 67° at Colony and -10° at Bondurant. Chief farm and ranch activities are calving, some farm lambing and shearing. Recent storm increased soil moisture for winter wheat. Some losses of new calves due to recent storm.

NATIONAL FLOOD SUMMARY--MARCH 16, 1973

Disastrous flash flooding developed over the northern half of Mississippi during the past 24 hours. All rivers and their tributaries in this part of the State are above flood level. Evacuations have been reported in several urban areas including Vicksburg, Grenada, Greenwood, Ripley and Belzoni. The airport at Vicksburg had two feet of water over it. The hospital at Belzoni was evacuated. Sandbagging operations were in progress early today at Greenwood. Numerous roads and highways have been closed due to high water. Flash flooding occurred also in northern Alabama and in several areas in Tennessee. Some evacuations were reported in Decatur, Ala. Flooding was reported in the cities of Chattanooga and Knoxville, Tenn., and in the Tennessee-Virginia border area. The stage late this morning at Columbia, Tenn., was about 47 feet; flood stage is 32 feet. The previous high stage recorded at Columbia was about 52 feet in 1948. All businesses along the river front in Columbia have been evacuated. Some property damage has been reported in the Gatlinburg, Tenn., area. Numerous highways in Tennessee have been closed by high water and in some cases by rock slides. Flooding has developed also in several other river basins in the heavy rain area of the past 24 hours including the French Broad basin in western North Carolina, the Cumberland River in Kentucky, and the Harpeth and Elk Rivers in Tennessee.

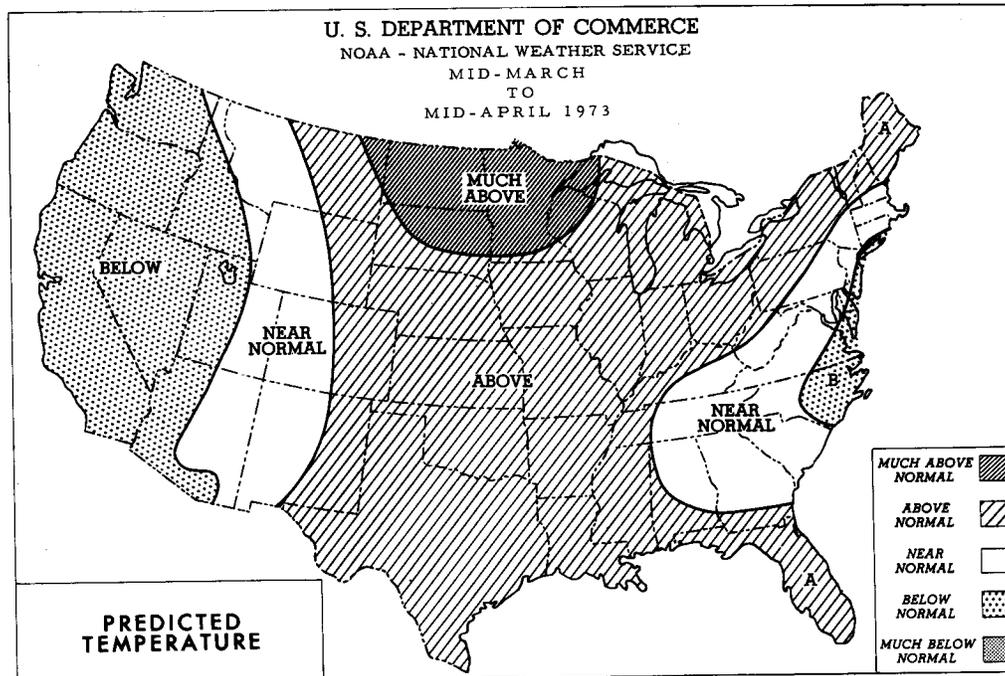
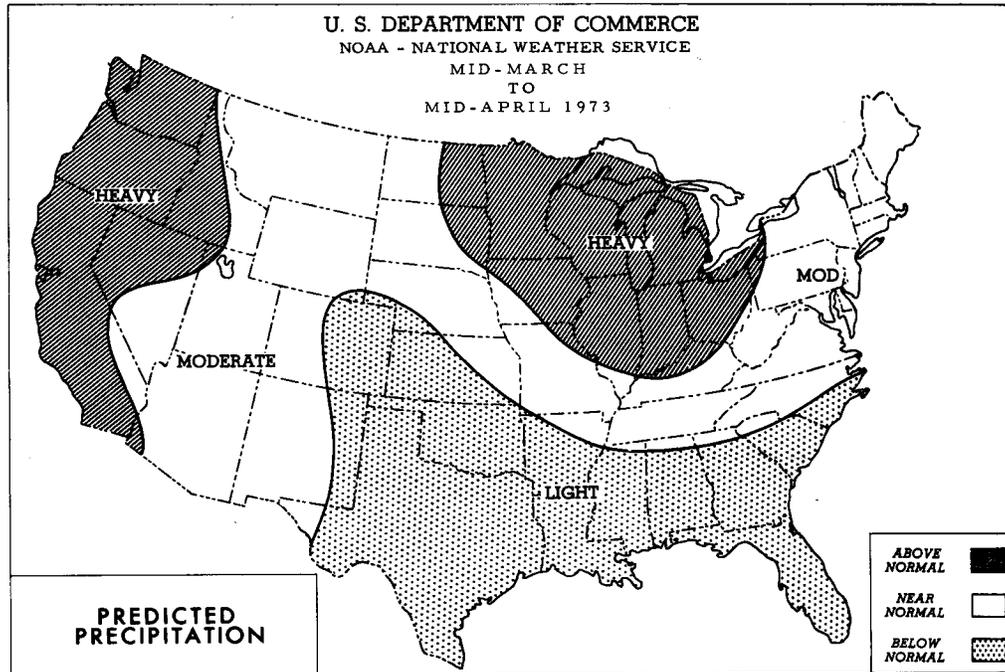
The Missouri River continues above flood level from Sibley, Mo., to the mouth but is falling at most reporting points although well above flood stage in places. The Mississippi River continues above flood level at most points from the lower Iowa border along most of the Missouri border. Flood stage is 30 feet.

The Ohio River was at stage 47.7 feet at Cairo, Ill. This morning, a rise of one-half foot in the past 24 hours. Flood stage is 40 feet.

Precipitation: General heavy rain fell in a band from northeast Louisiana northeastward through the western Carolinas and southwest Virginia. Northern Mississippi and northern Alabama received the heaviest. Nearly 10 inches was reported for the 24 hours at Grenada, Miss. Double Springs, Ala., reported 9.40 inches in 27 hours. Typical 48-hour storm totals in northern Mississippi are in the 8- to 10-inch range. A number of 4- to 7-inch totals were reported through much of the heavy rain area during the 24 hours ending 7 a.m. today.

National Weather Service

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.

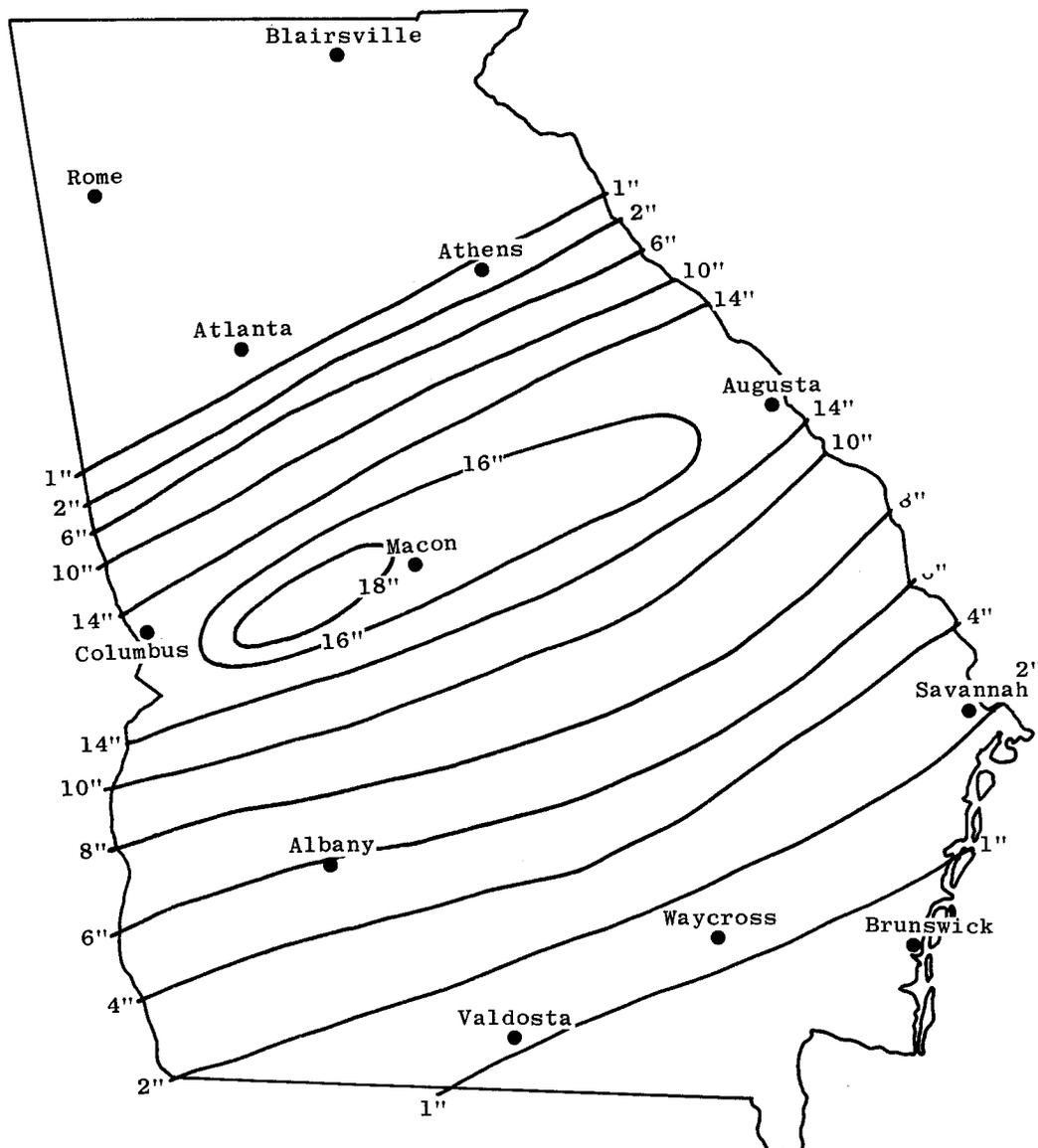
HEAVY SNOWSTORM IN GEORGIA
Horace S. Carter
Climatologist for Georgia

A snow storm of unprecedented magnitude hit central and southern Georgia on February 9 and 10.

The snowfall was the greatest experienced in middle Georgia during the 80 to 100 years that weather records are available. The area of heaviest snow extended roughly from Columbus to Macon to Augusta, with weather stations in each of these places reporting new records that topped previous records set in 1914 by 4 to 9 inches. Macon had 16 inches and observers at Columbus and Augusta reported 14 inches. The cooperative observer at Butler measured 18 inches. Fourteen to 16 inches fell over a band at least 50 miles wide across the State and 8 to 10 inches covered a 50 mile wide area on either side of this. An inch or more fell in southern border counties and Savannah had over 3 inches. The attached map, based on incomplete

reports, shows the approximate distribution of the snowfall.

The storm moved into west-central Georgia as sleet and freezing rain during the early morning hours of the 9th. The precipitation soon changed to snow and spread rapidly eastward, reaching the eastern border before noon. By nightfall middle Georgia was covered by 4 to 8 inches of snow and travel had come to a virtual standstill. The snow continued through the night and did not end in some areas until late Saturday, the 10th. Interstate highways and other major roads where closed for several hours and thousands of stranded motorists were assisted by the State Patrol, Civil Defense, and National Guard. Damage estimates are not yet available.





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(Weather continued from Page 2)

TEMPERATURE: Temperatures averaged up to 15° above normal in the eastern and central parts of the Nation, while west of the Rockies they went from slightly below normal along the West Coast to 9° below average around Flagstaff, Ariz.

Monday, March 12, brought fair weather to much of the lower Mississippi Valley and it felt like spring throughout most of the East and the central parts of the Nation. Temperatures in the 80's were recorded as far north as Oklahoma, Arkansas and Virginia. To the west winter maintained its grip: Butte, Mont., recorded 5° above zero.

Temperatures remained low in the West on Tuesday, with 9° at Flagstaff, Ariz., and minus 5° at Bryce Canyon, Utah. The cold front extended across northern Idaho across Oregon and northern California into the Pacific, and from a Low in Colorado another cold front stretched through New Mexico south into Mexico. To the east, warmer weather prevailed, with a nationwide high of 92° at Laredo, Tex. The East Coast continued to have springlike weather, as did the Midwest, on both Tuesday and Wednesday. Wednesday temperatures hit 87° in Richmond, Va., and 71° at Muskegon, Wisc.

However, the cold front moved eastwards embracing Nebraska, Missouri, and Southeast Texas. On Thursday it reached Wisconsin and extended itself across Lake Huron. Meanwhile, to the east record high temperatures were enjoyed in New York and Ohio. Rochester, N.Y., recorded 72° and Cleveland, Ohio, 73°. As the Low moved into Canada late Thursday and early Friday, the cold front extended along the Appalachians, then through the middle of the Gulf States into Texas.

The cold took over the East Coast on Friday and Saturday. Freeze warnings were issued in Georgia, northern Alabama, and western Pennsylvania. Cold continued in the West, with a Friday temperature of 4° at Flagstaff, Ariz., and freezing temperatures over most of the Midwest.

On Saturday, an intense low pressure system, encompassing the eastern third of the Nation ended the early spring for the East Coast. Temperatures registered in the high 30's and low 40's east of the Appalachians Sunday; to the west they fell below freezing. Further west, winter prevailed, as it had all week, with the nationwide low, 10°, recorded at Butte, Mont.

John C. Ryan