

Weekly Weather & Crop Bulletin

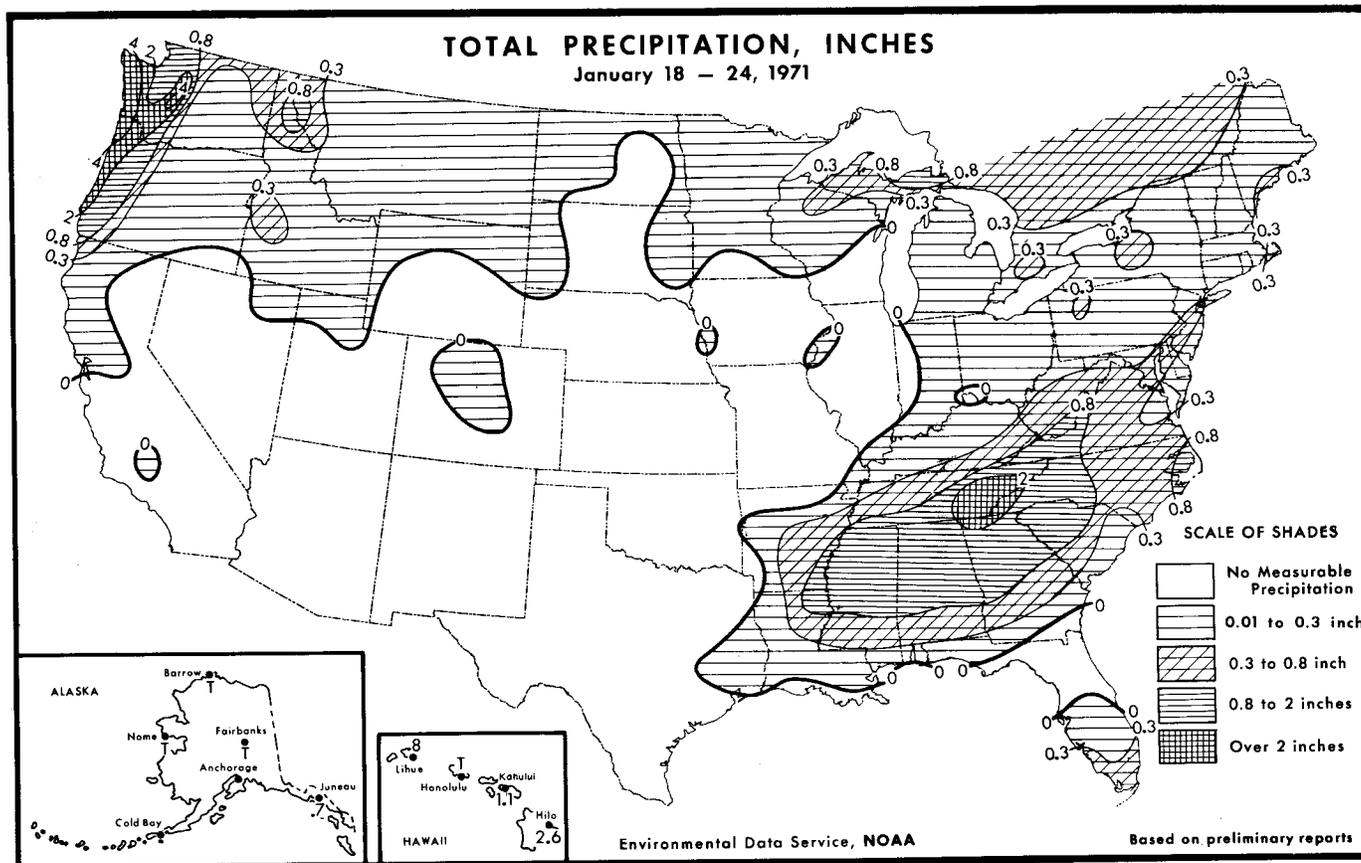
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Edited by Lucius W. Dye

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NATIONAL WEATHER SUMMARY

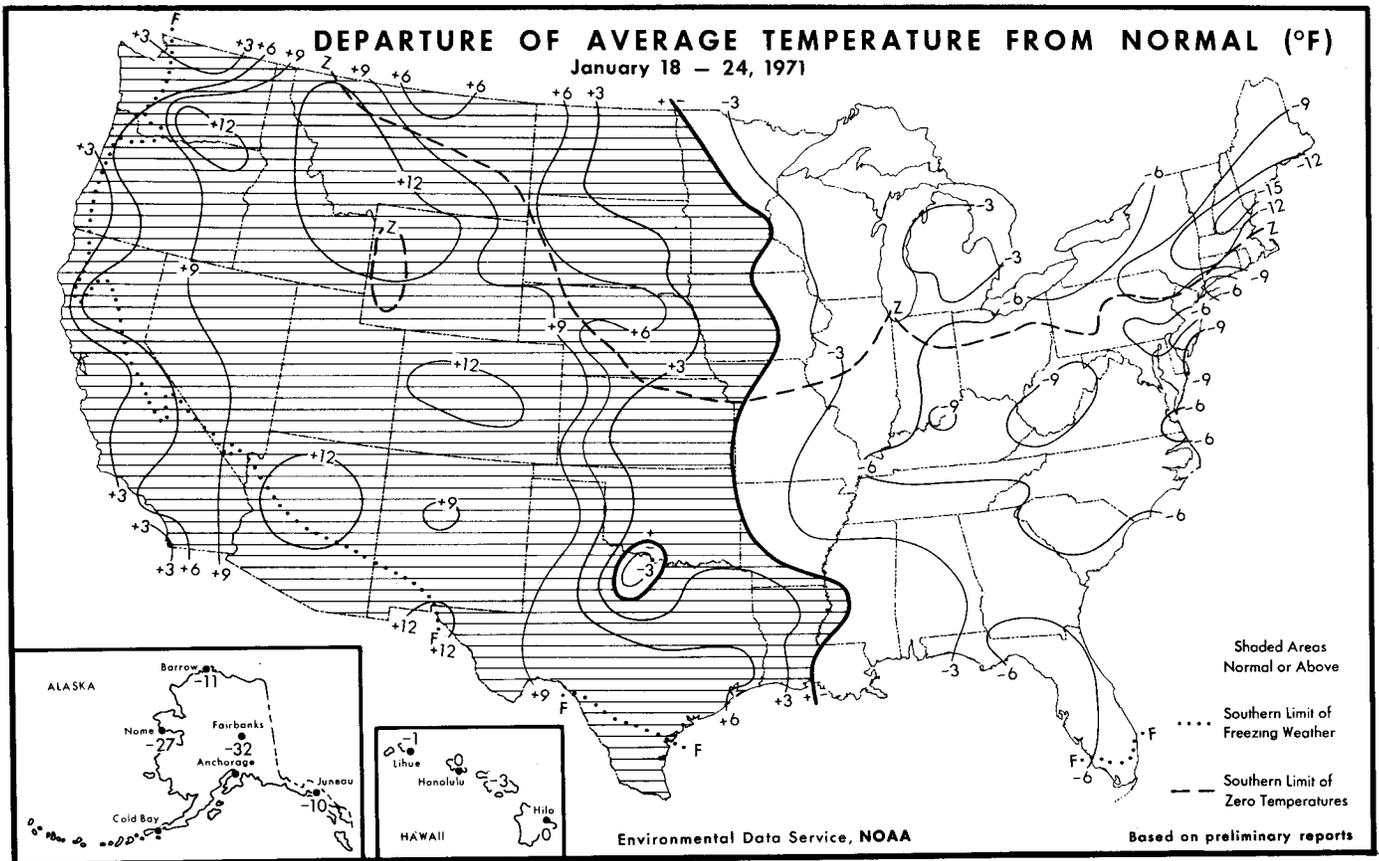
HIGHLIGHTS: The West averaged warmer than normal; the East colder than normal. Heavy snow fell in the Cascades and generous rains fell in the Great Smokies.

PRECIPITATION: Fair weather prevailed over most of the Nation early last week. Precipitation was mostly light and scattered. Rain and strong winds occurred along the Washington and Oregon coast early in the week moving inland to Montana by mid-week. Snow flurries were seen from the northern Great Plains to the Appalachians. Gary, Ind., found on Tuesday morning that 7 to 8 inches of snow had fallen during the night. Elsewhere, from the Great Lakes to New York, light snow had also fallen.

A frontal system moved into the Pacific North-

west causing rain along the coast with snow in the Cascades. Seventy-five inches of snow fell at Stampede Pass, Wash., in 3 days, Friday to Sunday. This heavy snow set a new record for a 3-day storm at that station. Thunderstorms in the Deep South late Friday and early Saturday left totals of around 1.00 inch and snow squalls dumped several inches of snow in spots in New York, 12 inches at Boonville in 12 hours, accompanied by winds gusting to 50 m.p.h.

The weather map Sunday at midnight showed rain and drizzle along the Washington and Oregon coast, scattered snow from the northern Great Plains to New England, light rain in Georgia and South Carolina, and widespread fog from the Great Lakes to the northern portions of the Gulf States. Mostly fair weather prevailed elsewhere.



Wide areas from California to Texas and north-eastward to Lake Michigan received no precipitation or only light sprinkles or snow flurries during the week. The heaviest rains fell in the vicinity of the Great Smoky Mountains in southeastern Tennessee and western North Carolina where some totals exceeded 3.00 inches, and in the coastal areas of Washington and Oregon where totals ranged from 5.00 to 8.00 inches.

TEMPERATURE: Unseasonal warmth occurred over southern California and Arizona early in the week. The temperature at Los Angeles, Calif., climbed to 95° Monday afternoon. This is 5° warmer than the previous January record for Los Angeles and only 3° less than the January record for any spot in the United States. On Tuesday, the temperature at Phoenix and Yuma, Ariz., reached 88° setting new January high-temperature records for those localities.

At the other extreme, cold arctic air plunged southward over the central and eastern portion of the Country. Bemidji, Minn., registered 31° below zero and Houlton, Maine, 35° below zero Tuesday morning. Parts of the Northeast remained below zero all day Tuesday when the midday reading at Caribou, Maine, was -5°. Subzero temperatures pushed as far southward as northern Missouri where Kirksville registered -6° Tuesday. The bitter cold pushed far southward over the eastern part of the Nation with subfreezing temperatures occurring in the Florida Everglades Wednesday and Thursday morn-

ings. Southerly winds warmed the Great Plains at midweek while cold continued in the east, especially the Southeast. Orlando, Fla., registered 47° Wednesday afternoon the same as the maximum at Rapid City, S. Dak., and Valentine, Nebr. On Thursday morning, Fort Myers, Fla., and Norfolk, Nebr., had the same minimum temperature, 32°, and Tallahassee, Fla., with 11° was 1° colder than Fargo, N. Dak. Pueblo, Colo., set a new January maximum reading with a 78° temperature on Thursday afternoon. A high pressure area, centered over northern Florida Thursday morning moved eastward and temperatures over the eastern part of the Nation warmed rapidly. Southern Texas warmed to the 80's Friday and Sunday afternoons. On Sunday afternoon the warmest spots in the Nation included McAllen, Texas, and Orlando, Fla., both of these localities registering 86°. However, a cold front was pushing southward across the northern Great Plains bringing colder temperatures to the middle portion of the Country. Subzero temperatures were common Sunday morning from north-eastern North Dakota to northern Wisconsin.

In general, temperatures averaged warmer than normal over the western half of the Nation and colder than normal over the eastern half. The Great Basin and Rocky Mountains averaged 10° to 14° warmer than normal; the central Appalachians 9° to 11° colder than normal.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Freezing temperatures in Florida damaged citrus and vegetable crops. Heavy rains caused some erosion to grain fields in the Pacific Northwest. Dry conditions prevail in the southern Great Plains.

SMALL GRAINS: Mild temperatures reduced the snow cover on wheat in the western half of the Nation; with no moisture received in the already dry southern Great Plains. Growth in Kansas was limited by cool nights, but the condition of wheat remained generally good. More surface moisture is needed in western and central Kansas where some growers are already irrigating their acreages. Crops in western Oklahoma and Texas continue to deteriorate; over 3/4 of the Oklahoma wheat is in only fair to poor condition. Continued warm temperatures in Colorado could cause winter wheat to break dormancy too early in the season. Warm temperatures reduced the snow cover in Montana, but the soil was not absorbing the runoff.

Heavy rains caused some erosion to wheat fields in Washington and Oregon, with water standing in many low-lying Oregon fields. Warm weather accelerated small grain emergence and growth in California and Arizona, but some wheat and barley reseeding is expected in California.

Fall-seeded grains are wintering well in the Corn Belt. Along the Atlantic Coast little winter damage has occurred to date and grains are in good condition. In the south-central part of the Nation moisture is adequate and grain prospects remain good.

OTHER CROPS: Wet fields continue to plague Arkansas growers in their attempts to complete harvesting last years cotton and soybean crops. Plowdown of cotton fields is active in California and Arizona. Planting of Irish potatoes got underway in Alabama and Louisiana. The Florida crop was damaged by the frost, but most acreage should recover. Mild weather was favorable for the marketing of Idaho potatoes.

Cool wet weather limited preparation of tobacco plant beds in North Carolina, but bed work was about completed in south-central Georgia. Burley markets are beginning to close in Kentucky. Sugar beets are showing good growth in California and Arizona. Safflower is being planted in the Southwest.

Fruits and Nuts: Florida temperatures were well below normal for the week, with some record-low temperatures set throughout Florida on January 20 and 21. This was the most severe

freeze of the 1970-71 season and the worst Florida freeze since December 1962. Most citrus areas were below freezing January 20 and 21 with light to hard ice in some fruit, however, no loss determination can be made at this time. Citrus growers in California are back harvesting their navel orange crop with some freeze damage showing up. Frost damage is also showing on lemons and avocados. Warm dry weather also aided the picking of oranges and other citrus crops in Arizona. Orchardmen in the Atlantic Coast States and the Pacific Northwest are pruning and caring for their trees as weather permits.

Vegetables: Reduced supplies of winter vegetables are in prospect from Florida as the January 20 and 21 freeze caused moderate to severe damage to some crops. Sweet corn was severely damaged and many other commodities will also have to be reseeded or transplanted. Most commodities are available in variable supplies with cabbage, tomatoes and celery leading in shipments. Large supplies of cabbage, carrots and lettuce are available from South Texas with moderate to light supplies of other commodities available. Farther west, in the Salt River Valley of Arizona, harvest is near its seasonal volume. Shipments from California are mostly light to moderate with supplies increasing as weather permits. The cold spell caused practically no damage to South Carolina vegetables.

PASTURES AND LIVESTOCK: Warm temperatures gave a welcome break to livestock herds in the western half of the Nation and reduced the need for supplemental feeding. However, ice-covered ranges are making grazing difficult in a few States with muddy feedlots making it difficult for stockmen to feed cattle in some northern regions. Pastures in the Southwest continue to deteriorate as dry conditions prevail. Ranchers in Texas are selling older cows as they try to minimize winter expenses. Hay and roughage supplies are generally adequate in the South and East and should last through the winter season. Pastures in the South are about average for this time of year with most farmers also providing feed from storage for their animals. Calving, lambing, and farrowing made good progress during the week with no unusual death losses. The toxic weed "Halogeton" killed about 1,200 sheep in Utah.

Steve Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., January 24, 1971

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 . . .	44	- 3	1.2	+ .1	New Orleans . . .	54	- 1	T	- .9	OKLA.Okla. City . .	39	+ 2	T	- .3
Mobile . . .	53	0	T	-1.0	Shreveport . . .	52	+ 4	.1	-1.0	Tulsa . . .	38	+ 2	T	- .4
Montgomery . . .	47	- 2	.8	- .1	MAINE.Caribou . . .	4	- 7	2.0	+1.5	OREG.Astoria . . .	45	+ 4	5.9	+3.2
ALASKA.Anchorage . .	-	-	-	-	Portland . . .	7	-15	.4	- .6	Burns . . .	33	+ 9	.1	- .3
Barrow . . .	-28	-11	T	0	MD.Baltimore . . .	29	- 6	.4	- .4	Medford . . .	41	+ 5	.3	- .4
Fairbanks . . .	-43	-32	T	- .2	MASS.Boston . . .	21	- 9	.2	- .7	Pendleton . . .	44	+13	.1	- .2
Juneau . . .	15	-10	.7	- .2	Chatham . . .	22	-	.5	-	Portland . . .	45	+ 7	2.2	+1.0
Nome . . .	-22	-27	T	- .2	MICH.Alpena . . .	17	- 3	.2	- .2	Salem . . .	45	+ 7	1.8	+ .4
ARIZ.Flagstaff . . .	40	+13	0	- .4	Detroit . . .	22	- 5	T	- .5	PA.Allentown . . .	21	- 8	.2	- .5
Phoenix . . .	62	+12	0	- .1	Flint . . .	21	- 1	.1	- .3	Erie . . .	22	- 5	.2	- .5
Tucson . . .	61	+11	0	- .2	Grand Rapids . . .	20	- 4	T	- .4	Harrisburg . . .	27	- 4	.3	- .4
Winslow . . .	44	+13	0	- .1	Houghton Lake . . .	18	- 1	T	- .4	Philadelphia . . .	27	- 5	.3	- .5
Yuma . . .	64	+10	0	- .1	Lansing . . .	22	- 2	.1	- .4	Pittsburgh . . .	22	- 7	.2	- .5
ARK.Fort Smith . . .	40	0	.1	- .5	Marquette . . .	16	- 3	.8	+ .4	Scranton . . .	18	-10	.2	- .3
Little Rock . . .	38	- 3	.5	- .7	Muskegon . . .	23	- 3	T	- .5	R.I.Providence . . .	19	-10	.1	- .8
CALIF.Bakersfield . .	53	+ 5	T	- .2	S.Ste.Marie . . .	11	- 5	.9	+ .4	S.C.Charleston . . .	47	- 3	T	- .5
Eureka . . .	48	+ 1	.2	-1.3	MINN.Duluth . . .	5	- 4	T	- .3	Columbia . . .	40	- 8	.9	+ .2
Fresno . . .	52	+ 5	T	- .5	Internatl Falls . .	2	- 5	T	- .2	Greenville . . .	37	- 8	1.1	+ .2
Los Angeles . . .	64	+ 8	0	- .6	Minneapolis . . .	13	+ 1	T	- .2	S.DAK.Aberdeen . .	13	+ 2	.1	- .1
Red Bluff . . .	53	+ 7	T	-1.0	Rochester . . .	11	- 2	T	- .2	Huron . . .	16	+ 4	T	- .1
San Diego . . .	58	+ 3	T	- .4	St. Cloud . . .	10	0	.3	+ .2	Rapid City . . .	27	+ 6	.1	0
San Francisco . . .	51	+ 2	T	- .9	MISS.Jackson . . .	48	0	.8	- .3	Sioux Falls . . .	16	+ 2	.1	- .1
Stockton . . .	48	+ 3	.1	- .5	Meridian . . .	48	- 1	1.5	+ .4	TENN.Chattanooga .	37	- 5	2.5	+1.2
COLO.Denver . . .	40	+12	.1	- .1	MO.Columbia . . .	29	- 1	T	- .4	Knoxville . . .	36	- 6	2.9	+1.8
Grand Junction . . .	38	+12	0	- .2	Kansas City . . .	32	0	0	- .4	Memphis . . .	38	- 4	.8	- .6
Pueblo . . .	42	+12	T	- .1	St. Louis . . .	28	- 4	T	- .4	Nashville . . .	34	- 4	.6	- .7
CONN.Bridgeport . . .	26	- 4	.2	- .7	Springfield . . .	32	- 1	T	- .5	TEX.Abilene . . .	48	+ 3	T	- .1
Hartford . . .	15	-13	.2	- .6	MONT.Billings . . .	32	+10	.1	0	Amarillo . . .	46	+10	0	- .1
D.C.Washington . . .	31	- 6	.5	- .3	Glasgow . . .	17	+ 8	.2	+ .1	Austin . . .	57	+ 7	T	- .5
FLA.Apalachicola . .	51	- 4	0	- .7	Great Falls . . .	32	+11	T	- .1	Beaumont . . .	60	+ 6	T	- .9
Ft. Myers . . .	52	-11	.7	- .3	Havre . . .	18	+ 5	.1	0	Brownsville . . .	68	+ 7	T	- .3
Jacksonville . . .	50	- 6	0	- .6	Helena . . .	31	+13	T	- .1	Corpus Christi . .	65	+ 8	T	- .3
Key West . . .	65	- 5	.3	0	Kalispell . . .	32	+13	.2	- .1	Dallas . . .	49	+ 4	0	- .5
Lakeland . . .	54	- 8	.1	- .4	Miles City . . .	24	+ 8	.1	0	Del Rio . . .	59	+ 7	T	- .2
Miami . . .	62	- 5	.5	0	Missoula . . .	33	+14	.3	+ .1	El Paso . . .	55	+12	0	- .1
Orlando . . .	55	- 6	.1	- .3	NEBR.Grand Island .	27	+ 5	T	- .1	Fort Worth . . .	47	+ 1	T	- .5
Tallahassee . . .	47	- 7	T	- .8	Lincoln . . .	27	+ 3	T	- .2	Galveston . . .	59	+ 4	0	- .8
Tampa . . .	53	- 8	.1	- .4	Norfolk . . .	24	+ 6	T	- .2	Houston . . .	59	+ 8	T	- .8
GA.Atlanta . . .	40	- 5	1.1	0	North Platte . . .	29	+ 5	T	- .1	Lubbock . . .	48	+ 9	0	- .1
Augusta . . .	42	- 6	.5	- .2	Omaha . . .	24	+ 3	T	- .2	Midland . . .	52	+ 8	0	- .2
Macon . . .	46	- 4	.8	0	Valentine . . .	25	+ 6	T	- .1	San Angelo . . .	54	+ 7	0	- .2
Savannah . . .	47	- 5	T	- .6	NEV.Ely . . .	32	+10	0	- .2	San Antonio . . .	58	+ 6	T	- .4
HAWAII.Hilo . . .	71	0	2.6	+ .1	Las Vegas . . .	53	+10	0	- .1	Victoria . . .	63	+ 7	T	- .5
Honolulu . . .	73	0	T	- .9	Reno . . .	39	+ 8	0	- .3	Waco . . .	53	+ 5	0	- .5
Kahului . . .	69	- 3	1.1	+ .1	Winnemucca . . .	38	+11	0	- .2	Wichita Falls . . .	40	- 3	T	- .2
Lihue . . .	70	- 1	.8	- .5	N.H.Concord . . .	6	-16	.2	- .6	UTAH.Blanding . . .	38	+11	0	- .2
IDAHO.Boise . . .	38	+ 9	.4	+ .1	N.J.Atlantic City . .	25	-10	.2	- .7	Salt Lake City . . .	37	+11	.2	- .1
Lewiston . . .	41	+11	.2	- .1	Trenton . . .	28	- 5	.3	- .6	VT.Burlington . . .	8	- 8	.1	- .3
Pocatello . . .	34	+12	.1	- .2	N.MEX.Albuquerque . .	44	+ 9	0	- .1	VA.Lynchburg . . .	31	- 7	.5	- .3
ILL.Cairo . . .	32	- 6	.2	-1.0	Roswell . . .	49	+11	0	- .1	Norfolk . . .	36	- 5	.7	- .1
Chicago . . .	22	- 4	T	- .4	N.Y.Albany . . .	10	-13	.1	- .5	Richmond . . .	32	- 7	.2	- .6
Moline . . .	18	- 4	T	- .3	Binghamton . . .	14	-10	.3	- .3	Roanoke . . .	33	- 5	.7	0
Peoria . . .	22	- 3	T	- .4	Buffalo . . .	21	- 4	.1	- .5	WASH.Colville . . .	31	+ 8	.3	- .1
Rockford . . .	18	- 4	0	- .5	New York . . .	27	- 7	.3	- .5	Omak . . .	22	+ 1	.2	- .1
Springfield . . .	25	- 3	T	- .4	Rochester . . .	20	- 5	.3	- .2	Quillayute . . .	43	+ 4	6.1	+2.7
IND.Evansville . . .	29	- 5	.2	- .5	Syracuse . . .	18	- 6	.4	- .3	Seattle-Tacoma . . .	42	+ 4	1.6	+ .3
Fort Wayne . . .	20	- 7	.1	- .5	N.C.Asheville . . .	34	- 6	1.0	+ .3	Spokane . . .	35	+10	.5	0
Indianapolis . . .	23	- 6	.1	- .7	Charlotte . . .	37	- 6	1.4	+ .7	Walla Walla . . .	46	+13	.6	+ .2
South Bend . . .	22	- 4	.2	- .3	Greensboro . . .	33	- 7	.7	- .1	Yakima . . .	40	+13	T	- .3
IOWA.Burlington . . .	22	- 2	T	- .4	Hatteras . . .	39	- 8	1.7	+ .8	W.VA.Beckley . . .	24	-10	.9	0
Des Moines . . .	21	+ 2	T	- .3	Raleigh . . .	34	- 8	.8	0	Charleston . . .	26	-11	.4	- .6
Dubuque . . .	16	- 3	0	- .4	Wilmingon . . .	42	- 6	.5	- .1	Huntington . . .	28	- 9	.3	- .6
Sioux City . . .	21	+ 3	T	- .2	N.DAK.Bismarck . . .	11	+ 2	.2	+ .1	Parkersburg . . .	27	- 8	.1	- .7
KANS.Concordia . . .	28	+ 1	T	- .2	Fargo . . .	7	+ 1	T	- .1	WIS.Green Bay . . .	12	- 5	T	- .3
Dodge City . . .	34	+ 3	0	- .2	Williston . . .	14	+ 7	.2	0	La Crosse . . .	13	- 3	.1	- .2
Goodland . . .	38	+10	0	- .1	OHIO.Akron-Canton . .	22	- 6	.1	- .6	Madison . . .	13	- 4	T	- .3
Topeka . . .	28	0	T	- .2	Cincinnati . . .	26	- 8	T	-1.0	Milwaukee . . .	16	- 4	T	- .4
Wichita . . .	31	0	T	- .2	Cleveland . . .	20	- 8	.2	- .4	WYO.Casper . . .	32	+ 9	T	- .1
KY.Lexington . . .	27	- 8	.1	-1.1	Columbus . . .	23	- 7	T	- .8	Cheyenne . . .	35	+10	T	- .1
Louisville . . .	26	- 9	.1	- .9	Dayton . . .	22	- 7	.1	- .7	Lander . . .	31	+12	0	- .1
LA.Baton Rouge . . .	52	- 1	.2	- .9	Toledo . . .	22	- 4	.1	- .4	Sheridan . . .	33	+12	.4	+ .3
Lake Charles . . .	58	+ 4	T	-1.0	Youngstown . . .	19	- 8	.1	- .6	P.R. San Juan . . .	78	+ 3	.8	- .2

* Departures are from 30-year means (1931-60). Based on preliminary reports

CONDENSED STATE SUMMARIES

These summaries provide brief descriptions of condition 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 State Climatologists.

ALABAMA: Mostly fair and very cold first half of period, becoming cloudy and quite warm with occasional rain last half. Hard freeze all sections Tuesday night with readings in 70's by Friday. Precipitation very heavy extreme north, light extreme south, and moderate to heavy elsewhere. Early planting late spring Irish potatoes underway, but interrupted by weekend showers. Considerable land prepared. Planting will resume as fields dry. Other fieldwork slow and consisted of limited stalk cutting, plowing, fertilization. Farmers mostly occupied preparing records, making plans, and caring for livestock and poultry. Cold weather stopped or slowed growth of small grain. Slight freeze damage occurred in scattered localities. Overall crop condition mostly fair to good.

ARIZONA: No snow at any reporting station. Skies mostly clear and temperatures much above normal. No precipitation reported. Warm weather past week accelerated small grain emergence and growth. Planting continues active central and southwest, completion expected mid-February. Shredding and plowing cotton well along most areas. Safflower planting continues limited scale. Fall-planted sugar beets making good progress. Mixed vegetable harvest Salt River Valley near seasonal volume. Spring lettuce growth generally slow. Lettuce planting making good progress Pima and Pinal Counties. Harvest lettuce and vegetables continued Yuma area. Land preparations for melons and tomatoes continue. Land preparation for spring planting underway Cochise County. Harvest of sweet oranges, some navels, few lemons, grapefruit and tangerines continue Salt River Valley. Navel orange harvest nearing completion. Harvest of navel and sweet oranges, lemons, grapefruit, and tangerines continued limited scale Yuma area. Most ranges providing near average feed. Supplemental feeding higher elevations. Stock water short to adequate. Livestock condition fair.

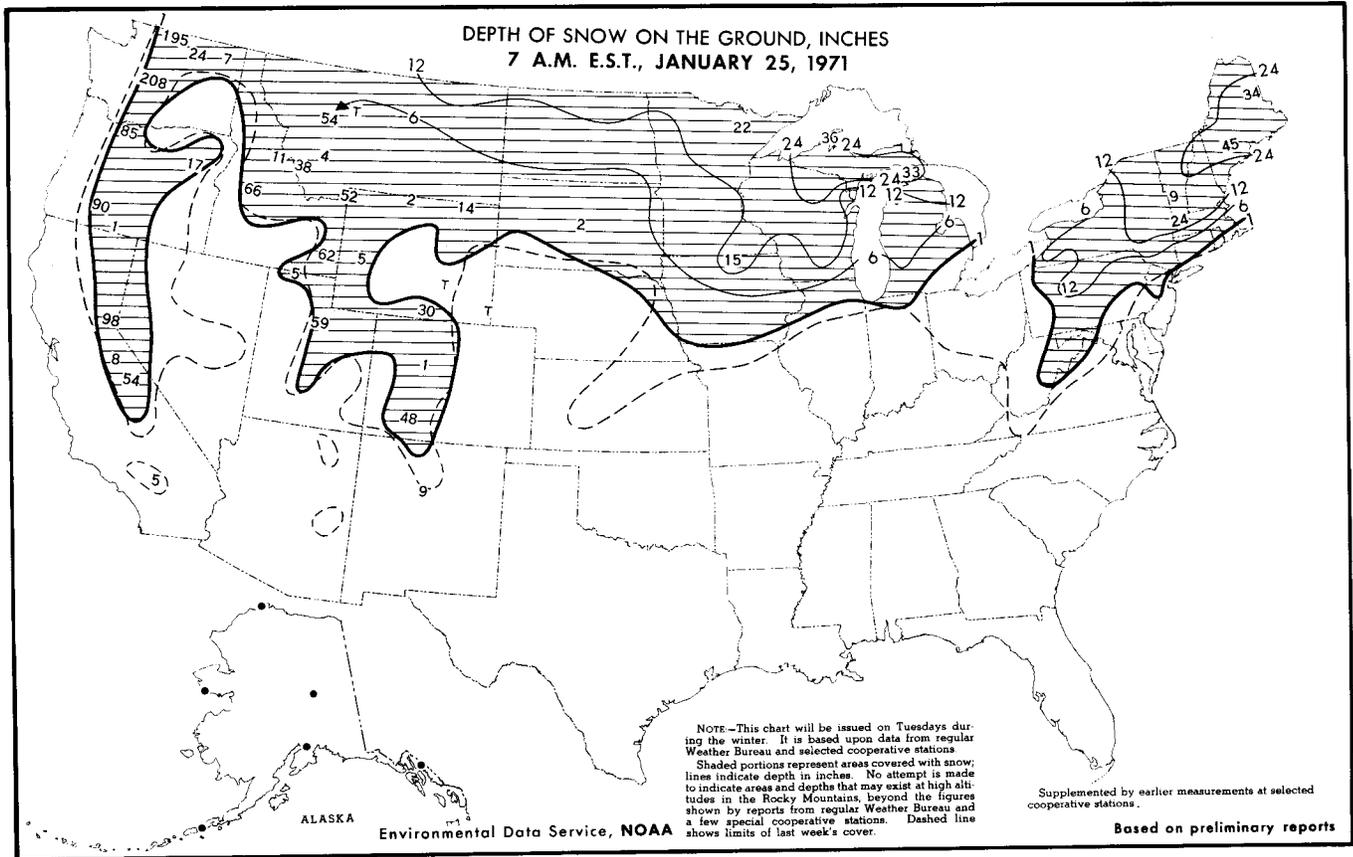
ARKANSAS: Weekly temperatures near seasonal normals except near 5° below normal northeast. Weekly averages mid-30's northeast and mid-40's southwest. Daily extremes: 9° to 75°. Precipitation 0.50 to 2.00 inches southeast half over weekend. Heaviest extreme south. Trace to 0.25 inch elsewhere. Heaviest total 2.44 inches at El Dorado. Wet fields continue limit field activity. No freezing weather during week to firm up fields to support harvest machinery. Little progress with end-of-season gathering of cotton and soybeans. Mild weather stimulated growth small grains, and these crops good to excellent. Livestock generally on full maintenance rations with feed supplies mostly adequate.

CALIFORNIA: Very warm first half of week, cooler last half. Record January maximum temperatures at Santa Maria, in Los Angeles Basin, at several desert locations. Average temperatures for week 5° or more above normal over State, 10° to 14° above normal south of Tehachapis and interior basins. Moderate rain and strong winds northwestern 1/3 on Friday and Saturday, much valley fog at midweek. Break in storm activity and warmer weather aided crop development. Small

grains generally good condition. Some barley and wheat replanting expected. Sugar beets show good growth. Alfalfa being cut for greenchop south. Cotton plowdown active as fields dry. Cultural practices continue vineyards and orchards. Warmer weather causing almond buds to swell. Navel orange harvest active; some freeze damage showing. Harvest lemons continues; very little frost damage. Fruit sizing well; some brown rot showing up. Harvest avocados continues, quality mostly good; some frost damage. Picking grapefruit and tangerines continues. Warmer temperatures increasing valley, foothill range grass growth. Supplemental feeding continues Eastside, San Joaquin Valley, areas north. Record snow depth Sierras promises adequate stock water summer months. Calving, lambing operations active Sacramento Valley, north coast. Imperial asparagus underway; very light volume. Broccoli supplies light to moderate. Imperial cabbage light. Salinas carrots light, to be completed around February 1. Imperial volume light. South coast cauliflower moderate. Bay area and central coast light, increasing as weather improves. Celery supplies all districts lighter due market conditions. Imperial lettuce increased; moderate volume. Winter potato harvest continuing. Very light strawberry supplies southern California.

COLORADO: Unseasonal warmth. Temperature averages 10° to 20° above normal. Maximums in 60's and 70's east portion. Scattered light rains east. Light to moderate rain or snow mountains. Few northern mountains locally heavier. Winter wheat and barley condition good most areas. Strong winds drying surface soil. Light damage to wheat by blowing soil. Moisture needed most areas. Continued warm weather could cause winter wheat to break dormancy too soon. Range and pasture supplying ample forage. Crop residue still providing some feed. Hay and forage supplies adequate, limited supplemental feeding. Livestock condition generally good.

FLORIDA: Average weekly temperatures plummeted 9° to 12° below normal as a cold wave swept into Florida on Tuesday, bringing the most severe freeze of the 1970-71 season and the worst freeze since December 1962. Record low temperatures were set throughout State 20th and 21st. Rapid warming on Thursday and Friday brought temperatures back to above normal on weekend. Scattered showers accompanied frontal passage. Showers more numerous in south Florida where precipitation averaged 0.50 inch. Freeze damaged sugarcane in colder locations, limited lateral bud and more terminal bud damage. Plant cane minor damage. Small grain growth slowed, most pastures damaged by freeze, grazing short, supplemental feeding resumed, cattle condition declined. Most all citrus areas below freezing January 20 and 21. Light to hard ice in some fruit, no loss determination yet. Defoliation of young trees moderate to heavy. Old trees moderate to light. Vegetable damage moderate to severe. Reduced winter supplies in prospect most commodities, variable supplies. Cabbage, tomatoes, celery lead shipments. Escarole fair supply. Dade winter potatoes sustained minor burns. More severe Fort Myers. Spring potatoes where uncovered damaged, but should



recover, planting continues. Sweet corn severely damaged, many spring plants, other vegetables will have to be reseeded or transplanted including tomatoes. Culture, planting continues. Replanting underway.

GEORGIA: Very cold first of period. Lows under 10° extreme north and in teens most other areas on 1 or 2 mornings. Warming trend last half of week. Highs reached 70's south by Sunday but remained in 40's and 50's north under cloudy skies. Averages mostly 2° to 4° below normal. Sunny early in week but mostly cloudy and rainy after Thursday, especially in north. Weekend rainfall totals ranged from almost 3.00 inches parts of north to little or none southeast and extreme south. Rains continuing in north at end of period. Soil moisture adequate to mostly excessive. Small grains fairly good. Pastures only fair statewide. Tobacco bed preparation about complete south-central, but continues southeast. Livestock and poultry care made up bulk of farmwork.

HAWAII: Cool weather slowed crop development. Wet conditions interrupted field preparation. Supplies of most vegetables and fruits declining. Pasture and cattle good condition. Grinding of 1971 sugar crop started several plantations.

IDAHO: Temperatures for week continued above normal ranging from 10° to 17° . Precipitation was heavy, recorded first half of week except locally less than normal east. Flooding from snowmelt and heavy rain reported southern section. Snow depths less than last week south of Salmon River and equal or greater at key stations. Mild weather favorable

for marketing potatoes and early lambing and calving. Mud still problem in many corrals and feedlots.

ILLINOIS: Little or no precipitation north and central, less than 0.25 inch south. No snow on ground except spotted areas along north border. Temperatures averaged 3° to 4° below normal north and central and 4° to 6° below normal south. Winter-sown crops good. Soil moisture adequate. most areas. Main activities livestock care, routine farmwork.

INDIANA: Third week of subnormal temperatures which averaged from 22° to 30° and 1° to 8° below normal. Temperatures ranged from 4° below zero on 19th at South Bend to 46° at Evansville on 23d. Local snowstorm of several inches on 19th immediately south and southeast of Lake Michigan. Snow cover now zero except for 2 inches near Lake Michigan. Soil freeze depths lower. In north 22 inches in bare soil, 6 inches under grass. In central, 15 inches in bare soil, 6 inches under sod. Surface thawed in south but refrozen at 2 to 4 inches in bare soils. Some freezing rain in central on 24th. Precipitation less than 0.20 inch for week. Farmers caring for livestock and spreading fertilizer.

IOWA: Cold and dry. Coldest early in week with minima to -23° at Swea City the 19th and -20° at Fayette on 20th. Thawing latter half week reduced snow cover to about 5 inches except 10 to 15 inches northeast, north-central, and some central localities.

KANSAS: No significant precipitation. Snow cover due to early January storm melted last week. Weekly

mean temperatures averaged near normal east and above normal west. Wide variation in temperature. Extremes: 6° below zero locally northeast on 19th to 71° parts of northwest on 20th. Mild temperatures after midweek gave welcome break to livestock and allowed some wheat greening few western counties. Wheat growth limited by cool nights. Wheat generally good condition, but more surface moisture needed west and central. Light soil blowing few wheat fields. Subsoil moisture short western and south-central districts and mostly adequate elsewhere. Some winter wheat irrigated. Calving, lambing, and farrowing made good progress. Death losses newborn animals light. Livestock heavy supplemental feeding, but improved weather allowed replenishment of farmlot hay and roughage supplies.

KENTUCKY: Temperatures 4° to 10° below normal. Much below normal first 3 days then moderating. Precipitation generally light to traces northern Bluegrass but moderate to heavy southeast. Totals trace to about 1.00 inch. Snow flurries one or more points 1st 3 days. Rain one or more areas on 3 of the last 4 days. Mostly sunny 3 days. Mostly cloudy balance. Winter weather continues. Roughage feed in ample supply. Seed grain high priced. Burley markets beginning to close. Dark fired selling well.

LOUISIANA: Cold first half of week with hard freeze statewide Wednesday morning. Temperatures much warmer south and milder north last half as new cold air mass stalled central then slowly retreated. Temperatures averaged 1° to 4° above normal west and 1° to 2° below normal east. Weekly precipitation light most areas. Amounts generally less than 0.25 inch. Few heavier showers sections north Louisiana with totals up to near 1.00 inch. Temperature extremes: 79° New Orleans Saturday and Sunday; 19° at Winnfield and Clinton Wednesday. Some plowing, land leveling, and top dressing of winter pastures, but excessive soil moisture continued to limit fieldwork. Normal haying and feeding of livestock active. Winter wheat and oats good condition. Some Irish potatoes planted south. Strawberries made good growth. Pasture feed average, livestock good.

MARYLAND AND DELAWARE: Very cold 1st 3 days, averaged 6° to 12° below normal. Lows ranged from -2° to teens on 18th. Precipitation last 3 days totaled 0.25 to 0.50 inch. Light snow on 24th except rain or mixed rain and snow in south. Grain fields rated good, except some late fields only fair. Little winter damage to date. Orchard pruning slowed by cold. Tobacco stripping ahead of normal. Livestock good condition. Lambing and calving progresses with no unusual losses.

MICHIGAN: Temperatures averaged 2° to 5° below normal over entire State except in Saginaw Valley where they averaged near normal. Greatest departures were in southeast Lower Michigan and in north-central Upper Peninsula. From 3 to 6 inches snow fell in Upper Peninsula with precipitation amounts totaling 0.50 to 0.75 inch. In Lower Michigan there were frequent periods of snow flurries but total precipitation was insignificant.

MINNESOTA: Temperatures varied from 2° above normal in the west to 4° below normal in the east. Precipitation, very light, generally less than 0.10 inch across State. Snow depth generally 12 to 18 inches across north and southeast. Rest of State averages from 6 to 8 inches.

MISSISSIPPI: Warm early in week; then unseasonably cold. Below-freezing temperatures extended

to Gulf Wednesday. Some rain in north and central Mississippi and weekly totals Friday morning generally under 0.20 inch except in some northern sections. Weekly temperature averages generally 5° to 10° below normal. Over weekend, there was precipitation each day parts of north and weekend totals varied from 3.11 inches at Tupelo to none at Biloxi. On Sunday temperatures rose to 77° at Laurel. Some golf ball size hail and some wind damage in west-central Mississippi. Some fog this morning. Soil moisture adequate to surplus. Winter wheat and oats fair to good condition, pastures poor to mostly fair. Livestock mostly fair to good condition. Hay and roughage supplies generally short, but adequate in some local areas. Cold wet weather held farmwork to minimum with average of 2 days suitable for fieldwork.

MISSOURI: Week started cold, ended warm, averaged near to slightly below normal. Extremes: 7° below zero at Memphis Wednesday morning and 59° at Kansas City Sunday. Precipitation amounts were less than 0.10 inch with most stations north of Missouri River reporting only traces.

MONTANA: Very warm at first with only slight cooling remainder of week. Temperatures averaged 12° above normal. Precipitation light except locally heavy western mountains. Ice-covered ranges causing difficult grazing for livestock. Open grazing in lower valleys of southwest and scattered areas north-central districts. Supplemental feeding most range livestock. Level of feeding reduced with warmer weather. Shrinkage and death loss normal. Stock water adequate. Warm temperatures and wind reduced snow cover throughout major winter wheat producing areas. Soil not absorbing runoff.

NEBRASKA: A warm and dry week. Milder weather has reduced snow cover and stalk fields are being grazed. Wheat appears in good to excellent condition, but with dry topsoils and some areas subject to wind erosion. Feed requirements lessened but many feedlots muddy. Calving, lambing, and farrowing making good progress with few problems.

NEVADA: Record January maximums at a few stations in Nevada. All stations averaging 10° above normal. Light precipitation in north. Melting snow and rain caused problems as recent below-freezing temperatures in meadows under water made cattle crowd to high ground. Ranchers having difficulty feeding and caring for livestock in mud and slop. Calf losses due to weather conditions have not been significant.

NEW ENGLAND: Very cold until more seasonable temperatures latter half of week. Week averaged mostly 5° to 10° below normal. Minima down to -30° or lower at many cold spots mornings of January 19 and 20. Variable precipitation totaled mostly 0.10 to 0.50 inch. New snow mostly 1 to 5 inches, with frequent flurries latter half of week.

NEW JERSEY: Cold weather continues. Temperatures averaged from 2° to 8° below normal with greatest departures in interior sections. Precipitation fell daily from 23rd to 25th. Total amounts for this week ranged 0.20 inch at Atlantic City AP to 0.40 inch at New Brunswick and Woodstown. Snow on the ground on morning of 25th ranged from 7 inches over northwestern counties to zero or near zero amounts over interior and coastal sections of extreme south.

NEW MEXICO: Very light showers north midweek. Continued dry elsewhere. Warmer west with

temperatures averaging near 9° above normal throughout State. Some 80° maximums in south. Coldest on weekend. Top, subsoil condition very short to short all areas. Limited irrigating and land preparation activity. Livestock continues to be moved off grain pastures. All areas extremely dry. Ranges and livestock continue fair to good.

NEW YORK: Temperatures moderated to near normal late in week after very cold early half. Minimums from -5° to -25° or colder on 6 straight days through 21st in east-central and northern half. Albany 28° below zero on 19th new January record. Minimums -5° to -10° and locally colder west and central and near zero coastal sections on 18th and 19th. Maximums zero to +10° Upstate early week warming to 30's on weekend. New York City 46° on 23rd, warmest since January 5. Precipitation seasonally light all sections with heaviest 0.40 inch. Frequent light snow or snow flurries especially lee of Great Lakes but little accumulation except in Lake snow belt where 12 inches or more. Snow depth mostly 15 to 25 inches eastern half but decreasing to 3 inches or less some western areas.

NORTH CAROLINA: Temperatures falling then rising averaging much below normal. Highest 50° to 60° and lowest 10° to 20° except some below-zero temperatures in mountains. Mostly fair during work week but rain over weekend. Totals .50 to 1.00 inch except 1.00 to 3.00 inches southern mountains. Soil moisture decreased slightly, but remained mostly adequate. Some shortages soil moisture mountain counties with surplus moisture scattered Piedmont and coastal plain. Small grain condition decreasing slightly, but mostly good. Pastures mostly fair. Hay and feed grain supplies mostly adequate. Wet and cold weather limited outside farm activities, mostly livestock feeding, machinery repair, tobacco plant bed preparation, and pruning. Farmers still busy with income taxes, planning 1971 operations, and considering seed corn dilemma.

NORTH DAKOTA: Temperatures averaged 1° above normal in north to 6° above normal in northwest. Precipitation mostly 0.10 inch or less in east, 0.10 to 0.30 inch west. Snow depths range from 7 inches southwest to 15 inches northeast. Mild temperatures allowed farmers to delouse cattle, repair buildings and equipment, haul feed, roughage, and market. Additional snow at weekend required snow removal from yards and driveways. Livestock good condition and on winter rations. No grazing because of snow cover. Feed supplies mostly adequate.

OHIO: Coldest temperatures of season recorded 18th and 19th. Highs on these days were in teens while lows were generally in -5° to +5° range. Warming occurred on 20th and temperatures for remainder of week were generally near normal. Snow flurries common early in week while drizzle or light rain was widespread on 24th. Most weekly precipitation amounts were in 0.05- to 0.15-inch range. Limited farm activities continued. Light snow early week gave some protection to wheat and hay crop.

OKLAHOMA: Temperatures averaged near normal north-central and southwest and 1° to 8° above

normal elsewhere. Extremes: 72° and 10°. Only measurable precipitation during week was in east-central and southeast Saturday. Amounts 0.10 inch or less. Wheat condition rated 37% poor, 40% fair, 23% good; remaining sharply below year ago. Grazing mostly limited as wheat remains dormant most of State. Moisture critically needed western 1/3 and north-central. Surface and subsoil short to adequate central and south-central; adequate eastern 1/3 State. Land preparation for spring-seeded small grain, sharply behind year ago, result dry fields west and wet fields some eastern localities. Slight improvement livestock condition due recent warmer weather. Condition mostly fair to good. Supplemental feeding general, with heavy feeding required many localities. Range grass short and quality low most areas. Hay supplies generally adequate, although shortages several areas.

OREGON: Mild wet week provided daily rain except 1 to 3 dry days east of Cascades. Temperatures west of Cascades averaged 4° to 10° above normal, east 10° to 12° above. Weekly minima east 7° to 36°, west 27° to 39°. Maxima 45° to 63°. Precipitation in eastern Oregon totaled 1.00 to 2.50 inches except 0.60 inch in 4 border counties north-central and south-central. Northern half of Willamette Valley 2.50 inches and elsewhere in Cascades and west side mostly 4.00 to 8.00 inches. Snow depths increased northern Cascades, some decrease in south with depths 60 to 98 inches above 4,000 feet. Recent abundance of moisture causing water to stand in many low-lying fields Willamette Valley, too early to assess flood damage. Some runoff and erosion damage eastern Oregon. Orchard pruning and spraying underway. Supplemental feeding of livestock continues. Feedlots are wet. Lambing continues.

PENNSYLVANIA: A cold rather dry week. Cold at start of week with highs in teens and lows near zero. Gradual warmup in midweek with readings averaging about normal later part of week. Overall temperatures averaged nearly 6° below normal for 4th straight week. Extremes: 45° and -13°. Cold front at start of week and a weak low at end of week with instability cloudiness in between gave almost daily light precipitation at many locations. Totals generally from 0.25 to 0.50 inch water equivalent range. Snowfall of 1 to 4 inches across southern 2/3 of State on Sunday 24th left most of State under a snow cover of about 5 to 10 inches across north and 1 to 2 inches near southern border. Routine farm chores.

PUERTO RICO: Dry early in week followed by moderate showers islandwide during frontal passage later in week. Average rainfall 1.28 inches or about 0.44 inch above normal. Highest total, 6.81 inches East Luquillo Mountains. Crop moisture conditions near normal all divisions. Temperatures averaged 74° to 75° coast and 69° to 70° interior. Highest maximums 92°, lowest minimums 49°. Sugarcane harvesting operations have begun with good progress cutting and transporting. Coffee plantations report good progress in all fieldwork. Tobacco harvesting and drying operations made good progress, except central interior where rains delayed operations. Pastures good to excellent islandwide. Minor crops developing well all zones with moderate abundance on market.

SOUTH CAROLINA: Arrival of cold air mass lowered temperatures to between 10° and 20° on 20th and 21st and caused weekly averages to be about 10° below normal. Rainfall was sparse and came mostly at end of week. Amounts mostly from 0.25 to 0.50

inch with smallest amounts in central part of State. Soil moisture adequate all areas. Cold weather hampered outside activities. Fruit tree pruning continued. Winter grain good condition. Fall vegetable crop withstood cold spell with little to no damage.

SOUTH DAKOTA: Weekly temperatures averaged up to 6° above normal. Extremes ranged from 21° below zero at Brookings and Flandreau on 19th to 59° at Angostura Dam on 20th. Precipitation fell as light snow mostly midweek with totals up to about 0.20 inch. Snow cover end of week in low elevations generally 3 to 7 inches with up to 1 foot or more in spotty areas in north and to about 2 feet in northern Black Hills. Warmer temperatures brought relief to livestock herds which have been experiencing subnormal temperatures most since 2d week of December. Livestock remain good condition. Snow cover adequate for winter grain in virtually areas of State.

TENNESSEE: Cold early in period, warming trend after midweek. Maximums: 50's and 60's by 21st. Precipitation included light snow on 18th and rain on 21st to 24th, with precipitation totals generally less than 0.50 inch in northwest and from 0.50 inch to as much as 3.00 inches in southeast. Temperatures averaged 4° to 6° below normal. Grain growth stimulated by mild temperatures and ample moisture, overall condition good. Livestock good condition. Farmwork seasonally slow. Major activities include: farm planning, record keeping, and livestock care.

TEXAS: Rains of 0.50 to 1.46 inches fell in extreme northeast corner of State. Drought or near drought conditions continued most other sections due to long absence of rainfall. Temperatures continued mild. Condition of ranges and small grains continue to deteriorate as dry weather and unseasonably mild weather prevailed. Culling older cows continues as farmers and ranchers attempt to minimize winter expenses. Primary activities were feeding livestock, land preparation and continuing culling of cattle. South Texas cabbage, carrots, lettuce in large supply; moderate to light supplies beets, broccoli, cauliflower, greens, other winter vegetables available. Spring vegetable seeding active southern area. Early spring onions good progress. Citrus harvest active lower valley.

UTAH: Scattered rain or snow northwest portion forepart of period and over weekend. Accumulated amounts of moisture light over weekend but locally moderate forepart of period. Temperatures averaged well above normal most sections with maximum temperatures rising into mid-50's and 60's except low 70's extreme southwest. Warmer temperature melted much of valley snow easing rural transportation problems, but making quagmires of many feedlots. Halogeton killed about 1200 sheep west desert. Care and feeding of dairy herds, poultry flocks, beef cattle and sheep major farm activity. Some marketing of potatoes, dry onions, and apples from storage continues.

VIRGINIA: Cold 1st half warmer 2d half. Moderate to heavy precipitation over weekend beginning as snow in west and north. Caring for livestock commanded most attention. Livestock were in good condition. Feed supplies

should last through winter season. Dairy cattle were obtaining 5% forage requirements from grazing, beef cattle 15% and sheep 20%. Field activities were limited mostly to repairing fences, pruning fruit trees, hauling manure, and spreading lime and fertilizer. Winter grains and grazing crops in very good condition.

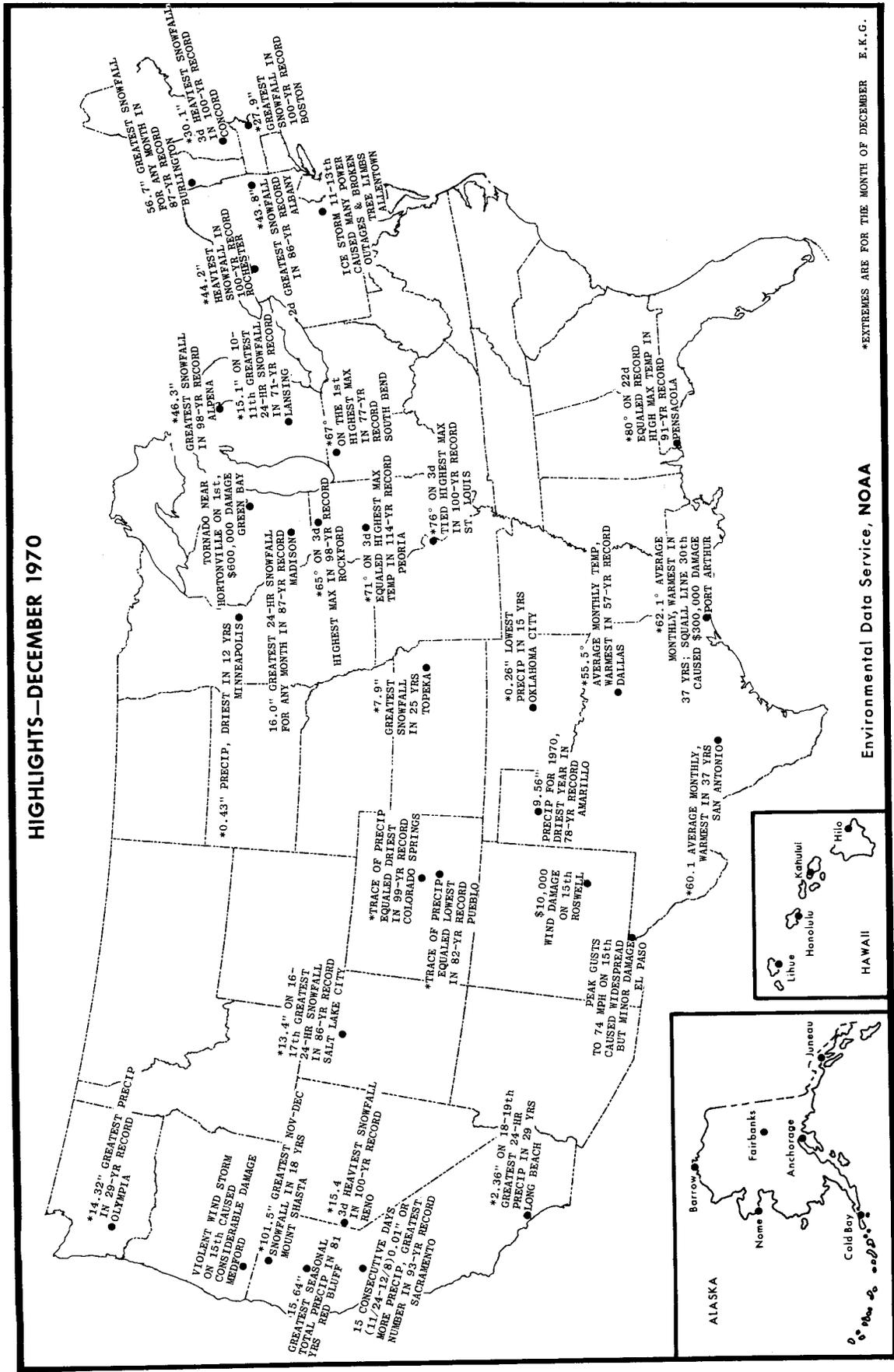
WASHINGTON: West of Cascades: Rain lower elevations most of week with heavy amounts over weekend. Heavy snowfall mountains with daily snowfall amounts 20 to 36 inches from 22d through 24th. At Stampede Pass, 2- and 3-day snowfall amounts were 51.4 and 75.0 inches. These exceed previous 2- and 3-day totals. Snow depths Stampede Pass and Paradise Ranger Station near record for January. Stevens Pass area, 4 lives lost in avalanches Sunday. Cayuse Pass closed by avalanches for 2 weeks. Other highway passes blocked for brief periods by slides. Strong winds on several days. Precipitation totals for week 2.00 to 4.00 inches lowlands, 5.00 to 7.00 inches mountains. Temperatures above normal. Harvesting forced Victoria rhubarb in progress. Livestock in satisfactory condition. Feed supply adequate. East of Cascades: Average temperatures 10° to 14° above normal. Rain beginning at end of week agricultural areas melted snow cover most localities except Waterville Plateau and northern valleys. Heavy snowfall mountains on 24th. Precipitation amounts 0.50 to 1.00 inch agricultural areas. Pruning continues in orchards and vineyards. Onions and potatoes moving to market slowly. Runoff caused some erosion damage wheat areas. Cattle good condition.

WEST VIRGINIA: Extremely cold with occasional light snow flurries through January 21. Milder variable springlike weather balance of period. Light scattered rain showers January 22 and 23 and steady rain January 24 gave 0.25 inch totals generally. Snow cover considerably reduced by rain and warmer weather and down to 4-inch depths northern mountains end of period. Main farm activities tending livestock and marketing apples.

WISCONSIN: Another week of pleasant winter weather. Plentiful sunshine, moderate temperatures, and mostly light winds. A little thawing south half late in week. Temperatures extremes: -26° and 39°. No measurable precipitation most areas. A slight settling of snow cover. Depths range between 2 inches in extreme southeast corner of State and 25 to 30 inches across north-central counties. Pastures and seedings wintering well but wildlife suffering some areas with heavy dense snow cover. Livestock mostly good.

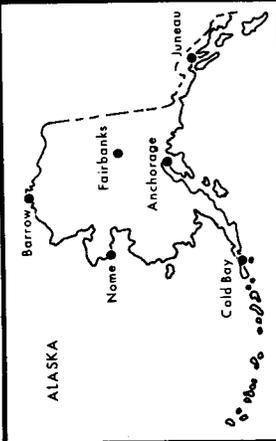
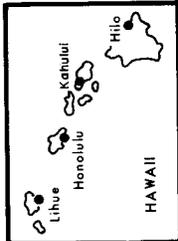
WYOMING: Warm and windy with heavy snows in mountains, scattered light elsewhere. Moran reported most precipitation with 1.95 inches. Temperatures averaged from 9° to 19° above normal statewide. Maxima mostly mid-40's to low 50's west of Divide and Upper Platte Drainage, mid-40's to mid-60's elsewhere. Minima were mostly -5° to 15° west of Divide, zero to 20° elsewhere. Temperature extremes: 65° at Carpenter and -9° at Sheridan Field Station. Feeding and caring for livestock continues main agricultural activity. Warm temperatures relieved early cold stress.

HIGHLIGHTS—DECEMBER 1970



*EXTREMES ARE FOR THE MONTH OF DECEMBER E.K.G.

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