

A low pressure center off the coast of North Carolina spread rain and some freezing rain along the eastern seaboard. Nearly all of the United States except the southwestern third reported some precipitation. It remained unseasonably warm west of the Rockies and snowmelt and light rain continued to swell streams in western Washington.

**WEDNESDAY...**Cold air moving rapidly through the eastern United States with accompanying precipitation assured a white Christmas for much of the Northeast. Bitter cold settled over the snow-covered northern Plains. Some points in North Dakota dropped to a frigid 30° below zero. Rain or showers prevailed from Virginia to northern Florida and to southern Mississippi. Rainshowers were over the Pacific Northwest but the snowmelt slowed as cooler air moved over the region.

**THURSDAY...**Arctic air covered the eastern half of the Nation on Christmas day. Wind, snow, blowing snow and sub-zero temperatures plagued the Northeast. Many cities from Little Rock, Ark. (11°) to Worcester, Mass. (-9°) reported the coldest Christmas morning on record. Temperatures in the 20s reached from Texas to northern Georgia. Renewed warming and heavy rain in the Pacific Northwest brought the threat of flooding back to western Washington and Oregon. Record high temperatures were reached in Washington and Oregon as warm air enveloped most of the West.

**FRIDAY...**Record low temperatures in the East and record highs in the West indicated the contrast across the Nation. The cold air extended from the Gulf of Mexico to New England. Light freezing rain fell in Missouri and Arkansas, rain

showers covered the Southeast coast, and light snow extended from the northern Mississippi Valley through the Great Lakes. Out West, the combination of unseasonably mild temperatures and persistent rains caused considerable flooding in western Washington and parts of western Oregon. The snow line in the Cascade mountains rose to 11,000 feet, indicating the unusual snowmelt.

**SATURDAY...**A storm system developing in the Atlantic off the southeast coast spread a mixture of rain, sleet, freezing rain, and some snow inland from South Carolina to Delaware and light rain along the coast. Cooler, drier air pushed across the Pacific Northwest and caused at least a temporary abatement in the rains and cooler temperatures to slow the snowmelt. Ahead of the cold front, rainshowers prevailed from northern California to western Montana. High winds helped warm the area along the eastern slopes of the Rockies. Temperatures rose to the 50s and 60s in the northern high Plains and to the 70s in the central and southern high Plains.

**SUNDAY...**The storm off the Carolina coast spread rain or freezing rain from Georgia to southern New England. As temperatures warmed during the day, freezing rain was confined to higher elevations but rain persisted along the coast. Gale force winds pounded North Carolina beaches and high water caused some damage. There was another area of freezing rain from South Dakota to Wisconsin and from southern Michigan to northern Ohio. Dry weather continued in the Pacific Northwest, giving another day of respite from rising water. Warm weather spread from the eastern slopes of the Rockies into the western Plains.

## National Agricultural Summary

December 22-28

**HIGHLIGHTS:** Low temperatures gripped the eastern half of the Nation while above normal temperatures dominated in the western half. The low readings stressed livestock and slowed grass and small grain growth in southern areas. Many eastern locations recorded low temperatures during the week. Precipitation was heaviest in the Pacific Northwest, causing flooding, erosion, and some livestock losses. The heavy rains melted snow cover and fall seeded grains were vulnerable to freeze damage. Cold weather forced winter wheat into dormancy over most of Oklahoma, but did not push far enough south to cause damage to citrus in Texas or Florida. Farmers performed very little fieldwork, mostly because of the wintry weather. Most activity was restricted to the usual care and feeding of livestock, machinery repair and maintenance, and spreading manure and lime. Winter wheat was in fair to good condition throughout major producing areas, although more moisture would be beneficial. Wind damage has been light to moderate thus far. The cotton harvest reached 90% complete in Texas and was nearly finished in Arizona and New Mexico where growers continued with clean-up operations. Southern pastures rated poor to fair. In northern areas, a late winter helped cattle producers conserve tight feed supplies.

**SMALL GRAINS:** Winter wheat rated fair to good throughout the Nation. Additional moisture would be beneficial and would help restore short soil moisture supplies. Most areas need snow cover to prevent future damage from cold temperatures and winds. Wind damage has been light to moderate thus far.

Montana winter wheat rated fair to good with some wind damage reported. Kansas wheat was in good condition; 98% of the acreage had emerged. In Texas, 97% of the acreage had emerged. Fields provided fair to good grazing. Additional moisture and warmer weather were needed to promote growth. In the Pacific Northwest, fall seeded grains were in good condition but vulnerable to freeze damage as no snow cover was present. Oklahoma fields rated fair to good condition. Some recently seeded fields were not yet up to stand; more moisture was needed. Cooler temperatures limited insect activity in fields.

**COTTON:** Cotton picking was 90% complete in Texas and nearly finished in Arizona and New Mexico where growers continued clean-up activities. Harvesting progressed well in Texas with open weather providing good conditions. Arizona growers picked some fields for the second time. In California, growers were plowing fields in preparation for spring planting activities.

**OTHER CROPS:** Only a few fields of soybeans remained for harvest in the Southeast and in Texas. The sunflower harvest reached 96% complete in Texas; normally, growers would have been finished. Florida and Louisiana growers continued harvesting sugarcane. The Florida crop rated good to excellent. Tobacco auctions were closed for the holidays. Growers prepared and treated tobacco plant beds. The Texas peanut harvest was delayed by wet conditions, reaching 99% finished, compared to being finished this time last year and on the average.

**FRUITS AND NUTS:** Deciduous fruit growers continued to prune and spray trees. The Texas pecan harvest advanced to 88% complete, compared with last year's 85% and the 94% average.

Florida citrus groves rated good to excellent. Some growers were irrigating as moisture was short in most areas. Harvesting for processing was active. Arizona groves were in good condition. The lemon and Navel orange harvests slowed due to limited demand. The California avocado movement was peaking, but citrus movement was slow. The Navel orange and pecan harvests continued. In the Lower Rio Grande Valley of Texas, harvesting of early oranges and grapefruit was active.

**VEGETABLES:** Cold temperatures and a holiday week slowed Florida's vegetable harvests. Supplies are expected to increase seasonally for cabbage, carrots, cauliflower, celery, escarole, parsley, lettuce, and radishes. Good volumes of snap beans, sweet corn, eggplant, peppers, squash, and tomatoes were available. Strawberries were in good condition with light harvesting underway. Seeding of the early spring watermelon crop was underway. Broccoli harvesting increased in southern California and the lettuce harvest picked up in the Imperial Valley. Strawberries were blooming and light tomato picking was started on the south coast. Growers harvested cabbage, cauliflower, broccoli, and peppers in the Lower Rio Grande Valley of Texas. Land preparation was active in the Coastal Bend and Trans-Pecos areas. Carrots, cabbage, and spinach were harvested in the San Antonio-Winter Garden area. In East Texas, spring onions and turnips were planted.

**PASTURES AND LIVESTOCK:** Pastures generally rated poor to fair from Texas eastward. Supplemental feeding was necessary in most areas of the Nation. Ranges in California began to green up with the rain and warmer temperatures. Livestock remained in good condition, although cold weather put stress on herds.

Weather Data for the Week Ending Dec. 28, 1980

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMPERATURE °F		PRECIPITATION	
																.01 INCH OR MORE	.50 INCH OR MORE		
AL BIRMINGHAM	48	27	60	20	37	-7	.3	-.9	.3	.8	17	67	42	0	6	1	0	1	0
MOBILE	56	33	69	27	45	-7	.5	-.8	.5	1.3	24	73	41	0	3	1	1	0	0
MONTGOMERY	50	33	63	28	42	-6	.2	-.9	.2	1.4	30	69	43	0	4	1	1	0	0
AK ANCHORAGE	8	-8	16	-13	0	-12	T	T	T	T	0	80	57	0	7	0	0	0	0
BARRON	-6	-20	0	-30	-13	-1	T	T	T	T	0	68	66	0	7	2	0	0	0
FAIRBANKS	-29	-36	-13	-43	-33	-20	0	.1	0	.3	60	84	66	0	7	0	0	0	0
KODIAK	36	25	40	16	32	3	.2	-.9	.2	2.2	47	65	55	0	4	1	0	0	0
NOME	9	-12	24	-17	-3	-6	0	.1	0	.2	33	73	43	0	7	0	0	0	0
AZ FLAGSTAFF	61	27	67	24	44	15	0	.5	0	1.4	70	--	17	1	7	0	0	0	0
PHOENIX	78	46	82	43	62	11	0	.2	0	.1	14	49	19	0	0	0	0	0	0
TUCSON	76	44	80	41	60	10	0	.2	0	.2	25	41	11	0	0	0	0	0	0
WINSLOW	59	24	63	19	42	10	0	.1	0	.2	50	--	--	0	7	0	0	0	0
YUMA	80	49	84	46	64	9	0	.1	0	.1	25	--	--	0	0	0	0	0	0
AR FORT SMITH	42	21	51	13	32	-8	T	T	T	1.3	50	82	48	0	7	1	0	0	0
LITTLE ROCK	39	23	51	10	31	-11	T	T	T	2.2	59	80	54	0	6	1	0	0	0
CA BAKERSFIELD	59	43	67	37	51	5	0	.2	0	.2	33	--	66	0	0	0	0	0	0
EUREKA	65	50	75	40	57	9	1.0	.5	.6	6.1	102	86	60	0	0	5	1	0	0
FRESNO	55	44	60	38	50	5	T	T	T	.5	31	96	76	0	0	0	0	0	0
LOS ANGELES	71	50	80	49	61	6	0	.5	0	1.6	89	66	49	0	0	0	0	0	0
RED BLUFF	60	45	70	40	53	8	.1	-.8	.1	2.6	76	--	68	0	0	0	4	0	0
SAN DIEGO	72	50	76	48	61	5	0	.4	0	.3	19	83	49	0	0	0	0	0	0
SAN FRANCISCO	59	46	63	43	53	4	0	1.0	0	1.7	47	96	65	0	0	0	0	0	0
STOCKTON	51	45	55	39	48	4	0	.6	0	1.2	50	--	92	0	0	3	0	0	0
CO DENVER	58	32	75	18	45	14	T	T	T	.1	25	62	27	0	0	0	0	0	0
GRAND JUNCTION	53	30	57	26	42	14	T	T	T	.2	50	86	37	0	6	1	0	0	0
PUEBLO	61	24	75	17	43	11	T	T	T	0	87	30	0	6	0	0	0	0	0
CT BRIDGEPORT	32	13	38	-4	23	-9	.3	-.4	.3	.8	25	64	60	0	7	2	0	0	0
HARTFORD	25	5	33	-14	15	-10	.1	-.8	.1	.8	22	72	55	0	7	2	0	0	0
DC WASHINGTON	35	22	42	12	28	-7	.3	-.4	.1	.6	21	76	65	0	6	2	2	0	0
FL APALACHICOLA	53	36	57	31	45	-9	.6	-.1	.4	1.0	32	70	85	0	2	2	0	0	0
DAYTONA BEACH	60	46	70	37	53	-6	1.2	.8	.7	1.4	82	88	61	0	0	2	1	0	0
FORT MYERS	69	50	77	39	60	-4	.1	-.2	.1	.5	42	91	57	0	0	3	0	0	0
JACKSONVILLE	53	37	70	33	45	-10	.1	-.5	.1	.2	9	85	67	0	0	3	0	0	0
KEY WEST	68	60	73	55	64	-7	.4	-.2	.4	.4	31	92	73	0	0	2	0	0	0
MIAMI	71	55	79	44	63	-5	T	T	T	.2	13	81	58	0	0	1	0	0	0
ORLANDO	62	44	70	37	53	-8	.3	-.2	.3	.5	29	93	54	0	1	4	0	0	0
TALLAHASSEE	52	35	68	30	44	-8	.6	-.4	.4	.9	23	64	64	0	0	4	0	0	0
TAMPA	61	42	68	35	52	-9	.1	-.5	T	.4	19	92	61	0	0	3	0	0	0
WEST PALM BEACH	68	52	78	42	60	-6	.3	-.3	.2	1.4	70	89	57	0	0	3	0	0	0
GA ATLANTA	44	26	56	20	35	-7	T	T	T	1.3	34	58	36	0	7	1	0	0	0
AUGUSTA	45	28	56	21	36	-9	.5	-.3	.2	.8	26	57	53	0	6	5	0	0	0
MACON	49	34	60	28	41	-6	.2	-.7	.1	.7	18	68	54	0	4	5	0	0	0
SAVANNAH	45	31	62	26	38	-11	1.1	.3	.7	1.3	43	76	66	0	5	3	0	0	0
HI HILO	--	--	--	--	75	4	.1	-3.1	--	.3	2	--	--	--	--	--	--	--	--
HONOLULU	82	71	85	64	77	4	2.1	1.2	1.4	4.0	118	76	53	0	5	1	0	0	0
KAHULUI	--	--	--	--	78	6	.5	-.2	--	1.6	64	--	--	--	--	--	--	--	--
LTHUE	--	--	--	--	75	3	.1	-1.4	--	4.3	75	--	--	--	--	--	--	--	--
ID BOISE	50	37	57	31	44	13	1.0	.7	.5	1.5	115	86	69	0	1	4	1	0	0
LEWISTON	54	44	62	35	49	16	.4	.1	.2	.8	67	82	59	0	2	4	0	0	0
POCATELLO	49	33	59	29	41	17	.1	-.1	.1	.4	44	83	57	0	3	0	0	0	0
IL CAIRO	39	23	49	10	31	-6	.1	-.8	.1	1.5	42	--	--	0	6	2	0	0	0
CHICAGO	29	12	38	-8	21	-4	.5	-.2	.2	3.0	188	70	51	0	6	4	0	0	0
MOLINE	28	8	37	-12	18	-5	.3	-.1	.2	2.8	175	67	48	0	7	2	0	0	0
PEORIA	29	11	39	-10	20	-5	.2	-.2	.1	2.2	129	80	60	0	7	3	0	0	0
ROCKFORD	27	10	36	-11	19	-3	.2	-.2	.1	2.6	163	77	51	0	7	3	0	0	0
SPRINGFIELD	32	12	41	-9	22	-6	.1	-.3	.1	1.9	112	83	53	0	7	2	0	0	0
IN EVANSVILLE	36	19	47	7	27	-6	.2	-.5	.2	.9	30	73	45	0	7	1	0	0	0
FORT WAYNE	27	11	34	2	19	-7	.3	-.2	.3	1.8	90	89	61	0	7	1	0	0	0
INDIANAPOLIS	30	12	41	-3	21	-8	.1	-.5	.1	.8	31	79	53	0	7	1	0	0	0
SOUTH BEND	29	15	38	6	22	-3	.3	-.3	.3	3.1	129	86	56	0	7	3	0	0	0
IA BURLINGTON	30	13	33	-5	21	-4	.2	-.2	.2	3.1	194	--	--	0	7	1	0	0	0
DES MOINES	29	12	42	-5	20	-2	.1	-.2	.1	1.1	100	76	55	0	7	1	0	0	0
DUBUQUE	28	10	35	-8	19	-1	.1	-.3	.1	1.6	94	75	43	0	7	5	0	0	0
SIOUX CITY	29	11	42	-10	20	-1	.1	-.1	.1	.3	43	76	63	0	7	1	0	0	0
KS CONCORDIA	36	19	46	0	27	-1	.1	0	.1	.9	129	84	63	0	6	2	0	0	0
DODGE CITY	52	25	71	8	39	7	T	-.1	T	.7	175	75	44	0	5	2	0	0	0
GOODLAND	57	25	74	10	41	13	T	-.1	T	0	72	29	0	4	0	0	0	0	0
TOPEKA	33	16	47	-3	25	-5	.1	-.2	.1	3.8	292	85	60	0	6	2	0	0	0
WICHITA	42	22	53	6	32	0	.1	-.2	.1	2.2	183	79	49	0	6	1	0	0	0
KY LEXINGTON	35	17	48	6	26	-8	.4	-.5	.4	1.6	50	77	54	0	7	1	0	0	0
LOUISVILLE	37	19	49	9	28	-6	.3	-.5	.3	1.3	43	67	46	0	6	1	0	0	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Dec. 28, 1980

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE OF		PRECIPI- TATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
LA BATON ROUGE	56	36	73	26	46	-6	.3	-.8	.3	2.4	52	83	48	0	5	1	0
LA LAKE CHARLES	57	37	71	29	47	-6	T	-1.2	T	2.3	45	78	50	0	2	1	0
LA NEW ORLEANS	58	37	74	27	47	-7	.3	-.8	.3	1.6	35	88	52	0	2	1	0
LA SHREVEPORT	55	30	67	22	43	-5	-1.0	T	.7	18	75	49	0	6	0	0	
ME CARIBOU	8	-12	24	-23	-12	-14	.4	-.1	.3	2.5	109	68	66	0	7	3	0
ME PORTLAND	25	-2	34	-20	12	-11	.2	-.6	.1	1.2	32	55	64	0	7	2	0
MD BALTIMORE	32	16	40	5	24	-9	.4	-.3	.3	.7	23	71	58	0	7	2	0
MA BOSTON	31	14	37	-7	23	-8	.1	-.8	.1	.9	23	63	65	0	7	1	0
MA CHATHAM	36	20	42	1	28	-	1.0	-	.6	4.3	--	80	74	0	6	3	1
MI ALPENA	25	5	33	-10	15	-6	.4	0	.1	2.1	124	--	--	0	7	5	0
MI DETROIT	27	6	34	-8	16	-10	.3	-.2	.3	1.8	86	91	50	0	7	1	0
MI FLINT	27	5	34	-7	16	-8	.5	-.2	.3	2.4	171	84	59	0	7	2	0
MI GRAND RAPIDS	27	9	36	-4	18	-7	.3	-.1	.1	3.0	158	84	61	0	7	3	0
MI HOUGHTON LAKE	25	5	33	-10	15	-5	.5	-.1	.3	1.9	112	80	57	0	7	4	0
MI LANSING	27	5	35	-8	16	-9	.3	-.1	.1	2.3	128	84	56	0	7	3	0
MI MARQUETTE	20	5	35	-5	12	-3	.5	-.1	.2	1.9	95	81	67	0	7	5	0
MI MUSKEGON	26	14	34	7	20	-6	.4	-.1	.1	2.4	104	86	63	0	7	5	0
MN SAULT STE. MARIE	20	-3	31	-25	9	-8	.2	-.3	.1	4.0	190	74	57	0	7	6	0
MN DULUTH	17	0	35	-19	9	-2	.2	-.1	.1	.6	46	72	59	0	7	3	0
MN INT'L FALLS	13	-9	35	-26	2	-3	.1	-.1	.1	.6	67	78	60	0	7	2	0
MN MINNEAPOLIS	24	9	34	-12	16	0	.1	-.1	.1	-.2	25	74	51	0	7	1	0
MN ROCHESTER	23	8	32	-10	16	0	.1	-.1	T	.4	57	78	62	0	7	2	0
MN SAINT CLOUD	22	5	36	-17	14	1	T	-.2	T	.1	13	83	--	0	7	2	0
MS JACKSON	52	28	66	21	40	-8	T	-.1	T	.9	20	82	42	0	6	1	0
MS MERIDIAN	54	29	65	22	41	-6	.2	-1.0	.2	1.1	19	75	38	0	6	2	0
MO COLUMBIA	34	13	48	-4	24	-7	.1	-.3	.1	1.2	71	72	43	0	7	2	0
MO KANSAS CITY	32	15	44	-5	24	-5	.2	-.1	.2	5.5	393	74	52	0	7	1	0
MO SAINT LOUIS	36	17	47	-2	27	-6	.1	-.3	.1	.7	39	78	53	0	7	1	0
MO SPRINGFIELD	38	16	53	0	27	-6	T	-.5	T	2.0	87	81	52	0	7	1	0
MT BILLINGS	46	25	68	-1	35	11	.1	0	T	.3	60	64	42	0	4	3	0
MT GLASGOW	29	6	54	-30	18	4	0	-.1	0	.2	50	83	73	0	4	0	0
MT GREAT FALLS	39	22	63	-2	31	7	T	-.2	T	.3	50	68	54	0	4	3	0
MT HAYRE	34	13	60	-25	23	8	.3	-.2	.2	.7	175	79	69	0	4	3	0
MT HFI FNA	48	22	64	2	35	14	.1	-.1	.1	.3	60	74	50	0	5	2	0
MT KALISPELL	44	28	53	18	36	14	.5	-.1	.3	2.2	169	82	67	0	4	5	0
MT MILES CITY	35	14	50	-19	25	6	.3	-.2	.1	.4	100	80	61	0	5	2	0
MT MISSOULA	46	32	56	28	39	16	.4	-.1	.3	1.0	91	100	70	0	4	3	0
NE GRAND ISLAND	36	16	53	-10	26	2	.1	0	.1	.2	50	94	55	0	6	1	0
NE LINCOLN	31	15	41	-10	22	-3	.2	-.1	.2	.8	133	74	61	0	7	2	0
NE NORFOLK	33	13	48	-8	23	2	T	-.1	T	.2	50	80	56	0	7	2	0
NE NORTH PLATTE	52	18	71	5	35	11	T	-.1	T	.1	0	83	29	0	7	1	0
NE OMAHA	30	14	40	-6	22	0	T	-.1	T	.3	50	74	59	0	7	1	0
NE VALENTINE	42	18	65	-7	30	8	.2	-.1	.1	.5	125	82	47	0	6	2	0
NV ELY	53	25	58	19	39	15	0	-.1	0	1.1	220	81	43	0	7	0	0
NV LAS VEGAS	69	41	73	37	55	11	0	-.1	0	T	0	45	21	0	0	0	0
NV RENO	59	28	65	18	43	12	0	-.3	0	.6	60	87	35	0	5	0	0
NV WINNEMUCCA	57	25	67	14	41	12	.1	-.1	.1	.2	25	82	42	0	5	1	0
NH CONCORD	23	-5	33	-19	9	-13	.1	-.6	.1	.8	27	67	56	0	7	2	0
NJ ATLANTIC CITY	34	11	49	-2	22	-11	.4	-.4	.3	.8	22	84	68	0	7	2	0
NJ TRENTON	29	15	38	2	22	-11	.3	-.4	.2	.6	20	--	--	0	7	3	0
NM ALBUQUERQUE	60	26	66	21	43	8	0	-.1	0	.7	175	80	24	0	7	0	0
NM ROSWELL	66	29	76	23	47	9	0	-.1	0	.2	50	--	--	0	7	0	0
NY ALBANY	23	-2	35	-20	11	-12	.1	-.5	.1	1.4	52	68	56	0	7	1	0
NY BINGHAMTON	21	8	37	-18	14	-9	.2	-.3	.2	1.5	63	82	68	0	7	2	0
NY BUFFALO	29	10	38	-10	19	-4	.8	-.1	.5	2.6	90	76	55	0	7	2	0
NY NEW YORK	28	15	36	-1	22	-11	.3	-.5	.2	.7	21	74	72	0	7	3	0
NY ROCHESTER	29	7	42	-12	18	-7	.4	-.1	.3	2.3	109	73	58	0	7	2	0
NY SYRACUSE	25	0	40	-22	13	-13	.3	-.4	.3	2.9	100	79	50	0	7	2	0
NC ASHEVILLE	41	20	53	10	31	-7	.2	-.6	.2	.3	9	79	48	0	6	2	0
NC CHARLOTTE	41	24	51	14	32	-9	.2	-.6	.1	.6	19	60	52	0	6	4	0
NC GREENSBORO	39	20	51	8	29	-9	.3	-.4	.2	.6	21	75	56	0	7	3	0
NC HATTERAS	55	36	62	23	46	0	3.9	2.9	2.9	4.4	105	79	71	0	2	4	2
NC RALEIGH	40	19	49	6	30	-10	.7	0	.4	1.4	50	79	71	0	4	3	0
NC WILMINGTON	45	31	55	13	38	-8	4.5	3.8	2.9	5.2	168	71	56	0	7	3	3
ND BISMARCK	26	7	48	-20	17	5	.1	0	.1	.2	50	80	63	0	7	2	0
ND FARGO	18	0	39	-19	9	0	.1	-.1	T	.3	60	81	67	0	7	3	0
ND WILLISTON	26	5	51	-34	15	3	.3	-.1	.2	.7	140	77	60	0	6	2	0
OH AKRON-CANTON	31	11	42	0	21	-6	.3	-.2	.3	1.5	71	78	46	0	7	1	0
OH CINCINNATI	30	13	39	-2	22	-10	.3	-.4	.3	1.1	42	82	44	0	7	1	0
OH CLEVELAND	29	11	40	4	20	-8	.3	-.2	.3	1.6	76	85	53	0	7	2	0
OH COLUMBUS	32	12	43	-5	22	-7	.3	-.3	.3	1.5	68	80	49	0	7	1	0
OH DAYTON	30	9	41	-5	20	-9	.2	-.4	.2	1.3	59	79	51	0	7	1	0
OH TOLEDO	26	5	33	-12	16	-10	.3	-.2	.3	1.6	80	90	51	0	7	1	0
OH YOUNGSTOWN	27	9	41	-4	18	-8	.3	-.3	.3	1.2	52	83	53	0	7	1	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Dec. 28, 1980

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK OKLAHOMA CITY	49	22	62	8	36	-2	T	.3	T	1.6	133	74	48	0	6	0	0
OK TULSA	43	21	58	8	32	-5	T	.3	T	1.4	100	82	51	0	6	0	0
OR ASTORIA	59	51	64	43	55	13	3.6	1.3	1.0	9.8	102	90	71	0	0	6	3
OR BURNS	42	31	49	24	37	11	.7	.3	.4	1.4	88	90	--	0	3	4	1
OR MEDFORD	55	38	60	29	47	10	.7	.1	.5	2.6	81	91	70	0	1	3	0
OR PENDELTON	59	45	66	37	52	18	.2	.1	.1	1.2	86	81	59	0	0	2	0
OR PORTLAND	58	48	64	36	53	14	3.8	2.4	1.7	9.2	170	92	80	0	0	5	2
OR SALEM	56	46	62	36	51	11	4.5	2.9	2.1	10.3	169	89	81	0	0	5	2
PA ALLENTOWN	27	9	34	-3	18	-10	.1	.7	.1	.7	21	72	62	0	7	1	0
PA ERIE	29	13	41	1	21	-7	.3	.3	.3	2.2	85	--	--	0	7	1	0
PA HARRISBURG	27	10	35	2	19	-12	.2	.4	.2	.9	32	66	49	0	7	1	0
PA PHILADELPHIA	29	15	38	1	22	-11	.5	.2	.2	.8	27	73	68	0	7	3	0
PA PITTSBURGH	30	10	43	0	20	-8	.2	.3	.2	1.1	48	80	46	0	7	1	0
PA SCRANTON	24	7	33	-7	16	-11	.2	.3	.2	1.2	52	67	56	0	7	1	0
RI PROVIDENCE	33	12	39	-10	22	-7	.4	.4	.4	1.1	31	70	56	0	7	2	0
SC CHARLESTON	48	30	61	24	39	-9	1.0	.3	.4	1.3	46	67	62	0	4	5	0
SC COLUMBIA	44	28	57	19	36	-9	.7	.1	.3	1.3	42	52	66	0	4	4	0
SC GREENVILLE	43	25	53	16	34	-8	.1	.8	.1	.4	11	71	46	0	6	3	0
SD ABERDEEN	27	8	51	-15	18	5	T	0	T	.1	33	70	52	0	7	1	0
SD HURON	30	11	48	-10	21	5	T	.1	T	.1	25	78	55	0	7	1	0
SD RAPID CITY	45	22	59	-2	34	9	.3	.3	.3	.6	200	78	48	0	4	3	0
SD SIOUX FALLS	27	8	40	-12	18	1	.1	0	.1	.3	50	75	61	0	7	2	0
TN CHATTANOOGA	43	24	58	17	34	-6	.3	.9	.3	.9	19	64	38	0	6	2	0
TN KNOXVILLE	43	24	58	14	34	-6	.5	.6	.5	1.7	41	74	45	0	7	1	1
TN MEMPHIS	47	28	58	20	38	-4	.1	1.0	.1	1.8	41	71	44	0	6	2	0
TN NASHVILLE	44	24	53	14	34	-5	.4	.7	.3	1.4	34	73	40	0	6	2	0
TX ABILENE	60	32	71	17	46	1	0	.2	0	1.7	189	77	42	0	3	0	0
TX AMARILLO	59	25	70	16	42	5	T	.2	T	.4	67	80	31	0	5	0	0
TX AUSTIN	59	36	70	26	47	-3	T	.5	T	1.3	62	73	47	0	2	0	0
TX BEAUMONT	59	39	70	33	49	-4	T	1.1	T	2.2	49	72	52	0	0	0	0
TX BROWNSVILLE	66	46	74	40	56	-5	T	.3	T	1.8	164	86	60	0	0	0	0
TX CORPUS CHRISTI	62	41	71	33	52	-6	T	.4	T	.3	21	78	46	0	0	0	0
TX DEL RIO	62	36	72	29	49	-2	T	.1	T	.9	225	71	43	0	2	0	0
TX EL PASO	72	30	76	23	51	8	0	.1	0	T	0	76	27	0	3	0	0
TX FORT WORTH	55	33	66	17	44	-2	0	.4	0	1.5	88	76	44	0	4	0	0
TX GALVESTON	58	45	66	36	51	-4	0	.8	0	1.8	56	82	63	0	0	0	0
TX HOUSTON	62	38	79	30	50	-3	0	.9	0	1.3	34	76	45	0	2	0	0
TX LUBBOCK	66	28	75	21	47	7	T	.1	T	.6	150	85	29	0	5	0	0
TX MIDLAND	62	30	72	20	46	1	0	.1	0	1.2	300	76	35	0	6	0	0
TX SAN ANGELO	63	31	73	20	47	0	0	.2	0	2.2	440	89	41	0	5	0	0
TX SAN ANTONIO	62	35	71	27	48	-4	T	.3	T	.6	43	80	47	0	2	0	0
TX VICTORIA	61	37	69	27	49	-6	T	.4	T	.8	47	85	45	0	2	0	0
TX WACO	59	32	74	21	46	-2	T	.4	T	2.7	150	74	45	0	4	0	0
TX WICHITA FALLS	57	28	72	17	42	0	0	.3	0	2.0	167	72	39	0	6	0	0
UT BLANDING	53	28	58	25	40	12	0	.3	0	.2	17	75	35	0	7	0	0
UT SALT LAKE CITY	49	32	58	28	41	12	T	.3	T	.4	29	87	56	0	4	1	0
VT BURLINGTON	20	-6	35	-26	7	-12	.2	.2	.2	1.4	74	71	50	0	7	2	0
VA LYNCHBURG	37	18	47	4	27	-8	.2	.5	.1	.4	13	69	75	0	7	3	0
VA NORFOLK	41	28	50	14	34	-6	.7	0	.5	1.8	64	69	75	0	5	4	1
VA RICHMOND	35	19	46	5	27	-10	.3	.4	.1	.4	13	79	59	0	7	3	0
VA ROANOKE	36	16	52	3	26	-10	.1	.6	.1	.4	14	75	46	0	7	1	0
WA COLVILLE	46	37	58	32	42	16	.5	0	.3	3.2	160	--	--	0	1	3	0
WA OMAK	47	33	58	28	39	--	.4	.1	.2	2.1	--	--	66	0	4	3	0
WA QUILAYUTE	53	47	56	40	50	10	6.0	2.5	2.3	17.0	121	97	89	0	0	7	4
WA SEATTLE-TACOMA	56	48	62	41	52	12	3.0	1.6	1.3	5.9	107	92	73	0	0	7	2
WA SPOKANE	49	40	56	33	44	17	.7	.2	.4	3.2	160	91	76	0	0	4	1
WA WALLA-WALLA	60	47	68	37	54	20	1.5	1.0	.8	2.9	171	79	66	0	0	5	0
WA YAKIMA	51	35	67	30	43	14	.6	.3	.3	2.6	236	90	69	0	2	3	0
WV BECKLEY	35	13	49	-3	24	-7	.4	.3	.3	.9	31	66	45	0	7	2	0
WV CHARLESTON	39	15	52	2	27	-7	.4	.4	.4	1.4	48	81	46	0	6	1	0
WV HUNTINGTON	36	18	49	8	27	-7	.4	.3	.4	1.5	58	78	46	0	6	1	0
WV PARKERSBURG	33	16	44	7	24	-9	.3	.3	.3	1.4	58	84	55	0	6	1	0
WI GREEN BAY	24	7	31	-14	16	-2	.3	.1	.1	1.0	83	72	54	0	7	4	0
WI LA CROSSE	27	13	33	-5	20	0	.2	0	.1	.6	67	70	53	0	7	2	0
WI MADISON	27	8	34	-7	17	-2	.5	.2	.3	1.6	114	74	50	0	7	5	0
WI MILWAUKEE	25	12	34	-6	19	-3	.5	.1	.2	3.0	188	74	54	0	7	4	0
WY CASPER	51	29	61	3	40	16	T	.1	T	.4	80	73	40	0	3	1	0
WY CHEYENNE	54	33	66	8	44	16	T	.1	T	.1	25	62	32	0	7	0	0
WY LANDER	51	26	57	12	38	17	0	.1	0	.2	50	77	37	0	4	5	0
WY SHERIDAN	46	22	67	-1	34	11	.4	.3	.1	.7	140	75	43	0	4	5	0
PR SAN JUAN	86	75	90	73	81	4	.5	.5	.4	3.0	57	82	55	1	0	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

## State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by ESS State offices in cooperation with the National Weather Service.

**ALABAMA:** Temperatures 6° below normal with some snow. Rains at midweek followed by dry weather. Soil moisture adequate. Fieldwork: 3.9 days. Plowing complete 22%. Fieldwork on schedule. Supply of feed from pasture short. Stored feed short to adequate. Activities: Harvest, chores, soil testing, fence repairs, cutting wood, top dressing small grains. Condition: Wheat and livestock fair to good; pasture fair.

**ARIZONA:** Sunny, very warm weather prevailed. No precipitation. Record high temperatures common 1st half of week, average temperatures 5 to 15° above normal. No snow depths for State. Cotton harvest winding down, 2d pick, scrapping major activities. Weather favorable for field operations. Residue disposal proceeding. Fields prepared for subsequent crops. Wheat seeding on an increasing scale in southwest and central areas. In southeast, nearly 75% seeded, planting 2 to 3 weeks ahead of normal. Sugarbeets satisfactory progress. Alfalfa growth seasonally slow. Very limited cutting. Lettuce harvest active. Fields planted for spring harvest, up to even stands. Leafy vegetables moving in good volume. Immature vegetables, all stages of growth, making satisfactory progress. Citrus harvest progressing. Navel oranges slowed by limited demand. Lemons slowed by sluggish demand. Citrus groves in good condition. Ranges, pastures supplying less than average amounts of feed. Livestock mostly fair condition, supplemental feeding southeastern portion of State. Water supplies short in Desert areas, adequate in higher elevations.

**ARKANSAS:** Cold with some warming near end of week. This was the coldest Christmas on record for many sections. Light rain, sleet, or snow fell mainly over the north half and extreme southeast sections. Highest normal 46°, lowest normal 38°. Highest mean 39°, lowest mean 27°. Highest temperature 57°, lowest temperature 2°. All departures from normal ranged from -7 to -12°. Most rainfall 0.19 in., least zero. Wheat good condition, supplying some forage for cattle. Protein supplements being fed to livestock. Hay supplies short.

**CALIFORNIA:** Strong high pressure ridging continued to dominate weather conditions. Vigorous weather systems, however, were able to cross the extreme northwest corner of the State during the first half of the week. Precipitation peaked with 24-hour totals Christmas morning in the 3 to 4 in. category over the Coast Mountains. No new snow was added to the Sierra Nevada and the pack dwindled during the week. The high pressure ridge pushed weekly average temperatures as much as a dozen degrees warmer than normal along the South Coast and portions of the Sierra. Additional rainfall needed.

Cotton plowdown and preparation for spring plant active. Wheat and barley seeding nearing completion. Irrigating small grains. Sorghum harvest near complete. Winter cultural practices continue. Avocado movement peaking. Zutano, Bacon principal varieties. Date demand, quality, price high. Citrus movement slow. Very good Ruby Desert grapefruit and lemon quality. Navel

orange, pecan harvest continues. Few cartons asparagus cut Desert. Broccoli harvest increasing southern California; moderate Central Coast. Carrot harvest moderate Salinas, Bakersfield; increasing slowly Desert. Cauliflower volume slowing Salinas; harvest fairly light South Coast, San Joaquin Valley. Celery harvest moderate South Coast, nearly complete Central Coast. Lettuce harvest increasing Imperial Valley, nearly complete Palo Verde Valley. Potato movement active Tulelake, limited harvest Riverside. Strawberries blooming South Coast. Light tomato harvest continues South Coast. Ranges northern California beginning to green up with rain, warmer temperatures. Southern districts need rain improve range conditions. Supplemental feeding necessary most areas. Sheep grazing crop residues San Joaquin Valley.

**COLORADO:** Continued unseasonably warm and dry. Only the northern mountains received any significant precipitation. Temperatures averaged from 6 to 14° above normal.

**FLORIDA:** Moist northeasterly wind flow off Atlantic brought occasional light rain drizzle over all areas except Panhandle the 22d. Polar cold front Christmas day brought scattered light showers with a light freeze Panhandle morning of the 26th. Continued below normal temperatures through weekend as a low pressure disturbance off Georgia coast maintained considerable cloudiness and northerly winds. Precipitation for the week averaged 0.10 in. or less. Temperatures averaged 8° below normal north to 4° below normal south with no freeze or frost except Panhandle the 26th.

Soil moisture adequate south, mostly short central, north and west. Sugarcane harvest active. Crop good to excellent condition. Very little farm activity during holiday period. Tobacco plant beds being prepared. Small grain planting complete. Early planted grain fair condition. Moisture needed in north and west. Permanent pasture poor to fair. Winter pasture growth slow. Supplemental feeding some areas. Cattle condition fair. Citrus groves very good to excellent condition, moisture short most areas, rain needed. Some growers irrigating. Cold temperatures beneficial. Harvest for processing active. A cold front passed through vegetable farming area midweek. Light to moderate showers accompanied cold front. Cold and holiday week slowed harvest most vegetables. Harvest expected to gain after holiday lull. Supplies expected to increase seasonally for cabbage, carrots, cauliflower, celery, escarole, parsley, lettuce, radishes. Good volume snap beans, sweet corn, eggplant, peppers, squash, tomatoes available. Light supplies okra, watermelons available. Strawberries in good condition. Bloom, fruit set good. Light harvest continues. Good volume available in January. Seeding early spring watermelon crop underway.

**GEORGIA:** Temperatures well below normal. Averages near 5° below normal northeast to 10° below south. Averages ranged from the low 30's in mountains to upper 40's in southeast. Rainfall amounts continued light. Most amounts less than 0.50 in.

Soil moisture improved, more needed especially central and south. Farm activity light, mostly harvest late crops, seeding small grains, liming. Pastures poor to fair. Cattle and hogs fair to good condition. Cold weather increased supplemental feeding of hay. Tobacco bed preparation well underway. No known shortages of fertilizer or fuel.

**HAWAII:** Weather variable. Light to moderate showers, Islands of Maui, Oahu slowed crop progress. Silting caused some damage to leafy vegetable plantings. Low temperatures some higher elevations affected crop maturity. Weather, Islands of Hawaii and Kauai favorable. More moisture needed some parts of Island of Hawaii. Vegetables; supplies heavy for all cabbage crops. All others generally light to moderate. Bananas; supplies light. However, Cavendish type increasing on Island of Hawaii. Papayas; weather favorable. Production increasing. Pineapples; very slow. Non-harvest some Islands. Sugar; grinding down. Pastures; generally fair to good. Rains beneficial Islands of Maui, Oahu.

**IDAHO:** Temperatures well above normal with averages ranging up to 16° above seasonal. High temperature was 62° at Lewiston and Burley and the low reported was 5° at Fairfield. Precipitation well above normal with Sandpoint receiving 3.48 in. and reporting record amounts for the month. The exception to the heavy precipitation was in the south where near to or a little below normal amounts fell. With the warm temperatures rain fell even in the higher elevations and decreased snow pack resulted. Some minor flooding also occurred in some areas.

Soil thawing out due to recent warm temperatures. No fieldwork during week. Year-end marketing of grain, potatoes taking place. Some early calving, lambing; feed supplies good.

**ILLINOIS:** Temperatures 2 to 7° below normal. Precipitation 0.10 to 0.50 in. One to six in. snow north central midweek, 1.0 to 3.0 in. 28th.

Winter wheat mostly good condition. Activities: Machinery repair, livestock feeding, manure hauling, some grain hauling.

**INDIANA:** Cold week and some snow. Temperatures averaged 3° below normal and ranged from 47 to -4°. Precipitation averaged 0.54 in. in north, 0.14 in. in central and 0.17 in. in south. Snow cover ranged from none in south to 2 to 7 in. in north. Sunshine was 41% of possible. A white Christmas occurred in central and north and also sub-zero cold.

Fieldwork limited to early in period. Some spreading of lime and manure, top dressing wheat, cleaning fence rows, hauling grain, clearing snow drifts, cutting wood, caring for livestock and usual chores.

**IOWA:** A dry week with seasonal to slightly subnormal temperatures. One or 2 in. snow fell with some glazing the 23d. Light showers with associated glazing fell the afternoon and evening of the 28th primarily over northeast. Coldest on the 25th. Clarion and Cresco reported -14°.

**KANSAS:** Precipitation light and limited central and east generally less than 0.10 in. to locally 0.25 in. northeast resulting from freezing rains and snow. Temperatures averaged 26 to 28° east, 3 to 5° below normal, 28 to 31° central, about normal, 36 to 39° west, 7 to 11° above normal.

Wheat acreage 98% emerged, 95% last year. Wheat condition good. Topsoil moisture rated

short to adequate, subsoil moisture rated mostly short. Fieldwork: 3.5 days suitable.

**KENTUCKY:** Precipitation below normal, averaging from around 0.10 in. in the west to around 0.40 in. in the east. Temperatures averaged in the upper 20's to around 30°, some 5 to 6° below normal.

Pleasant early winter weather. Most fall seeded grain believed in satisfactory condition, but some freezing and thawing. Burley sales totaled \$332.7 million in Kentucky in December, but 12% were resales; markets reopen January 5. Livestock wintering well to date.

**LOUISIANA:** Temperatures 4 to 8° below normal. Extremes: 74 and 19°. Rainfall light. Heaviest 24-hour total 0.49 in.

Activities: Caring for livestock and routine chores. Harvesting citrus and winter greens.

**MARYLAND & DELAWARE:** Temperatures averaged 14° below normal except at BWI where temperatures were 4° below normal. Highs upper 20's to low 30's. Lows dropped to low to upper teens. Precipitation was 0.04 in. Statewide. Hagerstown received the most precipitation while Salisbury received the least.

**MICHIGAN:** Below normal temperatures third week in a row. Temperatures averaged 5 to 8° below normal. Precipitation ranged from 0.25 in. to 0.70 in. Snowfall 2 to 9 in.

Chores remain main farm activity. Marketing slow due to holidays. Livestock good condition.

**MINNESOTA:** Temperatures averaged 5° below normal north central and northeast and near normal elsewhere. Precipitation generally below normal except along the north shore of Lake Superior where conditions were about 0.50 in. above normal. Snowfall averaged 3 in. northeast and less than inch elsewhere.

**MISSISSIPPI:** Temperatures below normal. Extremes: 14 and 70°. Cloudy and slow warming trend early week; cold front midweek, slightly warmer at weekend.

Soil moisture adequate. Fieldwork: 3.0 days suitable. Wheat condition fair. Livestock and pasture condition fair to poor. Hay and roughage and feed grain supplies short to adequate.

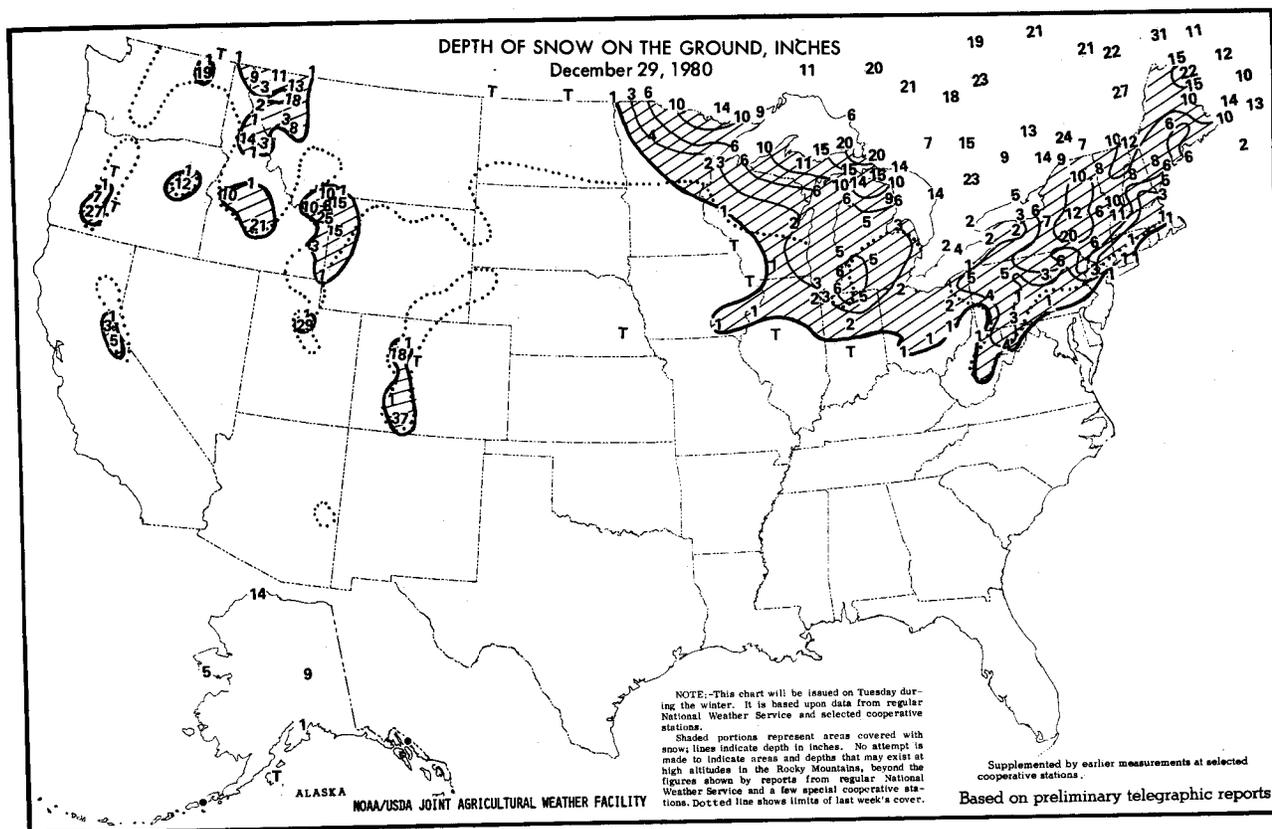
**MISSOURI:** Cold air pushed into the State as temperatures averaged 8° below normal. Precipitation was nonexistent to light across most of Missouri with the Bootheel receiving the most precipitation.

Soil moisture and livestock water supplies short. Livestock in generally good condition due to mild fall weather.

**MONTANA:** Heavy rains from 4 to 6 in. fell over areas west of Divide. Elsewhere, precipitation light to moderate. Very warm temperatures prevailed across most of State. The north central and northeast were cold till end of week. Nearly all State record maximum temperatures last of week. Temperatures averaged 14° above normal west and southwest to 3° below normal northeast. Highest temperature 70° at Roundup and lowest 31° below zero at Glendive.

Wheat condition fair to good. Wind damage moderate to light. Livestock condition good.

**NEBRASKA:** Temperatures 10 to 14° above normal over west and near normal east. Precipitation very light with 0.50 in. over southeast and less than 0.10 in. remainder of State.



**NEVADA:** Cloudy, but little precipitation. Light rains confined largely in northern areas. Only about 1.00 in. of snow Sierras. Temperatures well above seasonal normals, averaging 10 to 15° above average. Extremes: 73 and 13°. Cotton harvest completed. Livestock care minimal due to lack of snow and mild weather.

**NEW ENGLAND:** An arctic air mass swept into the region on the 25th bringing bitter cold temperatures and strong winds. Record low temperatures many locations. Melted precipitation for the month so far is only 25 to 50% of normal.

**NEW JERSEY:** Temperatures were 16 to 18° below normal averaging 13° north, 17° south and 19° coastal. Extremes: -12° at East Millstone and 43° at Atlantic City. Precipitation below normal averaging 0.14 in. north, 0.40 in. south and 0.53 in. coastal. Heaviest 24-hour total reported was 0.53 in. at Long Branch. Snow on ground: Belvidere 1 in., Canoe Brook 1 in., Long Valley 2 in., Newton 2 in. Farmers caring for livestock and tending to other winter chores.

**NEW MEXICO:** Week was dry with little cloudiness or windiness. Temperatures averaged 5 to 10° warmer than normal. Soil moisture conditions continue in short supply throughout most of the State, with some areas reporting an adequate supply. Farm activities included pecan harvest, cotton stalk cutting and general maintenance. Cotton harvest nearly complete with some areas continuing with clean-up operations. Irrigated wheat continued in fair to good condition with dryland wheat only in fair condition as a result of lack of precipitation. Grazing was mostly active. Harvest of pecans is

nearly complete and red chile harvest is complete. Ranges in poor to fair condition with some supplemental feeding continuing.

**NEW YORK:** Very cold arctic air created well below normal average temperatures during midweek ranging from 5 to 15° in the central and north sections to around 20 in the south and west. Below normal precipitation ranged from 0.50 to 1.00 in. in the snow squall areas near the Great Lakes to 0.25 in. or less elsewhere.

**NORTH CAROLINA:** Soil moisture mostly adequate. Fieldwork: 2 days suitable. Harvested: Soybeans near completion. Conditions: Wheat, oats, barley, rye fair to mostly good. Feed supplies adequate. Pastures fair to good. Major activities: Preparing and treating tobacco plant beds, fall plowing, cutting fire wood, repairing farm equipment.

**NORTH DAKOTA:** Temperatures varied greatly but averaged near normal. Gentle snowfall early in week. Temperature extremes: -35 and 58°. Warm weather stretching forage supplies. Snow cover now varies from none in southwest to 1.00 in. in northern portions. Many record high temperatures set during the week. Roads soft during midday. Marketing of crops and livestock lighter than usual. Sharp changes in temperature causing some respiratory problems with calves, a few deaths have occurred. Weather also somewhat detrimental to winter wheat and rye. Harvest activity virtually complete.

**OHIO:** Temperatures averaged 5 to 10° below normal; highs mid-20's to low 30's; lows low to mid-teens. Precipitation ranged from 0.15 to 0.77 in.; 0.20 to 2.30 in. below normal. Bare soil

temperatures at 4 in. range from 30° northwest to just over freezing in most of south.

Most farmwork included marketing crops and livestock chores.

OKLAHOMA: Temperatures averaged 5° above normal Panhandle to 7° below normal east central. Little precipitation received during week but some light freezing rain occurred extreme northeast 25th.

Soil moisture supplies, although shorter in central and western areas of the State, have generally been sufficient. Additional moisture needed. Small grains in fair to good condition and some wheat fields just recently seeded not yet up to stand. Cooler temperatures limited insect activity. Mild open weather aided otherwise poor grazing conditions. Feed and hay supplies, however, remain adequate with supplemental feeding needed. Cattle in generally good condition.

OREGON: Unseasonably warm weather brought record breaking high temperatures over most of the State averaging 3 to 12° above normal. Heavy rain accompanied the warm weather causing general flooding throughout the Willamette Basin and central and northern coastal areas, with some major flooding in the extreme northwestern section. The coastal zone and the Willamette Valley averaged 5.0 in. of rain while the north central stations reported an average of 2.0 in. The rest of the State received an average of 0.50 in.

Soil moisture supplies were surplus in the west and adequate in the east. Winter wheat condition remained good. An estimate of the damage from the flooding has not been made but it appears light. Livestock condition and range and pasture condition good and feed supplies remain adequate.

PENNSYLVANIA: Seasonal early in the period but light snow left 0.25 in. precipitation and bitter cold returned by midweek. Many areas had the coldest Christmas on record. Warming trend by week's end. Extremes: 43 and -24° at Pleasant Mount.

PUERTO RICO: Island average rainfall 0.86 in. or 0.38 in. below normal. Highest weekly total 2.32 in. Temperatures averaged about 76 to 78° on coasts and 73 to 74° Interior divisions. Extremes: 90 and 59°.

SOUTH CAROLINA: Unusual cold persisted except 60's 24th in east. Freezing rain 23d, snow, sleet, freezing rain over east and north 26th, 27th. Light precipitation most days except 28th.

Winter wheat seeding up 56% from last fall; conditions generally good. Pruning fruit trees, grape vines. Sampling, liming soil. Planning spring crop.

SOUTH DAKOTA: The week started out mild but a strong cold front on the 23d dropped temperatures below zero on the morning of the 24th. Considerable precipitation fell over the West and South on the 23d and 24th, with rain and snow West and snow South. Spearfish reported 0.83 in. of moisture in the form of rain and then snow. A quarter inch or better was common over the West. The North Central and Northeast reported only small amounts of precipitation for the week. Rapid warming began in the West on the 25th and spread slowly eastward the next few days. The warmest for the week was Martin with 64° on the 28th, and the coldest was Camp Crook with 25° below zero on the 24th. Eureka and Webster reached 20° below zero on the 24th. Weekly mean temperatures were well above normal West to near

normal East. A number of stations West reported weekly mean temperatures of 8° above normal. The coldest weekly mean temperature was 4° below normal at Milbank.

TENNESSEE: Weak high pressure dominated during early week. By midweek, a cold front moved through causing the majority of the week's precipitation. Rains changed to snow flurries with only trace amounts reported. High pressure moved in late week. Temperatures averaged mostly in 30's which were below normal. Precipitation amounts ranged from 0.12 to 0.64 in.

Activities: Feeding livestock, general farm chores.

TEXAS: Weather: High pressure generated southerly winds, above normal temperatures. Cold front pushed through during midweek providing brief cold temperatures. Little precipitation accompanied front. Rainfall much below normal. Only Panhandle, extreme South Texas recorded precipitation. Average temperatures above normal 2 to 7°. Coastal sections temperatures 4 to 5° below normal. Normal average temperatures range from 39° northwest to 56° coastal sections.

Crops: Warmer weather provided good conditions for field operations. Some areas still too wet for cotton harvest. South Texas began field preparations. Cotton harvest progressed well. Open weather provided good harvesting conditions. In Trans-Pecos area harvest slowed by moisture. Small grains progressed slowly due to cold temperatures. Warmer temperatures week's end promoted growth. Wheat fields providing fair to good grazing. Additional moisture, warm weather still needed. Oat fields damaged by cold temperatures. Greenbugs, grain mites problem in small grain fields. Wheat condition Statewide 10% excellent; 37% good; 37% fair; 16% poor. Peanut harvest delayed by wet conditions. Soybean harvest delayed by cool weather. Fields mature and harvest will resume soon.

Commercial vegetables: Lower Rio Grande Valley harvesting cabbage, cauliflower, broccoli, peppers. Spring onions progressing well. Harvesting early oranges, grapefruit continued. Coastal Bend, harvest of cabbage active. Land preparation underway. San Antonio-Winter Garden area, carrot, cabbage, spinach harvesting active. East Texas, planting of turnips, spring onions continued. Trans-Pecos, spring onions up to good stands. Land preparation continued. Pecan harvest nearing completion, production down sharply.

Range and livestock: Pastures providing limited grazing. Grazing small grains continued. Supplemental feeding continued. Livestock in good condition. Market activity light.

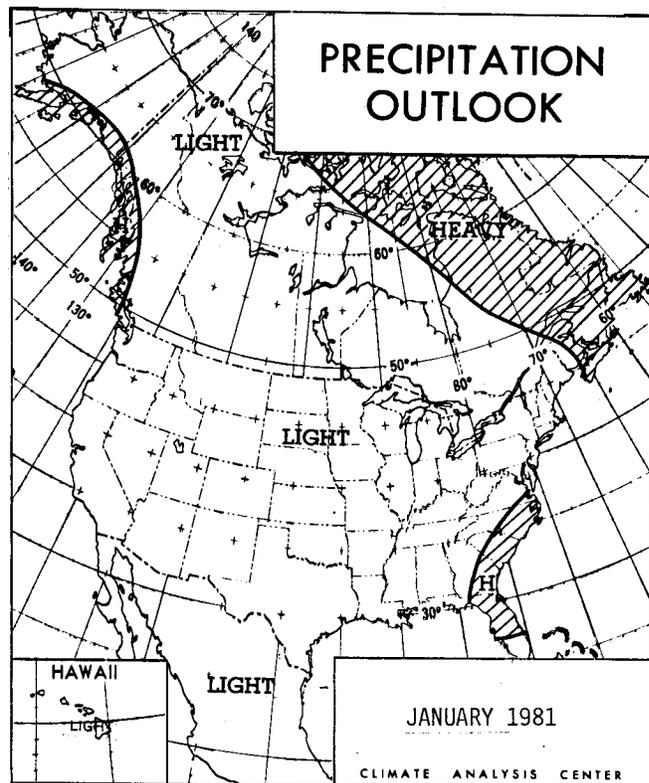
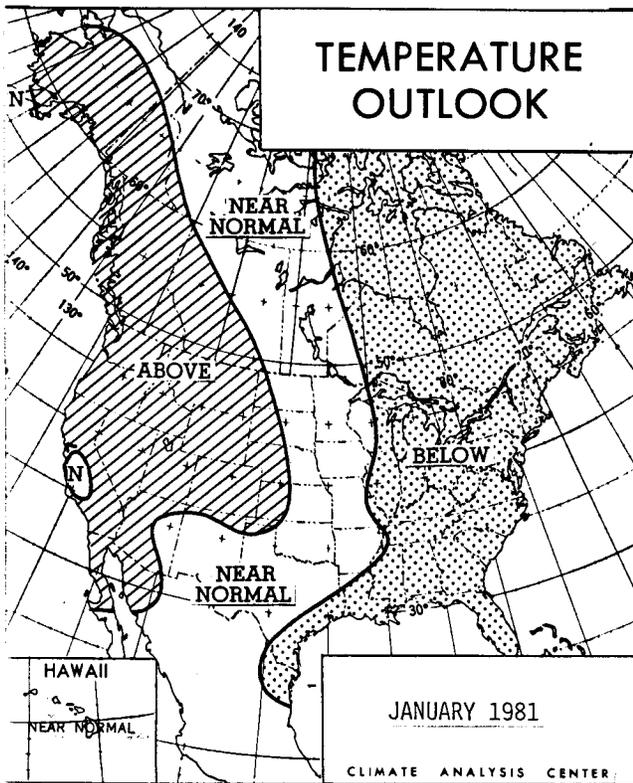
Cotton harvested 90%, 95% 1979, 95% average. Peanuts harvested 99%, 100% 1979, 100% average. Soybeans harvested 99%, 100% 1979, 100% average. Sugarbeets harvested 97%, 100% 1979, 100% average. Pecans harvested 88%, 85% 1979, 94% average. Sunflowers harvested 96%, 100% 1979, 100% average.

UTAH: Recurring periods of rain or snow northwest portion early in period. Accumulated amounts moisture generally light to moderate, little or none south and east. Average temperatures ranged between 15° above normal and 8° below. Considerable local fog northwestern valleys forepart of period improving after midweek.

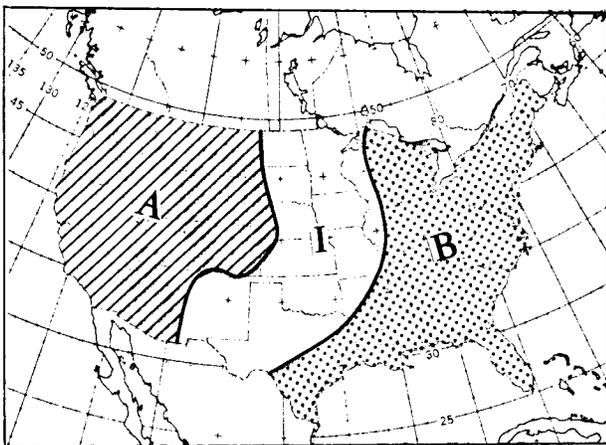
Apple, onion and potato storage facilities remain open except for holiday. Sorting and marketing continued as needed. Routine chores, care of livestock only major rural activities.

(Continued on page 20)

**Average Monthly Weather Outlook**



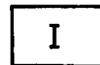
**OUTLOOK FOR 90 DAY AVERAGE TEMPERATURES  
JANUARY THROUGH MARCH 1981**



ABOVE NORMAL, 60% CHANCE OF OCCURRENCE



BELOW NORMAL, 60% CHANCE OF OCCURRENCE



INDETERMINATE, 50% CHANCE OF ABOVE NORMAL  
50% CHANCE OF BELOW NORMAL

The two categories Above and Below are to be compared to the long-term average or "normal" temperatures of the year 1941-70. Each category has a natural climatic frequency or probability of 50%. Each carries a 60% probability of occurring where forecast (shaded area), based on the verification scores of twenty-two years of experimental seasonal predictions.

NOAA, National Weather Service, Climate Analysis Center

# International Weather and Crop Summary

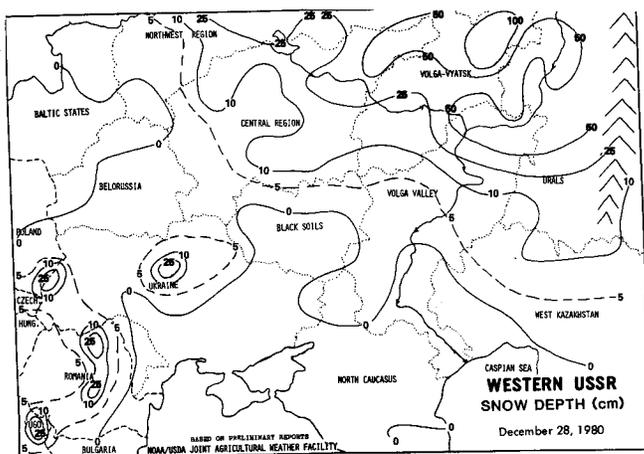
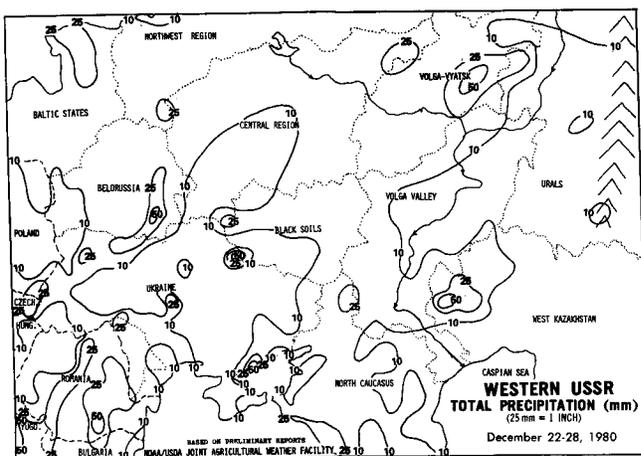
December 22-28, 1980

## HIGHLIGHTS

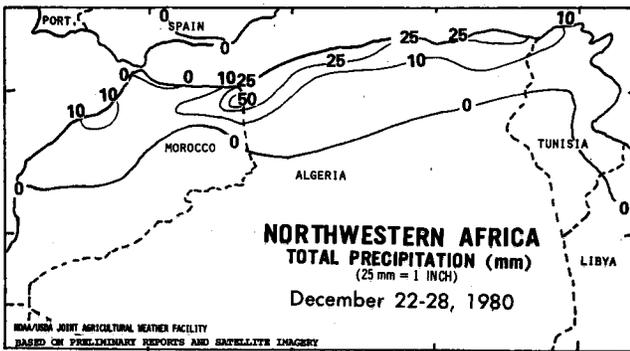
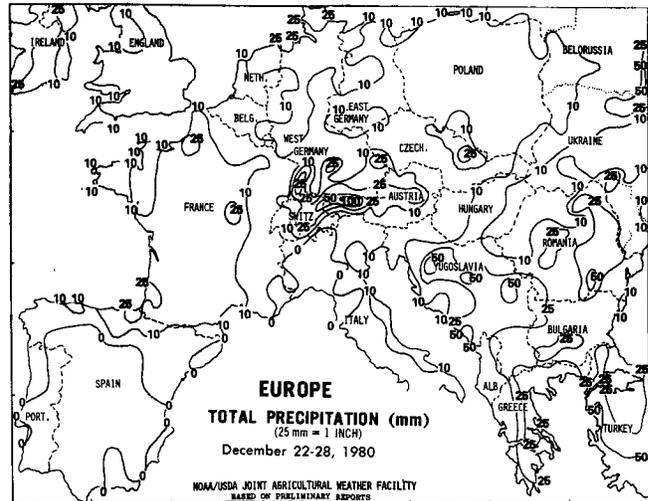
- WESTERN USSR:** A second consecutive week of much-above normal temperatures caused further erosion of the protective snow cover. Precipitation also stayed above normal in most areas.
- EUROPE:** Temperatures rose above normal over much of the region, but winter grains remained dormant in all but some southern and western countries. Most major agricultural areas remained snowfree.
- NORTHWESTERN AFRICA:** Above-normal rainfall continued in coastal areas of Algeria, with lighter totals in northern Tunisia and northern Morocco. Driest conditions are now centered in the southern winter grain area in Morocco.
- SOUTH AFRICA:** Present soil moisture supplies are generally adequate in the Maize Triangle; however, reserves are being depleted in western and southern portions.
- CHINA:** Very cold weather in the northern portion of the winter wheat belt may have caused some localized winterkill. No precipitation fell over most of the country.
- INDIA:** Rainfall of 15 to 35 mm occurred over most of the winter grain belt, dramatically improving growing conditions, especially in unirrigated fields.
- AUSTRALIA:** Scattered light showers caused only minor delays in winter wheat harvest now concentrated primarily in Victoria and South Australia. Beneficial showers occurred in Australia's eastern summer crop areas.
- MEXICO:** Unseasonably warm temperatures favored west coast vegetables. Most of the country was dry, but moderate rains over parts of the central Plateau and Bay of Campeche coastal plains will benefit ranges and livestock.
- SOUTH AMERICA:** Heavy rainfall continued in much of Brazil's soybean areas where soil moisture supplies are mostly abundant to excessive. Showers in southern Buenos Aires may have delayed the winter wheat harvest but relatively dry weather prevailed in the Argentine corn area.

**WESTERN USSR:** Temperatures remained much above normal for a second consecutive week. Readings averaged above freezing in most winter grain areas, causing further erosion of the protective snow cover. Fields in the Black Soils zone needed covering the most, for it is there that the cold

is most likely to strike. Precipitation also stayed above normal in most areas, but much of the Ukraine had drier weather. Continued wetness and temperatures near freezing prolonged possibilities of frost-heaving damage once again.

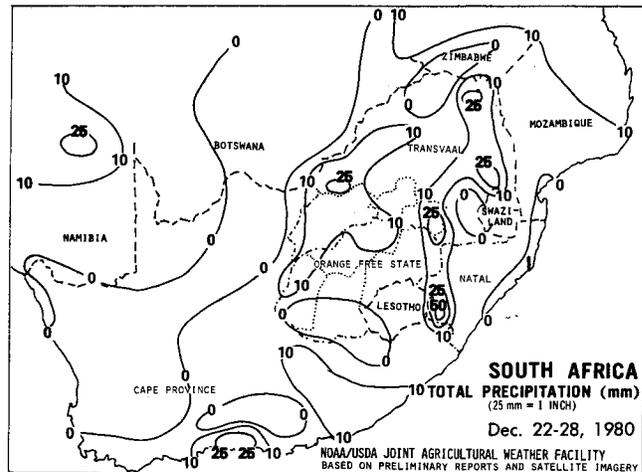


EUROPE: Conditions warmed in many countries, with temperatures averaging above normal over much of the region. Winter grain growth resumed in some western and southern areas, though it was limited in the northwest. Many countries received normal precipitation or less, with heaviest amounts occurring in the Alps and across the southeast. Most major agricultural areas remained snowfree. By the week's end, only in France were many fields snow covered. Little danger of winterkill exists under these moderate conditions, and chances are good that snow would blanket fields before cold set in.

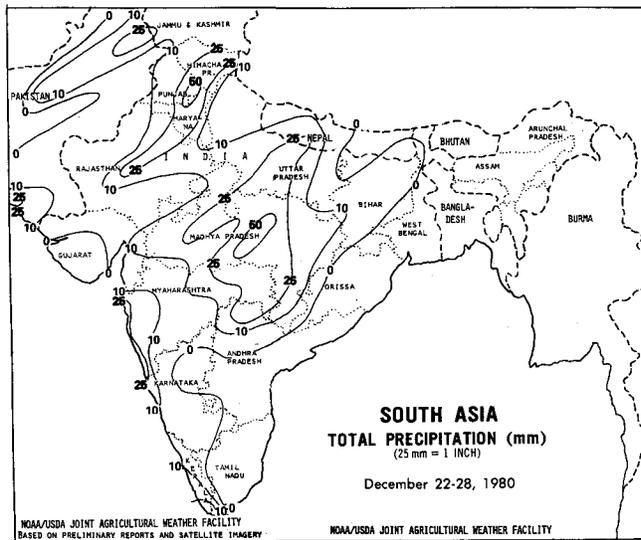
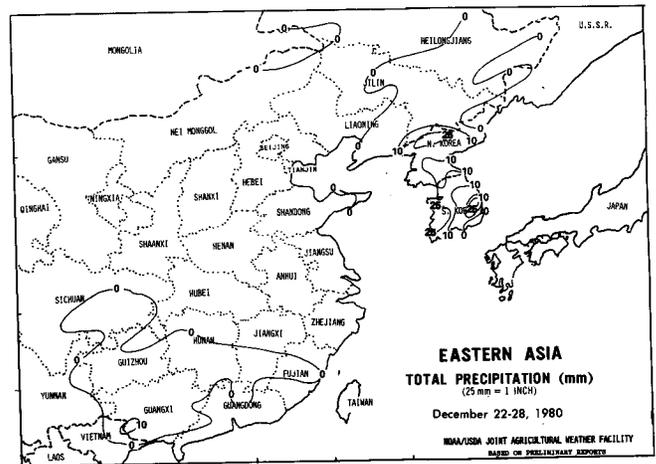


NORTHWESTERN AFRICA: Above-normal rainfall continued in coastal areas of Algeria. The moisture was a good follow-up to the abundant rainfall of the preceding week. Light rains in northern Tunisia maintained good growing conditions for winter grains there as well. In Morocco, northern winter grain areas received light rainfall to maintain soil moisture barely adequate for growth. Areas to the south of Casablanca remained unfavorably dry, however.

SOUTH AFRICA: Rainfall in the corn-growing areas was generally below-average for the week and coverage was spotty. Amounts were near-normal only in a narrow band in eastern portions of Orange Free State and the Transvaal (25-30 mm of rain) and in the north-central portion of Orange Free State and southwestern Transvaal (20-25 mm). Elsewhere, minimal rainfall occurred with maximum temperatures averaging in the low 30's (C). Corn growth is now in the period of rapid leaf formation with an extensive root system already established and initial development of the tassel (4 to 5 weeks after emergence) beginning in many areas of the Maize Triangle. The crop is entering a critical phase of development during which moisture deficiencies may reduce the potential size of the ear. Moisture supplies should be adequate for the present; however, additional rainfall is needed in most areas during the next few weeks.

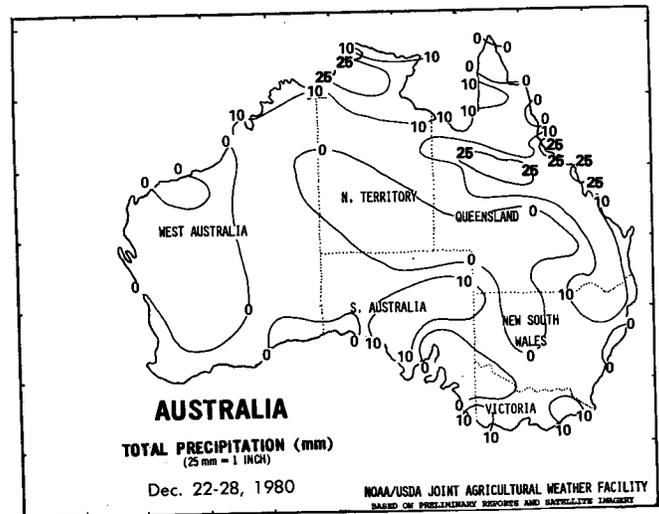


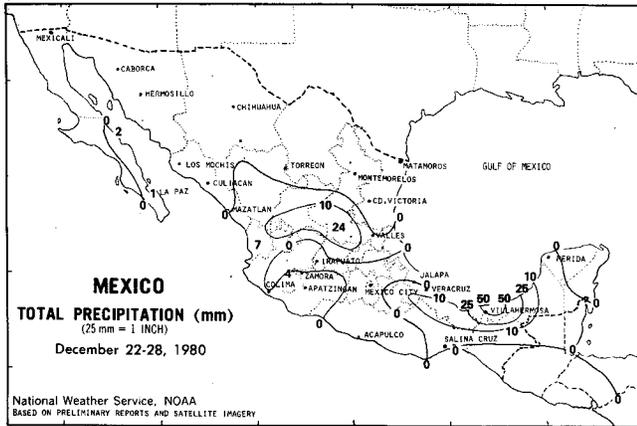
**EASTERN ASIA:** Very cold weather pushed southward into the North China Plain, dropping temperatures well below normal. Conditions may have become cold enough to cause some localized winterkill in northern portions of the winter wheat belt. No precipitation fell over most of China. In the hills south of the Yangtze River, only light precipitation of 1 mm or less occurred. South Korean barley fields received mostly above-normal precipitation, probably as snow. Temperatures stayed below normal and below freezing, keeping winter barley in a dormant state.



**SOUTH ASIA:** Rainfall which began late the preceding week in western India spread to the northeast and dropped abundant amounts over most of the winter grain belt. Totals were generally in the range of 15 to 35 mm, whereas normal totals for all of December range only from 5 to 15 mm. If winter grains in unirrigated fields survived the earlier dry weather, this moisture will benefit them immensely. Another possibility is that winter grain sowing and/or germination was delayed by the dryness, in which case this moisture probably arrived in time for the crop cycle to begin without serious potential yield losses. The moisture also eased the irrigation load and lowered daily maximum temperatures to near normal. The crop outlook is much improved.

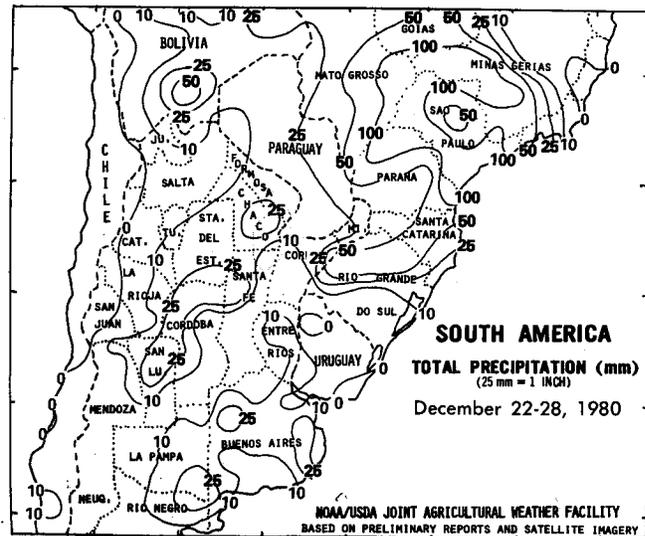
**AUSTRALIA:** Late harvest of winter grains proceeded on schedule with light scattered showers causing some minor harvest delays in Victoria and South Australia. Significant rainfall was confined primarily to South Australia's winter grain area (10 mm) and the summer crop areas of northern New South Wales and eastern Queensland (10-25 mm). However, coverage was limited. Moisture demands were high for spring sown crops in eastern Australia, since average daytime temperatures were in the low to mid 30s (C) during the week. Additional moisture is needed for these crops to avoid stress conditions during vegetative and reproductive stages of growth.





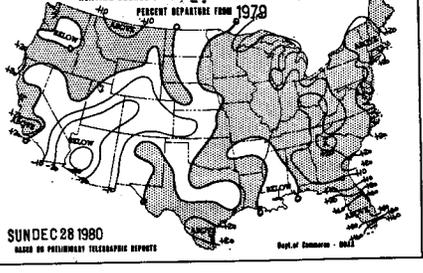
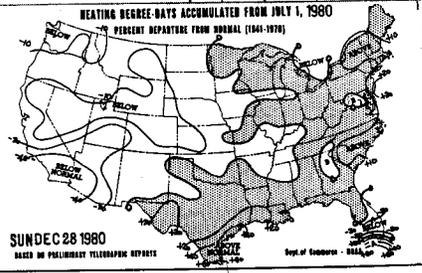
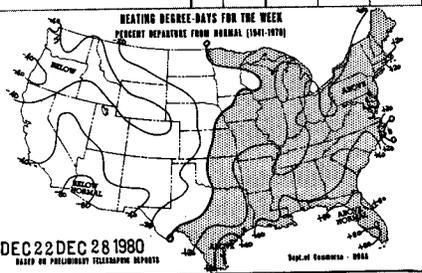
**MEXICO:** Unseasonably warm temperatures averaging 21 to 23° C along the West Coast kept tomatoes, cucumbers, and other vegetables developing very well. In contrast, unusually cool weather over the northeast slowed growth of tender crops but helped color citrus fruit. Good harvesting weather for corn and beans continued over the Southern Plateau. Most of the country was dry, but moderate rains over parts of the central Plateau and Bay of Campeche coastal plains will benefit ranges and livestock.

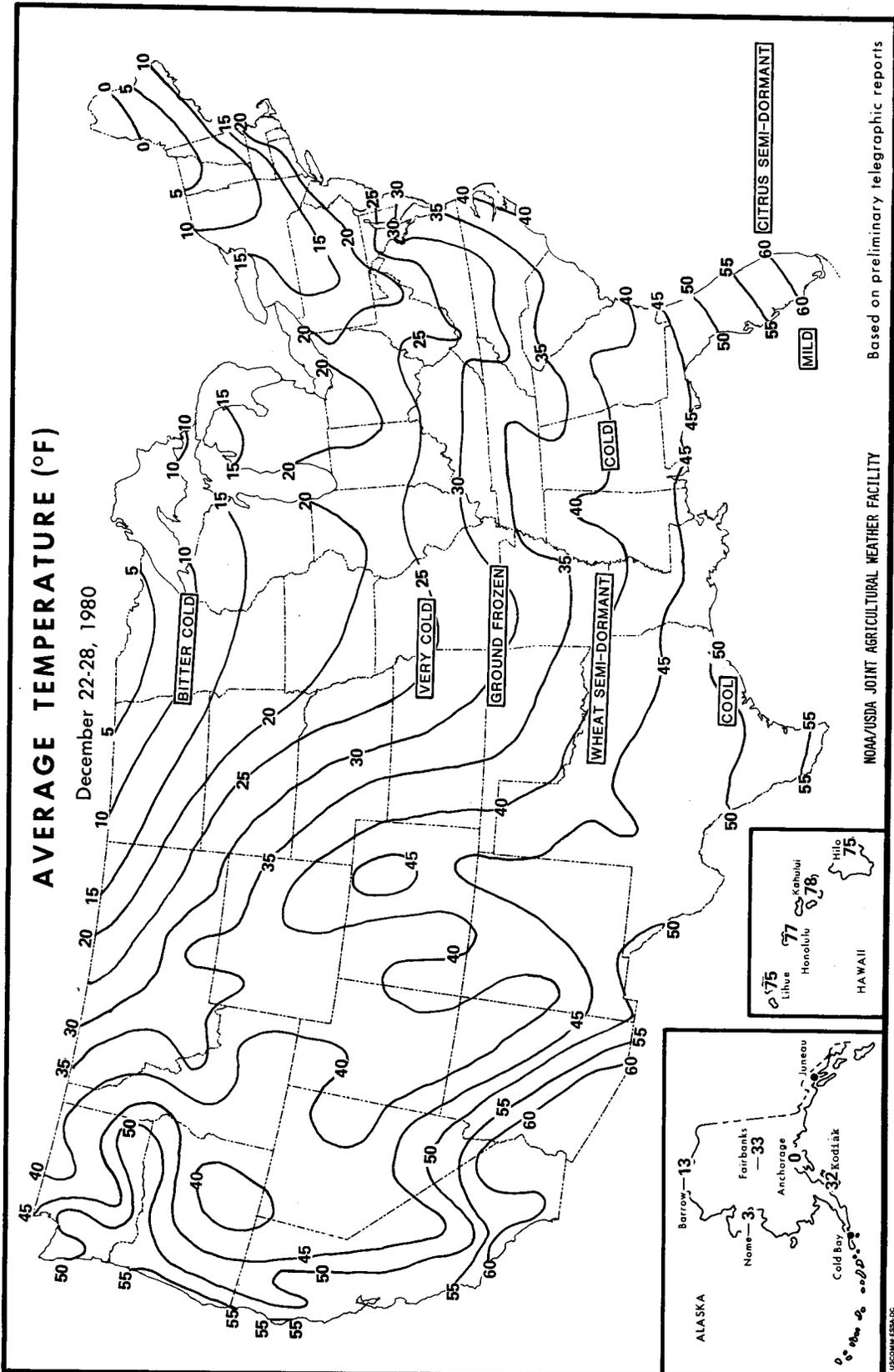
**SOUTH AMERICA:** Above-normal rainfall occurred again through most of Brazil's crop areas while temperatures remained seasonal. Weekly totals ranged from 50 to 150 mm in all areas except for the extreme northern portion of Minas Gerais, southwestern Parana, and southern Rio Grande do Sul. Moisture supplies are abundant to excessive with some isolated areas requiring soybean replanting. In northern areas, the soybean crop has reached the stage where axillary buds which form flower clusters have begun to develop from the main stem. In Argentina, substantial showers (10-25 mm of rain) occurred in southern Buenos Aires province. These showers may have caused some delay in fieldwork. Coincidentally, the highest daytime temperatures (32-38° C) also occurred in this area where the winter wheat harvest is still in progress. Minimal rainfall occurred in the corn-growing area of northern Argentina. Soil moisture is adequate at the present time but additional moisture will be needed to meet increasing crop moisture demands.



HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING DEC. 28, 1980.
BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1, 1980.

Table with columns for STATES AND STATIONS, WEEKLY ACCUMULATION, and DEPARTURE. Rows list various states and cities with their corresponding heating degree day data.





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FIRST CLASS MAIL

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STATE SUMMARIES (Continued)

VIRGINIA: Cloudy, unusually cold with temperatures averaging about 12° below normal. Highs mostly in 20's, 30's with a few in 50's on 24th. Lows generally in teens with slightly warmer readings on 23d to 24th and again on 28th. Lows dipped down to zero mark at several locations on 25th, 26th. Precipitation light, averaging less than 0.25 in. Major ice storm on 22d and 23d resulted in over 1,100 auto accidents across State, with four deaths. More rain on 24th with some light snow in mountains. Still more ice, freezing rain, sleet on the 26th and 28th, but conditions were not as bad as on the 22d and 23d.

WASHINGTON: West: Relatively mild temperatures and rainfall, heavy at times. The heavy rains and melted mountain snow caused flooding throughout western Washington. Some reports of livestock losses and erosion are in but more will be known later this week as to the extent of damage. Digging of rhubarb crowns for forcing continued as weather permitted. Feed supplies remained adequate.

East: Relatively mild temperatures continued throughout the week with intermittent rains. Fall seeded grains in good condition but vulnerable to freeze as no snow cover present. Fruit growers did some pruning but maintenance work and record keeping were the major activities. Hay supplies remain adequate.

WEST VIRGINIA: Temperatures averaged 10° below normal, high 46°, low -12°. Below zero temperature recorded in several areas. Two separate cold fronts crossed the State causing temperatures to remain low. Precipitation started as rain and changed to snow 24th.

Hay, grain and other feed supplies adequate.

WISCONSIN: Temperatures below normal. Low readings fell below zero Statewide morning 25th. Highs reached near 40 extreme south early 24th before cold front moved into State. Temperatures Christmas day were in teens but moderated on weekend to 20's and 30's. Extremes: 38 and -28°. Precipitation remained below normal, especially western half. Total weekly precipitation ranged from 0.10 to 0.20 in. west to around 0.50 in. southeast. Heaviest snow occurred 23d when 1 to 3 in. fell except for larger amounts up to 12 in. Lake Superior snowbelt. About one-third inch of rain and sleet fell 28th southern areas.

WYOMING: Temperatures averaged well above normal. Warm spots in western part. Highest temperature 67° while coldest -10°. Precipitation on average below normal most sections, except in northeastern part where precipitation averaged above normal.

Winter wheat mostly good, very little wind damage thus far, additional moisture would be beneficial. Livestock mostly good, very little weather stress thus far. Very little supplemental feeding.