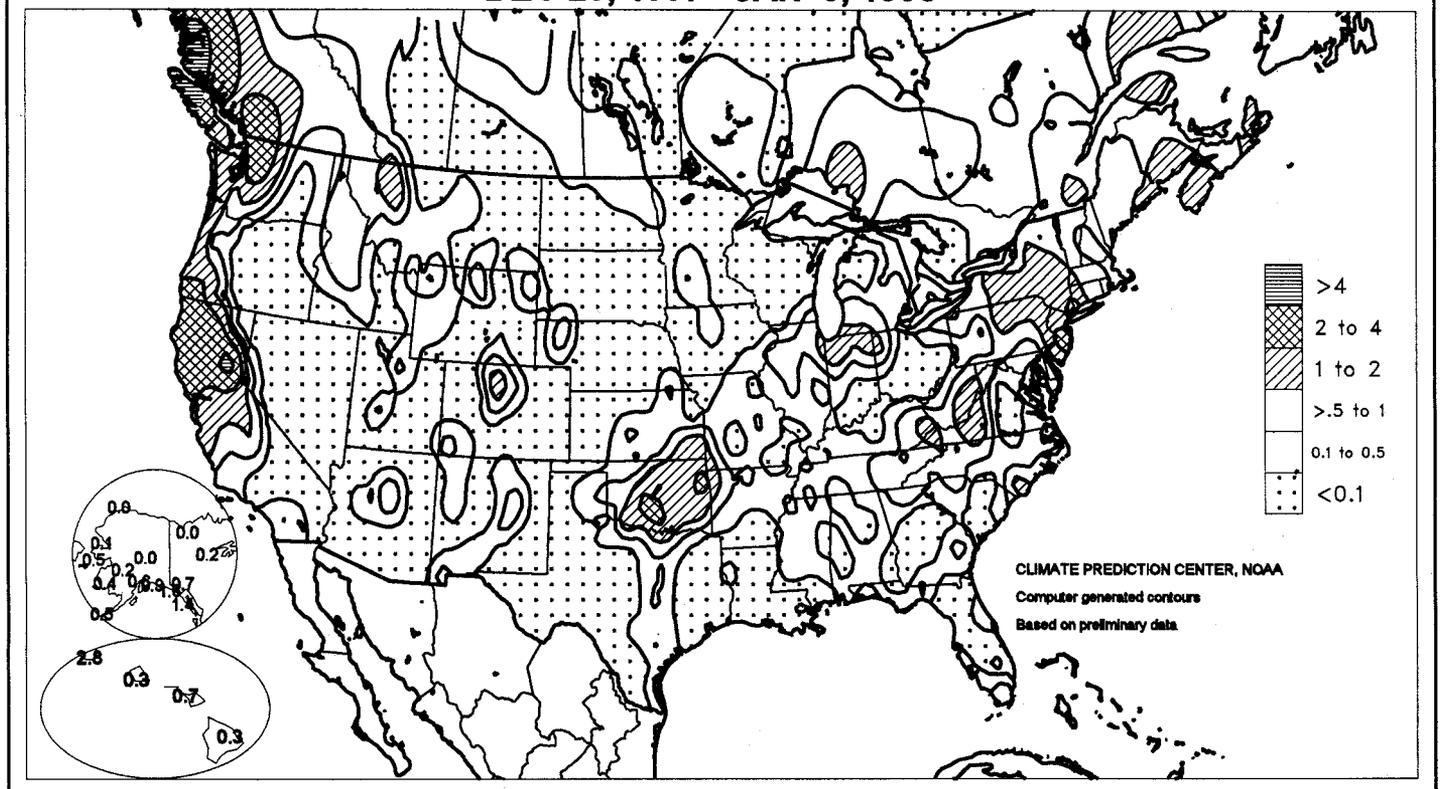


# WEEKLY WEATHER AND CROP BULLETIN

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

**Total Precipitation (Inches)  
DEC 28, 1997 - JAN 3, 1998**



## HIGHLIGHTS

**December 28, 1997 - January 3, 1998**

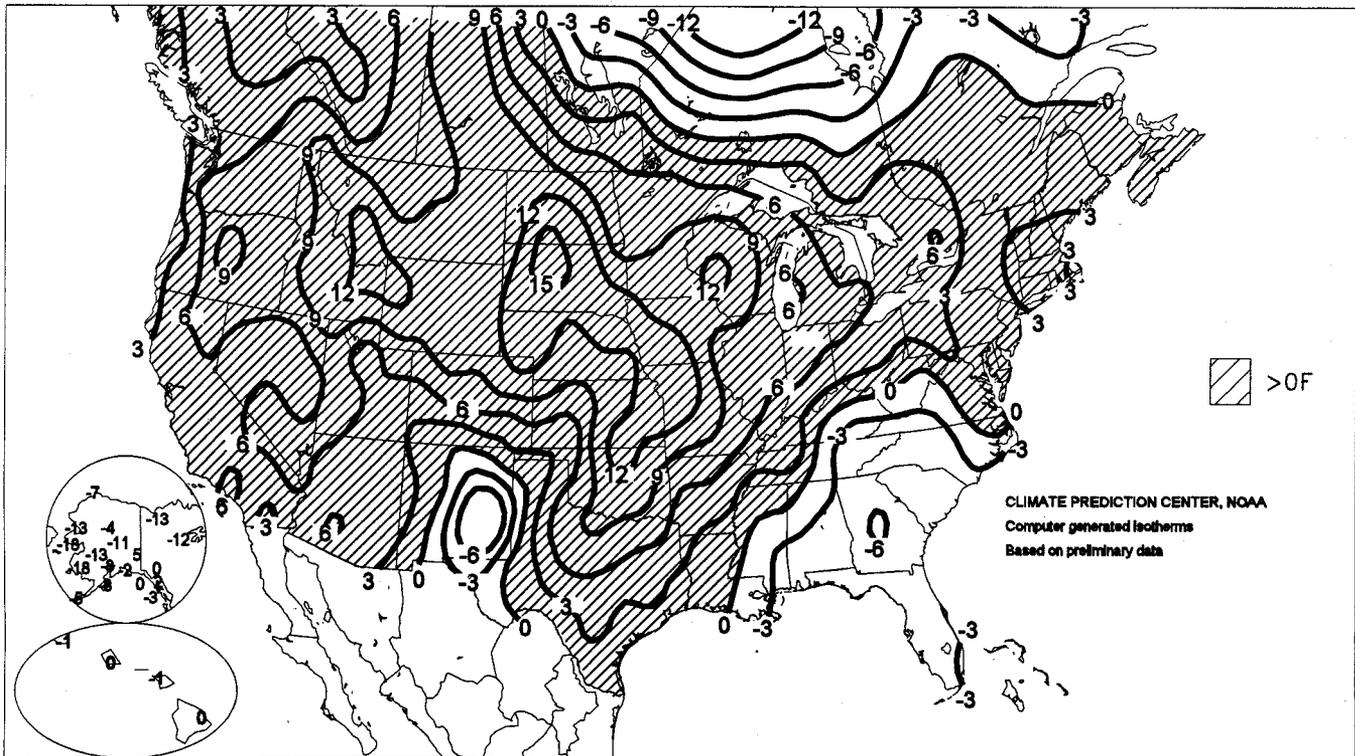
**F**airly tranquil weather prevailed except in the East, where an early- to midweek storm brought rain, snow, and wind. Despite a late-week Arctic intrusion into the North Central States, weekly temperatures averaged 6 to 16°F above normal. In advance of the cold front, more than 50 daily-record highs were set during the first 3 days of 1998 from the northern Plains into the Northeast. In contrast, temperatures averaged as much as 6°F below normal in the Southeast, where cold air lingered in the storm's wake. Storminess arrived along the West Coast toward week's end, delivering more than 2 inches of rain to coastal areas from Washington to central California, and more than 4 inches of precipitation in parts of the northern Sierra Nevada and Washington Cascades.

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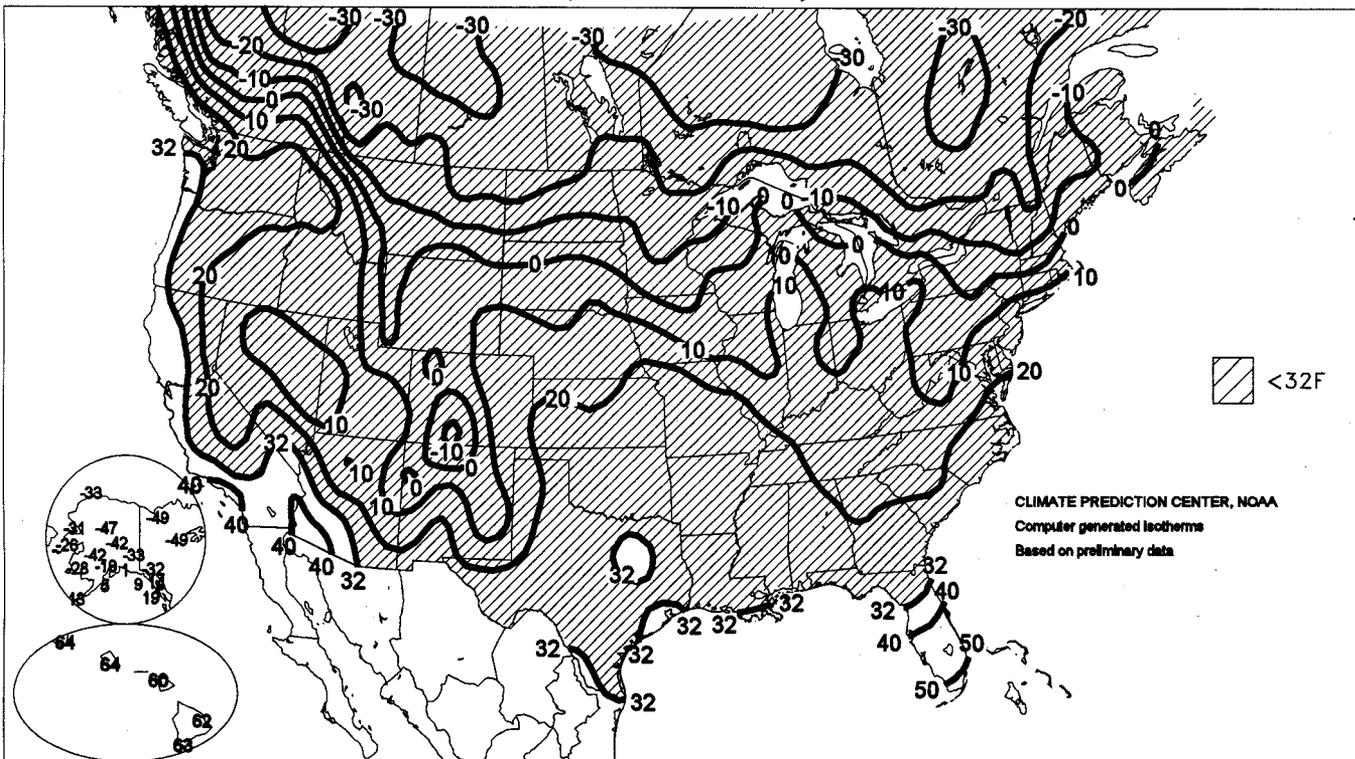
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*(Continued on back cover)*

**Departure of Average Temperature from Normal (°F)  
DEC 28, 1997 - JAN 3, 1998**



**Extreme Minimum Temperature (°F)  
DEC 28, 1997 - JAN 3, 1998**



# National Weather Data for Selected Cities

Weather Data for the Week Ending January 3, 1998

Data Provided by Climate Prediction Center (301-763-8000 EXT. 7511)

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	
AL BIRMINGHAM	61	28	69	20	39	-3	0.48	-0.71	0.30	4.10	73	0.00	0	87	41	0	5	2	0	
HUNTSVILLE	48	28	67	21	38	-2	0.23	-1.06	0.13	3.29	51	0.00	0	91	52	0	6	4	0	
MOBILE	56	34	71	28	45	-5	0.08	-1.07	0.08	4.37	76	0.00	0	87	50	0	2	1	0	
MONTGOMERY	53	30	71	23	42	-5	0.34	-0.78	0.19	4.51	80	0.00	0	88	42	0	5	2	0	
AK ANCHORAGE	14	1	26	-10	7	-8	0.55	0.33	0.34	1.79	152	0.15	167	85	68	0	7	4	0	
BARROW	-16	-24	-9	-33	-20	-7	0.00	-0.03	0.00	0.07	54	0.00	0	75	71	0	7	0	0	
FAIRBANKS	-12	-28	-4	-42	-20	-11	0.00	-0.15	0.00	2.05	230	0.00	0	80	74	0	7	0	0	
JUNEAU	29	24	41	14	27	2	-	-	-	-	-	-	-	95	68	0	5	-	-	
KODIAK	28	18	36	5	22	-8	-	-	-	-	-	-	-	70	49	0	7	-	-	
NOME	-2	-20	11	-26	-11	-18	0.47	0.28	0.47	0.96	102	0.00	0	79	66	0	7	1	0	
AZ FLAGSTAFF	45	21	53	10	33	4	0.34	-0.17	0.34	2.19	84	0.34	182	82	41	0	6	1	0	
PHOENIX	69	47	74	36	58	6	0.00	-0.20	0.00	0.83	78	0.00	0	67	28	0	0	0	0	
PRESCOTT	62	28	81	14	40	5	0.14	-0.22	0.14	2.60	149	0.14	93	75	38	0	5	1	0	
TUCSON	69	41	80	30	56	4	0.00	-0.24	0.00	2.88	248	0.00	0	68	23	0	2	0	0	
YUMA	70	48	78	42	69	4	0.00	-0.10	0.00	2.79	558	0.00	0	69	33	0	0	0	0	
AR FORT SMITH	54	34	66	24	44	7	0.07	-0.46	0.06	4.52	140	0.02	10	90	51	0	5	2	0	
LITTLE ROCK	55	35	63	27	45	5	0.10	-0.83	0.10	3.75	74	0.00	0	86	50	0	4	1	0	
CA BAKERSFIELD	63	40	71	30	52	5	0.17	0.01	0.16	1.28	186	0.17	243	91	49	0	1	2	0	
EUREKA	-	-	-	-	-	-	2.52	-	-	7.25	-	2.52	-	-	-	-	-	-	-	
FRESNO	61	38	69	29	50	5	0.15	-0.23	0.12	1.09	89	0.15	83	94	48	0	2	2	0	
LOS ANGELES	71	52	78	44	62	5	0.31	-0.13	0.31	4.70	254	0.31	155	81	41	0	0	1	0	
REDDING	59	40	73	33	50	6	1.18	-0.18	0.58	4.44	73	1.18	193	85	61	0	0	3	1	
SACRAM/MCCLELL	56	42	58	36	49	-	0.68	-9.99	0.48	3.13	-	0.68	-999	98	72	0	0	2	0	
SAN DIEGO	70	52	77	45	61	4	0.32	-0.07	0.24	1.67	94	0.32	178	82	46	0	0	2	0	
SAN FRANCISCO	58	46	60	39	52	4	1.23	0.37	0.87	6.49	186	1.23	307	94	66	0	0	3	1	
CO ALAMOSA	30	-1	40	-8	15	1	0.00	-0.08	0.00	0.19	39	0.00	0	85	64	0	7	0	0	
CO SPRINGS	51	23	60	10	37	9	0.00	-0.08	0.00	0.10	20	0.00	0	67	23	0	7	0	0	
DENVER	48	27	59	15	37	8	0.00	-0.13	0.00	0.59	84	0.00	0	71	42	0	5	0	0	
GRAND JUNCTION	42	18	50	4	29	4	0.00	-0.14	0.00	0.14	21	0.00	0	85	45	0	7	0	0	
PUEBLO	52	18	65	11	35	6	0.06	-0.02	0.06	0.44	96	0.06	150	81	34	0	7	1	0	
CT BRIDGEPORT	41	25	52	12	33	3	0.92	0.16	0.90	3.35	87	0.00	0	75	49	0	5	3	1	
HARTFORD	39	20	58	6	29	4	0.62	-0.21	0.51	2.18	51	0.00	0	76	50	0	6	2	1	
DC WASHINGTON	46	30	63	18	38	2	0.24	-0.43	0.18	1.74	51	0.00	0	73	39	0	4	2	0	
DE WILMINGTON	43	26	56	16	34	2	0.30	-0.46	0.27	2.57	67	0.00	0	78	45	0	6	2	0	
FL DAYTONA BEACH	62	44	75	36	53	-5	0.02	-0.57	0.02	7.76	275	0.00	0	83	51	0	0	1	0	
JACKSONVILLE	59	37	71	27	48	-5	0.04	-0.64	0.03	9.74	324	0.01	3	89	51	0	1	2	0	
KEY WEST	71	60	77	54	68	-5	0.12	-0.32	0.12	4.42	199	0.00	0	82	59	0	0	1	0	
MIAMI	70	57	78	49	64	-4	0.42	-0.01	0.40	5.29	259	0.02	11	81	58	0	0	2	0	
ORLANDO	64	48	77	40	55	-5	0.05	-0.43	0.03	12.63	535	0.00	0	90	50	0	0	2	0	
TAMPA	65	48	78	40	55	-5	0.18	-0.27	0.09	15.57	668	0.00	0	86	48	0	0	2	0	
VALPARAISO/EGLIN	56	35	72	28	48	-6	0.96	-0.02	0.49	4.27	92	0.00	0	84	44	0	2	2	0	
WEST PALM BEACH	70	55	78	47	63	-3	0.02	-0.53	0.02	5.03	194	0.00	0	79	57	0	0	1	0	
GA ATHENS	48	27	65	19	37	-5	0.06	-0.94	0.06	5.91	130	0.00	0	88	50	0	7	1	0	
ATLANTA	47	28	64	20	38	-4	0.09	-0.94	0.05	5.05	108	0.00	0	82	48	0	6	3	0	
AUGUSTA	53	27	70	19	40	-5	0.13	-0.73	0.13	6.94	184	0.00	0	88	44	0	6	1	0	
COLUMBUS	53	31	70	24	42	-4	0.16	-0.95	0.11	6.72	124	0.00	0	87	46	0	5	2	0	
MACON	52	29	70	21	40	-6	0.07	-0.97	0.04	7.28	154	0.00	0	90	46	0	6	2	0	
SAVANNAH	55	34	71	25	44	-5	0.23	-0.54	0.12	3.99	121	0.00	0	85	43	0	4	2	0	
HI HILO	79	64	84	62	72	0	0.36	-2.04	0.20	8.92	68	0.07	7	93	65	0	0	5	0	
HONOLULU	80	66	83	64	73	0	0.31	-0.57	0.20	0.67	16	0.23	46	89	60	0	0	5	0	
KAHULUI	80	63	85	60	72	0	0.67	-0.20	0.55	1.51	41	0.02	5	92	64	0	0	3	1	
LIHUE	76	66	79	64	71	-1	2.79	1.50	2.00	5.25	91	2.66	451	89	68	0	0	6	2	
ID BOISE	47	28	52	21	37	9	0.15	-0.16	0.15	0.80	54	0.15	107	91	57	0	6	1	0	
LEWISTON	43	33	53	30	38	5	0.20	-0.09	0.12	0.68	50	0.08	62	91	67	0	3	3	0	
POCATELLO	42	27	48	14	35	12	0.07	-0.18	0.07	0.73	61	0.07	64	89	63	0	4	1	0	
IL CHICAGO/O'HARE	38	23	58	13	30	8	0.81	0.16	0.46	1.96	74	0.46	242	85	66	0	5	2	0	
MOLINE	38	21	62	7	30	9	0.74	0.31	0.43	2.39	99	0.82	344	91	72	0	5	3	0	
PEORIA	38	24	61	11	31	9	0.14	-0.31	0.08	1.99	76	0.05	28	86	70	0	5	3	0	
ROCKFORD	35	18	57	6	27	7	0.28	-0.11	0.24	1.07	49	0.24	180	89	73	0	5	2	0	
SPRINGFIELD	40	27	62	11	34	8	0.11	-0.39	0.08	1.75	60	0.00	0	87	70	0	5	2	0	
IN EVANSVILLE	42	26	60	8	34	2	0.14	-0.57	0.11	2.37	60	0.03	10	85	58	0	5	2	0	
FORT WAYNE	38	23	55	5	31	6	0.81	0.28	0.75	2.51	81	0.78	355	87	61	0	5	4	1	
INDIANAPOLIS	40	25	57	13	33	6	0.06	-0.59	0.04	1.37	38	0.04	15	86	52	0	5	2	0	
SOUTH BEND	38	25	55	8	32	7	0.79	0.15	0.33	2.65	74	0.55	212	89	67	0	5	4	0	
IA BURLINGTON	-	-	82	-	-	-	0.41	0.06	-	1.74	82	0.22	147	-	-	-	-	-	-	
CEDAR RAPIDS	-	-	82	-	-	-	0.09	-0.19	-	1.17	68	0.01	8	-	-	-	-	-	-	
DES MOINES	41	24	58	11	33	13	0.07	-0.18	0.07	1.36	96	0.00	0	87	71	0	5	1	0	
DUBUQUE	35	17	52	-4	26	9	0.04	-0.31	0.04	1.11	53	0.04	27	89	73	0	6	1	0	
SIOUX CITY	42																			

Weather Data for the Week Ending January 3, 1998

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	92 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	50 INCH OR MORE		
KY WICHITA	52	31	66	24	42	12	0.04	-0.18	0.04	2.66	206	0.00	0	87	56	0	5	1	0		
KY JACKSON	39	28	56	15	33	-1	0.25	-0.68	0.11	2.21	46	0.00	0	80	58	0	5	3	0		
KY LEXINGTON	40	26	61	13	33	1	0.17	-0.62	0.16	2.68	62	0.00	0	84	58	0	5	2	0		
KY LOUISVILLE	42	29	62	15	36	2	0.15	-0.58	0.09	2.53	84	0.02	7	86	59	0	5	3	0		
KY PADUCAH	46	32	62	22	39	5	0.08	-0.82	0.06	2.48	49	0.02	6	84	58	0	5	2	0		
LA BATON ROUGE	62	37	73	28	50	-1	0.01	-1.19	0.01	6.32	105	0.00	0	89	47	0	2	1	0		
LA LAKE CHARLES	64	40	76	30	62	1	0.00	-1.12	0.00	5.72	104	0.00	0	90	47	0	2	0	0		
LA NEW ORLEANS	62	42	74	31	62	0	0.01	-1.22	0.01	2.56	41	0.01	2	82	48	0	1	1	0		
LA SHREVEPORT	60	39	67	28	49	4	0.01	-0.87	0.01	6.10	136	0.00	0	79	41	0	3	1	0		
ME CARIBOU	23	1	42	-17	12	2	0.87	0.02	0.82	2.83	81	0.02	7	88	69	0	7	3	1		
ME PORTLAND	38	17	54	1	27	5	1.10	0.19	0.78	2.57	52	0.00	0	73	60	0	6	2	1		
MD BALTIMORE	44	26	62	17	35	2	0.26	-0.47	0.25	2.06	55	0.00	0	72	43	0	5	2	0		
MA BOSTON	42	24	60	7	33	3	0.72	-0.13	0.59	2.32	53	0.00	0	77	42	0	5	3	1		
MA WORCESTER	36	19	53	0	27	3	0.62	-0.25	0.43	2.32	52	0.00	0	86	53	0	6	2	0		
MI ALPENA	34	17	62	4	26	6	0.20	-0.22	0.08	0.78	35	0.05	28	88	68	0	7	5	0		
MI GRAND RAPIDS	37	22	54	11	30	6	0.51	-0.02	0.49	1.47	48	0.49	223	87	66	0	5	2	0		
MI HOUGHTON LAKE	33	15	47	0	24	5	0.12	-0.27	0.07	0.41	19	0.07	41	87	70	0	7	3	0		
MI LANSING	37	22	62	9	29	7	0.32	-0.11	0.29	1.18	47	0.29	161	84	59	0	5	2	0		
MI MARQUETTE	-	-	-	-	-	-	0.58	0.02	-	2.47	87	0.07	29	-	-	-	-	-	-		
MI MUSKOGON	36	25	47	16	30	5	0.36	-0.27	0.21	1.30	39	0.08	30	91	74	0	6	5	0		
MN DULUTH	26	6	37	-15	15	7	0.08	-0.21	0.08	0.40	29	0.00	0	93	64	0	7	1	0		
MN INTL FALLS	21	-2	34	-24	9	8	0.04	-0.16	0.02	0.26	27	0.02	22	89	89	0	7	2	0		
MN MINNEAPOLIS	32	15	45	-5	23	10	0.05	-0.17	0.03	0.31	26	0.00	0	90	64	0	7	2	0		
MN ROCHESTER	32	18	46	-2	24	12	0.00	-0.19	0.00	0.38	34	0.00	0	91	74	0	7	0	0		
MN ST. CLOUD	29	8	40	-13	18	9	0.13	-0.06	0.09	0.23	26	0.00	0	83	67	0	7	3	0		
MS JACKSON	56	32	71	22	44	-1	0.28	-1.04	0.19	5.77	89	0.00	0	88	48	0	4	2	0		
MS MERIDIAN	55	28	71	22	41	-4	0.16	-1.15	0.12	4.71	71	0.00	0	91	42	0	5	2	0		
MS TUPELO	49	31	67	23	40	-1	0.22	-1.08	0.13	3.71	65	0.00	0	86	54	0	5	2	0		
MO COLUMBIA	46	33	63	26	39	11	0.10	-0.33	0.04	1.79	68	0.01	8	84	62	0	5	4	0		
MO KANSAS CITY	49	32	63	25	40	14	0.06	-0.25	0.04	2.37	139	0.04	31	80	65	0	5	2	0		
MO SAINT LOUIS	46	32	63	24	38	8	0.18	-0.38	0.12	1.85	57	0.00	0	87	59	0	5	2	0		
MO SPRINGFIELD	48	34	65	24	41	9	0.17	-0.38	0.16	3.15	93	0.00	0	90	57	0	5	2	0		
MT BILLINGS	44	24	60	0	34	11	0.09	-0.11	0.09	0.57	66	0.00	0	72	45	0	4	1	0		
MT BUTTE	43	21	49	14	32	16	0.04	-0.08	0.04	0.19	36	0.04	67	86	49	0	7	1	0		
MT GLASGOW	32	9	42	-22	20	9	0.11	0.03	0.11	0.12	27	0.11	183	85	59	0	7	1	0		
MT GREAT FALLS	40	16	57	-16	28	7	0.07	-0.15	0.07	0.40	43	0.07	78	65	43	0	5	1	0		
MT KALISPELL	40	23	50	13	31	11	0.34	-0.06	0.19	0.70	37	0.13	78	84	62	0	6	4	0		
MT MILES CITY	41	18	56	-8	30	14	0.04	-0.10	0.04	0.08	9	0.04	67	78	47	0	7	1	0		
MT MISSOULA	41	24	51	19	33	11	0.20	-0.09	0.12	0.82	41	0.19	148	92	67	0	6	4	0		
NE GRAND ISLAND	44	23	59	13	34	12	0.00	-0.13	0.00	0.41	54	0.00	0	86	55	0	6	0	0		
NE LINCOLN	43	24	56	18	34	12	0.00	-0.16	0.00	0.73	78	0.00	0	89	63	0	7	0	0		
NE NORFOLK	43	22	57	13	33	13	0.00	-0.14	0.00	0.37	46	0.00	0	88	57	0	7	0	0		
NE NORTH PLATTE	47	18	62	12	33	11	0.00	-0.06	0.00	0.20	40	0.00	0	88	42	0	7	0	0		
NE OMAHA	43	25	57	18	34	12	0.00	-0.19	0.00	0.49	44	0.00	0	88	64	0	7	0	0		
NE SCOTTSSBLUFF	50	23	67	15	37	12	0.02	-0.09	0.02	0.31	50	0.00	0	79	35	0	7	1	0		
NE VALENTINE	46	20	68	6	33	13	0.02	-0.06	0.02	0.03	7	0.00	0	81	48	0	7	1	0		
NV ELY	42	15	47	0	29	5	0.00	-0.17	0.00	0.23	29	0.00	0	83	49	0	7	0	0		
NV LAS VEGAS	62	41	68	36	52	8	0.00	-0.09	0.00	0.07	17	0.00	0	49	28	0	0	0	0		
NV RENO	50	26	63	17	38	6	0.20	-0.03	0.20	0.78	72	0.20	182	86	37	0	5	1	0		
NV WINNEMUCA	50	19	55	8	34	8	0.01	-0.18	0.01	0.26	27	0.01	13	88	45	0	6	1	0		
NH CONCORD	37	12	54	-4	24	4	0.20	-0.43	0.12	1.95	57	0.00	0	75	46	0	7	2	0		
NJ NEWARK	42	27	62	14	35	2	1.58	0.81	1.54	4.16	110	0.00	0	71	47	0	5	2	1		
NM ALBUQUERQUE	45	23	53	18	34	1	0.00	-0.11	0.00	1.00	185	0.00	0	78	42	0	6	0	0		
NY ALBANY	35	17	53	-7	26	4	0.49	-0.10	0.28	1.52	48	0.04	18	83	58	0	6	3	0		
NY BINGHAMTON	32	17	48	-2	24	2	1.04	0.43	0.54	2.82	87	0.01	4	84	62	0	6	3	1		
NY BUFFALO	36	23	50	9	30	4	0.82	-0.11	0.36	3.21	81	0.25	83	83	60	0	5	4	0		
NY ROCHESTER	37	23	52	7	30	5	1.08	0.54	0.82	3.08	104	0.20	91	84	60	0	5	4	1		
NY SYRACUSE	36	19	49	-9	27	3	1.31	0.89	0.82	4.20	121	0.08	31	83	63	0	5	6	1		
NC ASHEVILLE	42	20	69	11	31	-6	0.10	-0.86	0.05	2.98	78	0.00	0	89	51	0	7	3	0		
NC CHARLOTTE	47	28	65	20	37	-2	0.31	-0.51	0.30	4.08	107	0.00	0	84	42	0	7	2	0		
NC GREENSBORO	42	24	60	13	33	-4	0.31	-0.45	0.31	2.17	59	0.00	0	87	46	0	7	1	0		
NC HATTERAS	46	37	53	29	41	-5	0.81	-0.31	0.81	5.65	112	0.00	0	79	55	0	2	1	1		
NC RALEIGH	48	28	65	18	38	-2	0.15	-0.81	0.15	2.75	77	0.00	0	88	45	0	6	1	0		
NC WILMINGTON	52	30	67	23	41	-5	0.46	-0.40	0.46	4.84	121	0.00	0	88	45	0	5	1	0		
ND BISMARCK	36	14	58	-7	25	15	0.00	-0.11	0.00	0.08	15	0.00	0	87	60	0	7	0	0		
ND DICKINSON	37	13	54	-10	25	11	0.00	-0.08	0.00	0.03	7	0.00	0	83	53	0	7	0	0		
ND FARGO	25	6	38	-13	15	8	0.05	-0.12	0.04	0.44	62	0.00	0	91	74	0	7	2	0		
ND GRAND FORKS	19	2	26	-17	11	6	0.37	0.20	0.37	0.58	79	0.00	0	91	78	0	7	1	0		
ND JAMESTOWN	30	10	43	-7	20	12	0.09	-0.04	0.04	0.30	55	0.02	33	90	74	0	7	3	0		
ND WILLISTON	32	7	48	-30	19	10	0.08	-0.06	0.05	0.07	11	0.06	83	86	63	0	7	2	0		
OH AKRON-CANTON	36	22	53	7	29	2	0.07	-0.51	0.03	2.09	66	0.02	8	86	54	0	6	3	0		
OH CINCINNATI	40	24	58	9	32	3	0.29	-0.36	0.13	2.61	82	0.04	15	87	57	0	5	4	0		
OH CLEVELAND	39	25	57	12	32	6	0.20	-0.38	0.13	2.47	74	0.06	22	80	51	0	5	4	0		
OH COLUMBUS	36	27	66	14	32	4	0.21	-0.35	0.14	2.20	71	0.07	29	84	58	0	5	3	0		
OH DAYTON	38	24	55	9	31	3	0.07	-0.50	0.02	2.20	69	0.06	21	85	60	0	5	4	0		
OH MANSFIELD	36	23	54	8	29	3	0.06	-0.50	0.04	2.33	71	0.02	9	83	57	0	5	2	0		

Based on 1961-90 normals

Weather Data for the Week Ending January 3, 1998

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	50 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	
																		01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	37	24	55	11	31	7	0.21	-0.33	0.18	2.25	71	0.18	88	87	68	0	5	2	0
OK YOUNGSTOWN	36	23	54	8	29	4	0.35	-0.22	0.20	2.72	86	0.02	8	80	58	0	5	4	0
OK OKLAHOMA CITY	58	35	72	23	47	10	0.25	-0.02	0.25	2.28	148	0.25	208	79	48	0	4	1	0
OR TULSA	58	37	70	25	48	11	0.06	-0.33	0.06	4.30	185	0.00	0	79	48	0	3	1	0
OR ASTORIA	49	38	54	31	44	2	3.69	1.32	1.58	10.29	89	1.84	179	98	83	0	1	7	2
OR BURNS	42	21	45	15	31	8	0.11	-0.14	0.07	1.00	79	0.10	83	96	71	0	7	4	0
OR EUGENE	48	38	54	31	42	2	0.86	-1.05	0.46	3.08	33	0.85	102	89	74	0	3	3	0
OR MEDFORD	44	30	49	26	37	0	0.78	0.08	0.31	2.14	59	0.78	260	100	78	0	6	3	0
OR PENDLETON	48	32	57	23	40	7	0.10	-0.26	0.04	1.14	84	0.09	60	91	82	0	3	4	0
OR PORTLAND	48	38	56	34	43	4	0.59	-0.78	0.32	3.61	54	0.58	102	96	76	0	0	4	0
OR SALEM	47	37	52	30	42	3	0.54	-0.94	0.29	3.70	50	0.53	84	95	79	0	1	3	0
PA ALLENTOWN	37	22	54	11	30	2	0.72	-0.02	0.55	2.37	82	0.00	0	82	55	0	6	2	1
PA ERIE	38	27	55	16	33	5	0.48	-0.17	0.39	5.31	138	0.46	177	80	60	0	5	4	0
PA MIDDLETOWN	39	23	53	13	31	1	0.40	-0.28	0.26	2.01	57	0.00	0	78	49	0	6	2	0
PA PHILADELPHIA	43	27	56	16	36	3	0.79	0.03	0.78	3.09	83	0.00	0	73	43	0	5	2	1
PA PITTSBURGH	37	23	56	6	30	3	0.19	-0.44	0.11	1.31	41	0.02	8	80	51	0	5	4	0
PA SCRANTON	34	20	49	5	27	1	0.80	0.30	0.45	2.25	82	0.00	0	81	56	0	6	2	0
PA WILLIAMSPORT	35	16	44	-3	26	-1	0.36	-0.26	0.27	1.46	44	0.00	0	87	55	0	6	2	0
RI PROVIDENCE	43	21	62	9	32	3	0.63	-0.31	0.45	2.84	59	0.00	0	82	54	0	6	2	0
SC BEAUFORT	53	35	67	26	44	-6	0.04	-0.77	0.04	3.94	111	0.00	0	88	49	0	2	1	0
SC CHARLESTON	54	34	72	25	44	-5	0.39	-0.38	0.20	5.19	149	0.00	0	80	40	0	3	2	0
SC COLUMBIA	52	27	69	20	39	-5	0.09	-0.84	0.08	4.39	110	0.00	0	94	49	0	6	2	0
SC GREENVILLE	46	27	64	19	37	-4	0.12	-0.83	0.12	4.25	93	0.00	0	83	42	0	7	1	0
SD ABERDEEN	34	11	53	-3	23	12	0.04	-0.04	0.02	0.18	41	0.00	0	90	63	0	7	2	0
SD HURON	40	16	59	5	28	14	0.01	-0.07	0.01	0.22	44	0.00	0	84	50	0	7	1	0
SD RAPID CITY	47	22	66	5	35	13	0.07	-0.03	0.07	0.08	15	0.00	0	74	36	0	5	1	0
SD SIOUX FALLS	38	17	55	4	28	13	0.04	-0.10	0.02	0.24	32	0.00	0	90	63	0	7	2	0
TN BRISTOL	39	19	59	8	29	-8	0.07	-0.69	0.04	2.17	58	0.00	0	92	54	0	7	2	0
TN CHATTANOOGA	46	26	65	19	36	-2	0.21	-0.94	0.18	3.30	58	0.00	0	91	50	0	7	2	0
TN KNOXVILLE	42	22	59	13	32	-5	0.24	-0.77	0.12	2.37	49	0.00	0	89	58	0	7	3	0
TN MEMPHIS	50	36	68	29	43	3	0.32	-0.78	0.20	4.52	73	0.00	0	81	50	0	3	2	0
TN NASHVILLE	46	29	67	18	38	0	0.13	-0.81	0.08	2.19	44	0.00	0	78	46	0	5	3	0
TX ABILENE	62	39	72	25	50	8	0.00	-0.22	0.00	3.16	282	0.00	0	80	41	0	4	0	0
TX AMARILLO	46	25	63	15	35	0	0.51	0.42	0.51	2.63	572	0.51	1020	81	53	0	6	1	1
TX AUSTIN	65	45	73	32	55	6	0.05	-0.33	0.04	4.31	211	0.05	31	78	44	0	1	2	0
TX BEAUMONT	64	42	73	31	53	1	0.00	-1.11	0.00	6.62	126	0.00	0	92	53	0	1	0	0
TX BROWNSVILLE	73	48	79	32	61	1	0.30	-0.02	0.19	0.58	40	0.11	73	80	43	0	1	3	0
TX CORPUS CHRISTI	71	45	78	27	58	3	0.08	-0.28	0.04	0.28	19	0.08	43	78	40	0	2	2	0
TX DEL RIO	64	38	68	28	51	1	0.01	-0.12	0.01	0.59	88	0.01	20	93	42	0	3	1	0
TX EL PASO	58	28	66	21	42	-1	0.00	-0.12	0.00	1.41	220	0.00	0	84	40	0	6	0	0
TX FORT WORTH	61	41	68	32	51	7	0.03	-0.37	0.02	6.96	345	0.03	18	81	50	0	2	2	0
TX GALVESTON	62	48	68	37	55	2	0.02	-0.77	0.02	4.92	127	0.02	6	87	57	0	0	1	0
TX HOUSTON	66	41	74	30	53	2	0.00	-0.77	0.00	5.42	143	0.00	0	89	46	0	2	0	0
TX LUBBOCK	57	29	68	21	43	4	0.00	-0.10	0.00	1.75	307	0.00	0	87	42	0	4	0	0
TX MIDLAND	60	30	70	22	45	2	0.00	-0.10	0.00	1.35	221	0.00	0	85	35	0	4	0	0
TX SAN ANGELO	62	34	67	25	48	4	0.00	-0.17	0.00	1.38	182	0.00	0	80	40	0	4	0	0
TX SAN ANTONIO	67	44	73	27	55	6	0.06	-0.27	0.03	3.61	219	0.06	40	78	38	0	2	3	0
TX VICTORIA	68	42	78	31	55	2	0.18	-0.31	0.08	1.79	80	0.16	80	88	44	0	2	2	0
TX WACO	62	41	68	31	52	6	0.12	-0.25	0.10	9.93	494	0.12	80	83	50	0	1	2	0
TX WICHITA FALLS	62	38	74	27	50	10	0.14	-0.12	0.14	4.26	306	0.14	127	81	42	0	3	1	0
UT SALT LAKE CITY	39	22	50	10	31	3	0.12	-0.17	0.12	0.76	49	0.12	100	92	72	0	5	1	0
VT BURLINGTON	31	12	47	-15	22	3	0.65	0.18	0.56	1.70	65	0.05	25	81	61	0	6	4	1
VA LYNCHBURG	40	21	57	6	30	-5	0.48	-0.20	0.47	2.72	77	0.00	0	84	49	0	7	2	0
VA NORFOLK	48	30	64	25	39	-2	0.36	-0.46	0.33	2.65	74	0.00	0	82	51	0	5	2	0
VA RICHMOND	46	27	64	17	37	0	0.21	-0.53	0.21	2.36	66	0.00	0	79	45	0	4	1	0
VA ROANOKE	41	26	61	18	33	-2	0.47	-0.15	0.47	2.37	74	0.00	0	71	44	0	7	1	0
VA WASH/DULLES	43	24	61	10	34	2	0.22	-0.45	0.22	1.92	55	0.00	0	85	51	0	6	1	0
WA HANFORD	46	31	58	26	38	-	0.11	-0.03	0.11	0.42	39	0.11	183	82	62	0	5	1	0
WA OLYMPIA	47	35	53	28	41	3	1.38	-0.47	0.89	7.21	81	1.08	133	100	89	0	3	6	1
WA QUILLAYUTE	47	38	53	26	41	2	3.91	0.49	2.08	16.19	98	0.67	48	95	52	0	2	7	3
WA SEATTLE-TACOMA	47	38	52	32	43	3	0.71	-0.59	0.58	3.33	51	0.70	125	98	76	0	2	3	1
WA SPOKANE	40	28	46	24	34	8	0.17	-0.34	0.10	1.10	42	0.10	48	97	76	0	6	2	0
WA YAKIMA	42	24	54	18	33	5	0.31	0.01	0.31	0.50	32	0.31	221	92	69	0	7	1	0
WV BECKLEY	36	22	58	12	28	-2	0.59	-0.11	0.36	2.20	62	0.00	0	82	55	0	5	4	0
WV CHARLESTON	41	26	62	15	33	0	0.13	-0.57	0.09	1.58	43	0.01	3	80	57	0	5	4	0
WV ELKINS	38	14	57	3	26	-2	0.48	-0.28	0.44	2.53	66	0.00	0	86	50	0	7	2	0
WV HUNTINGTON	41	28	61	17	36	1	0.12	-0.68	0.10	1.58	43	0.00	0	79	51	0	5	2	0
WI EAU CLAIRE	33	16	48	0	25	13	0.12	-0.11	0.10	0.28	22	0.00	0	92	63	0	7	2	0
WI GREEN BAY	33	17	47	4	25	9	0.09	-0.21	0.04	0.62	37	0.01	8	88	64	0	7	4	0
WI MADISON	35	19	51	8	27	10	0.00	-0.33	0.00	1.25	63	0.00	0	85	68	0	6	0	0
WI MILWAUKEE	36	20	54	11	28	8	0.17	-0.28	0.11	1.41	56	0.11	58	88	71	0	6	3	0
WY CASPER	40	24	47	10	32	10	0.05	-0.09	0.05	0.98	133	0.00	0	78	58	0	6	1	0
WY CHEYENNE	47	25	58	17	36	9	0.08	-0.03	0.08	0.59	131	0.00	0	75	38	0	5	1	0
WY LANDER	40	18	48	6	29	10	0.00	-0.11	0.00	1.85	303	0.00	0	82	55	0	7	0	0
WY SHERIDAN	44	21	59	9	32	12	0.17	0.00	0.15	0.78	97	0.00	0	84	63	0	6	3	0

NOTE: These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.



## December State Agricultural Summaries

*These summaries, issued weekly through the summer growing season, 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. The crop weather reports are also available on the Internet through the NASS Home Page on the World Wide Web at <http://www.usda.gov/nass/> or from JAWF at <http://www.usda.gov/oce/waob/jawf>.*

**ALABAMA:** Wet weather conditions prevailed in most areas during December. Cold and wet weather hindered harvest of remaining cotton and soybean fields in most localities. A few winter annual pastures were over seeded. Cold weather helped prevent premature peach bloom set. Other activities included general care of livestock, poultry, catfish.

**ARIZONA:** Farmers busy harvesting cotton as this year's crop once again continued later than normal. Near the beginning of December only 91% of the acreage had been harvested, when near 92% complete is average. By month's end, 99% of the acreage had been harvested, few fields remained for January harvest. Stalk shredding, plowdown were active. As a result of the late cotton crop, many small grain fields awaited seeding. Early in the month, only 21% of the acreage had been planted. As the month progressed, seeded acreage increased to 70%, still remained behind the average of 80%. Alfalfa hay harvest was almost complete, with only 13% of the acreage actively being harvested at the beginning of the month. That slowed considerably, and by month's end, 10% of the acreage had light harvest. Sheeping off decreased during the month. Rain, snow that fell during the month of December have picked things up, there is potential for a good spring. High elevation pastures reported mostly fair conditions. Lower elevation pastures were in fair to good condition, along with mid elevation pastures which were also mostly fair to good. Livestock was reported in good condition. Soil moisture was adequate in most areas of the State, while stock water was also adequate. Insect damage is minimal. Central area producers harvested beets, bok choy, broccoli, cabbage, celery, cilantro, dill, green onions, kale, leeks, napa, mixed greens, parsley, radishes, spinach, swiss chard, turnips, dandelion, and kohlrabi. Central growers also shipped iceberg, leaf, and romaine lettuce. Western Arizona growers harvested bok choy, broccoli, cabbage, cauliflower, celery, endive, escarole, mixed greens, kale, napa, spinach, kohlrabi, salad savoy, along with Boston, iceberg, leaf, and romaine lettuce. Citrus harvest continued to progress as navel oranges, miniolas, pink grapefruit, some fairchild were harvested from the central area. Western area also harvested tangerines, grapefruit in addition to lemons.

**ARKANSAS:** Temperatures, precipitation were above normal for December 1997. Extension personnel report this weather was favorable to winter wheat growth during the month. Dry periods also allowed some wheat producers to replant spotty areas in fields. Heaviest rains fell across the State on 24th, and overall, precipitation during the last week of December 1.97 in. Temperatures have been above normal for all of December except the week ending December 28. No reports of adverse conditions to livestock were reported.

**CALIFORNIA:** December provided significant rainfall to the central and southern coasts. Temperatures were slightly below normal in the southeast interior. Northern areas the first half of December saw slightly warmer-than-normal temperatures. Northern, central areas had rainfall off and on throughout the month. As the month of December ended, field activities gradually resumed. Soils dried from earlier rains in the San Joaquin and Sacramento Valleys. Small grains, winter forages were planted and fertilized. Seeded fields of wheat, barley, oats, and new alfalfa grew well with abundant moisture. Some low-lying wheat fields were yellowing due to standing water. Plowdown of harvested cotton fields for pink bollworm control was ongoing where conditions permitted. Few fields of pima

cotton remained standing for a second pick in the central San Joaquin Valley. Ground preparation for planting next year's cotton crop was underway, some fields were sprayed with pre-emergent herbicides. As the month ended, new crop sugar beets were growing rapidly in the southern San Joaquin Valley. Grain sorghum harvest had begun in some areas. Established alfalfa was treated for weeds. Alfalfa, winter forage were cut for hay or greenchopped. Where soil conditions permitted, pruning, vine tying, preplant preparation, field fumigation were December's primary cultural activities in orchards, vineyards. Some dormant sprays were applied to deciduous orchards. Bareroot, nursery stock digging continued. Persimmon harvest was winding down. Avocado picking continued throughout the month. Harvest of navel oranges, lemons, grapefruit, tangerines remained active. There was no discernable damage from chilly morning temperatures. Harvest of broccoli, cauliflower continued where conditions permitted. Lettuce was harvested in the desert areas. Cabbage harvest in the San Joaquin Valley progressed. Fumigation of sweet potato fields continued in Merced County. Garlic, onion transplants were growing well. Artichokes, brussels sprouts were harvested. Cantaloup, honeydew melons were harvested in the Imperial Valley. Other crops harvested were carrots, mustard greens, turnips, peas, parsley, celery, lima beans, green beans, onions, radishes, vineseed. Most foothill pastures, rangeland were greening, improving all month. Because of the abundant rainfall, forage quality and quantity were good for this time of year, although growth was relatively slow. Dryland pastures were recovering from the hot, dry conditions of the past summer. Sheep continued to graze harvested alfalfa hay fields. Honeybees were overwintering this month in State. By the end of December, most cattle were through calving; cows, calves were in good condition.

**COLORADO:** December was characterized by seasonal temperatures across most of the State, with the Southeast receiving several major snowfalls. Snow in the southeast part of the State further hindered sorghum harvesting that was initially delayed by a late-October blizzard, further delayed by November storms. Northeastern State, front range area have experienced warmer-than-usual temperatures with some readings in the 60s. Lack of snow cover in some areas may prove harmful for the upcoming wheat crop, has allowed cattle producers to conserve on hay stocks. West slope had mostly seasonal weather during December.

**DELAWARE:** Higher- than-normal temperatures reported for the month of December. Heavy mortality in poultry is being reported in Sussex County due to an increase in upper respiratory problems. Hay supplies are tight due to poor crop year. Warm weather is helping the late-planted wheat crop. Activities: Finishing the harvest of remaining soybeans, corn; manure, fall fertilizer applications.

**FLORIDA:** Topsoil adequate to surplus in Panhandle, northern Peninsula, central Peninsula. Southern Peninsula moisture adequate. Sugarcane growth normal. Sugarcane harvest active. Growers starting field preparations for spring-planted crops. Cool weather, strong winds affected growth of some vegetables, with most plants recovering. Vegetables harvested include snap beans, cabbage, carrots, sweet corn, cucumbers, eggplant, endive, escarole, lettuce, okra, parsley, peppers, radishes, squash, strawberries, tomatoes. Cool, wet, windy weather followed by warm, cloudy days. Moisture adequate to surplus all citrus areas. Harvesting very active all areas for both fresh,

processing. Caretakers cutting cover crops, starting to fertilize. Pasture feed very poor 5%, poor 5%, fair 30%, good 55%, excellent 5%. Cattle fair 30%, good 65%, excellent 5%. Panhandle winter forages doing well. Central area considerable pasture area with standing water, some ranchers trying to pump water out of pastures. Feeding of cattle was active. Southwest most pastures in fair to good condition. Cattle mostly in fair to good condition.

**GEORGIA:** Soil moisture adequate to mostly surplus. Wet conditions slowing growth, preventing final harvest of cotton, soybeans. Small grains planting 90 to 95%; soils water logged resulting in poor root systems. Farmers having to supplement feed to cattle. Pastures fair to poor condition. Onions about 95% transplanted. Pecan harvest 80 to 85%. Soybean harvest 85 to 90%. Cotton harvest about 90% complete. Tobacco bed preparation about 80% complete. Pruning of peach trees reported. Land preparation about 20% in central part of State.

**HAWAII:** Days suitable for fieldwork 7.0. Partly cloudy skies, isolated showers, sometimes heavy, fair for crops, farming. Banana harvesting steady, fields in fair to good condition. Showers helped most orchards. Papaya harvesting also steady. Field condition fair to good, depending on disease. Head cabbage harvesting active. Progress was good, head size and quality were mostly good. Tomato harvesting to pick up. Ginger root harvesting very active, shipments to U.S. mainland continuing. Sunny weather benefited harvesting.

**IDAHO:** Precipitation was below normal for the month of December. Irrigation water supply is still adequate, continued dry weather could cause problems. Mild weather has helped livestock producers save on feed costs. Hay supply is mostly adequate, quality is reported to be low. Hay, roughage supply 2% surplus, 69% adequate, 27% short, 2% very short. Good snow cover in northern areas, mild conditions in southern areas have benefited winter grains. Winter wheat 9% excellent, 86% good, 5% fair. Activities: Repairing machinery, feeding, marketing livestock, attending educational meetings, farm planning.

**ILLINOIS:** Unusually mild temperatures were experienced throughout the State last month, with no sub-zero weather. Precipitation has been near normal. Topsoil mostly adequate, with ground water mainly short. As of January 2, topsoil 5% surplus, 68% adequate, 25% short, 2% very short. Above-freezing weather has made feed lots muddy, cattle feeding difficult. Cattle were fed hay where snow cover was present, especially in northwestern areas. In areas not snow covered, livestock were also foraging in corn fields. On-again warm weather with soaking rains may send the wrong message on winter wheat dormancy. Winter wheat crop may turn susceptible to damage if the weather turns well below freezing. As of January 2, winter wheat 8% excellent, 59% good, 30% fair, 2% poor, 1% very poor. Movement of stored grain slowed due to low prices as farmers are waiting for a rebound.

**INDIANA:** Farmers in the northern areas of the state were trying to finish corn harvest. Very few days were available for fieldwork during December. Recent showers over most of the State have helped replenish topsoil, subsoil moisture. Hay supplies short some areas. Winter wheat fair to mostly good condition. Livestock are in mostly good condition. Major activities: Harvesting corn, hauling manure, spreading fertilizer and lime, moving grain to market, tilling soil, chopping stalks, stripping tobacco, drainage tiling, cleaning, repair of machinery, building repair, updating crop and financial records, caring for livestock.

**IOWA:** Summary for December 1997. Mild weather has kept temperatures comfortable, there is concern about lack of moisture in areas. Average depth of snow cover 2 in.; average depth of frost penetration 4 in. Soil moisture availability 5% very short, 20% short, 69% adequate, 6% surplus. Grain movement

17% none, 49% light, 32% moderate, 2% heavy. Availability of hay, roughage for livestock feed short 17%, adequate 79%, surplus 4%. Quality of hay, roughage poor 9%, fair 50%, good 41%. Lack of significant snow cover has allowed producers to graze cattle on corn stubble later than usual, especially helpful in areas where hay supplies are short. Utilization of stubble fields for grazing 19% none, 28% light, 41% moderate, 12% extensive. Erosion control, tiling, other earth work continued all month as frost penetration has been minimal. Conditions have been very good for livestock, with the exception of muddy lots, fields in the south-central, southeast. Hog, pig losses 15% below average, 84% average, 1% above average; cattle, calf losses 19% below average, 79% average, 2% above average.

**KANSAS:** Winter wheat remained in mostly good to excellent condition at the end of December. Overall winter wheat 23% excellent, 54% good, 21% fair, 2% poor. Conditions at the beginning of December had been 10% excellent, 67% good, 21% fair, 2% poor. Statewide snowfall, rain during December combined with moderate temperatures has resulted in on and off snowcover. Little wind and freeze damage has occurred to this date. Month's precipitation has caused muddy feedlot conditions throughout the State which has stressed livestock. Some areas have moved cattle off of field stubble, pastures due to the mud, snow. Supplemental feeding has started, with current hay, forage conditions generally adequate. A small amount of acreage has not been harvested due to the precipitation.

**KENTUCKY:** Limited rainfall, cooler temperatures prevailed the first half of December. Milder temperatures returned after mid-month, limited precipitation kept totals well below normal. End-of-month cold, snow limited farm activities. Tobacco curing was hampered by the lower humidity, cold temperatures. Burley tobacco stripping continued to lag normal as much of the late crop needed additional curing time. Gross Burley sales volume through 12/18 was 280.7 million lbs. for an average price of \$191.70 per lb. Auctions recessed for Christmas break and will resume on Monday, January 12, 1998, which is a week later than normal due to the need for additional curing time for later harvested tobacco. Burley Cooperative took nearly 15.7 million pounds or 4.1 percent for the season-to-date for the Burley Belt. Poor pasture conditions going into winter caused supplemental feeding of cattle at moderate levels most of December. Hay supplies remain adequate in all areas, shortages are expected by winter's end. Winter wheat condition continued generally good to fair with no real decline due to the lack of extreme cold weather.

**LOUISIANA:** Days suitable for fieldwork 3.5. Soil moisture supplies throughout the State were generally surplus. Winter cold fronts produced numerous thundershowers throughout the month. Temperatures were normal to slightly below normal. Warmer conditions that occurred between cold fronts were too short to allow much fieldwork to be done. Sugarcane producers wrapped up harvesting operations around the last week in December. It was reported that tonnage, sucrose were above average. Harvest went smoothly until rains slowed operations during the last 3 weeks of harvest. Winter Wheat: All winter wheat was emerged and stands were moderate to good. Vegetables: Strawberry producers wrapped up plantings, and cold weather vegetables were sold commercially and at farmers markets. Livestock: Producers began feeding hay, supplemental feeds due to two cold snaps that limited pasture growth. Hay supplies were good. Crawfish: Producers were bracing for a short season. Supplies, they say, will be limited until later in the season because of current low water levels in the Basin areas. Pasture feed: Winter pasture growth was slow due to two episodes of freezing weather and excessive soil moisture.

**MARYLAND:** Above-average temperatures. Hay supplies are very tight for the north-central, upper eastern shore counties due to poor yields. However, hay supplies very good for lower eastern shore. Mild weather has given boost to late-planted winter grain crops, especially wheat, and has allowed late

harvesting of soybeans, corn to be finished. Activities: Manure hauling, fertilizer applications, machinery repairs.

**MICHIGAN:** Month had little precipitation. Lack of snow cover could put alfalfa, winter wheat at risk. Some farmers were hauling manure, spreading potash, tilling fields, or pruning fruit trees. Others were keeping up with the books, machinery repairs. Warm weather was beneficial to the livestock. Some lambing had started. Hay was in short supply, other feeds were at normal levels.

**MINNESOTA:** December, little frost in the ground, some late tillage work was possible early in the month. For the season, compared with a normal year, especially compared with last year's extremely harsh winter, conditions for outdoor livestock were very favorable. Feed requirements were moderate with the mild temperatures, herd health was generally good with feedlots relatively dry. Quality forage supplies so far are tight, adequate. Widespread lack of snow cover means alfalfa stands are at risk from ice storms or prolonged low temperatures.

**MISSISSIPPI:** Main farming activities for the month of December were feeding cattle, repairing, maintaining farm equipment, other performing winter farm chores. Cattle were in mostly good condition. Hay supply was mostly adequate, wheat was in mostly fair condition. We had snowfall, rain during the month, temperatures were variable.

**MISSOURI:** Topsoil 4% short, 68% adequate, 28% surplus. Winter wheat 3% poor, 40% fair, 51% good, 6% excellent. Supply of hay, other roughage 1% very short, 11% short, 78% adequate, 10% surplus. Condition of livestock 1% poor, 19% fair, 70% good, 10% excellent. Stock water supplies 2% very short, 9% short, 80% adequate, 9% surplus. Farmers remained busy during December with general farm maintenance. Pastures 2% very poor, 13% poor, 39% fair, 39% good, 7% excellent.

**MONTANA:** Topsoil 10% very short, 42% short, 40% adequate, 8% surplus. Subsoil 8% very short, 45% short, 39% adequate, 8% surplus. Winter wheat wind damage 1% heavy, 13% moderate, 60% light, 26% none. There is concern about the lack of snow cover for winter wheat. Much of the snow received during December had melted. Winter wheat protectiveness of snow cover 40% very poor, 47% poor, 9% fair, 4% good, 0% excellent. Livestock good to excellent condition. Feed supplies are in good shape. Supplemental feeding continues with 84% of cattle and calves receiving supplemental feeding, 86% of sheep and lambs. Livestock grazing 1% closed, 11% difficult, 88% open.

**NEBRASKA:** Above-normal temperatures during much of December provided open conditions for livestock grazing but has left wheat exposed to wind, cold temperatures. December moisture in the form of rain, snow amounted to more than an inch in the north-central, south-central, southeastern parts of the State. More moisture was needed in the west as only half an inch was recorded for the month. Some reports indicated that elevators continued to pile grain outside in emergency storage. Winter wheat 2% poor, 27% fair, 63% good, 8% excellent. Feed grain supplies 2% short, 90% adequate, 8% surplus. Hay, forage supplies 1% very short, 14% short, 78% adequate, 7% surplus. Activities during December: Delivering grain, recordkeeping, financial planning, livestock care, equipment repair and maintenance, routine chores.

**NEVADA:** Precipitation was below normal during December. Temperatures averaged near normal to a few degrees below. Snow pack limited to date. Grazing of dormant hay fields common. Potato, onion marketing ongoing. Main farm, ranch activities: Livestock feeding, livestock marketing, equipment maintenance.

**NEW ENGLAND:** December precipitation below average in most areas. Topsoil is snow covered in northern, central areas.

Christmas tree farms report strong demand over holiday season. Hay shortage reported in some areas. Major farm activities: Fixing equipment; caring for livestock.

**NEW JERSEY:** Temperatures above normal for December. Harvesting of vegetables complete except in parts of southern areas where harvesting of fall spinach, cabbage, leeks, herbs continue. Other activities include: Harvesting corn, soybeans, deer hunting as a pest control measure, repairing machinery, record keeping, mowing, mulching of corn stalks, removal burning of dead fruit trees.

**NEW MEXICO:** December began with winter storms moving through the north, eastern regions of the State. Warm weather followed, was quickly proceeded by below-normal temperatures that continued until the middle of the month. The last half of December was marked by abnormally cold weather, more winter storms that dumped snow over most of the State. Many ranchers reported losses to livestock, especially sheep, because of the storms. Stranded livestock in many areas had hay airlifted to them under emergency feed provisions. Although most of the State received above-normal precipitation during December, many ranchers were still hauling water to livestock. Supplemental feeding also continued to take place in most counties. Abundant rainfall delayed pecan harvest, which was still underway the last of the month. Many other producers were turning under crop stubble, preparing land for spring crops.

**NEW YORK:** Major activities included tending livestock, maintenance, attending meetings, spreading manure, moving crops from storage, grading and packing. Winter storms made outside chores difficult. Orchard clean-up, winter pruning progressed as weather permitted. Snow cover protected pasture, fall seeded crops from coldness.

**NORTH CAROLINA:** Soil moisture is 1% short, 49% adequate, 50% surplus. Activities included: Maintaining pastures; tending livestock; repairing equipment.

**NORTH DAKOTA:** Above-normal temperatures, below-normal snowfall have been a welcomed relief to livestock producers. Grain marketing was slow due mostly to low prices. State average snow depth is 1.6 in., down substantially from 19.3 in. 1996. Snow cover at present time is only sufficient to protect 21% of alfalfa. Cattle 1% poor, 13% fair, 71% good, 15% excellent; sheep 11% fair, 78% good, 11% excellent. Livestock receiving supplemental feed: cattle 96%, sheep 97%. Hay, forage supplies 1% very short, 7% short, 87% adequate, 5% surplus. Cattle sales: 3% below normal, 93% normal, 4% above normal.

**OHIO:** Precipitation was below normal but some ponding was reported, minimal snow cover. Few growers finished harvesting their soybean crops early in the month. There is still some corn left in the fields. Winter wheat in good conditions, under some stress. Some places, winter wheat was greening up, growing; causing concern if temperatures were to drop suddenly. Tobacco growers were stripping, taking tobacco to market. One reporter mentioned they are behind schedule due to the slow curing conditions, late crop. Livestock are in good condition, concerns for livestock in closed barns with the fluctuating temperatures. Activities: Corn drying; hauling, binning, selling corn and soybeans; baling corn stalks; hauling, spreading manure; spreading lime, fertilizer; fall tillage; tiling; late fall spraying; equipment repair, maintenance, winter storage preparations; cleaning barns, lagoons; attending winter agronomy, tax management meetings.

**OKLAHOMA:** Rain, snow in December improve soil moisture. Wheat 41% grazed, 38% 1997, 35% avg. Oats 26% grazed, 36% 1997, 24% avg. Cotton 98% harvested, 94% 1997, 97% avg. Cattle good, marketings near average.

**OREGON:** Activities: Nursery digging, container movement continued. Winter orchard pruning continued statewide. Winter farm, ranch activities continued. Cattle, sheep good to excellent. Cattle on supplemental feed. Snow pack lower than last year at this time, recent storms are helping to increase it.

**PENNSYLVANIA:** Counties in the northeast portion of the State received above-average precipitation for the month, while the remainder of the State was up to 1.3 in. below normal. Some difficulty in hauling manure created by the recent warmer weather as the ground thawed. Farmers began making plans for spring planting. Activities: Hauling manure; fixing fences; caring for livestock.

**SOUTH CAROLINA:** Overall, December was cold; throughout the month temperatures ranged from mid-teens in the mountains to mid-70s along the coast. From mid-month forward, the upstate endured rain, sleet, snow. Statewide precipitation was above normal. During the first part of the month, farmers were busy trying to finish cotton, soybean harvesting. As the month progressed, farm activities were slowed due to rainfall and holidays. Pasture, livestock condition remained good.

**SOUTH DAKOTA:** Weather conditions for the month of December were mild and dry. With much open grazing, livestock are in good condition. Death losses for calves and lambs from the fall crop were low to normal. Calf deaths 22% below average, 78% normal. Lamb deaths 15% below average, 85% normal. Feed supplies 1% short, 88% adequate, 11% surplus. Stock water 3% short, 92% adequate, 5% surplus. Winter crops are exposed to risk due to scant snow cover. There is concern that exposed winter wheat and rye crops will be hurt, due to lack of snow cover, if more frigid temperatures prevail. As of the end of December, 94% of the alfalfa crop was under poor snow cover, 5% was adequate snow cover, 1% under excellent snow cover; 100% of the winter wheat crop was under poor snow cover; 91% of the winter rye crop was under poor snow cover, 9% was adequate snow cover. Some reports of winter wheat green-up in some areas, with concern of the crop breaking dormancy. Also, with lack of snow cover, more than usual amount of fall tillage done, there is a risk of soil erosion from high winds.

**TENNESSEE:** Final harvest, fall seeding proceeded normally to completion in December. Above-normal temperatures, below-normal precipitation characterized the weather. Cattle remained in mostly good condition. Hay supplies were mostly adequate, with only a few producers reporting shortages. Winter wheat crop on January 1 mostly good condition.

**TEXAS:** Nice weather conditions early in the month gave way to cold, wet conditions by the end of December. Harvest operations experienced some delays in the High Plains, most harvest was completed by the end of the month. Ginning operations continued at a steady pace in the Plains during the month. Moisture was beneficial to small grains, winter pastures across the State. Livestock conditions remained good for most of the month. However, a couple of cold spells did cause some poor performance in feedlots, problems getting hay, supplements out to cattle on pastures. Month ended wet in most areas with mild temperatures reported. Milder temperatures along with additional rainfall aided the growth of small grains.

**UTAH:** Major farm, ranch activities in the month of December included feeding farm animals, hauling manure, repairing, servicing equipment. There has been no severe weather effects throughout the month. Some animals were still able to graze rather than be fed hay. Livestock has been in good to excellent condition. Crop harvest has been completed.

**VIRGINIA:** Wet, muddy field conditions prevailed during most of December in many localities. Harvest completion for grain corn, soybeans, cotton was delayed due to excessive precipitation during parts of the month. Wet field conditions also caused fall planting delays. Small grains that were seeded on schedule have been reported in mostly fair to good condition. However, 13% was reported in poor condition and 10% of the crop was reported in excellent shape. Some producers are concerned with late-planted small grains that have not emerged. Some earlier seeded fields required replanting and others have thin stands due to weather, field conditions. Other small grain producers are concerned with acreage that will not be planted due to late corn, soybean harvests. Livestock were in mostly good condition for the month of December. Fall calving ended this month with very few problems. Some localities reported that some fall-calving cows were thin going into calving resulting in smaller calves. Pasture is available in some southeast localities, supplying up to 80% of cattle, sheep forage requirements. Some beef producers remain concerned about hay supplies. Other activities for the month of December include performing general farm, equipment repairs, tax preparation, fencing, pruning fruit trees, grapes, attending meetings for pesticide recertification. Weather during December was very seasonable. Most western, southwestern localities of the State received heavy snow during the last week of the month, with heaviest accumulations of up to 15 inches. Other areas of the State saw a few flurries to a light dusting.

**WASHINGTON:** Topsoil 1% short, 64% adequate, 35% surplus; subsoil 3% short, 92% adequate, 5% surplus. Hay, other roughage supplies, 2% short, 84% adequate, 14% surplus. Mild winter weather conditions were reported throughout State. West of the Cascade Mountain range, wet field conditions were reported. Field activity was at a standstill. Eastern areas reported an unusual absence of snow, except for the northern counties which reported 1 to 2 inches covering the ground. Winter wheat looks good, but producers are concerned with the lack of snow cover. Accumulated moisture was below normal in most areas. Pruning operations were ahead of schedule due to the good weather conditions. Grazing conditions were reported as good for this time of year. Feeding was ongoing in most areas, producers had a good supply of hay, as the open winter has not required the excess feeding that was prevalent in 1996. Christmas tree growers reported average sales.

**WEST VIRGINIA:** Activities for the month of December: Good weather has allowed farmers to continue harvest of remaining corn, soybeans. Some corn, soybean fields are still remaining to be harvested. Feeding of hay has been lighter due to mild weather. Winter wheat is showing improvement with warmer weather, increased moisture. Most of the tobacco crop has been stripped, sold.

**WISCONSIN:** As of late December, the frost level was 2.8 in., compared with 5.0 in. in 1996 and the 7.3 in. 36-year avg. Snow depth was 2.3 in., compared with 8.6 in. in 1996 and the 5.9 in. 36-year average. Temperatures have been above normal for the month.

**WYOMING:** Topsoil 1% very short, 15% short, 80% adequate, 4% surplus. Subsoil 2% very short, 21% short, 77% adequate. Average depth of snow cover: 2.8 in. Only far western areas of the State reported any snow cover. Winter wheat 20% fair, 70% good, 10% excellent. Winter wheat wind damage 47% none, 50% light, 3% moderate. Winter wheat freeze damage 84% none, 13% light, 3% moderate. Cattle, sheep in mostly good condition. Hay, roughage supplies 16% short, 76% adequate, 8% surplus. Producers were busy feeding livestock, preg testing cows, vaccinating, maintaining farm equipment, fixing fence.

December 1997

MONTHLY DATA FROM SELECTED FOREIGN CITIES  
CLIMATE PREDICTION CENTER-NCEP-NWS-NOAA  
\*\*\* DATA NOT AVAILABLE

**International Weather and Crop Summary**

December 28, 1997 - January 3, 1998

**HIGHLIGHTS**

**FSU-WESTERN:** Unseasonably mild weather diminished protective snow cover in the south.

**EUROPE:** Stormy weather prevailed over western Europe, bringing strong winds and widespread precipitation.

**NORTHWESTERN AFRICA:** Widespread rain boosted moisture supplies for winter grain development in Morocco.

**AUSTRALIA:** Dry weather returned to primary summer crop areas, spurring cotton and sorghum growth.

**SOUTH ASIA:** Unseasonable coolness continued, slowing summer crop drying and winter grain development.

**SOUTH AFRICA:** Widespread, soaking rain benefited vegetative corn and may have encouraged late planting.

**SOUTHEAST ASIA:** Scattered showers prevailed across southern Sumatra and Java, where more rain is needed.

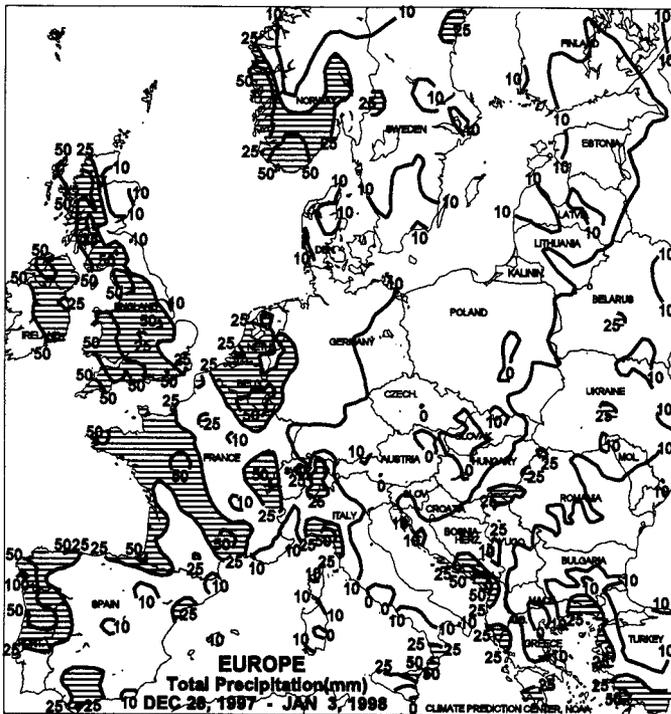
**CHINA:** Despite unseasonably warm weather, winter wheat remained dormant across the North China Plain.

**SOUTH AMERICA:** Heavy showers caused local flooding in extreme southern Brazil, but more rain is needed farther north.

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY OSLO	-2	-4	4	-17	-3	2.3	95	31
SWEDEN STOCKHOLM	1	-2	6	-13	0	0.8	32	-14
FINLAND HELSINKI	-2	-6	2	-17	-4	0.3	31	-25
UKINGDO GLASGOW	8	3	12	-6	5	0.6	143	26
EDINBURGH	8	3	13	-5	5	1.3	100	42
LONDON	9	5	15	-2	7	1.4	106	27
IRELAND DUBLIN	9	4	14	0	7	0.7	99	13
ICELAND REYKJAVIK	5	2	12	-5	3	3.1	161	82
DENMARK COPENHAGEN	3	1	8	-7	2	-0.4	36	-13
LUXEMBO LUXEMBOURG	4	1	12	-6	3	1.5	103	23
SWITZERL ZURICH	4	1	13	-6	3	1.9	131	54
FRANCE GENEVA	6	2	14	-4	4	2.0	88	1
PARIS/ORLY	8	4	15	-2	6	***	84	**
STRASBOURG	5	2	15	-5	4	1.9	82	40
BOURGES	8	3	17	-3	6	1.9	53	-9
BORDEAUX	11	5	18	-3	8	2.2	206	108
TOULOUSE	11	5	19	-3	8	2.1	36	-19
MARSEILLE	12	5	16	-2	9	1.5	36	-19
SPAIN VALLADOLID	9	4	18	-3	6	2.1	130	88
MADRID	10	4	17	-4	7	1.3	55	9
SEVILLE	16	9	21	5	13	1.5	180	106
PORTUGA LISBON	15	11	18	4	13	1.3	155	51
GERMANY HAMBURG	5	1	10	-11	3	1.0	61	-12
BERLIN	4	1	11	-14	2	0.7	67	14
DUSSELDORF	7	4	15	-7	5	2.2	75	18
LEIPZIG	4	0	11	-12	2	0.6	58	21
DRESDEN	4	1	11	-12	2	1.8	59	22
STUTTGART	5	1	14	-7	3	2.1	60	14
NURNBERG	4	0	12	-8	2	1.5	52	0
AUSTRIA VIENNA	5	1	12	-7	3	1.9	53	16
INNSBRUCK	5	0	14	-6	3	3.7	106	58
CZECHRE PRAGUE	3	-1	10	-11	1	1.7	42	18
POLAND WARSAW	1	-2	9	-19	0	0.7	30	-3
LODZ	2	-1	9	-17	0	1.2	35	-7
KATOWICE	3	-1	10	-17	1	2.0	48	4
PRZEMYSL	1	-3	9	-20	-1	0.0	63	23
HUNGARY BUDAPEST	4	1	9	-7	2	1.9	28	-13
YUGOSLA BELGRADE	7	2	16	-8	5	2.2	83	25
ROMANIA BUCHAREST	4	-3	11	-20	0	-0.1	57	10
BULGARIA SOFIA	3	-2	10	-15	1	0.1	75	25
ITALY MILAN	8	3	17	-2	5	3.1	117	62
VERONA	8	3	16	-1	6	2.8	110	60
VENICE	9	3	13	-1	6	2.7	93	43
GENOA	13	8	28	3	11	1.6	107	-1
ROME	15	6	18	0	10	1.1	4	-66
NAPLES	14	7	19	1	11	1.4	112	-5
GREECE THESSALONIKA	10	4	17	-1	7	0.3	43	-13
LARISSA	10	3	16	-2	7	0.3	69	15
ATHENS	14	9	19	5	12	-0.4	108	42
TURKEY ISTANBUL	10	7	16	-2	9	0.6	153	62
ANKARA	6	-1	13	-10	2	0.5	90	61
CYPRUS LARNACA	19	10	22	5	14	0.6	57	-46
ESTONIA TALLINN	-2	-5	5	-18	-3	-0.7	36	-18
LITHUANI KAUNAS	-2	-5	7	-20	-3	-1.0	40	-5
BELARUS MINSK	-4	-7	4	-25	-5	-1.2	42	-8
RUSSIA KAZAN	-8	-13	1	-32	-11	-2.0	78	42
MOSCOW	-8	-10	3	-29	-8	-1.8	44	-6
YEKATERINBURG	-12	-18	0	-32	-15	-4.6	95	73
OMSK	-16	-21	-7	-39	-19	-4.3	86	65
NOVOSIBIRSK	-14	-19	-2	-36	-16	-0.1	40	17
BARNAUL	-12	-18	0	-33	-15	-1.2	40	12
KHABAROVSK	-12	-20	-4	-27	-16	1.7	36	17
VLADIVOSTOK	-4	-10	4	-22	-7	2.3	12	-4
SARATOV	-8	-13	2	-29	-10	-2.7	89	56
VOLGOGRAD	-5	-10	7	-31	-8	-2.7	66	21
ASTRAKHAN	-1	-7	8	-27	-4	-1.9	32	18
KRASNODAR	5	-2	16	-19	2	-0.3	113	38
ORENBURG	-10	-16	1	-33	-13	-3.5	78	47
KAZAKHS TSELINOGRAD	-11	-18	0	-37	-15	-2.0	60	43
KARAGANDA	-10	-17	0	-35	-14	-2.4	63	41

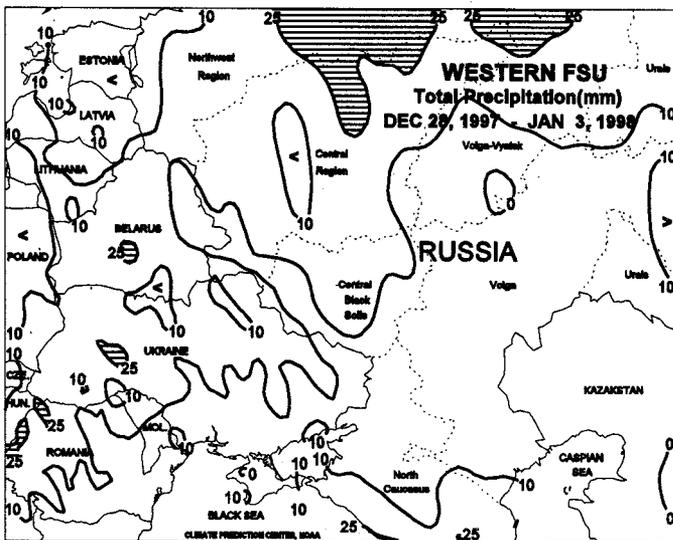
Based on Preliminary Reports





**EUROPE**

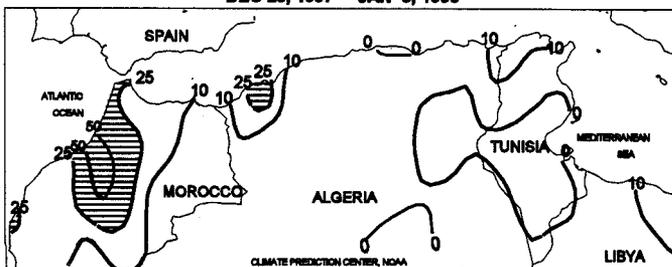
A strong westerly flow of maritime air continued to spread across the region. Stormy weather and widespread precipitation prevailed over winter grain areas in the west. Significant precipitation (10-50 mm, with local amounts in excess of 50 mm) spread from the United Kingdom and the Benelux countries southward through France into the Iberian Peninsula. The precipitation was accompanied by strong winds, especially in Scotland, Ireland, England, western France, and northern Spain. Continued wet weather in Portugal and southern Spain kept soils waterlogged. Light to moderate showers also spread eastward into Italy's Po Valley, maintaining favorable moisture conditions for winter wheat. Weekly temperatures averaged 2 to 4 degrees C above normal in western Europe. In eastern Europe, unseasonably mild weather was accompanied by generally light precipitation (2-20 mm, with local amounts in excess of 20 mm). Greatest amounts of precipitation (10-25 mm) fell as rain in southeastern Hungary, northwestern Yugoslavia, and western Romania, boosting soil moisture. Weekly temperatures in eastern Europe ranged from 4 to 7 degrees C above normal. Winter grain areas over most of Europe lacked a protective snow cover.



**FSU-WESTERN**

A westerly flow of air from Europe continued to usher in unseasonably mild weather to most winter grain areas. Weekly temperatures averaged 3 to 9 degrees C above normal over most of the region. Temperatures rose above freezing over most areas, with extreme maximum temperatures ranging from 5 to 11 degrees C in southern Ukraine and the North Caucasus region in Russia. The mild weather in these areas diminished protective snow cover, leaving winter wheat vulnerable to potential extreme cold. Maximum temperatures in the Baltics, Belarus, northern Russia, and northern Ukraine ranged from 1 to 4 degrees C, melting protective snow cover. Widespread precipitation covered the region, falling mostly in the form of rain in the west and south. The greatest amounts of moisture (10-33 mm) fell over extreme northern Russia, western and northern Ukraine, Belarus, and Lithuania.

**NORTHWEST AFRICA Total Precipitation (mm)  
DEC 26, 1997 - JAN 3, 1998**

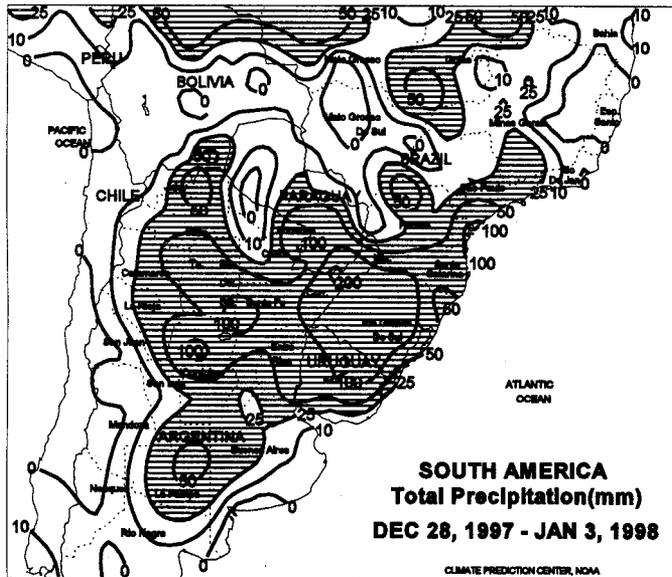


**NORTHWESTERN AFRICA**

Winter grains were in the vegetative stage over most of the region. Light precipitation (generally less than 10 mm) fell over winter grain areas in Algeria and Tunisia, maintaining favorable moisture conditions for winter grain development. In Morocco, widespread rain (10-50 mm) followed last week's generally dry weather pattern in southern areas, boosting soil moisture. Weekly temperatures averaged near normal over most of Morocco, Algeria, and Tunisia.

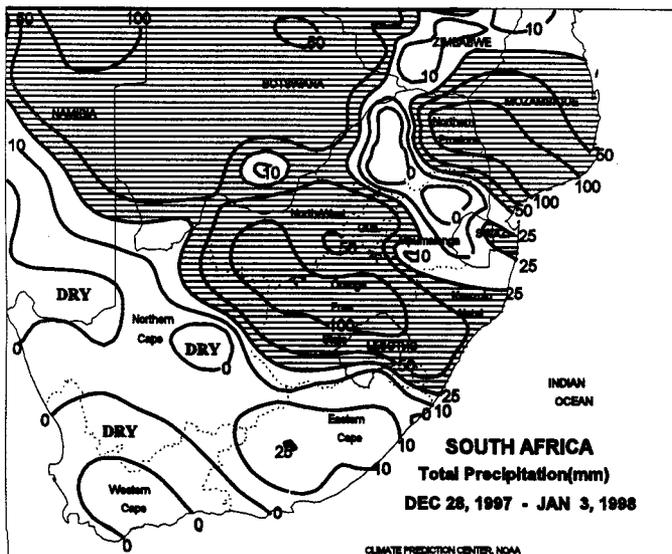
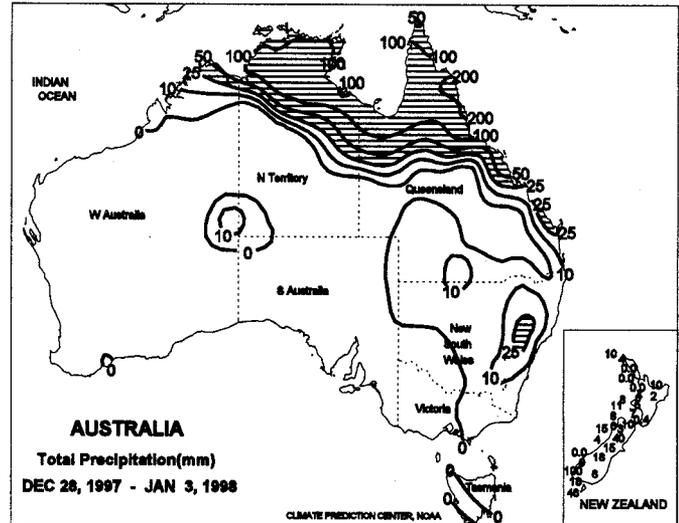
**SOUTH AMERICA**

In southern Brazil, heavy showers (80-190 mm) boosted soil moisture levels for vegetative soybeans but caused some local field washouts. However, most of the soybean crop has already been planted, thus crop damage should be minimal. More moderate showers (25-50 mm, with isolated amounts greater than 100 mm) covered Parana and Sao Paulo, aiding vegetative soybeans. Lighter showers (less than 15 mm) limited soil moisture in Mato Grosso do Sul, where more rain is needed. Temperatures averaged slightly above normal (1-2 degrees C above normal) across southern Brazil. In central Argentina, moderate showers (18-53 mm) increased soil moisture for germinating to vegetative summer crops. Cool weather (temperatures 2-3 degrees C below normal) also favored summer crop development by reducing crop water use. In southern Buenos Aires, mostly dry weather aided winter wheat harvesting. According to reports as of December 19, corn in Argentina was 91 percent planted, soybeans 81 percent, sunflower 95 percent, sorghum 90 percent, and cotton 86 percent. Winter wheat was 34 percent harvested compared with 53 percent last year.



**AUSTRALIA**

Drier weather (just a few locations reporting rainfall of 10 mm or greater) returned to the main cotton and sorghum areas following about 3 weeks of highly beneficial shower activity. The sunnier skies favored development of vegetative crops as seasonable warmth (highs in the mid 30's C) maintained high crop moisture demands. The drier conditions extended into the southern sugarcane region, but locally heavy rainfall (25-100 mm or more) continued in the north, thanks to a broad band of tropical activity spanning northern Australia. In New Zealand, rainfall was generally light (4-15 mm, with isolated heavier amounts) in the main agricultural areas.

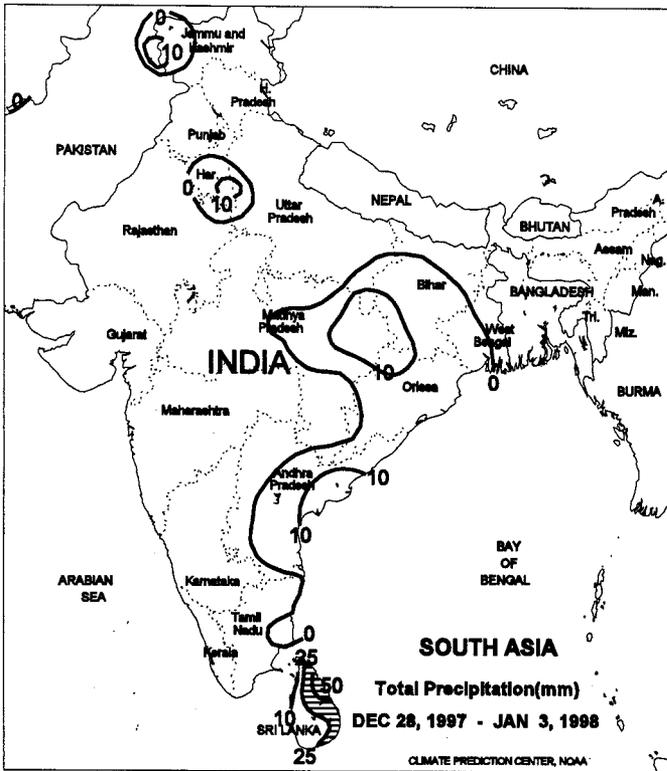


**SOUTH AFRICA**

Widespread, soaking rain covered the corn belt. Rainfall totaled 25 to 50 mm or more in most areas, with many drought-stricken sections of the west and south receiving more than 100 mm. The moisture was extremely beneficial for vegetative corn, and the magnitude of the event may spur some late plantings. However, corn planted this late in the season traditionally experiences lower yields, caused mainly by stress from summer heat and dryness. Moderate rain (25 mm or greater) fell in coastal sugarcane areas of Kwazulu-Natal, but drier conditions were dominant elsewhere. Temperatures across the region averaged near to below normal. In a few weeks, corn planted on schedule (mainly in the eastern corn belt) will enter the moisture-sensitive reproductive phases of development.

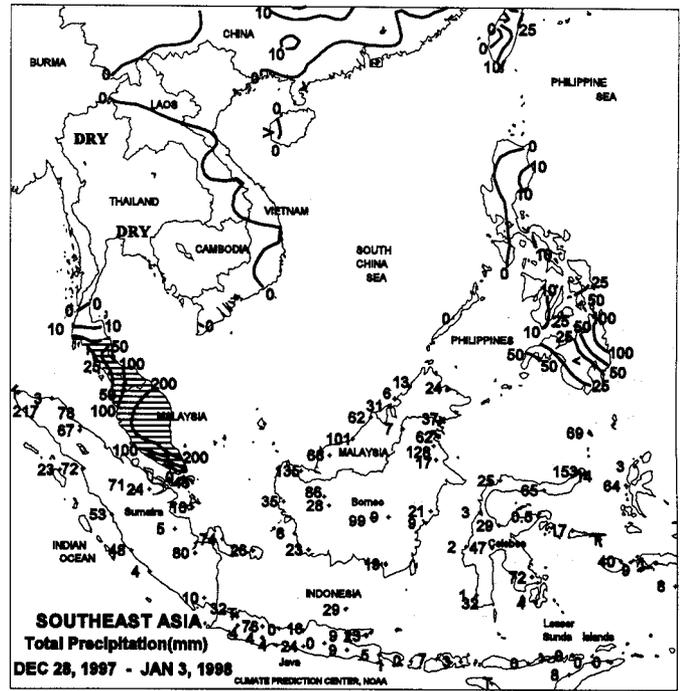
**SOUTH ASIA**

Unseasonable coolness continued to dominate a large section of the region from central India to Pakistan. Temperatures averaged 2 to 4 degrees C below normal, with sub-freezing lows reported at a few spots in the north. The current cool spell has delayed development of winter grains and oilseeds and slowed dry down of maturing cotton and other summer crops that had been unfavorably wet for much of autumn. However, 3 weeks of seasonable dryness have likely promoted widespread fieldwork activities.



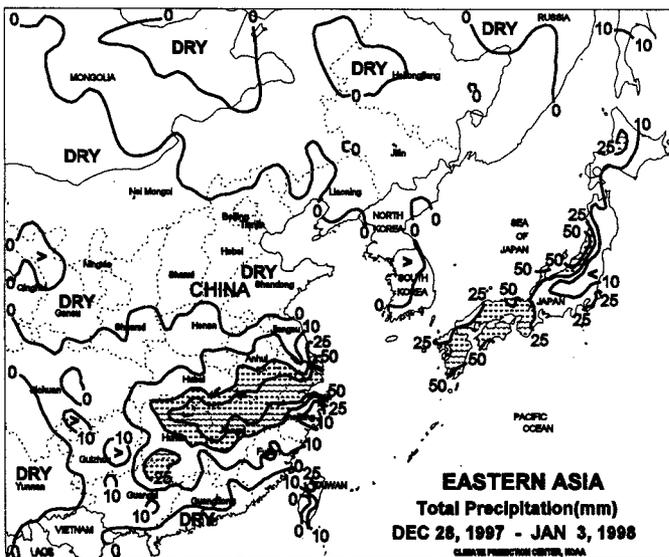
**SOUTHEAST ASIA**

Scattered showers (10-75 mm) prevailed across southern Sumatra and Java, where rainfall has tapered off in the last 2 weeks. Continued showers are needed due to the late start of the rainy season. Sparse rainfall (less than 20 mm) worsened drought across the northern Philippines, stressing second-season crops. More seasonable rainfall (30-125 mm) was reported on the southern island of Mindanao. Very heavy showers (100-300 mm) caused flooding in peninsular Malaysia. Indochina was seasonably dry.



**EASTERN ASIA**

Winter wheat remained dormant across the North China Plain despite continued warm weather (temperatures averaged 3-6 C degrees C above normal). Widespread rainfall (10-70 mm) continued to benefit winter grains and oilseeds across the Yangtze Valley and interior southern China.



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(Continued from front cover)

The East's storm dumped heavy snow as far south as the Carolinas, where 5.2 inches fell in Greensboro, NC. Local totals in excess of 2 inches occurred as far south as eastern Alabama and northern Georgia. More than a foot, with isolated totals greater than 2 feet, fell from the central Appalachians to the Adirondacks and Green Mountains. December 29-31 snowfall reached 22 inches in Pocahontas County, WV, and 25 inches at both Tupper Lake, NY and Jay, VT. On Tuesday morning, wind gusts were clocked to 68 mph in New Bedford, MA and 59 mph on Block Island, RI.

Across the East, several daily-record lows were set or tied on New Year's Day, including -9°F in Syracuse, NY, 19°F in Florence, SC, and 47°F in Hollywood, FL. Saranac Lake, NY registered -33°F. Farther west, daily-record warmth spread onto the northern Plains, where Thursday's highs reached 56°F in Bismarck, ND and 60°F in Billings, MT. In Minnesota, Rochester notched their first of three daily-record highs (42, 45, and 41°F). A day earlier, daily records had been set in Oregon at Redmond (61°F) and Gold Beach (72°F).

By week's end, sharply colder air arrived across the North Central States. By Saturday, lows dipped to -22°F in Glasgow, MT and -30°F in Williston, ND. In Spencer, IA, the temperature plunged from a daily-record high (44°F) at midnight to 12°F just 15 hours later. The cold outbreak followed a record-warm December in Grand Forks, ND, where the average temperature of 23.7°F tied the mark set in 1959. In Glasgow, the mercury failed to fall below 0°F in December for the first time on record, while only 0.01 inch of precipitation fell. Meanwhile, Houghton Lake, MI (0.34 inch) wrapped up their driest December on record.

In advance of the Arctic front, record warmth continued and spread eastward. On Friday, daily records were set in locations such as Alpena, MI (50°F), Rapid City, SD (66°F), and Valentine, NE (68°F). A day later, record highs included 49°F in Montpelier, VT, 62°F in Burlington, IA, and 63°F in Quincy, IL. In Wisconsin, Milwaukee's maximum of 54°F on Saturday was their highest since November 1, 1997. A day earlier, Chicago marked their first of four consecutive highs at or above 50°F, only the seventh such occurrence in January during the 125-year period of record.

Only light rain fell across the Gulf Coast States during the week. Nevertheless, December 1997 was the wettest on record in Florida at Jacksonville (9.77 inches, 359 percent of normal), Orlando (12.63 inches, 587 percent), and Tampa (15.57 inches, 724 percent). In Texas, the month ranked as the second-wettest December in Waco (8.93 inches) and third-wettest in Dallas-Ft. Worth (6.93 inches). The wet month in Texas capped a year that featured record annual rainfall in Victoria (67.11 inches, 179 percent of normal), and annual precipitation among the 10 greatest on record for the third time this decade in Dallas-Ft. Worth (with 1991 and 1990) and Austin (with 1991 and 1992). Records date to 1898 in Dallas and 1856 in Austin. Farther north, Williamsport, PA received 29.63 inches of precipitation in 1997, 73 percent of normal, their second driest year on record and in sharp contrast to 1996, when the total of 54.01 inches was their second-highest on record.

Bitterly cold weather enveloped Alaska (except the southeast), where weekly temperatures ranged from 4 to 18°F below normal. A storm struck the west coast on December 31, dumping 14.0 inches of snow on Nome. In the Aleutians, Cold Bay netted a December-record snowfall of 30.2 inches. Meanwhile in the southeast, Juneau's monthly precipitation of 13.61 inches easily smashed their former December record of 9.89 inches.

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