

WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration,
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service and
World Agricultural Outlook Board

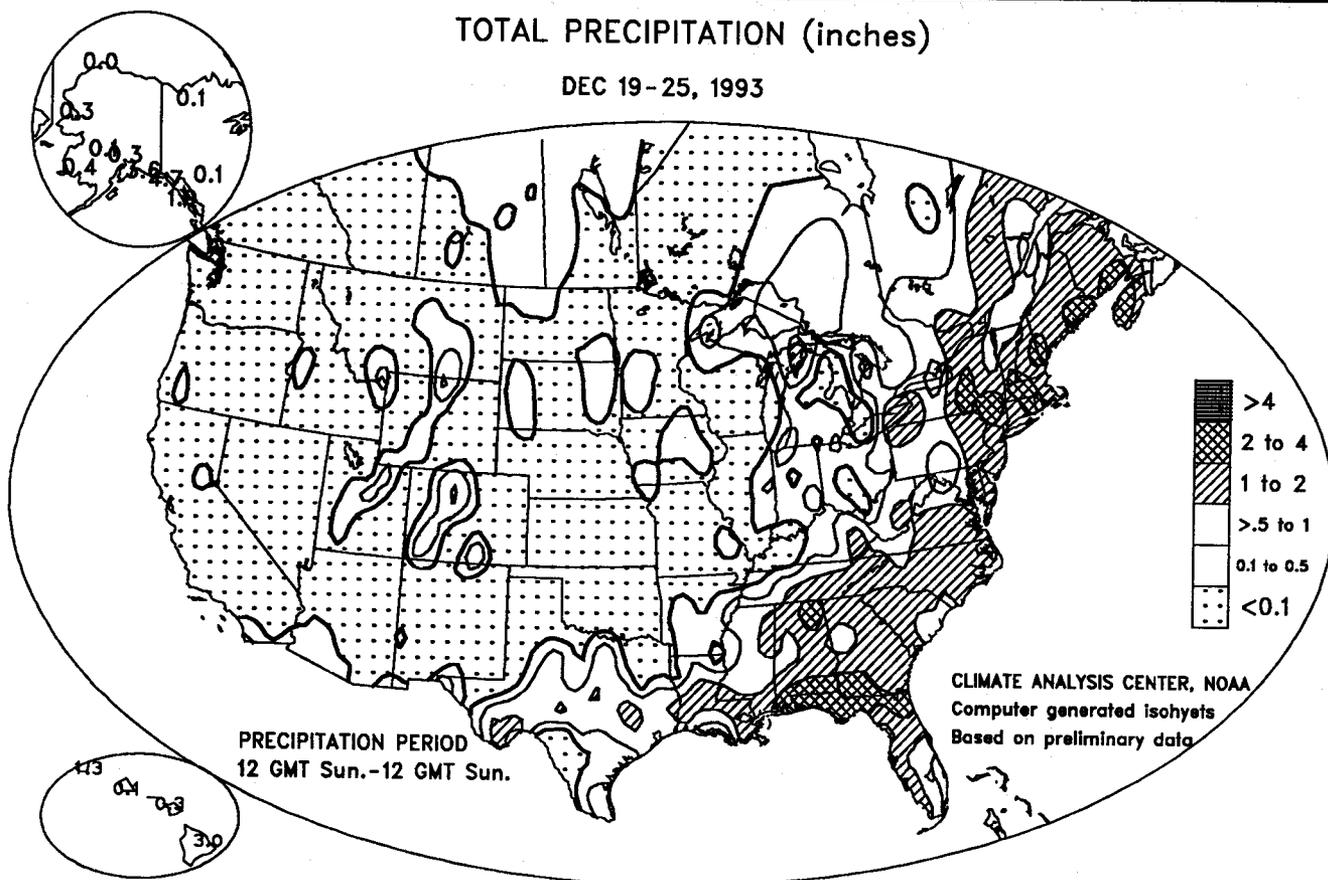
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Washington, D.C.

December 28, 1993

TOTAL PRECIPITATION (inches)

DEC 19 - 25, 1993



HIGHLIGHTS

December 19 - 25, 1993

Multiple storms traversed the Southern and Eastern States, combining with increasingly cold air to produce considerable rain and snow. Early in the week, a storm system tracked from the Texas coast to the Middle Atlantic States. A broad shield of rain covered the coastal plains, while heavy snow accumulated in the piedmont and Appalachian highlands. More than 1 inch of rain soaked locations such as Tallahassee, FL, Richmond, VA, and Portland, ME. Inland, Asheville, NC received 7 inches of snow, and Binghamton, NY measured 1 foot. At midweek, another batch of moisture streaked eastward from Texas across the Southeast. By Thursday morning, an inch of snow covered the ground as far south as Columbus, GA. Atlanta, GA tallied 2.8 inches. Meanwhile, a stagnant high pressure center trapped air in interior valleys of the West, resulting in fog, known locally as "tule fog" in California's central valley. Toward week's end, progressively colder air surged into the eastern half of the Nation. Frequent light snow and blustery northwesterly winds plagued the Nation's northeastern quadrant, while lake-effect snow squalls invaded numerous Great Lakes communities.

Buffalo, NY, in the path of a snow squall streamer on Friday, reported 14.5 inches. By December 25, snow covered much of the northern half of the Nation, although downslope winds across the northern High Plains quickly eroded snow as temperatures warmed. Billings, MT reached 54°F on Saturday. In contrast, Roseau, MN recorded a low of -24°F.

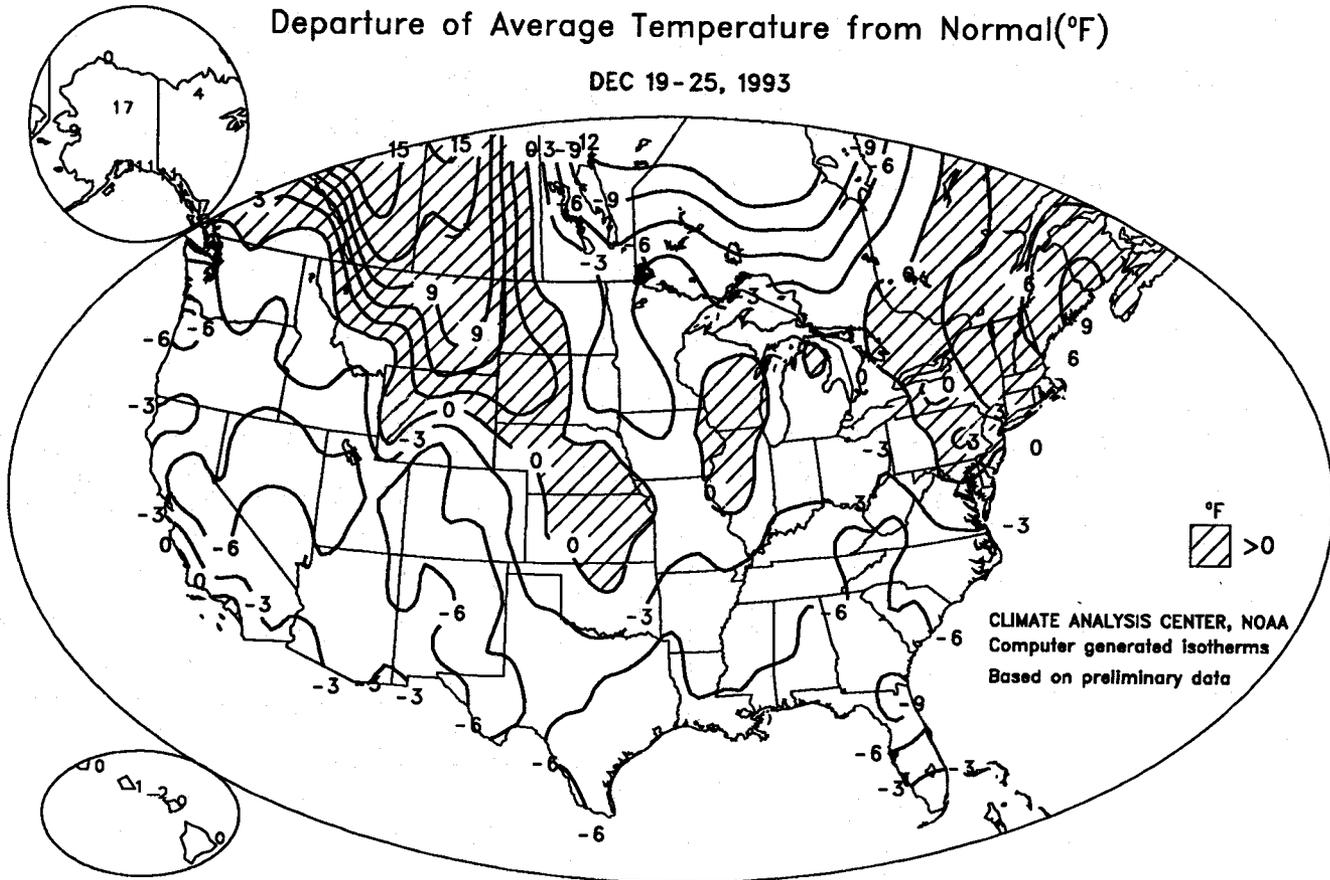
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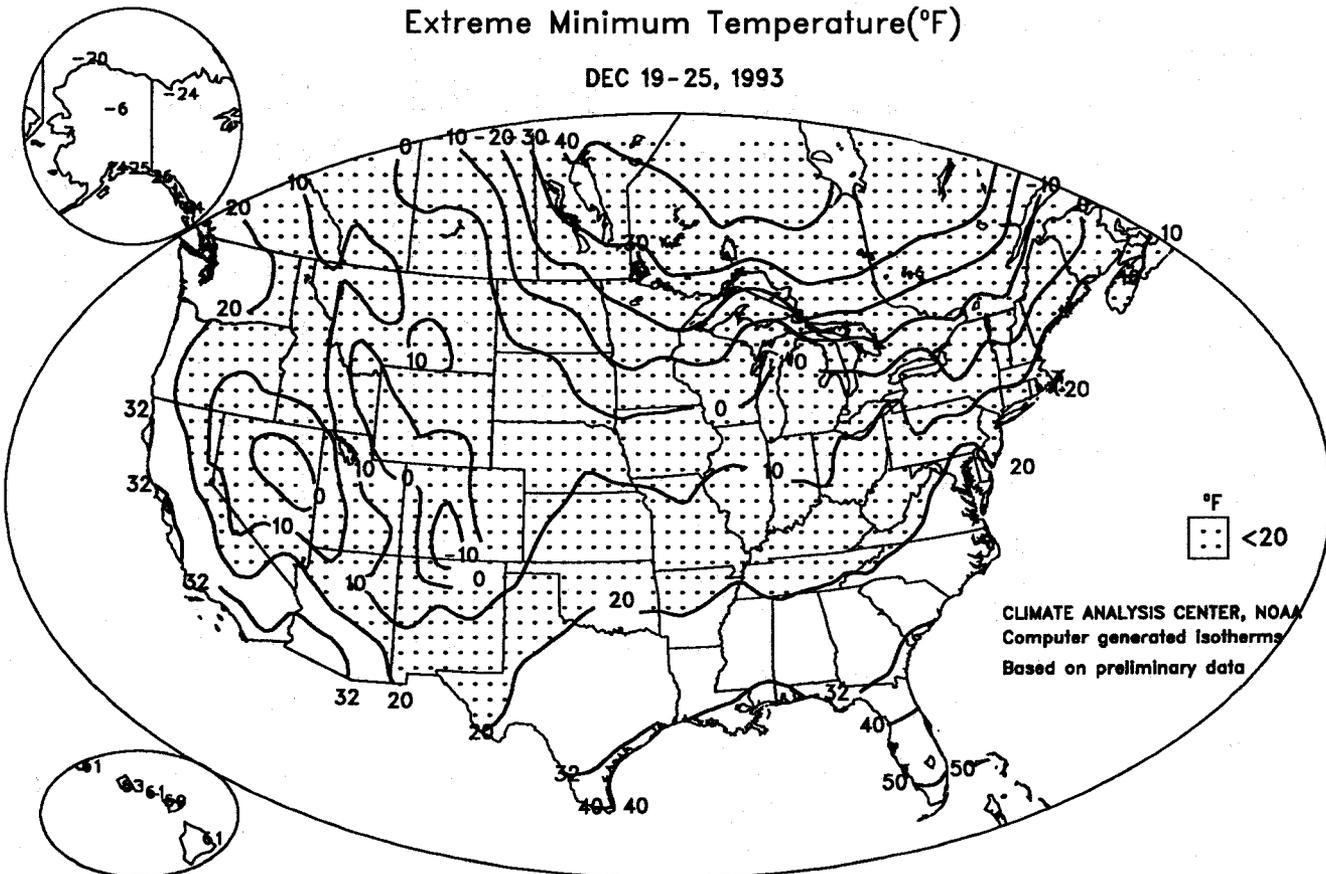
Departure of Average Temperature from Normal(°F)

DEC 19-25, 1993



Extreme Minimum Temperature(°F)

DEC 19-25, 1993



National Weather Data for Selected Cities

Weather Data for the Week Ending December 25, 1993

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	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	45	29	53	24	37	-7	.9	-.3	.8	3.6	87	38.6	72	93	54	0	5	3	1		
MOBILE	51	37	67	30	44	-8	2.0	-.8	1.1	3.6	85	60.3	96	91	52	0	2	2	1		
MONTGOMERY	48	33	57	29	41	-6	1.1	-.1	.9	4.5	109	52.2	97	92	52	0	2	3	1		
AK ANCHORAGE	33	23	38	18	28	12	.1	-.1	.1	.1	34	16.9	108	93	76	0	7	2	0		
BARROW	-9	-14	0	-21	-11	1	T	.0	T	.1	110	5.3	123	77	73	0	7	3	0		
FAIRBANKS	14	-2	25	-11	6	14	.4	.2	.4	.62	62	11.3	105	87	81	0	7	3	0		
JUNEAU	42	35	45	29	38	12	2.3	1.3	.9	5.7	159	60.8	114	97	81	0	2	3	3		
KODIAK	41	32	45	26	36	6	3.5	1.9	1.3	7.0	128	73.9	112	96	68	0	3	3	3		
NOME	23	8	30	-7	15	9	.8	.6	.2	1.9	271	19.4	132	94	84	0	7	6	0		
AZ PHOENIX	62	39	71	35	51	.0	.0	.0	T	.3	13.4	178	62	19	0	0	0	0	0		
PRESCOTT	48	20	60	16	34	.0	.0	.0	.5	36	17.3	90	68	25	0	0	0	0	0		
TUCSON	57	36	68	30	47	.0	.1	.1	.1	16	15.0	127	78	29	0	1	1	0	0		
YUMA	66	45	70	41	55	.0	.0	.0	.4	4.6	150	32	15	0	0	0	0	0	0		
AR FORT SMITH	47	26	54	19	36	.0	.1	.1	2.9	113	47.6	118	86	39	0	6	6	0	0		
LITTLE ROCK	46	29	50	21	38	.0	.1	.1	4.2	107	47.5	98	78	42	0	5	2	2	0		
CA BAKERSFIELD	46	35	54	30	40	.0	.0	.0	.6	124	8.2	146	87	48	0	2	0	0	0		
FUREKA	57	37	68	35	47	.0	.0	.0	6.8	139	39.1	107	87	57	0	0	0	0	0		
FRESNO	42	34	48	33	38	.0	.0	.0	1.0	93	13.8	135	97	46	0	0	0	0	0		
LOS ANGELES	72	45	79	41	59	.2	.1	.1	1.0	74	20.4	175	65	19	0	0	1	0	0		
REDDING	57	30	64	27	43	.0	.0	.0	3.2	72	43.9	136	92	31	0	6	0	0	0		
SACRAMENTO	40	32	43	28	36	.0	.0	.0	1.7	84	23.4	138	99	84	0	5	0	0	0		
SAN DIEGO	68	45	74	42	57	.0	.1	.1	.8	61	17.3	179	68	31	0	0	1	0	0		
SAN FRANCISCO	52	38	58	35	45	.0	.0	.0	2.1	88	23.4	123	89	54	0	0	0	0	0		
CO DENVER	38	12	53	3	25	.0	.3	.1	.4	78	14.8	97	84	36	0	7	7	0	0		
GRAND JUNCTION	34	11	38	7	23	.0	.1	.1	.3	55	11.4	112	81	45	0	7	1	0	0		
PUEBLO	42	6	60	1	24	.0	.1	.1	T	T	0	14.5	130	88	40	0	7	0	0		
CT BRIDGEPORT	41	31	55	17	36	.0	.9	.1	.1	154	37.3	91	82	53	0	4	3	0	0		
HARTFORD	38	23	56	10	31	.0	1.3	.4	.8	4.4	122	44.9	103	93	62	0	4	4	0		
DC WASHINGTON	43	31	50	27	37	.0	.7	.0	.4	4.1	162	41.1	108	90	51	0	5	4	1		
FL APALACHICOLA	56	40	67	31	48	.0	1.8	.9	.6	2.8	83	51.3	95	90	1	1	6	2	1		
DAYTONA BEACH	62	44	71	41	53	.0	1.7	1.1	.8	1.8	88	35.7	75	97	61	0	0	6	1		
JACKSONVILLE	53	37	63	34	45	.0	1.8	1.1	1.0	1.9	83	48.0	98	93	62	0	0	6	1		
KEY WEST	77	63	82	58	70	.0	.6	.1	.4	2.2	135	36.1	92	92	69	0	0	4	0		
MIAMI	78	58	84	50	68	.0	.5	.1	.4	.5	33	61.0	110	89	55	0	0	2	0		
ORLANDO	64	46	76	43	55	.0	.7	.2	.4	.8	44	44.5	93	95	60	0	0	4	0		
TALLAHASSEE	55	35	65	30	45	.0	2.1	1.0	1.4	3.0	74	52.5	81	93	56	0	2	4	1		
WEST PALM BEACH	75	53	79	46	64	.0	.9	.4	.4	1.3	74	37.5	86	93	55	0	0	5	0		
GA ATLANTA	44	32	54	27	38	.0	.8	.3	.3	.8	44	62.0	106	96	61	0	0	4	0		
AUGUSTA	49	31	59	29	40	.0	.9	.1	.6	2.5	71	48.0	96	95	57	0	3	4	1		
MACON	47	31	58	29	39	.0	1.1	.3	.7	2.6	96	38.2	87	92	56	0	6	3	1		
SAVANNAH	52	36	60	33	45	.0	1.1	.1	.8	2.8	83	49.4	113	96	58	0	6	3	1		
HI HILO	78	64	83	61	71	.1	2.3	.2	1.6	2.2	93	48.1	99	93	59	0	0	4	2		
HONOLULU	81	68	83	63	75	.1	T	T	T	.1	3	5.5	26	80	49	0	0	0	0		
KAHULUI	81	65	84	59	73	.0	T	T	T	.6	21	12.0	59	79	55	0	0	1	0		
LIIHUE	78	68	80	61	73	.1	.1	.1	.1	1.6	38	21.1	50	80	60	0	0	1	0		
ID BOISE	34	18	39	13	26	.0	T	T	T	1.0	88	12.7	108	89	52	0	7	0	0		
LEWISTON	35	28	38	23	31	.0	.4	.5	.4	45	12.6	103	83	61	0	7	0	0	0		
POCATELLO	27	10	29	1	19	.0	T	T	T	.6	64	17.8	150	91	70	0	7	2	0		
IL CHICAGO	28	20	36	5	24	.0	T	T	T	1.0	47	44.9	127	86	64	0	6	2	0		
MOLINE	28	19	39	8	24	.1	.1	.4	.1	1.0	55	50.7	131	86	62	0	7	2	0		
PEORIA	30	21	39	11	26	.1	.1	.5	.0	1.1	56	54.1	151	85	64	0	6	4	0		
QUINCY	34	20	45	12	27	.0	.1	.4	.1	.9	45	37.1	94	84	57	0	6	1	0		
ROCKFORD	25	19	35	4	22	.0	.1	.4	.0	1.2	68	42.4	118	91	65	0	7	2	0		
SPRINGFIELD	33	23	41	12	28	.1	.1	.5	.0	1.1	46	47.6	137	85	61	0	6	3	0		
IN EVANSVILLE	36	25	41	17	31	.0	.2	.6	.1	2.5	81	45.7	101	88	62	0	6	4	0		
FORT WAYNE	31	23	37	8	27	.1	.4	.3	.3	1.4	59	42.1	123	93	77	0	6	4	0		
INDIANAPOLIS	32	23	40	8	28	.0	.5	.3	.3	2.1	76	50.8	129	87	70	0	6	5	0		
SOUTH BEND	29	19	35	7	24	.0	.4	.4	.2	1.2	45	46.4	120	91	76	0	6	6	0		
IA DES MOINES	29	12	45	5	20	.0	.2	.1	.1	.9	75	55.9	165	85	63	0	7	3	0		
SIOUX CITY	27	7	37	2	17	.0	.1	.1	.1	.5	78	32.4	126	84	68	0	7	1	0		
WATERLOO	25	12	41	2	18	.0	.1	.2	.1	.6	59	52.9	158	88	69	0	7	3	0		
KS CONCORDIA	38	21	45	13	29	.2	T	T	T	1.1	159	44.5	155	85	57	0	7	1	0		
DODGE CITY	41	19	51	13	30	.1	T	T	T	1.0	191	26.5	124	83	47	0	7	1	0		
GOODLAND	38	14	52	7	26	.0	T	T	T	T	3	20.2	112	83	49	0	7	0	0		
TOPEKA	40	19	48	13	30	.1	T	T	T	.9	76	47.3	135	86	52	0	7	0	0		
WICHITA	42	22	48	14	32	.0	T	T	T	.4	31	31.8	92	86	50	0	7	0	0		
KY BOWLING GREEN	38	25	43	16	31	.0	.3	.8	.2	5.7	139	37.6	75	93	62	0	7	2	0		
LEXINGTON	34	24	40	12	29	.0	.4	.5	.3	2.9	88	45.2	103	92	67	0	7	2	0		
LOUISVILLE	36	26	43	17	31	.0	.1	.7	.1	2.2	74	47.1	108	95	76	0	7	2	0		
LA BATON ROUGE	50	38	64	32	44	.0	.7	.6	.6	3.0	67	60.5	101	92	55	0	2	1	0		
LAKE CHARLES	55	39	64	30	47	.0	.4	.8	.3	2.1	51	59.0	110	86	53	0	1	3	0		
NEW ORLEANS	54	41	70	33	47	.0	.9	.4	.5	2.8	61	52.7	87	87	54	0	0	3	1		
SHREVEPORT	51	29	59	23	40	.0	.3	.8	.2	1.5	38	57.2	118	90	49	0	5	2	0		

Based on 1961-90 normals.

Weather Data for the Week Ending December 25, 1993

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	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	27	13	38	-7	20	8	1.0	.3	.6	3.8	143	39.7	110	88	65	0	7	5	1	
PORTLAND	38	24	52	10	31	7	1.9	.9	1.8	5.0	134	43.5	100	86	58	0	7	3	1	
MD BALTIMORE	42	28	50	21	35	0	1.8	.0	.6	4.2	154	42.3	105	90	52	0	6	4	1	
SALISBURY	44	28	51	21	36	2	1.1	.2	.5	4.1	138	47.5	107	98	58	0	4	4	1	
MA BOSTON	41	29	56	15	35	2	1.8	.9	1.5	6.1	187	42.7	105	87	58	0	6	4	1	
CHATHAM	43	32	53	23	37	4	1.2	.2	.8	7.1	192	41.5	94	94	58	0	3	3	1	
MI ALPENA	28	16	37	-1	22	0	1.1	-.4	-.1	.3	20	25.8	91	91	71	0	6	1	0	
DETROIT	31	23	40	9	27	1	1.3	-.3	.2	.7	32	30.6	95	87	67	0	5	5	0	
FLINT	28	17	37	2	22	3	1.2	-.3	-.1	.5	28	31.1	104	93	72	0	7	3	0	
GRAND RAPIDS	28	18	37	5	23	2	1.6	-.1	.2	1.4	58	46.4	130	94	74	0	6	7	0	
Houghton Lake	26	16	35	1	21	0	1.2	-.2	-.1	.6	36	26.5	95	91	71	0	6	4	0	
LANSING	28	18	36	5	23	2	1.2	-.2	-.1	.6	34	35.3	114	94	72	0	6	5	0	
MARQUETTE	20	9	33	-10	14	-1	1.4	-.2	.2	1.1	51	32.8	94	88	57	0	6	5	0	
MUSKEGON	30	19	39	3	24	-3	1.4	-.3	-.1	.9	35	36.0	112	93	62	0	6	5	0	
SAULT ST. MARIE	23	9	35	-25	16	-1	1.8	.2	.3	1.8	77	33.2	99	91	60	0	6	5	0	
MN ALEXANDRIA	14	-1	28	-14	6	-4	1.3	-.1	.2	.5	95	26.5	104	89	76	0	7	2	0	
DULUTH	16	2	29	-22	9	-1	1.2	-.1	.1	.7	73	31.9	107	86	58	0	7	2	0	
INT'L FALLS	13	-4	28	-30	4	0	1.1	-.2	.2	.3	46	21.4	88	85	68	0	7	2	0	
MINNEAPOLIS	19	7	32	-3	13	-2	1.1	-.1	.1	.5	61	32.3	115	85	68	0	7	3	0	
ROCHESTER	19	6	32	-2	12	-2	1.1	-.1	.1	.7	78	38.4	130	90	77	0	7	0	0	
MS GREENWOOD	49	31	61	23	40	5	1.5	-.9	.4	2.7	56	41.6	78	97	62	0	4	3	0	
JACKSON	47	32	58	26	40	6	1.5	-.9	.4	2.1	41	47.3	88	93	51	0	4	2	0	
MERIDIAN	49	34	60	27	41	1	1.7	-.7	.4	3.1	63	54.3	98	92	52	0	4	2	0	
MO CAPE GIRARDEAU	40	27	47	20	33	-1	1.1	-.1	.1	2.5	67	48.7	107	86	53	0	7	0	0	
COLUMBIA	38	18	48	11	28	-1	1.5	-.5	.2	1.5	66	62.5	164	89	56	0	5	2	0	
KANSAS CITY	38	18	49	12	28	0	1.2	-.2	.1	1.1	86	51.5	138	89	55	0	7	2	0	
SAINT LOUIS	38	25	48	17	31	-1	1.1	-.6	.1	1.4	56	54.7	148	87	54	0	6	1	0	
SPRINGFIELD	41	21	50	12	31	-2	1.5	-.5	.2	1.6	72	55.9	130	90	52	0	6	1	0	
MT BILLINGS	39	22	54	18	30	6	1.2	-.2	.2	.2	30	15.7	105	75	46	0	7	1	0	
GLASGOW	35	17	44	2	26	13	1.1	-.1	.1	.2	10	16.2	149	89	72	0	7	0	0	
GREAT FALLS	37	23	47	14	30	8	1.1	-.1	.1	.3	43	23.1	154	77	55	0	7	2	0	
HAVRE	37	17	45	4	27	11	1.1	-.1	.1	.3	0	12.8	116	86	58	0	6	0	0	
HELENA	36	17	46	12	26	7	1.1	-.1	.1	.1	28	18.8	164	89	53	0	7	2	0	
KALISPELL	30	16	32	9	23	2	1.2	-.3	.2	.8	56	22.6	140	91	80	0	7	2	0	
MILES CITY	37	19	50	10	28	11	1.1	-.1	.1	.1	12	18.7	134	89	58	0	7	1	0	
MISSOULA	31	17	35	11	24	2	1.2	-.1	.1	.4	43	14.1	106	89	74	0	7	2	0	
NE GRAND ISLAND	35	16	45	9	26	2	1.4	-.4	.4	60	33.1	133	85	62	0	7	0	0		
LINCOLN	34	15	41	7	24	1	1.1	-.2	.1	.4	53	25.8	92	89	57	0	7	0	0	
NORFOLK	32	12	40	7	22	1	1.1	-.1	.1	.4	69	34.3	137	84	65	0	7	1	0	
NORTH PLATTE	37	12	50	5	25	2	1.2	-.1	.1	.2	49	26.2	136	87	56	0	7	0	0	
OMAHA	31	13	39	7	22	0	1.1	-.1	.1	.4	49	41.8	143	83	64	0	7	1	0	
SCOTTSBLUFF	34	13	46	7	23	-1	1.1	-.1	.1	.5	102	24.7	163	84	53	0	7	1	0	
VALENTINE	32	15	43	5	24	0	1.1	-.1	.1	.1	23	20.4	91	85	62	0	7	1	0	
NV RLY	36	0	52	-6	18	-6	1.1	-.1	.1	.1	23	20.4	91	85	62	0	7	1	0	
LAS VEGAS	54	31	59	28	42	2	1.0	-.1	.0	.2	25	10.1	100	83	43	0	7	0	0	
RENO	42	15	46	14	29	2	1.0	-.1	.0	.2	70	5.0	125	55	21	0	6	0	0	
WINDHOCCA	37	2	42	-2	20	0	1.0	-.2	.0	.2	3	6.5	88	83	36	0	7	0	0	
NH CONCORD	35	20	51	3	28	6	1.3	-.6	1.2	.3	42	7.3	90	89	52	0	7	0	0	
NJ ATLANTIC CITY	42	25	55	15	34	-1	1.2	-.4	1.0	4.1	118	31.3	87	88	56	0	7	2	1	
NM ALBUQUERQUE	43	19	53	13	31	-3	1.2	-.1	.1	1.54	38.7	98	89	56	0	6	2	1		
CLOVIS	45	22	59	19	34	0	1.0	-.1	.0	.5	8	8.8	101	70	29	0	7	1	0	
ROSWELL	49	19	61	13	34	-4	1.0	-.1	.0	.1	28	10.0	80	71	33	0	7	0	0	
NY ALBANY	33	21	39	7	27	3	1.7	1.1	1.4	3.0	124	41.2	115	91	67	0	6	3	1	
BINGHAMTON	29	19	36	2	24	-1	1.1	-.5	.8	3.2	129	42.4	116	91	78	0	7	6	1	
BUFFALO	32	23	42	11	28	0	1.5	-.7	1.0	3.1	103	40.2	106	90	65	0	4	5	1	
NEW YORK	43	33	59	23	38	3	1.3	-.6	1.0	4.0	144	42.8	103	82	55	0	3	4	1	
ROCHESTER	32	21	43	8	26	-1	1.6	-.1	.6	1.5	68	29.1	92	94	66	0	6	6	1	
SYRACUSE	33	20	42	-1	27	0	1.2	-.5	1.1	2.7	102	48.6	127	92	68	0	6	4	1	
NC ASHEVILLE	37	23	47	18	30	-9	1.0	-.0	1.0	3.4	94	37.8	68	90	64	0	7	2	1	
CHARLOTTE	45	32	53	28	39	-3	1.1	-.3	.8	3.1	111	35.6	84	91	51	0	4	4	1	
GREENSBORO	42	25	49	21	34	-5	1.8	-.0	.7	3.0	111	42.1	100	92	51	0	7	4	1	
HATTERAS	52	39	64	34	46	-2	1.6	-.6	.6	4.2	115	59.2	107	85	57	0	0	5	1	
NEW BERN	50	31	62	25	40	-5	1.5	-.4	.3	1.4	48	44.4	83	96	43	0	4	2	0	
RALEIGH	45	27	52	22	36	-5	1.9	-.1	.6	3.5	136	37.9	93	93	58	0	6	3	1	
WILMINGTON	53	32	64	28	42	-3	1.1	-.1	.6	2.6	80	61.7	110	97	53	0	4	4	1	
ND BISMARCK	24	2	37	-5	13	1	1.1	-.0	-.1	.7	182	26.9	175	94	77	0	7	3	0	
FARGO	15	-1	29	-13	7	-2	1.2	-.0	-.1	.7	142	21.7	112	84	71	0	7	4	0	
GRAND FORKS	11	-3	30	-19	4	-4	1.1	-.1	.0	.4	86	21.4	117	89	70	0	7	3	0	
WILLISTON	28	8	39	1	18	6	1.2	-.0	-.1	.2	49	18.8	138	89	75	0	7	5	0	
OH AKRON-CANTON	29	22	36	10	26	-3	1.7	-.0	.3	2.8	114	41.2	114	96	77	0	6	6	0	
CINCINNATI	34	23	41	9	29	-3	1.3	-.4	-.1	2.5	95	38.7	95	91	66	0	7	3	0	
CLEVELAND	31	22	39	9	27	-2	1.5	-.2	.2	1.9	73	40.3	112	92	73	0	5	7	0	
COLUMBUS	33	26	39	10	30	1	1.4	-.3	-.2	2.1	86	37.8	102	92	65	0	5	5	0	
DAYTON	32	23	38	7	28	-2	1.3	-.4	-.2	2.7	110	52.1	144	93	72	0	6	6	0	

Based on 1961-90 normals.

Weather Data for the Week Ending December 25, 1993

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	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	TEMP. °F		
													90 AND ABOVE					32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OHIO	30	22	38	11	26	0	.6	-.1	.3	1.3	51	29.9	92	96	76	0	7	5	0	
OHIO YOUNGSTOWN	30	23	37	10	26	-1	.8	-.1	.3	2.5	103	36.7	100	97	72	0	6	7	0	
OK OKLAHOMA CITY	49	25	57	19	37	-1	.7	-.3	.7	1.3	109	32.9	99	79	35	0	6	0	0	
OK OKLAHOMA CITY	47	26	55	18	37	0	.0	-.4	.0	1.8	98	39.2	97	80	37	0	6	0	0	
OR ASTORIA	45	29	52	27	37	-5	.0	-2.4	.0	8.0	93	51.3	80	97	72	0	6	0	0	
OR BURNS	30	13	41	9	21	-3	.0	-.3	.0	.8	89	9.4	96	89	68	0	7	0	0	
OR MEDFORD	48	20	57	17	34	-3	.0	-.7	.0	2.3	85	16.5	91	93	46	0	7	0	0	
OR PENDLETON	31	25	37	20	28	-5	.7	-.4	.7	.7	50	13.6	115	94	66	0	7	0	0	
OR PORTLAND	42	27	48	25	35	-5	.0	-1.4	.0	4.4	89	29.8	85	97	53	0	7	0	0	
OR SALEM	39	26	45	22	33	-7	.7	-1.5	.7	6.2	112	33.9	89	95	58	0	7	0	0	
PA ALLENTOWN	39	25	44	16	32	2	1.3	.5	1.0	4.9	171	52.9	123	91	65	0	6	3	1	
PA ERIE	32	25	40	13	28	-1	1.0	.2	.3	2.5	85	37.7	92	90	62	0	5	4	0	
PA HARRISBURG	39	30	46	20	35	3	.8	.0	.6	3.9	146	48.4	122	88	59	0	3	0	0	
PA PHILADELPHIA	43	30	50	23	37	4	1.0	.2	.8	3.6	122	42.1	93	88	58	0	3	4	1	
PA PITTSBURGH	32	24	38	12	28	-1	.5	-.2	.2	1.9	81	38.0	105	92	75	0	5	6	0	
PA SCRANTON	34	25	39	8	30	1	1.3	.8	1.0	3.0	144	39.4	110	92	70	0	4	4	1	
RI PROVIDENCE	41	27	54	15	34	3	1.7	.8	1.4	5.7	159	42.2	94	89	54	0	5	3	1	
SC CHARLESTON	52	35	61	31	44	-6	1.1	.3	.5	2.4	97	52.8	104	91	57	0	2	4	0	
SC COLUMBIA	48	31	58	29	39	-6	1.0	.1	.5	2.2	79	38.8	79	91	56	0	6	5	0	
SC FLORENCE	50	34	59	29	42	-4	.4	-.3	.2	1.8	74	32.8	76	94	51	0	2	3	0	
SC GREENVILLE	45	28	54	24	36	-6	.6	-.4	.5	2.7	80	39.0	77	91	53	0	7	2	1	
SD ABERDEEN	19	0	33	-8	9	-4	.3	.2	.2	.5	112	28.0	134	86	68	0	7	4	0	
SD HURON	21	2	37	-4	12	-4	.3	.2	.2	.6	156	29.9	150	87	75	0	7	2	0	
SD RAPID CITY	38	16	56	8	27	4	.7	-.1	.7	.3	77	19.6	119	85	55	0	7	1	0	
SD SIOUX FALLS	22	6	31	0	14	-2	.2	.0	.1	.3	44	36.1	152	85	65	0	7	3	0	
TN CHATTANOOGA	44	29	52	22	36	-3	1.1	-.1	1.0	4.4	105	39.2	75	93	50	0	7	2	1	
TN KNOXVILLE	39	27	47	22	33	-6	.8	-.2	.7	7.0	190	45.0	97	95	62	0	7	4	1	
TN MEMPHIS	45	30	53	23	38	-5	.5	-.8	.5	4.9	104	43.3	85	85	44	0	5	2	0	
TN NASHVILLE	41	26	48	19	34	-5	.5	-.5	.5	5.8	152	43.3	93	87	53	0	7	2	1	
TX ABILENE	50	29	63	25	40	-5	.4	.2	.2	.9	106	18.8	78	86	46	0	6	2	0	
TX AMARILLO	45	21	58	12	33	-3	.7	-.1	.7	.8	226	18.1	93	81	31	0	7	0	0	
TX AUSTIN	54	39	68	33	46	-4	.7	.2	.3	1.2	75	26.6	84	84	42	0	0	2	0	
TX BEAUMONT	55	38	63	29	47	-6	.3	-.8	.3	1.5	39	66.7	119	92	50	0	2	0	0	
TX BROWNSVILLE	62	46	68	40	54	-7	.5	.2	.4	1.2	116	26.1	99	92	56	0	0	0	0	
TX CORPUS CHRISTI	58	42	69	33	50	-7	.3	.0	.2	4.7	469	37.6	126	88	47	0	0	0	0	
TX DEL RIO	56	37	68	24	47	-4	-.1	-.1	.1	.2	24	14.4	59	80	41	0	2	2	0	
TX EL PASO	51	30	60	20	41	-2	.5	.3	.3	.5	102	9.4	107	77	37	0	5	2	0	
TX FORT WORTH	51	32	57	25	42	-2	.3	.2	.2	2.5	148	32.8	89	86	42	0	3	2	0	
TX GALVESTON	56	44	63	37	50	-5	.4	-.4	.3	1.0	35	45.8	110	78	48	0	0	0	0	
TX HOUSTON	55	37	64	29	46	-6	.5	-.5	.4	2.6	65	57.9	109	92	53	0	2	3	0	
TX LUBBOCK	50	22	62	15	36	-3	.7	-.1	.7	.3	75	12.7	69	83	32	0	7	0	0	
TX MIDLAND	52	26	67	23	39	-5	.3	.2	.2	.3	87	16.4	109	88	41	0	6	2	0	
TX SAN ANGELO	53	29	67	25	41	-4	.6	.4	.4	.8	121	15.7	77	88	44	0	6	2	0	
TX SAN ANTONIO	57	35	72	24	46	-5	.2	-.1	.2	.4	35	32.1	104	81	40	0	4	1	0	
TX VICTORIA	56	40	68	31	48	-6	.3	-.4	.3	3.4	141	50.8	113	87	41	0	1	1	0	
TX WACO	50	31	60	25	41	-6	.6	.2	.4	1.5	97	31.8	101	91	54	0	4	2	0	
TX WICHITA FALLS	51	28	59	22	39	-2	.7	-.4	.7	1.6	126	28.3	89	88	38	0	6	0	0	
UT CEDAR CITY	35	6	44	1	20	-9	.9	-.1	.7	.3	46	10.1	89	88	44	0	7	0	0	
UT SALT LAKE CITY	32	15	37	14	24	-4	.7	-.3	.7	.8	66	18.8	117	85	61	0	7	2	0	
VT BURLINGTON	32	19	42	-1	25	5	.7	.1	.6	1.4	72	34.2	100	91	64	0	6	2	1	
VA NORFOLK	46	30	53	25	38	-4	.8	.0	.4	2.9	114	35.6	81	89	47	0	5	3	0	
VA RICHMOND	44	28	52	22	36	-2	1.4	-.7	1.0	3.3	125	41.7	98	93	32	0	7	4	1	
VA ROANOKE	38	24	46	19	31	-6	.4	-.3	.3	4.7	193	39.1	96	83	55	0	7	2	0	
WA QUILLAYUTE	45	29	50	26	37	-3	.0	-3.5	.0	9.7	78	66.7	65	98	83	0	7	0	0	
WA SEATTLE-TACOMA	43	28	45	26	36	-4	.0	-1.3	.0	3.9	82	27.8	77	98	76	0	7	0	0	
WA SPOKANE	29	22	33	16	26	-1	.7	-.5	.7	1.6	82	13.5	84	93	84	0	7	1	0	
WA YAKIMA	32	23	34	25	30	1	.7	-.3	.7	1.0	84	6.3	82	89	80	0	7	0	0	
WV BECKLEY	31	22	35	12	26	-6	.9	-.1	.4	3.9	149	39.6	98	93	71	0	7	4	0	
WV CHARLESTON	37	28	43	16	32	-3	.6	-.1	.3	2.8	101	41.3	98	93	69	0	5	4	0	
WV HUNTINGTON	37	27	42	15	32	-4	.4	-.4	.1	2.6	91	41.5	97	90	62	0	5	5	0	
WV PARKERSBURG	34	26	40	14	30	-3	.5	-.2	.2	1.8	78	37.2	93	94	64	0	5	5	0	
WI GREEN BAY	23	15	35	-5	19	1	-.1	-.3	.1	.4	33	33.8	118	85	63	0	7	1	0	
WI LACROSSE	22	14	34	0	18	0	.7	-.3	.7	.0	40.9	135	88	64	0	7	0	0	0	
WI MADISON	25	16	36	2	21	1	.1	-.3	.0	.3	24	43.3	136	85	61	0	6	3	0	
WI MILWAUKEE	29	20	37	2	24	2	.7	-.5	.7	.7	35	36.9	113	89	55	0	6	1	0	
WI WAUSAU	20	12	32	-9	16	1	.7	-.3	.7	.5	44	36.3	111	83	53	0	7	1	0	
WY CASPER	30	11	37	3	21	-2	.3	.2	.1	.7	130	15.9	129	82	58	0	7	4	0	
WY CHEYENNE	34	13	46	4	23	-4	-.1	.0	.1	.3	76	18.9	132	83	41	0	7	2	0	
WY LANDER	29	8	46	1	18	-1	-.3	.2	.1	.4	83	16.5	128	83	56	0	7	4	0	
WY SHERIDAN	38	15	54	9	27	5	.3	.1	.2	.3	54	17.1	119	86	50	0	7	2	0	

Based on 1961-90 normals.

HEATING DEGREE DAYS (Base 65° F)

December 19 - 25, 1993

(Cumulative totals and departures from normal are for the period July 1 - December 25, 1993)

STATES AND STATIONS	WEEKLY		CUMULATIVE			STATES AND STATIONS	WEEKLY		CUMULATIVE			STATES AND STATIONS	WEEKLY		CUMULATIVE		
	TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP from '92		TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP from '92		TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP from '92
AL BIRMINGHAM	195	46	1071	72	66	LA BATON ROUGE	144	51	751	203	212	TULSA	194	-1	1478	227	73
HUNTSVILLE	208	43	1211	78	51	LAKE CHARLES	126	35	598	77	90	OR ASTORIA	193	32	2093	109	69
MOBILE	145	48	704	153	165	NEW ORLEANS	122	38	610	134	183	EUGENE	245	73	1880	200	260
MONTCOMERY	167	50	885	136	126	SHREVEPORT	171	38	915	169	71	MEDFORD	216	20	1720	-14	207
AK ANCHORAGE	257	-86	3795	-644	-747	MR BANGOR	249	-62	2571	-120	-233	NORTH BEND	167	31	1839	89	219
BARROW	524	-16	7313	-851	-901	PORTLAND	236	-48	2336	-144	-198	PENDLETON	255	32	2076	37	36
BETHEL	291	-113	4535	-698	-907	MD BALTIMORE	209	-2	1541	2	-40	PORTLAND	211	31	1583	-88	29
COLD BAY	231	-11	3556	-381	-492	MA BOSTON	207	-27	1748	-6	-205	REDMOND	259	21	2806	222	187
FAIRBANKS	413	-95	5301	-554	-792	MI ALPENA	300	-4	2864	53	-153	SALEM	225	44	1718	-106	102
JUNEAU	186	-85	2954	-737	-545	DETROIT	262	-10	2038	-155	-162	PA ALLENTOWN	229	-17	1903	-26	-144
KING SALMON	244	-106	3890	-831	-866	FLINT	297	18	2531	199	102	BRADFORD	289	-6	2725	-119	-82
KOTzebue	358	-111	5589	-527	-927	GRAND RAPIDS	292	14	2453	73	-9	KRIE	256	7	2051	110	47
MCGRATH	354	-153	5128	-869	-908	LANSING	290	6	2499	86	-68	PHILADELPHIA	198	-20	1318	-265	-210
NOME	345	-68	5090	-526	-1125	MUSKOGON	284	15	2392	106	-25	PITTSBURGH	256	8	1917	-96	-136
ST PAUL ISLAND	279	22	3997	-434	-604	TRaverse CITY	295	4	2508	-52	-215	SCRANTON	247	-12	2120	15	-14
YAKUTAT	190	-79	3311	-611	-627	MN DULUTH	390	7	3675	136	-23	WILLIAMSPORT	238	-15	2082	32	48
AZ FLAGSTAFF	273	20	2575	-29	-63	INT'L FALLS	422	-3	3906	67	-28	RI PROVIDENCE	214	-25	1828	-44	-112
PHOENIX	99	15	356	-63	-63	MINNEAPOLIS	361	13	2894	87	33	SC CHARLESTON	148	42	655	7	26
TUCSON	127	29	498	-36	-132	ROCHESTER	367	15	3014	111	-82	COLUMBIA	177	41	954	48	00
AR FORT SMITH	200	15	1285	103	75	MS JACKSON	176	46	1027	200	225	GREENVILLE	199	37	1218	105	-84
LITTLE ROCK	191	20	1203	116	90	MERIDIAN	164	35	887	52	107	SD ABERDEEN	389	24	3099	51	-55
CA FRESNO	188	43	814	-102	01	MO COLUMBIA	256	9	1933	159	50	HURON	373	28	2998	153	42
LOS ANGELES	43	-20	232	-157	-56	KANSAS CITY	254	-2	1952	110	41	PIERRE	310	-13	2798	152	46
SACRAMENTO	203	56	923	-7	69	SANIT LOUIS	234	2	1601	22	-11	RAPID CITY	265	-31	2631	-47	-166
SAN DIEGO	57	0	300	-31	-19	SPRINGFIELD	237	17	1745	159	119	ST LOUIS	355	12	2889	79	28
SAN FRANCISCO	140	26	799	-263	59	MT BILLINGS	242	-44	2689	25	58	TN BRISTOL	238	39	1532	14	-65
CO COLORADO SPRINGS	278	26	2527	186	78	GLASGOW	271	-93	3269	29	124	CHATTANOOGA	199	20	1146	-69	-111
DENVER	278	33	2318	126	-60	GREAT FALLS	243	-55	3177	262	214	KNOXVILLE	223	38	1372	21	-11
GRAND JUNCTION	293	26	2200	188	68	HAVRE	265	-81	3226	13	21	MEMPHIS	190	31	1104	68	23
CT HARTFORD	238	-26	2083	24	-128	HELENA	268	-49	3244	123	140	NASHVILLE	219	36	1368	107	91
DE WILMINGTON	202	-16	1491	-103	-136	KALISPELL	291	-14	3444	72	170	TX ABILENE	175	29	1056	185	155
DC WASHINGTON	196	4	1331	45	-116	MISSOULA	287	-14	3167	65	58	AMARILLO	222	16	1736	223	-37
FL DAYTONA BEACH	84	35	286	47	102	NE GRAND ISLAND	274	-16	2351	43	-118	AUSTIN	129	25	604	81	61
FORT MYERS	28	0	84	-17	32	NORTH PLATTE	281	-16	2575	40	-86	BROWNSVILLE	74	27	233	48	68
JACKSONVILLE	138	57	494	59	107	OMAHA	300	0	2339	91	58	CORPUS CHRISTI	104	40	342	47	72
KEY WEST	1	-6	6	-7	03	SCOTTSBLUFF	289	8	2746	267	-49	DALLAS FT WORTH	162	25	930	163	131
MIAMI	7	-4	26	-9	13	NV ELKO	328	42	3206	527	75	EL PASO	168	14	952	-25	-118
ORLANDO	67	25	207	28	75	ELY	327	42	3206	362	385	HOUSTON	133	42	607	104	96
PENSACOLA	131	43	554	45	122	LAS VEGAS	157	14	880	42	-26	LUBBOCK	199	18	1358	133	85
TALLAHASSEE	141	50	602	48	139	RENO	254	23	1849	-342	-79	LUFKIN	160	48	818	174	66
TAMPA	59	17	194	-8	58	WINNEBUCCA	315	61	2515	88	77	MIDLAND ODESSA	180	29	1100	108	98
WEST PALM BEACH	14	-7	58	-13	22	NH CONCORD	258	-43	2549	-63	-179	SAN ANGELO	169	25	927	88	119
GA ATHENS	191	41	1067	90	-20	NJ ATLANTIC CITY	220	3	1696	32	-70	SAN ANTONIO	134	34	613	84	99
ATLANTA	187	33	964	-49	-79	NEWARK	192	-25	1431	-82	-82	VICTORIA	118	37	483	74	99
AUGUSTA	173	38	869	-5	-10	NM ALBUQUERQUE	234	17	1625	-4	-101	WACO	170	42	943	255	222
MACON	184	60	927	132	75	NY ALBANY	263	-23	2337	27	-109	WICHITA FALLS	178	12	1228	195	181
SAVANNAH	143	39	612	3	40	BINGHAMTON	288	4	2596	119	-150	UT CEDAR CITY	309	59	2244	85	11
ID BOISE	270	15	2283	70	-57	BUFFALO	262	-3	2257	61	-65	SALT LAKE CITY	287	29	2202	129	-26
POCATELLO	322	29	3023	367	201	MASSENA	297	-35	2618	-215	-241	VT BURLINGTON	277	-33	2545	-92	-103
IL CHICAGO	287	2	2245	65	-109	NEW YORK	190	-23	1383	-116	-193	VA LYNCHBURG	222	24	1451	-18	-45
MOLINE	288	-6	2210	26	-132	ROCHESTER	268	3	2346	123	-118	NORFOLK	185	26	1037	-30	-24
PEORIA	272	-11	2056	5	-87	SYRACUSE	267	-5	2369	119	-32	RICHMOND	201	15	1253	-70	-111
ROCKFORD	300	-3	2390	39	-158	NC ASHEVILLE	244	56	1603	91	19	ROANOKE	237	39	1561	62	-30
SPRINGFIELD	257	-6	1939	52	66	CAPE HATTERAS	135	13	564	-183	-95	WA OLYMPIA	212	23	2085	-147	94
IN EVANSVILLE	239	17	1594	7	42	CHARLOTTE	182	15	1063	-39	-56	QUILLAYUTE	193	18	2266	-55	48
FORT WAYNE	265	-5	2046	-31	-123	GREENSBORO	219	36	1347	43	-90	SEATTLE TACOMA	205	30	1814	-41	90
INDIANAPOLIS	259	5	1961	74	35	RALEIGH DURHAM	203	36	1199	43	-15	SPOKANE	272	6	2762	88	35
SOUTH BEND	285	17	2222	109	-6	WILMINGTON	158	31	747	-13	-49	YAKIMA	242	-13	2455	100	29
IA DES MOINES	310	9	2329	104	-15	ND BISMARK	364	-9	3357	69	-13	WV BECKLEY	270	42	1871	-80	-50
MASON CITY	352	7	2827	72	-83	FARGO	404	12	3299	-20	-115	CHARLESTON	227	19	1551	-19	-92
SIOUX CITY	332	13	2625	177	76	MINOT	378	3	3477	99	-37	HUNTINGTON	231	23	1561	-31	-54
WATERLOO	325	-6	2492	-113	-163	WILLISTON	330	-47	3518	89	07	WI EAU CLAIRE	353	-3	3005	71	74
KS CONCORDIA	249	-12	2016	101	-132	OH AKRON CANTON	275	20	2133	92	-102	GREEN BAY	321	-10	2713	-77	-174
DODGE CITY	241	1	1989	245	-197	CLEVELAND	269	15	2018	19	-76	MADISON	307	-12	2536	-127	-153
GOODLAND	271	13	2411	224	-121	COLUMBUS	247	1	1804	-119	-111	MILWAUKEE	284	-16	2130	-301	-298
RUSSELL	239	-11	1974	119	-128	CINCINNATI	253	19	1835	69	-26	WY CASPER	309	12	2759	-90	14
TOPEKA	247	-6	1941	107	36	DAYTON	260	12	1961	51	-54	CHRYSTENNE	291	25	2987	290	187
WICHITA	231	-5	1744	103	20	TOLEDO	272	-2	2163	-54	-29	LANDER	323	4	3110	145	84
KY LEXINGTON	250	34	1669	57	09	YOUNGSTOWN	269	6	2198	18	-118	ROCK SPRINGS	343	29	3469	316	200
LOUISVILLE	236	27	1562	53	105	OK OKLAHOMA CITY	195	3	1462	-22	127	SHERIDAN	266	-40	3033	84	06

Based on 1961-90 normals.

National Agricultural Summary

December 20 - 26, 1993

HIGHLIGHTS: Late fieldwork was delayed, and snow cover to winter wheat and hay fields increased, from an early-week storm across the Ohio Valley and Northeast. By midweek, snow cover was increased by another storm which brought light snow to the northern Great Plains and the Great Lakes region. Fieldwork in the South and Southeast was hindered by rain and snow which occurred at midweek. The West remained mostly dry. Temperatures were below normal for most of the Nation, which hindered the growth of small grains in the South, stressed livestock, and increased the need for supplemental feeding. By the end of the week, bitter cold temperatures moved into the upper Great Plains and into the Ohio Valley, which further stressed livestock and increased supplemental feeding requirements.

SMALL GRAINS: Snow across the upper Great Plains improved winter wheat snow cover. Land preparation in the Southeast was hampered by this week's precipitation and cold weather. Wheat fields in Arkansas and Indiana needed drier conditions. Cool weather slowed growth of many small grain fields in Texas and California. Dryland wheat and small grain fields in parts of Texas and Oklahoma needed more rain. Greenbug problems continued in some Texas grain fields. Although damp soils, cloudy skies, and fog limited field activities in California, wheat and barley were planted on lighter soils.

OTHER FIELD CROPS: Cotton harvests in Texas and California were virtually completed. Harvest clean-up activities continued in Texas and California. Damp conditions delayed the sorghum harvest in California. The Texas onion crop made good progress. In Georgia, onion planting continued where conditions allowed. The peanut harvest neared completion in Texas. The Louisiana sugarcane harvest neared completion, and the Florida sugarcane harvest remained active. Sugarcane planting continued in Florida. Tobacco bed sowing was active in Georgia where weather conditions permitted.

FRUITS AND NUTS: Citrus harvests continued in Arizona, California, and Florida. In Florida, the rain and cold weather benefited fruit trees. Early Florida fruit had light droppage and showed excellent color. The navel orange harvest in Florida neared

completion. California's central valley navel orange harvest was active with good quality and colored fruit. The pecan harvest was active in Arizona and New Mexico and lagged last year and average in Mississippi. The pecan harvest was slowed by rains in the upper coast and south-central regions of Texas, but progressed well in other parts.

VEGETABLES: The vegetable harvest continued in California, Florida, Texas, and Arizona. Wind damage occurred to some vegetables growing in the Homestead, Florida area. Although temperatures dropped to below freezing in some parts of central Florida over the weekend, no significant damage was expected. In California, cold conditions hindered the lettuce harvest in Riverside County. Carrot supplies were tight in California due to lower than expected yields. Vegetables in Texas continued to make good progress under favorable growing conditions. Preparations for and the planting of spring vegetables continued where conditions allowed.

PASTURE AND LIVESTOCK: This week's below-normal temperatures stressed the Nation's livestock and caused producers to increase the amount of forage used for supplemental feeding. Pasture feed conditions across the Nation were fair to good, although pastures in California needed warmer weather and Texas pastures needed more rain. Hay supplies were reported as mostly adequate with good quality feed in demand in parts of the Midwest. Nationally, livestock was in mostly good condition.

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 NASS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Rainfall 0.45 to 1.38 in. north; 0.45 to 1.66 in. central; 1.45 to 2.64 in. south. Temperatures 4 to 11° below normal north; 4 to 10° below normal central; 8 to 12° below normal south. Lows 14 to 24° north; 16 to 24° central; 19 to 28° south. Highs 44 to 59° north; 53 to 62° central; 54 to 67° south.

Primary activities: General care of livestock, poultry, catfish.

ARIZONA: Below normal temperatures continued. Temperatures 2 to 6° below normal. Extremes 0°; 62° higher elevations; 20°; 73° deserts. Mostly dry statewide except snow flurries midweek northern, central mountains.

Small grains field preparations, planting slowed for holiday. Small grain seeded 83%, 74% 1992, 78% avg.; established 67%, 54% 1992, 56% avg. Alfalfa condition good. Harvest light. Sheeping off activities light; stand renovation, new stand

establishment mostly below normal. Grapefruit, navel oranges, lemons available central, western areas. Tangerines, tangelos, sweet oranges also available central area. Vegetable harvest slowed for holiday. Available from both western, central areas: broccoli, cabbage, cauliflower, Boston, leaf, romaine lettuces, spinach. Western harvest also included: Iceberg lettuce, celery, endive, escarole. Central crops also available included: Mixed greens, green onions, radishes, rapini, rutabagas. Apples, pecans available eastern areas. Potato harvest virtually complete.

ARKANSAS: Cool week, temperatures averaging below normal, light rain. Extremes 10°; 69°. Rainfall none to 0.56 in.

Soil moisture adequate to surplus. Wheat condition fair to good, needs sunshine, dry weather. Some wheat fields saturated. Livestock good. Producers feeding hay, supplies adequate. Pastures good.

CALIFORNIA: Light amounts of precipitation southern areas on 26th. Dry except for persistent low clouds, fog central valley.

Field activities limited progress; soils damp; cloudy skies, fog most areas. Growth small grains, forage crops slowed somewhat, cold temperatures. Wheat, barley planted lighter soiled fields. Fertilization, aerial herbicide applications ongoing. New alfalfa planted where conditions allowed; newly emerged fields treated weeds. Cotton harvest essentially complete, few scattered fields standing. Plowdown harvested fields for pink bollworm control rapidly winding down, compliance deadlines neared. Grain sorghum harvest interrupted, warmer temperatures needed for drying heads. Alfalfa, sudangrass greenchopped southern counties. Pruning, weed control, replanting continued. Avocado picking continued in southern California. Central valley navel orange harvest active with good color, quality. Lemon, grapefruit, tangerine picking active. Broccoli light central coast; fairly light central valley, desert areas. Carrot supplies tight, lower than expected yields. Cauliflower production steady Santa Maria; light, increasing desert area; nearing completion Salinas, central valley. Iceberg lettuce harvest slowed by iced-field conditions Riverside County, central valley growers irrigating Spring crop. Leaf, Romaine lettuce heavy; Imperial, Coachella valleys. Ground preparation underway spring melons desert area. Sweet potato, fall potato movement from storage active. Spinach fresh market, processing normal progress central valley. Other crops harvested green onions, turnips, various oriental vegetables. Cattle moved to foothill pastures. Feed conditions gradually improving. Moisture adequate most areas. Warmer temperatures needed to promote growth. Supplemental feeding some areas. Calving, lambing active. Livestock in good condition.

COLORADO: Three fast moving upper disturbances moved from Wyoming across the State on 20th, 22nd, 23rd. Each storm dropped several inches of snow over the northern part of the State, with lighter amounts across southern areas. Cold during the week with low temperatures 0 to 15° in lower elevations, 0 to 15° below in the mountains, high valleys. Highs in the northern mountains were only in the teens during the week. On Christmas weekend the wind began to blow from the west, increased velocity. It was mostly dry statewide, with warming temperatures reaching the 50s to 60s in the eastern part of the State on 26th, 25 to 40° in the mountains.

Major producer activity is the care of livestock.

FLORIDA: Temperatures 8 to 12° below normal north, 4 to 8° below normal central, 1 to 5° below normal south. Highs middle 60s north, middle, upper 70s central, lower to middle 80s south. Lows: low, middle 20s north, upper 20s, lower 30s interior central Peninsula, middle 30s along coast, upper 30s interior south, 40s along coast. Rainfall 1.00 to 3.00 in. north, near 1.00 in. central, under 0.50 in. south.

Soil moisture short to adequate throughout State. Sugarcane harvest, planting active. Pecan harvest virtually complete. Citrus groves, trees, fruit very good condition. Rain, cold temperatures beneficial to trees. Early fruit excellent on-tree color, fruit drop light, early-mid orange harvest active all areas. Navel harvest slowing as supplies are low. Grapefruit movement active east coast. Tangerine harvest slowed by bad weather. Caretakers cutting cover crops, placing heaters for cold protection. No significant frost damage expected central although temperature dipped below freezing over weekend. Twenty mph wind tossed vines causing some scarring of fruit Homestead. Peppers, U-pic strawberries harvesting started Dade/Homestead. Volume leaders; tomatoes, peppers, squash, cucumbers, snap beans. Also available; cabbage, chinese cabbage, carrots, sweet corn, celery, iceberg, and specialty lettuces, radishes, strawberries, cherry tomatoes, watermelons. Pasture feed 10% poor, 50% fair, 40% good. Cattle herds mostly fair to good.

GEORGIA: Week was much colder than normal. Snow several areas, freezing temperatures Statewide. Temperatures 5° to 8° below normal north, 6 to 11° below south. Maximum mid 40s north to lower 60s south. Minimum from teens north near 30° warmer locations south. Precipitation, some snow, sleet, most of State. Amounts 0.75 to 2.75 in. Precipitation 1 to 3 days.

Soil moisture adequate to surplus. Field activity limited precipitation, below normal temperatures. Tobacco bed sowing,

onion planting as weather permitted. Routine care livestock, poultry. Cattle, hogs good.

HAWAII: Weather seasonally cool during Christmas. Brisk winds, passing rains kept weather chilly. Rainfall none to 1.00 in. Temperatures high 50s to low 80s.

Crop progress slowed by cool weather. Roguing efforts for papaya ringspot ongoing. Ginger root growers harvesting crops earlier limiting losses to bacterial wilt. Cavendish banana production near last week's level. Papaya seasonally declining. Tomato picking heavy.

IDAHO: Temperatures 1 to 6° below normal. Precipitation none to 0.19 in. north, none southwest, none south central, none to 0.12 in. east. Fairfield reached the State low of 13° below zero.

Soil moisture adequate. Hay, roughage supplies adequate. Activities: Marketing, educational meetings, shop activities, livestock care. Livestock reported in good condition.

ILLINOIS: Wintery cold weather hit the State last week, with temperatures 4° below normal. Highs averaged 29°, while lows averaged 18°. Extreme low temperature was 8°. Precipitation was reported at mostly less than 0.50 in. Some snowfall was reported from many areas across the State.

Activities last week were mainly caring for livestock, with farmers continuing to monitor winter wheat, feedlot conditions, hay supplies.

INDIANA: Cooling trend put average high temperatures 5 to 10° below normal. Highs mid 20s north to mid 30s in the extreme south. Highs reached into the 40s in some parts of the State early in the week, were in the mid teens to low 20s by its end. Mean lows were 1 to 4° below normal, mid teens north to around 20° in the south. Lows fell into single digits in all parts of the State except the extreme south by Christmas weekend. Rainfall, water equivalent, was generally under a half inch. By the end of the period an inch or more of snow was reported in the State except in some southern sections. Some parts of central area reported 4 in. accumulation.

Colder weather accompanied by snow stopped any field activities. Wheat condition mostly good, except for low areas. Hay supplies remain adequate. Livestock, mostly good condition, recent cold has stresses them. Other activities; selling grain, hauling manure, tax preparation, machinery maintenance, farm meetings, purchasing supplies, stripping tobacco.

IOWA: A cold week with temperatures averaging 2 to 7° below normal. Extremes -2°; 38°. Light snow statewide 24th, 25th. Snow cover 1 to 3 in. southeast to 3 to 5 in. northwest. Precipitation 0.03 in. southwest to 0.24 in. central; 0.13 in. (normal 0.23 in.).

Cold temperatures slowed livestock gains while making chores more difficult.

KANSAS: Average temperatures 27 to 33° across State, within 1° of normal in eastern, central areas. Western areas were between 2 to 4° below normal. Precipitation across the State averaged a 0.10 in. or less. Precipitation amounts continue to be light across State. Precipitation 0.10 in. or less. Temperatures continued at normal seasonal levels. While air temperature lows ranged from single digits to mid-teens the four inch soil temperatures remained in the low to mid-thirties.

KENTUCKY: Cold, mostly dry. One to 3 in. of snow fell Christmas Eve, Christmas Day. High temperatures upper 30s, 6° below normal. Low temperatures middle 20s, 2° below normal. Precipitation near 0.25 in. west, central to between 0.33 to 0.66 in. east.

Farm activity minimal during Holiday Season. Winter wheat exposed to coldest temperatures of season, condition believed to be satisfactory. Dark air cured sales showed decline in volume, price. Burley markets will reopen 1/4. Supplemental feeding for cattle increased with cold temperatures. Hay supplies adequate.

LOUISIANA: Temperatures 3.9 to 6.7° below normal. Extremes 21°; 72°. Rainfall 0.19 in. north central to 0.97 in. central.

North field activities were at a minimum because of the holidays. Rain, cold weather also delayed activities early in the week. Winter plowing, wheat fertilization, grazing of rye grass were all active

during the week. South fieldwork was delayed because of rainy, cold weather with the main activities being cattle tending, grazing of rye grass. Sugarcane harvest was nearing completion, with mills finishing up by Christmas day. Christmas tree harvest was active throughout the week.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.89 in., normal 0.78 in. Temperature 36.2°, normal 34.5°. Extremes 15°, 52°.

Activities: Attending meetings. Caring for livestock.

DELAWARE: Precipitation 1.29 in., normal 0.80 in. Temperature 36.8°, normal 35.5°. Extremes 21°, 48°.

Activities: Attending meetings. Caring for livestock.

MICHIGAN: Extremes -30°, 50°. Precipitation 0.07 to 2.12 in. across the State. Major activities: Cutting wood, getting ready for Christmas, pruning orchards, repairing machinery, spreading manure, trimming fence rows, grading apples.

MINNESOTA: Temperatures 3 to 8° below normal for the State. Extremes -35°, 35°. Precipitation 0.05 to 0.09 in. above normal for the west central, southwest, 0.01 to 0.14 in. below normal elsewhere. Precipitation 0.04 to 0.23 in. for State. Snowfall 1 to 4 in. for State. Snow depth at weekend 1 to 2 in. for the southern third of the State, 7 to 10 in. elsewhere.

Last week brought unseasonably cold temperatures to the State. Such weather increases the burden livestock producers face this winter with the poor quality of feed available.

MISSISSIPPI: Temperatures 40°, 5.0° below normal. Extremes 15°, 68°. Most areas across the State received below normal precipitation. State average 0.75 in., 0.60 below normal. Soil temperatures 44°.

Days suitable for fieldwork 3.5, 1.5 1992, 2.2 avg. Soil moisture 25% adequate, 75% surplus. Hay supply 14% short, 86% adequate. Feed grain 15% short, 85% adequate. Pecans 93% harvested, 97% 1992, 97% avg.; 30% poor, 70% fair. Livestock 18% fair, 77% good, 5% excellent. Pasture feed 85% of normal. Activities: Feeding livestock, making plans for 1994.

MISSOURI: Temperatures near normal past week. Precipitation minor, less than 0.15 in. most areas. Some light snowfall 24th.

Farm work generally limited to care of livestock.

MONTANA: Temperatures above normal east of the continental divide, near 10° above normal east, south central. Normal to below normal west. Precipitation 0.25 to 0.50 in., except less than 0.10 in. north central, northeast.

Protectiveness of snow cover for winter wheat improved in many areas. Winter wheat fair to mostly good. Grazing is mostly open, but difficult in some areas. Farm, ranch activity mostly livestock care, feeding, general maintenance.

NEBRASKA: Temperatures varied from 6° above normal to 3° below normal. Precipitation less than 0.10 in. over the State.

NEVADA: Stable high pressure kept weather dry, clear through much of the week. Fog was common west-central. Light snow came to the Sierra Nevada, west at weekend. Extremes -10°, 65°.

Supplemental feeding livestock continues, hay stocks adequate. Major activities include care, feeding of livestock, chopping ice for livestock water, general maintenance.

NEW ENGLAND: No weather data available.

NEW JERSEY: Temperatures were near normal north, below normal south, coastal; 31° north, south, 32° coastal.

Extremes 0°, 55°. Precipitation was above normal; averaging 1.12 in. north, 1.17 in. south, 0.95 in. coastal. Heaviest 24 hour total 1.30 in. on 20th, 21st. Heaviest 24-hour snowfall 0.8 in. on the 25th, 26th. Snow on ground on 27th less than 1 in. north.

Farmers busy caring for livestock, doing other normal winter chores.

NEW MEXICO: Unseasonably cold weather dominated State. Temperatures 5 to 6° below normal. Extremes -6° north central

mountains; 72° southeastern desert. Mostly light snow, rain fell from two minor winter storms. Highest precipitation totals reached about one-third of an inch in several locations.

Farming activities continued to slow during the week with a small amount of pecan harvest, mainly the clean-up of harvested crops, land preparation for spring crops.

NEW YORK: Weather gradually settled into winter pattern. Relatively mild early week with highs in 30s, 40s, lows 20s, 30s. By weekend highs were only in teens, 20s while lows ranged from single digits to teens. Lows fell below 0° from Mohawk Valley north 24th. Precipitation heavy for week, especially in central, eastern sections. Significant storm occurred 21st. One foot of snow fell portions of Western Catskills, Susquehanna Region. Snowfall of 8 to 12 in. fell in Western Adirondacks, St. Lawrence Valley. Elsewhere, snowfall much lighter. By weekend, heavy snow squalls blew off Lake Erie, Ontario. Snowfall reached 12 in. or more in snowbelt areas of Buffalo, Watertown.

Major activities: Caring for livestock, moving crops from storage, machinery repair.

NORTH CAROLINA: Temperatures 3 to 9° below normal. Precipitation 2.87 in. at Murphy to 0.26 in. at Franklin.

NORTH DAKOTA: Several fast moving systems brought wind, freezing rain, snow. Temperatures 2° below normal to 3° above normal. Extremes -20° northeast; 40° southwest. Precipitation was above normal over most of the State.

Snow cover sufficient to protect fall seeded crops in most areas. Cattle, sheep in good condition despite cold weather. Feed, forage in good supply. Difficult travel conditions due to snow, freezing rain.

OHIO: Winter officially got underway on the 21st. By the 24th, Arctic high pressure put the State in a deep freeze. Temperatures 1 to 8° below normal. Highs were in the mid 20s to mid 30s. Lows mid teens to near 25°. The 27th was the coldest day with single-digit lows common. Precipitation (liquid equivalent) was below normal at 0.20 to 0.50 in. except in the northeast, which received 0.50 to 1.00 in.

Snow cover 1 to 2 in. south to over 6 in. north, protected winter wheat. Livestock were moved to cover, fed increased amounts of roughage.

OKLAHOMA: Temperatures 3° below normal southeast to 2° above normal northeast. No precipitation reported.

Moisture supplies continue to dwindle, particularly Panhandle. Lack of moisture is the primary concern for small grain producers. Cattle prices not available.

OREGON: Temperatures 0 to 5° below normal statewide. Widest departures from normal in southern Willamette valley, southwest areas. Precipitation was almost non-existent with only a trace reported in a few locations.

Soil moisture mostly adequate. Winter orchard clean up continued. Livestock good to excellent. Supplemental feeding continues, statewide.

PENNSYLVANIA: Warm temperatures early in the week offset by cold windy temperatures by weekend. Average temperature of 30° matched normal. Extremes 0°, 50°. Precipitation 0.74 in., 0.40 in. above normal.

Activities: Hauling manure; fixing fence; caring for livestock.

PUERTO RICO: Island rainfall 0.95 in. was 0.05 in. above normal. Highest rainfall 4.25 in. Pico Del Este, 3.64 in. Canovanas, 2.02 in. San Sebastian 2WNW. Island temperatures 77 to 78° on Coasts, 73 to 74° Interior with mean station temperature 79.5° at Guayama to 69.6° at Aibonito. Extremes 54°, 91°.

SOUTH CAROLINA: Temperatures across State 5 to 7° below normal. During the middle of the week most of the State experienced precipitation in the form of freezing rain, snow, with as much as 3.50 in. of accumulation reported in some areas. Precipitation 0.90 in. statewide.

Little or no farm activities were reported for the week due mainly to the cold temperatures, Christmas festivities.

SOUTH DAKOTA: Temperatures last week were mild in the west to cold in the northeast with departures 9° above normal to 10° below normal. Extremes -19°; 56°. Precipitation in the form of snow was widespread, light to moderate. Lead in the Black Hills received 1.23 in. otherwise precipitation was generally highest in the northeast. Snow cover at weekend was close to a foot northeast to just a trace over much of the southern part of State. Precipitation for year remained well above normal in most of State, plus 13.73 in. at Mitchell to minus 2.11 in. at Mobridge.

Farm activities include: livestock care, routine chores.

TENNESSEE: Temperatures were significantly below normal, ranging from 11° below along the Plateau, to 4° below in west. Both the warmest, coolest readings were recorded on the 26th. Morning low in Crossville was 11°; Memphis 61°. Precipitation was also below normal even though the 24th, 26th were the only dry days. Precipitation departures 0.82 in. below west to 0.19 in. below east. Local precipitation 1.06 in. Chattanooga to 0.07 in. Dyersburg. Significant snowfall was mainly in the higher elevations of the eastern half of the State.

Livestock chores, routine farm maintenance were the main activities. Cattle, wheat remain in good condition.

TEXAS: High pressure maintained control of conditions across the State last week, except for a cold front which produced rain at midweek. Most of climate divisions received below normal precipitation, but Trans-Pecos, Edwards Plateau, and Lower Valley divisions received above normal rainfall last week. Largest average precipitation total was 0.49 in. East Texas, 0.41 in. Edwards Plateau. Lowest average divisional precipitation was 0.05 in. High Plains. Some of larger individual station totals were 0.90 in. at Lake Livingston, 0.86 in. at College Station, 0.78 in. Fort Stockton. Mean temperatures 3° below normal in High Plains to 10° below normal in Lower Valley. Most divisions were between 5 to 8° below normal.

Crops: Cotton harvest is virtually complete across State. Producers only need a few open days for remaining fields to be harvested. In Northern Low Plains, producers were shredding cotton stalks. In Trans-Pecos, many producers were waiting for end of the holidays before they start shredding and plowing. Small grains: Both Plains and South Texas areas need rain to boost growth of small grains. Cool weather has hampered growth in many areas. Stands should improve in areas that received recent rain. Some producers were having to contend with greenbugs in Southern Low Plains. Wheat 63% normal, 67% 1992. Peanut harvest was nearing completion across State.

Commercial Vegetables: Rio Grande Valley, majority of irrigated land is ready for spring planting. Onion crop made good progress. In East Texas, some producers were preparing land for spring planting where conditions allowed. Winter vegetables made good progress. Harvesting of greens continued. In High Plains, land preparation continued. In San Antonio-Winter Garden, spinach crop continued to make good progress. Some spinach was harvested. In Trans-Pecos, land preparation continued. Some producers applied pre-plant fertilizers. Pepper harvest was virtually complete. Peaches some East Texas producers were preparing to prune trees. Pecans rain slowed harvest in South Central Texas, along Upper Coast, harvest progressed well in other areas.

Range and Livestock: Livestock remained in fair to good condition across State. Supplemental feeding continued to be above normal across much of State as availability of winter grasses was short. Grazing of small grain pastures continued. In Northern Low Plains, some ranchers have pulled cattle off of wheat pastures

hoping for regrowth. In East Texas, some producers were spreading lime on pastures. In South Texas, some ranchers burned prickly pear for their cattle.

UTAH: Temperature maximums 7° below normal, minimums 6° below normal. Precipitation was zero for the Dixie, Southeast, Uinta Basin divisions, light across the rest of the State.

Many farm activities were slowed due to the holidays, however, the major activities were: feeding, caring for livestock; year end bookkeeping; marketing onions, grains, hay.

VIRGINIA: Temperatures below normal. Extremes 7°; 54°. Precipitation was near normal.

Days suitable for fieldwork 1.4. Topsoil moisture 35% adequate, 65% surplus. Soybeans harvested 99%, 95% 1992, 95% avg. Winter grains, grazing crops 2% poor, 41% fair, 55% good, 2% excellent. Forage from pastures, grazing crops dairy cattle 6%, beef cattle 26%, sheep 30%. Fixing fences, attending pesticide recertification meetings, marketing fire, burley tobacco, applying fertilizer, pruning fruit trees, taking soil samples. Snowy, cold weather increased livestock feeding.

WEST VIRGINIA: Temperature 28°. Extremes 2°; 47°. Precipitation 0.68 in.

Snow covered a majority of the State over the Holiday weekend. Farm activities: Feeding livestock, bookkeeping, general maintenance.

WASHINGTON: Temperatures 7° below normal west, to 3° above normal east. Precipitation none west, to 0.10 in. east. Freezing temperatures were reported across the entire state.

Days suitable for fieldwork averaged 6.4. Soil moisture 26% short, 73% adequate, 1% surplus. Hay, other roughage supplies 5% short, 95% adequate. Range, pasture 15% very poor, 36% poor, 42% fair, 7% good. Winter wheat dryland 50% fair, 50% good; irrigated 100% good. Barley dryland 95% fair, 5% good; irrigated 5% fair, 95% good. Weather was dry and cold throughout the week. Snow cover for winter grains was disappearing in many areas, but little damage has been reported so far. Fruit tree pruning continued. Christmas tree harvest finished with reports of surplus trees in some areas. Early lambing began in the central part of the state.

WISCONSIN: Above normal mid-December temperatures gave way to much colder than normal temperatures. Cold dry Canadian air brought little precipitation for the week. Only spotty lake effect snows amounted to much. Temperature 13°. Extremes -27°; 41°.

With the cold temperatures and poor snow cover frost will penetrate quickly. This will make it possible to spread manure easily until snow cover is received. Beyond daily outside chores most other farm activity has been confined to heated areas.

WYOMING: Temperatures were generally below normal last week. Temperatures 11° below normal in areas of the southeast, south central to 1° above normal in the northeast. Precipitation was mostly above normal for the State as a whole. Average precipitation ranged from a tenth of an inch below normal in the northwest to one to two tenths of an inch above normal for the rest of the State. Alva, Sundance reported the largest amounts of precipitation with 0.50 to 0.59 inches respectively.

Topsoil moisture supplies mostly adequate. Winter wheat condition fair to good. Livestock in mostly good condition. Hay, roughage supplies mostly adequate.

International Weather and Crop Summary

HIGHLIGHTS

December 19 - 25, 1993

FSU-WESTERN: Widespread precipitation and unusually mild weather provided favorable overwintering conditions for dormant winter grains.

EUROPE: Heavy rain flooded northwestern Europe.

SOUTH ASIA: Tropical showers likely caused more flooding over India's southern tip. Cool weather across the north slowed winter crop development.

EASTERN ASIA: Winter wheat remained dormant in the North China Plain despite unseasonably warm conditions.

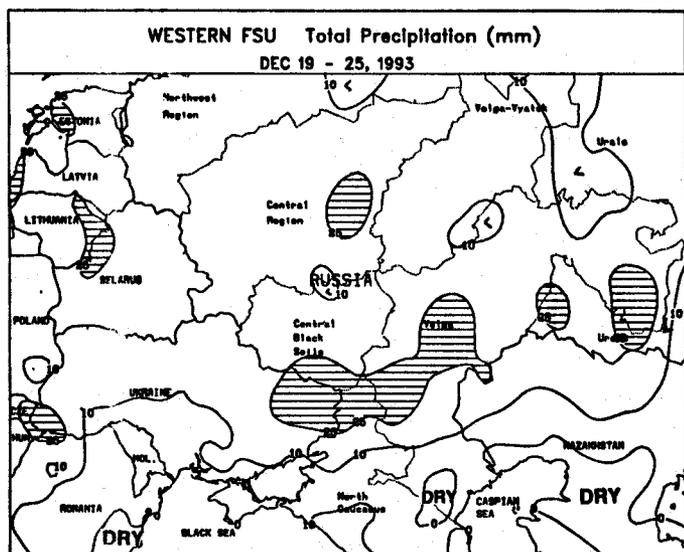
SOUTHEAST ASIA: Typhoon Nell caused some flooding and crop damage in the southern Philippines.

AUSTRALIA: Light rain continued to slow wheat harvesting in the south but moistened topsoils for germinating summer crops in the east.

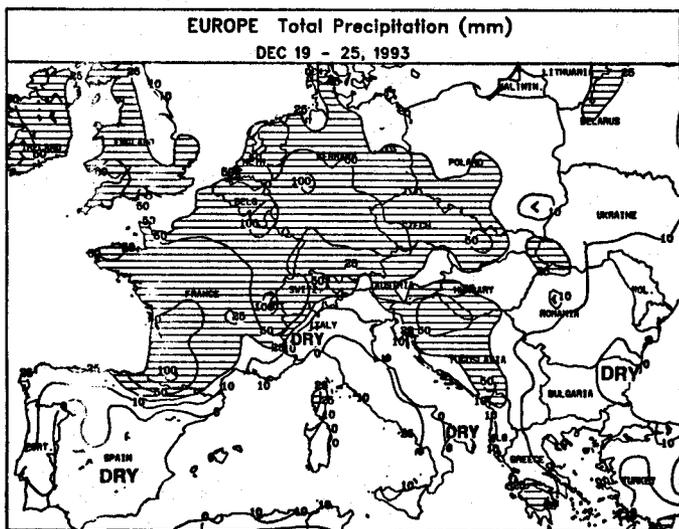
SOUTH AMERICA: More rain delayed Argentina's wheat harvest. Inundating rain drenched Brazil's northern soybean area.

NORTHWESTERN AFRICA: Mostly dry weather covered winter grains in Morocco, Algeria, and Tunisia.

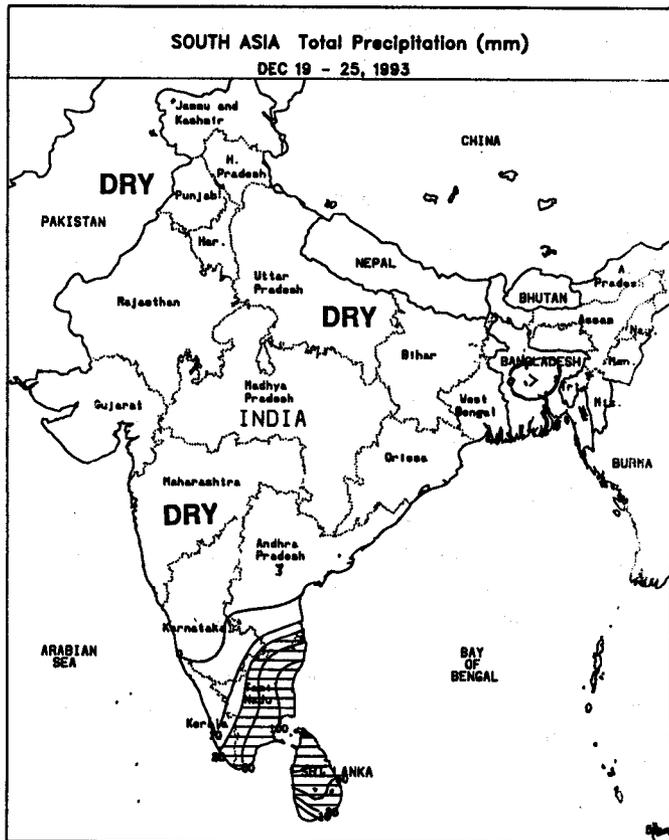
SOUTH AFRICA: Scattered showers favored corn establishment but missed the sugarcane region.



FSU-WESTERN: Light to moderate precipitation (10-35 mm) and unusually mild weather favored dormant winter grains. The precipitation fell mostly as snow in northern Belarus, the northern tip of Ukraine, and northern Russia (Northwest Region, Black Soils Region, Volga Vyatsk, Urals, and upper Volga Valley), increasing snow cover. Although mild weather and rain provided favorable overwintering conditions in Ukraine and North Caucasus in Russia, most of the protective snow cover in these areas has melted. Weekly average temperatures were 4-6 degrees Celsius (C) above normal over most of the region.

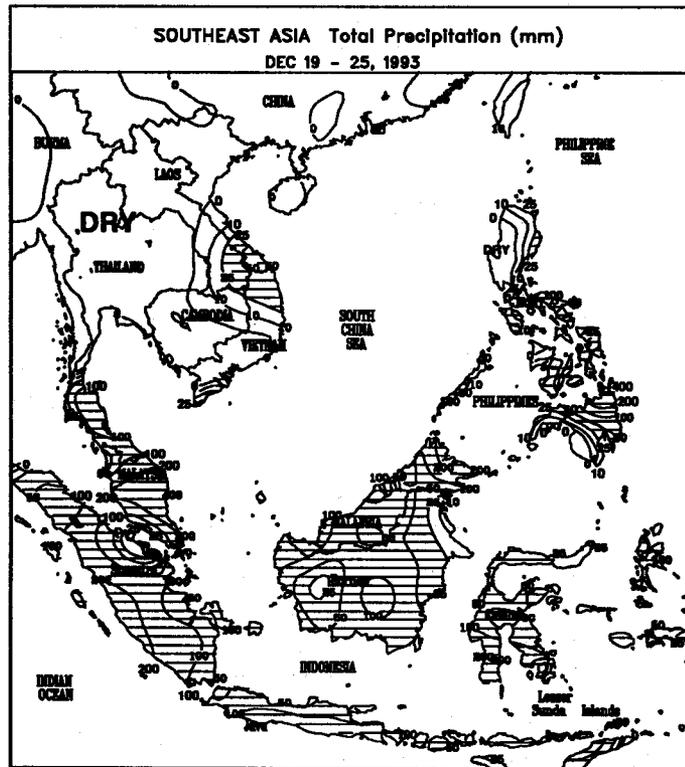


EUROPE: Persistent heavy rain caused extensive flooding in France, Belgium, and Germany. Floodwaters along some of Europe's major river systems are reportedly at their highest levels in over 50 years. Heavy mountain snow has fallen in both the Alps and Pyrenees, raising concern for later flood potential. Precipitation averaged 25-115 mm across nearly all of Europe, except for lighter amounts in the extreme east and mostly dry weather over the southern two-thirds of Spain. Temperatures were 2-6 degrees Celsius above normal, although colder weather moved into northern Europe at week's end.

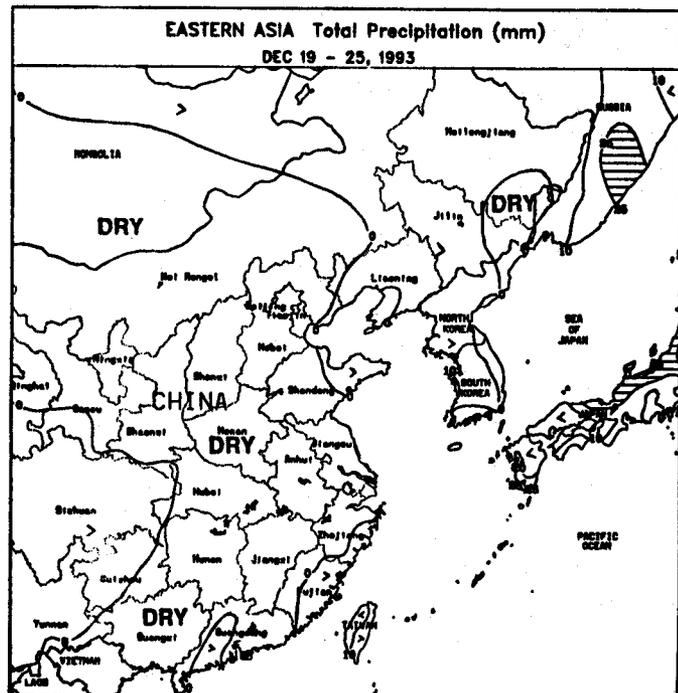


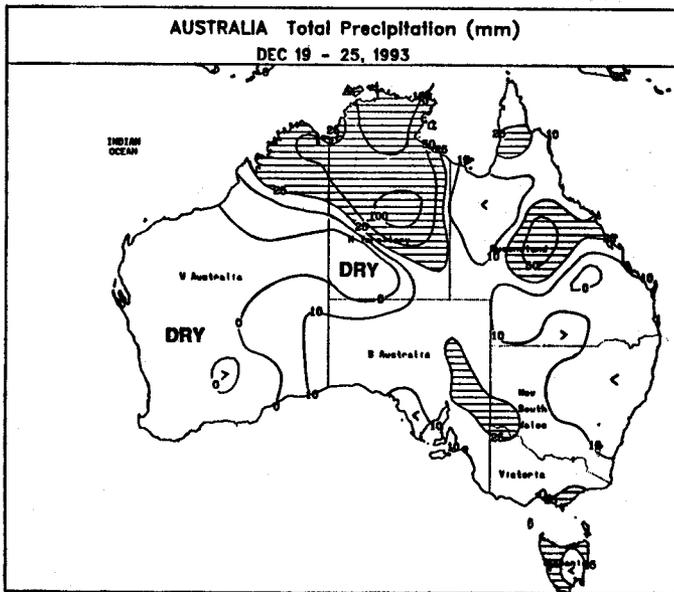
SOUTH ASIA: Heavy showers (50-160 mm) fell over India's southern tip, likely causing more localized flooding of rice and rabi crops. Dry weather was prevalent elsewhere. Across the north, cool weather slowed growth of winter grains and oilseeds, with minimum temperatures dipping below 5 degrees C in sections of northern Pakistan and north-central India.

EASTERN ASIA: Dry weather dominated China. Temperatures, while averaging 2-4 degrees C above normal, were sufficiently cold across the North China Plain to keep winter wheat dormant. Seasonably wet weather (precipitation totaling 25-90 mm) continued along western Japan's central and northern coast.

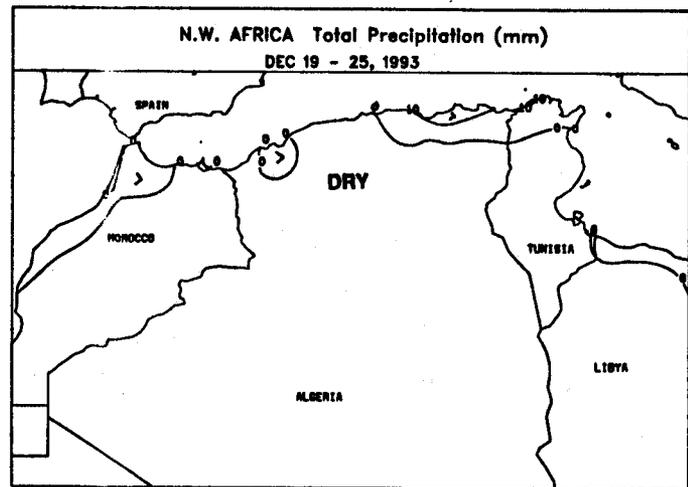


SOUTHEAST ASIA: Typhoon Nell struck Mindanao, Philippines on December 26 with sustained winds of 65 knots, bringing inundating rains and possibly damaging some of the region's rice, corn, and sugarcane. (More detail will be provided in next week's summary.) Rainfall for the week ending December 25, due partly to the approaching storm, ranged from 50 to 100 mm or more throughout the southern islands, with local totals ranging from 300 to 500 mm. Inundating rain (100-200 mm or more) also continued along the Malay Peninsula, likely causing additional flooding of rice and oil palm. Widespread showers (50-100 mm or more) continued throughout Indonesia, causing local flooding, but maintaining generally favorable moisture levels for rice.

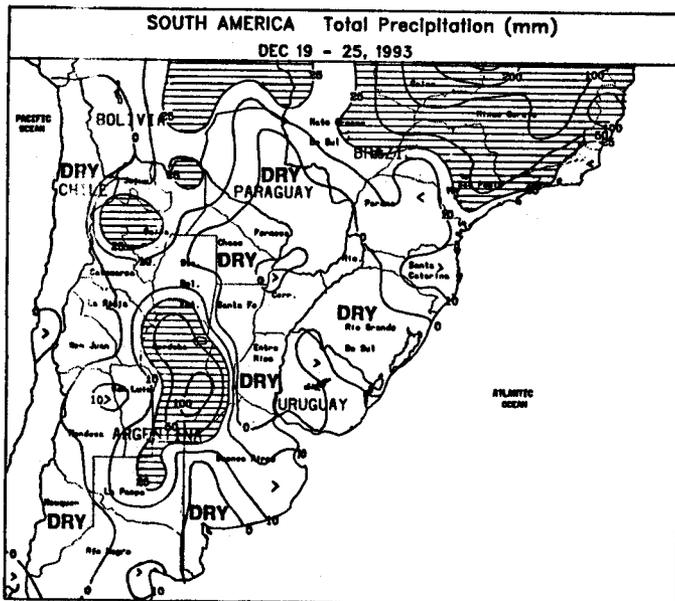




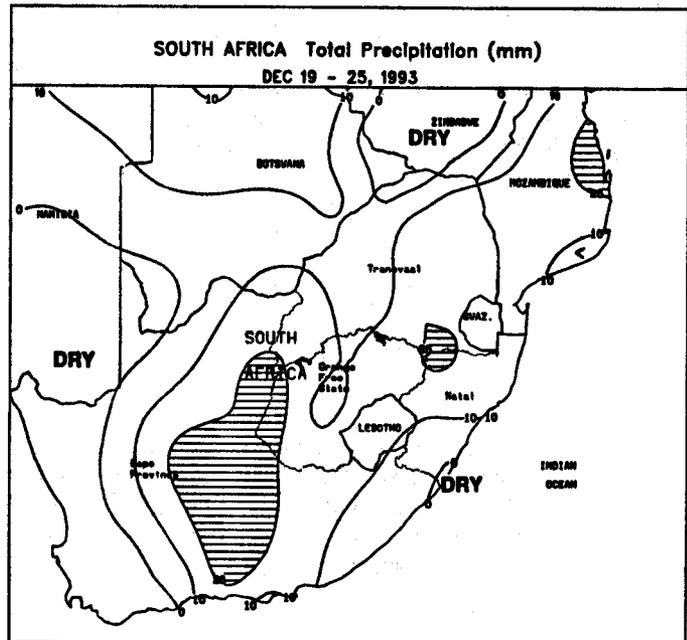
AUSTRALIA: Light rain (10-22 mm) over southern New South Wales, Victoria, and southern South Australia continued to slow wheat harvesting. However, rainfall amounts were less than those of the previous week. Elsewhere, scattered showers in southern Queensland and northern New South Wales moistened topsoils for summer crop germination. Weekly temperatures continued to average 1-3 degrees C below normal over most of Australia.



NORTHWESTERN AFRICA: Little, if any, precipitation covered winter grain areas in Morocco, Algeria, and Tunisia. Moisture reserves were adequate for emerging crops in Morocco and western Algeria. In contrast, insufficient moisture in eastern Algeria and Tunisia since the beginning of the growing season may have caused planting delays. As a result, planting in these areas will likely extend into January.



SOUTH AMERICA: In Argentina, scattered heavy storms late in the week produced 25-133 mm in southern Cordoba and southern Santa Fe, causing more disruption to winter wheat harvesting and late summer crop planting. Generally favorable harvest weather prevailed in Buenos Aires province, and dry weather favored early cotton growth in the north. In Brazil, dry weather in southern soybean areas helped late crop planting and vegetative growth, following several weeks of wet weather. Further north, widespread heavy rain (50-150 mm) soaked northern Sao Paulo, Minas Gerais, and Goias. Scattered 200-440 mm of rainfall flooded southern Goias, likely damaging newly emerged soybeans and corn.



SOUTH AFRICA: Scattered, light to moderate rain (5-26 mm), accompanied by seasonable temperatures (highs from the mid-20's to low-30's C) covered primary corn regions. Widespread, soaking rain is needed in western corn areas for proper establishment to compensate for the recent drying trend. In Natal, unseasonable dryness covered primary sugarcane regions for the second week.

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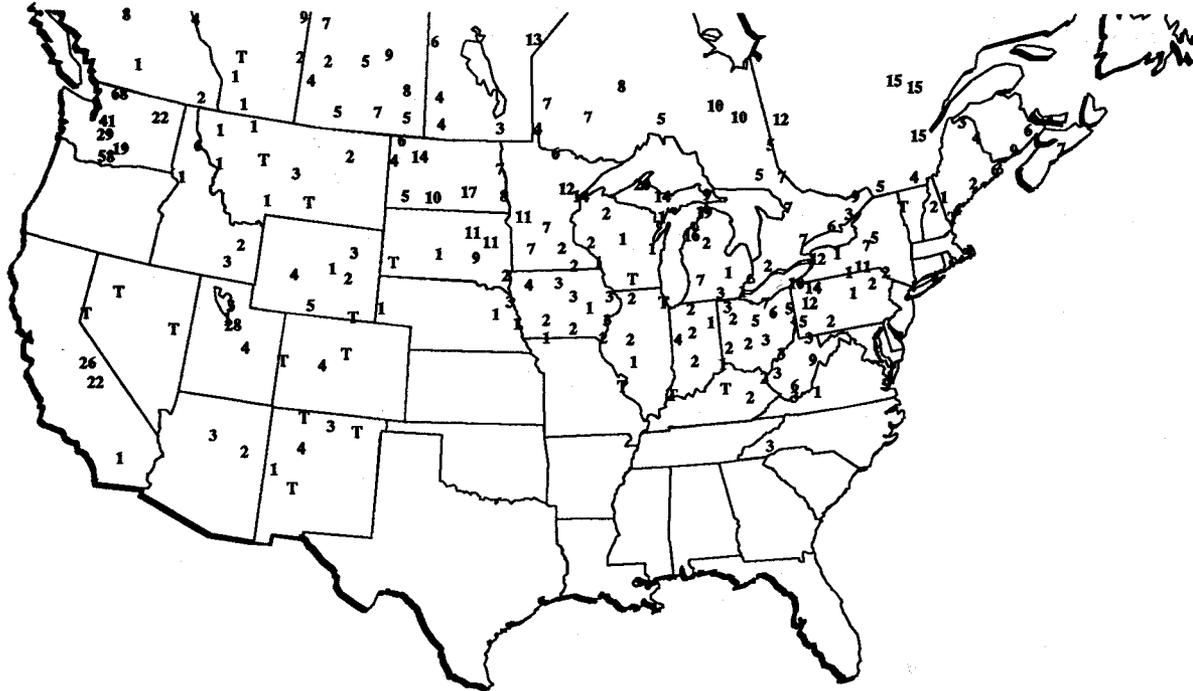
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