

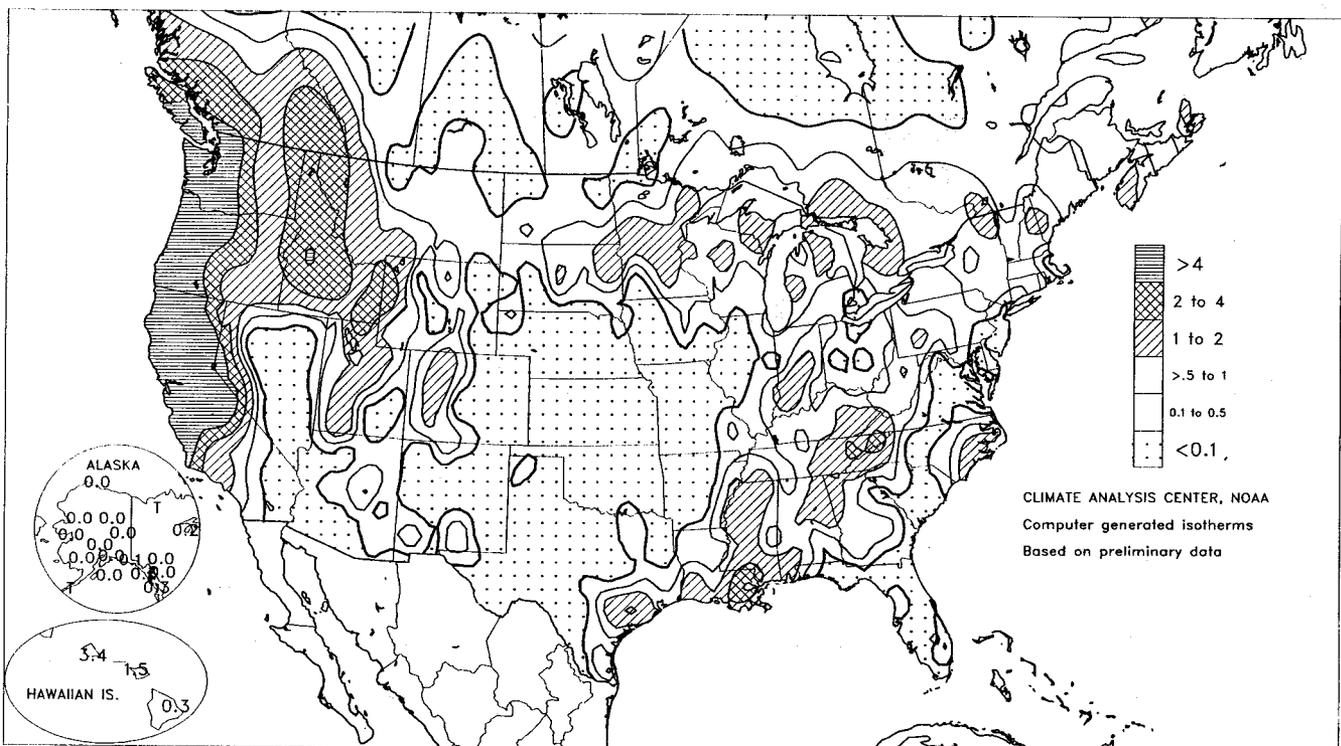
WEEKLY WEATHER AND CROP BULLETIN

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 29, 1996 - JAN 4, 1997



HIGHLIGHTS

December 29, 1996 - January 4, 1997

For the fifth time in 25 months, severe flooding struck the West. In the western Sierra Nevada foothills, weekly rainfall locally topped 25 inches, boosting 5-week totals to more than 50 inches. In addition, unusually high temperatures caused significant snowmelt throughout the Northwest, further overwhelming river basins. Overshadowed by the flooding was coast-to-coast warmth, as temperatures averaged 5 to 25°F above normal nearly nationwide, resulting in more than 300 daily-record highs. Nevertheless, blizzard conditions returned to the northern Plains and western Great Lakes States at week's end, ending a brief thaw. Farther east, scattered thunderstorms signaled a cold front's passage and the end of record warmth.

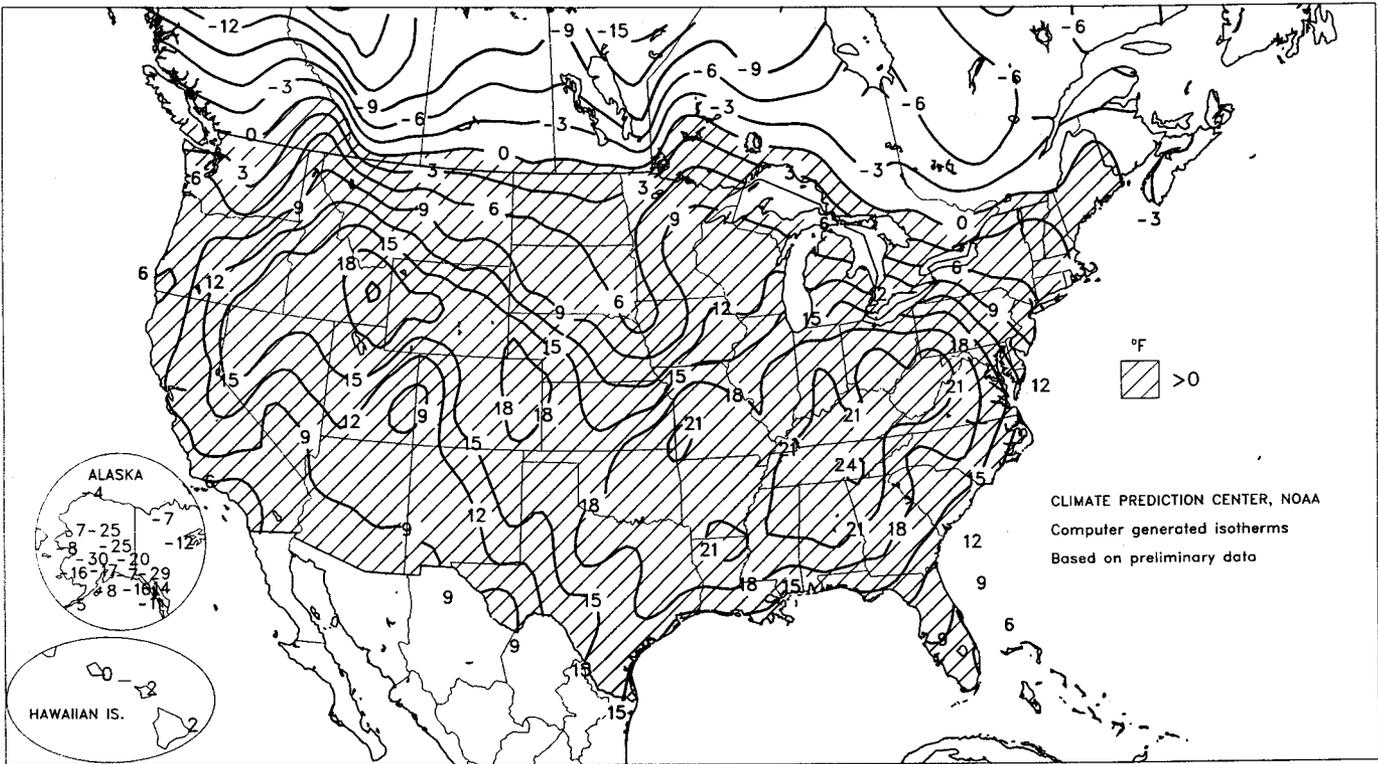
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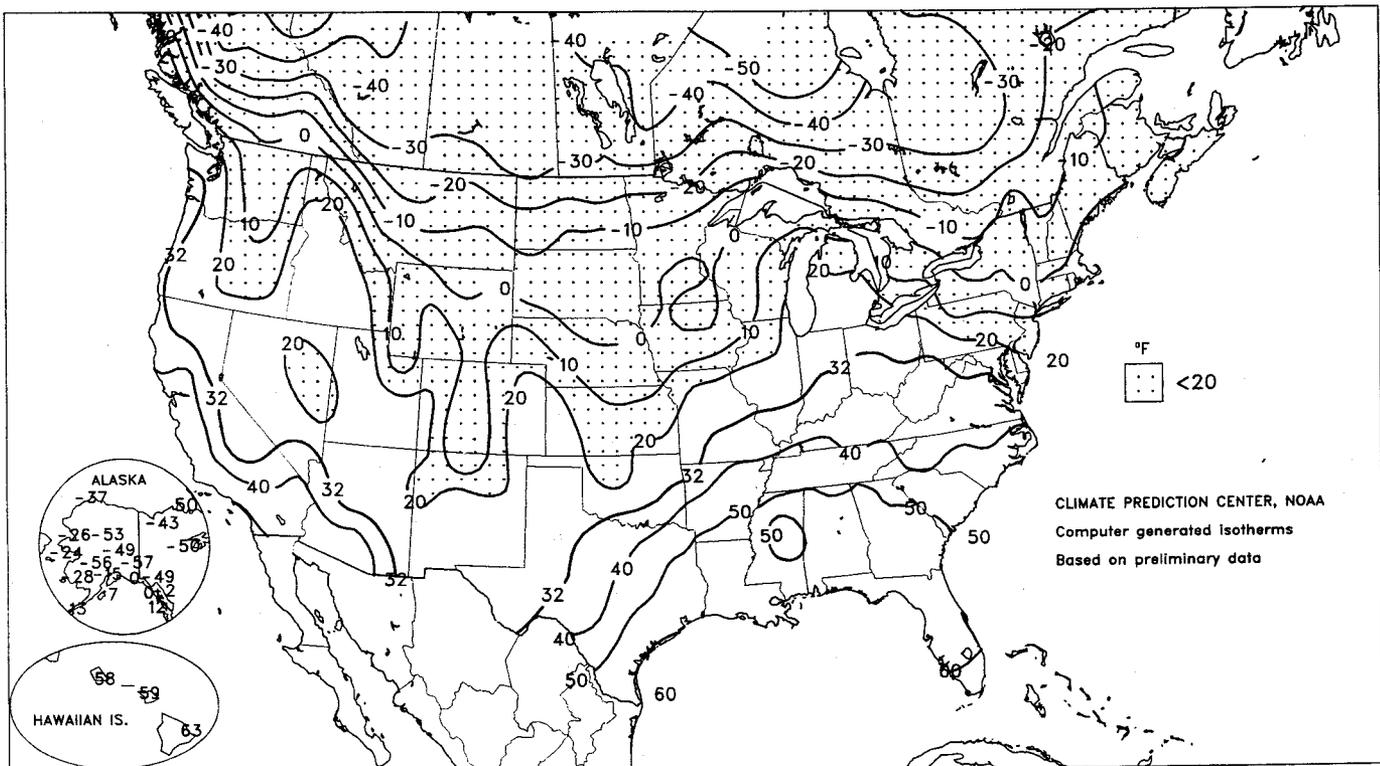
Departure of Average Temperature from Normal (°F)

DEC 29, 1996 - JAN 4, 1997



Extreme Minimum Temperature (°F)

DEC 29, 1996 - JAN 4, 1997



National Weather Data for Selected Cities

Weather Data for the Week Ending January 4, 1997

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	0.1 INCH OR MORE	0.5 INCH OR MORE	
AL BIRMINGHAM	71	59	73	55	65	23	0.26	-0.94	0.17	3.38	58	0.10	15	97	70	0	0	2	0	
AL MOBILE	73	62	76	57	67	17	2.52	1.38	1.51	6.93	117	0.01	2	99	73	0	0	3	2	
AL MONTGOMERY	74	59	77	55	66	21	0.00	-1.16	0.00	4.20	72	0.00	0	98	68	0	0	0	0	
AK ANCHORAGE	5	-9	12	-15	-2	-17	0.00	-0.21	0.00	0.23	19	0.00	0	80	64	0	7	0	0	
AK BARROW	-11	-23	6	-37	-17	-4	0.00	-0.03	0.00	0.04	29	0.00	0	78	73	0	7	0	0	
AK FAIRBANKS	-28	-42	-7	-49	-35	-25	0.00	-0.15	0.00	0.46	51	0.00	0	75	72	0	7	0	0	
AK JUNEAU	18	4	33	-2	11	-14	0.00	-1.04	0.00	4.72	94	0.00	0	71	39	0	7	0	0	
AK KODIAK	27	17	35	7	22	-8	0.00	-1.69	0.00	6.38	81	0.00	0	77	49	0	7	0	0	
AK NOME	5	-8	18	-24	-1	-8	0.00	-0.19	0.00	0.63	66	0.00	0	85	70	0	7	0	0	
AZ PHOENIX	70	50	75	44	60	7	0.02	-0.18	0.02	0.02	2	0.00	0	72	25	0	0	1	0	
AZ PRESCOTT	58	33	64	25	44	-	0.00	-0.36	0.00	0.24	13	0.00	0	86	43	0	3	0	0	
AZ TUCSON	71	45	77	41	58	8	0.13	-0.10	0.13	0.13	11	0.13	100	71	24	0	0	1	0	
AZ YUMA	73	53	78	46	63	8	0.01	-0.08	0.01	0.01	2	0.00	0	78	28	0	0	1	0	
AR FORT SMITH	66	47	75	37	57	19	0.01	-0.50	0.01	1.86	57	0.00	0	97	70	0	0	1	0	
AR LITTLE ROCK	-	-	-	-	-	-	0.00	-0.83	0.00	3.29	64	0.00	0	-	-	0	0	0	0	
CA BAKERSFIELD	63	50	74	41	56	10	0.64	0.47	0.28	2.22	308	0.52	578	96	51	0	0	4	0	
CA EUREKA	59	51	67	37	55	7	7.15	5.78	3.10	24.52	360	3.28	407	91	57	0	0	5	4	
CA FRESNO	60	51	65	41	56	11	2.09	1.70	0.87	5.41	326	1.17	487	97	60	0	0	6	2	
CA LOS ANGELES	64	56	68	52	60	4	0.74	0.29	0.38	5.44	282	0.70	259	98	49	0	0	4	0	
CA REDDING	58	51	63	36	54	10	2.32	0.97	1.05	8.78	139	1.05	131	94	72	0	0	4	2	
CA SACRAMENTO	61	53	66	39	57	13	2.46	1.73	-	7.59	255	1.78	393	98	72	0	0	-	-	
CA SAN DIEGO	65	57	71	55	61	4	0.04	-0.36	0.04	0.68	37	0.04	17	96	38	0	0	1	0	
CA SAN FRANCISCO	62	54	67	45	58	10	3.08	2.19	1.25	9.25	253	2.46	456	93	51	0	0	7	3	
CO DENVER	58	32	72	13	45	16	0.00	-0.12	0.00	0.08	8	0.00	0	67	24	0	3	0	0	
CO GRAND JUNCTION	43	28	48	25	36	9	0.02	-0.12	0.02	0.56	72	0.02	25	94	84	0	6	1	0	
CO PUEBLO	66	24	81	15	45	16	0.00	-0.08	0.00	0.22	47	0.00	0	79	24	0	7	0	0	
CT BRIDGEPORT	43	28	51	8	36	5	0.34	-0.42	0.29	6.58	167	0.05	11	94	57	0	4	3	0	
CT HARTFORD	39	23	52	0	31	6	0.24	-0.58	0.09	6.23	143	0.12	26	89	57	0	4	4	0	
DC WASHINGTON	59	42	73	32	51	15	0.08	-0.57	0.08	5.51	158	0.00	0	91	57	0	1	1	0	
FL PANAMA CITY	74	60	79	57	67	16	-	-	-	-	-	-	-	100	75	0	0	-	-	
FL DAYTONA BEACH	77	57	80	62	67	9	0.00	-0.59	0.00	2.01	69	0.00	0	100	65	0	0	0	0	
FL JACKSONVILLE	78	56	80	54	67	11	0.00	-0.67	0.00	3.24	99	0.00	0	100	82	0	0	0	0	
FL KEY WEST	81	70	82	66	75	5	0.07	-0.38	0.05	1.46	64	0.02	8	90	89	0	0	2	0	
FL MIAMI	82	66	83	64	74	7	0.00	-0.43	0.00	1.05	50	0.00	0	93	57	0	0	0	0	
FL ORLANDO	81	59	82	53	70	9	0.00	-0.48	0.00	2.14	88	0.00	0	98	55	0	0	0	0	
FL TALLAHASSEE	77	57	79	53	67	16	0.03	-1.08	0.01	6.17	109	0.02	3	100	86	0	0	3	0	
FL TAMPA	78	61	83	57	70	9	0.00	-0.44	0.00	2.11	86	0.00	0	97	67	0	0	0	0	
FL WEST PALM BEACH	80	63	82	60	72	5	0.43	-0.08	0.43	1.56	61	0.00	0	95	58	0	0	1	0	
GA ATLANTA	71	59	74	55	65	23	0.07	-0.97	0.07	4.21	85	0.07	12	97	74	0	0	1	0	
GA AUGUSTA	73	53	79	50	63	19	0.03	-0.83	0.03	2.11	54	0.03	6	98	69	0	0	1	0	
GA MACON	74	55	77	52	64	18	0.48	-0.55	0.48	3.72	76	0.48	83	100	65	0	0	1	0	
GA SAVANNAH	73	55	78	53	64	14	0.15	-0.63	0.14	2.85	83	0.15	33	100	71	0	0	2	0	
HI HILO	83	65	85	63	74	2	0.35	-2.03	0.30	7.24	54	0.35	26	89	65	0	0	2	0	
HI HONOLULU	79	68	82	58	74	0	3.44	2.56	3.08	5.28	123	3.39	678	85	62	0	0	3	1	
HI KAHULUI	79	68	82	58	74	2	1.45	0.56	0.87	8.85	231	1.45	274	91	71	0	0	2	2	
HI LIHUE	-	64	-	56	-	-	-	-	-	-	-	-	-	92	71	-	-	-	-	
ID BOISE	51	38	60	25	45	17	1.39	1.07	0.61	3.97	258	1.21	637	90	54	0	2	6	1	
ID LEWISTON	44	33	51	25	39	6	0.95	0.66	0.23	3.17	228	0.56	329	96	65	0	3	6	0	
ID POCATELLO	48	37	54	24	42	20	0.60	0.35	0.42	3.67	298	0.54	398	80	54	0	2	4	0	
IL CHICAGO	43	31	64	22	37	15	0.44	0.00	0.41	1.65	61	0.44	183	98	84	0	3	3	0	
IL MOLINE	44	26	64	13	35	15	0.07	-0.36	0.04	0.83	34	0.07	29	98	80	0	5	3	0	
IL PEORIA	47	31	65	19	39	17	0.01	-0.43	0.01	1.09	41	0.01	4	98	82	0	4	1	0	
IL QUINCY	48	34	64	28	41	17	-	-	-	-	-	-	-	98	82	0	4	-	-	
IL ROCKFORD	41	26	60	17	34	14	0.29	-0.08	0.29	2.43	108	0.29	145	100	83	0	5	1	0	
IL SPRINGFIELD	51	36	68	28	44	18	0.00	-0.47	0.00	0.72	24	0.00	0	98	79	0	3	0	0	
IN EVANSVILLE	58	45	68	35	52	18	0.90	0.16	0.89	4.39	105	0.89	217	97	85	0	0	2	1	
IN FORT WAYNE	48	38	63	30	43	19	0.55	0.01	0.50	3.82	121	0.55	190	98	89	0	4	2	1	
IN INDIANAPOLIS	53	43	65	32	48	21	1.00	0.37	0.99	3.78	102	1.00	294	95	71	0	1	2	1	
IN SOUTH BEND	47	36	63	29	41	16	0.45	-0.18	0.32	3.35	92	0.45	132	98	78	0	4	3	0	
IA DES MOINES	40	22	54	5	31	11	0.04	-0.22	0.03	0.99	66	0.04	29	94	77	0	6	2	0	
IA SIOUX CITY	30	15	43	-2	23	5	0.34	0.20	0.22	0.77	91	0.34	425	92	79	0	7	3	0	
IA WATERLOO	35	20	45	-2	27	12	0.26	0.04	0.23	1.17	83	0.26	217	98	74	0	6	2	0	
KS CONCORDIA	52	28	68	8	39	13	0.00	-0.16	0.00	0.07	8	0.00	0	90	50	0	4	0	0	
KS DODGE CITY	61	29	73	20	45	18	0.00	-0.12	0.00	0.00	0	0.00	0	84	32	0	5	0	0	
KS GOODLAND	61	31	71	27	46	18	0.00	-0.09	0.00	0.04	9	0.00	0	69	33	0	5	0	0	
KS TOPEKA	53	28	66	12	40	13	0.00	-0.26	0.00	0.04	3	0.00	0	97	52	0	4	0	0	
KS WICHITA	56	34	68	18	45	15	0.00	-0.23	0.00	0.03	2	0.00	0	95	62	0	3	0	0	
KY BOWLING GREEN	61	50	70	42	56	22	0.60	-0.39	0.58	5.38	97	0.58	107	96	7					

Weather Data for the Week Ending January 4, 1997

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	MINIMUM	90 AND ABOVE	92 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.05 INCH OR MORE		
ME CARIBOU	18	5	37	-13	12	1	0.23	-0.40	0.21	3.74	105	0.02	6	78	63	0	6	2	0	0	
ME PORTLAND	31	18	48	1	25	2	0.37	-0.52	0.37	6.53	130	0.00	0	84	56	0	6	1	0	0	
MD BALTIMORE	56	39	67	27	47	14	0.11	-0.62	0.11	6.78	178	0.00	0	92	67	0	2	1	0	0	
MD SALISBURY	57	39	70	25	48	13	0.47	-0.38	0.47	6.26	149	0.00	0	96	58	0	2	1	0	0	
MA BOSTON	39	24	54	4	32	2	0.16	-0.69	0.07	5.82	130	0.06	12	83	57	0	4	3	0	0	
MA CHATHAM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MI ALPENA	32	22	37	14	27	8	1.97	1.56	1.27	6.61	294	1.41	587	96	79	0	7	5	1	0	
MI DETROIT	45	33	61	26	39	15	0.36	-0.16	0.29	2.92	95	0.36	125	96	81	0	3	3	0	0	
MI FLINT	42	30	61	24	36	13	0.21	-0.17	0.14	2.25	98	0.19	90	99	83	0	4	4	0	0	
MI GRAND RAPIDS	42	31	61	26	37	13	0.48	-0.04	0.38	2.98	96	0.48	166	98	84	0	4	3	0	0	
MI HOUGHTON LAKE	32	24	43	16	28	10	0.76	0.37	0.59	2.90	135	0.72	327	95	81	0	7	3	1	0	
MI LANSING	43	31	61	26	37	15	0.16	-0.23	0.13	2.78	124	0.16	73	99	86	0	4	2	0	0	
MI MARQUETTE	27	18	35	6	23	10	2.69	2.14	1.86	6.44	221	2.00	645	93	82	0	7	6	1	0	
MI MUSKEGON	40	30	61	26	35	10	0.94	0.31	0.83	2.87	85	0.94	269	97	83	0	5	3	1	0	
MI SAULT ST. MARIE	17	5	32	-1	11	-3	0.45	-0.16	0.37	4.07	126	0.00	0	91	82	0	3	3	0	0	
MN ALEXANDRIA	23	11	41	-5	17	9	-	-	-	-	-	-	-	96	79	0	7	-	-	-	
MN DULUTH	23	12	34	-5	18	10	0.65	0.36	0.35	1.86	130	0.36	206	92	75	0	7	4	0	0	
MN INT'L FALLS	16	2	37	-25	9	7	0.14	-0.06	0.09	1.57	162	0.09	75	87	74	0	7	2	0	0	
MN MINNEAPOLIS	28	18	38	5	23	10	0.64	0.42	0.54	2.37	199	0.62	477	91	77	0	7	3	1	0	
MN ROCHESTER	28	19	37	0	23	11	0.69	0.50	0.69	2.06	182	0.69	627	92	81	0	7	1	1	0	
MS GREENWOOD	71	57	76	50	64	21	-	-	-	-	-	-	-	98	73	0	0	-	-	-	
MS JACKSON	72	57	78	48	65	21	0.03	-1.34	0.03	3.33	47	0.00	0	97	73	0	0	1	0	0	
MS MERIDIAN	73	58	78	48	65	20	0.19	-1.10	0.12	2.82	42	0.12	17	99	74	0	0	3	0	0	
MO CAPE GIRARDEAU	67	45	68	35	51	19	0.39	-0.43	0.39	3.23	67	0.39	89	99	84	0	0	1	0	0	
MO COLUMBIA	57	38	72	28	48	21	0.00	-0.44	0.00	0.48	17	0.00	0	96	75	0	2	0	0	0	
MO KANSAS CITY	53	32	65	15	42	16	0.00	-0.30	0.00	0.03	2	0.00	0	96	72	0	3	0	0	0	
MO SAINT LOUIS	68	40	72	31	49	19	0.00	-0.52	0.00	1.00	30	0.00	0	95	76	0	1	0	0	0	
MO SPRINGFIELD	61	41	71	33	51	20	0.00	-0.46	0.00	0.71	24	0.00	0	98	70	0	0	0	0	0	
MT BILLINGS	39	23	53	-3	31	8	0.64	0.43	0.67	0.82	90	0.69	454	83	67	0	4	3	1	0	
MT GLASGOW	25	8	45	-17	18	5	0.20	0.12	0.17	0.51	124	0.00	0	89	70	0	7	2	0	0	
MT GREAT FALLS	37	18	53	-18	28	7	0.00	-0.22	0.00	1.22	124	0.00	0	79	56	0	4	0	0	0	
MT HAVRE	29	8	50	-32	19	4	0.28	0.14	0.28	0.45	73	0.00	0	86	70	0	6	1	0	0	
MT HELENA	39	18	54	-8	29	10	0.21	0.08	0.18	0.71	103	0.05	56	86	56	0	5	2	0	0	
MT KALISPELL	35	21	44	1	28	8	0.96	0.57	0.39	3.51	181	0.24	109	94	71	0	4	6	0	0	
MT MILES CITY	33	17	45	-5	25	9	0.07	-0.07	0.05	0.49	71	0.05	63	91	70	0	6	2	0	0	
MT MISSOULA	40	27	47	15	34	12	1.56	1.27	0.79	5.06	390	0.41	241	95	71	0	5	6	1	0	
NE GRAND ISLAND	48	21	68	5	34	12	0.00	-0.12	0.00	0.15	19	0.00	0	94	59	0	5	0	0	0	
NE LINCOLN	43	21	63	5	32	10	0.00	-0.15	0.00	0.12	13	0.00	0	96	65	0	7	0	0	0	
NE NORFOLK	33	16	50	0	25	6	0.02	-0.12	0.02	0.36	44	0.02	25	90	70	0	7	1	0	0	
NE NORTH PLATTE	56	22	71	7	39	18	0.00	-0.08	0.00	0.03	6	0.00	0	87	45	0	7	0	0	0	
NE OMAHA	40	20	55	5	30	9	0.04	-0.15	0.04	0.36	32	0.04	33	93	70	0	6	1	0	0	
NE SCOTTSBLUFF	58	30	70	22	44	20	0.06	-0.05	0.06	0.25	40	0.06	100	84	39	0	5	1	0	0	
NE VALENTINE	39	18	56	-2	29	6	0.04	-0.06	0.04	0.18	32	0.04	67	95	67	0	5	1	0	0	
NV ELY	44	30	53	15	37	13	0.76	0.59	0.41	1.09	131	0.76	644	89	62	0	4	2	0	0	
NV LAS VEGAS	61	46	69	37	53	9	0.00	-0.10	0.00	0.18	42	0.00	0	72	33	0	0	0	0	0	
NV RENO	56	42	66	30	49	17	1.90	1.66	0.94	4.24	379	1.21	864	88	44	0	1	3	2	0	
NH WINNEMUCCA	52	37	62	22	45	16	0.59	0.40	0.55	3.57	361	0.59	536	84	46	0	2	3	1	0	
NH CONCORD	33	17	47	-4	25	5	0.40	-0.22	0.28	5.96	171	0.12	34	89	51	0	6	3	0	0	
NJ ATLANTIC CITY	49	34	61	14	42	10	0.03	-0.75	0.03	6.59	175	0.00	0	95	59	0	4	1	0	0	
NM ALBUQUERQUE	57	33	62	28	45	12	0.07	-0.04	0.07	0.07	13	0.07	88	69	32	0	4	1	0	0	
NM CLOVIS	67	37	73	30	52	15	-	-	-	-	-	-	-	67	24	0	1	-	-	-	
NM ROSWELL	71	36	80	28	54	15	-	-	-	-	-	-	-	63	23	0	1	-	-	-	
NY ALBANY	36	20	48	-5	28	6	0.40	-0.19	0.31	5.06	156	0.07	21	91	68	0	5	4	0	0	
NY BINGHAMTON	38	21	47	0	29	7	0.48	-0.12	0.29	6.22	187	0.12	35	98	79	0	5	5	0	0	
NY BUFFALO	43	25	62	7	34	9	0.36	-0.36	0.14	3.60	89	0.18	45	94	80	0	4	5	0	0	
NY NEW YORK	47	33	61	12	40	7	0.10	-0.62	0.05	5.94	156	0.03	7	87	63	0	3	4	0	0	
NY ROCHESTER	41	24	57	1	32	7	0.45	-0.08	0.18	3.08	102	0.11	37	94	76	0	3	4	0	0	
NY SYRACUSE	39	20	52	-3	30	6	0.48	-0.13	0.16	4.72	134	0.27	79	94	72	0	5	5	0	0	
NC ASHEVILLE	64	43	71	37	54	17	0.35	-0.58	0.35	3.92	79	0.00	0	97	71	0	0	1	0	0	
NC CHARLOTTE	65	48	72	43	57	17	0.09	-0.74	0.05	2.65	67	0.04	9	97	78	0	0	2	0	0	
NC GREENSBORO	64	45	71	37	54	17	0.06	-0.69	0.03	3.84	101	0.00	0	99	68	0	0	2	0	0	
NC HATTERAS	60	49	67	45	55	9	1.22	0.08	1.19	5.51	105	1.20	176	99	88	0	0	4	1	0	
NC NEW BERN	65	48	77	42	56	12	1.10	0.17	0.64	3.37	79	1.06	196	98	69	0	0	3	1	0	
NC RALEIGH	67	48	76	39	58	18	0.23	-0.54	0.18	3.03	82	0.18	41	98	69	0	0	2	0	0	
NC WILMINGTON	68	49	76	43	58	14	1.20	0.16	1.20	3.85	82	1.20	200	100	73	0	0	1	1	0	
ND BISMARCK	24	9	42	-5	16	7	0.54	0.43	0.51	1.19	216	0.51	850	85	71	0	7	2	1	0	
ND FARGO	20	5	41	-9	12	6	0.28	0.11	0.27	1.42	192	0.28	311	87	73	0	7	2	0	0	
ND GRAND FORKS	17	1	40	-16	9	4	0.02	-0.15	0.02	0.73	99	0.00	0	91	72	0	7	1	0	0	
ND WILLISTON	24	3	41	-22	13	4	0.17	0.03	0.09	1.34	200	0.05	63	91	73	0	7	4	0	0	
OH AKRON-CANTON	52	37	64	21	45	18	0.12	-0.45	0.04	4.33	133	0.12	39	95	79	0	2	3	0	0	
OH CINCINNATI	57	44	66	31	50	21	0.14	-0.50	0.14	4.47	128	0.14	39	93	78	0	1	1	0	0	
OH CLEVELAND	52	35	65	23	43	17	0.07	-0.50	0.05	3.09	92	0.06	19	97	72	0	2	3	0	0	
OH COLUMBUS	56	44	67	34	50	24	0.00	-0.54	0.00	3.46	106	0.00	0	94	82	0	0	0	0	0	
OH DAYTON	54	43	64	33	48	21	0.57	0.01	0.57	4.73	147	0.57	184	95	84	0	0	1	1	0	

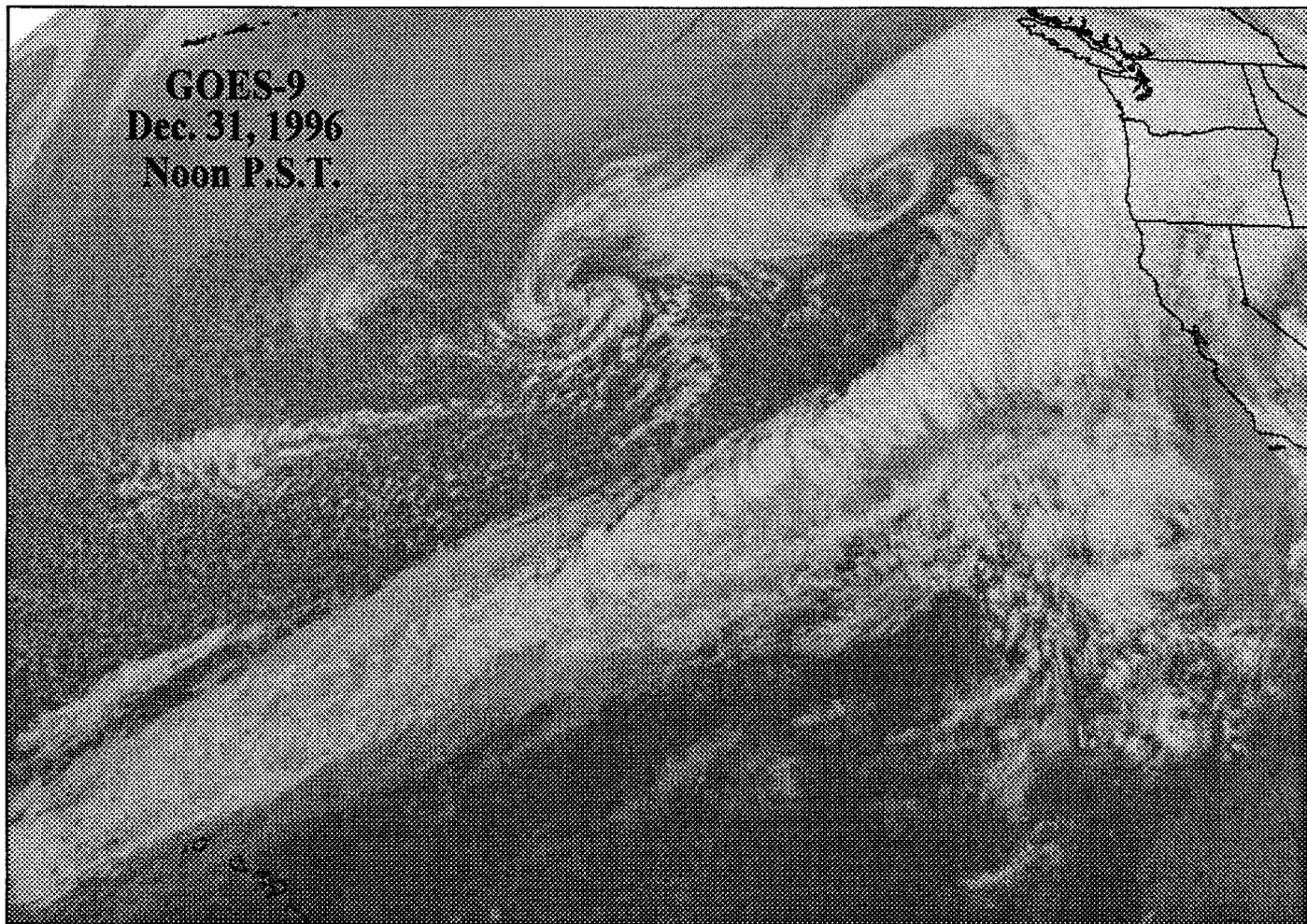
Based on 1961-90 normals

Weather Data for the Week Ending January 4, 1997

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	.05 INCH OR MORE	
OK TOLEDO	49	33	63	28	41	17	0.64	0.12	0.58	3.90	122	0.64	229	97	77	0	3	2	1	
OK YOUNGSTOWN	51	33	64	19	42	17	0.04	-0.52	0.04	3.05	94	0.04	13	96	77	0	3	1	0	
OK OKLAHOMA CITY	68	45	78	28	56	20	0.00	-0.26	0.00	0.00	0	0.00	0	92	48	0	2	0	0	
OR TULSA	66	46	76	28	55	20	0.00	-0.38	0.00	0.10	4	0.00	0	92	63	0	2	0	0	
OR ASTORIA	54	44	61	35	49	8	7.84	5.47	2.33	22.93	192	2.55	186	94	80	0	0	7	6	
OR BURNS	46	30	53	16	38	15	1.29	1.04	0.66	3.98	304	1.03	644	99	71	0	4	5	1	
OR MEDFORD	52	39	58	30	46	9	4.40	3.71	1.71	12.28	332	2.34	600	97	57	0	2	6	4	
OR PENDLETON	49	30	65	7	40	7	0.82	0.26	0.24	2.65	146	0.33	165	94	61	0	3	6	0	
OR PORTLAND	54	40	58	30	47	8	4.33	2.99	1.43	14.44	209	1.09	143	95	70	0	2	7	3	
OR SALEM	54	41	65	30	48	9	5.41	3.94	1.50	16.75	220	2.04	243	98	72	0	1	6	5	
PA ALLENTOWN	44	28	63	10	36	8	0.23	-0.51	0.18	7.33	188	0.02	5	95	70	0	4	4	0	
PA ERIE	48	31	66	18	39	12	0.26	-0.37	0.10	2.40	62	0.08	24	97	80	0	3	4	0	
PA HARRISBURG	-	-	-	-	-	-	0.14	-0.53	-	5.99	166	0.01	3	-	-	-	-	-	-	
PA PHILADELPHIA	48	34	60	16	41	11	0.07	-0.73	0.04	8.52	208	0.04	9	93	69	0	3	2	0	
PA PITTSBURGH	55	41	68	28	48	20	0.03	-0.59	0.02	2.01	62	0.03	9	96	76	0	2	2	0	
PA SCRANTON	42	27	59	10	34	8	0.23	-0.27	0.19	5.41	195	0.04	14	95	75	0	4	2	0	
RI PROVIDENCE	42	26	53	4	34	5	0.25	-0.68	0.12	6.74	137	0.16	30	86	56	0	4	4	0	
SC CHARLESTON	72	53	78	46	62	14	0.04	-0.73	0.03	2.18	60	0.04	9	99	70	0	0	2	0	
SC COLUMBIA	73	51	79	46	62	18	0.01	-0.93	0.01	2.35	56	0.01	2	98	65	0	0	1	0	
SC FLORENCE	71	52	79	43	61	17	-	-	-	-	-	-	-	100	70	0	0	0	0	
SD GREENVILLE	68	51	73	46	60	19	0.19	-0.76	0.09	4.25	90	0.08	15	98	67	0	0	3	0	
SD ABERDEEN	22	8	39	-3	15	6	0.95	0.82	0.64	1.82	314	0.85	1187	92	82	0	7	2	1	
SD HURON	27	13	38	-2	20	6	0.88	0.80	0.70	1.54	302	0.82	1640	89	78	0	7	3	1	
SD RAPID CITY	39	21	52	-4	30	8	0.40	0.31	0.24	1.91	354	0.40	800	90	68	0	5	2	0	
SD SIOUX FALLS	26	13	40	-4	20	6	0.11	-0.03	0.08	0.89	114	0.11	137	82	78	0	7	2	0	
TN CHATTANOOGA	69	55	73	51	62	24	0.26	-0.89	0.12	3.46	59	0.00	0	96	64	0	0	3	0	
TN KNOXVILLE	66	55	71	48	60	23	2.29	1.29	1.48	5.49	107	0.05	9	95	75	0	0	4	1	
TN MEMPHIS	66	54	73	49	60	19	0.00	-1.05	0.00	6.17	99	0.00	0	96	78	0	0	0	0	
TN NASHVILLE	65	51	70	44	58	22	0.85	-0.27	0.60	5.36	106	0.60	118	95	77	0	0	3	1	
TX ABILENE	75	48	82	38	62	19	0.00	-0.22	0.00	0.00	0	0.00	0	93	37	0	0	0	0	
TX AMARILLO	69	32	78	26	51	18	0.00	-0.10	0.00	0.05	11	0.00	0	79	26	0	3	0	0	
TX AUSTIN	78	58	84	47	67	18	0.00	-0.38	0.00	2.19	105	0.00	0	95	50	0	0	0	0	
TX BEAUMONT	72	62	78	56	67	15	0.77	-0.35	0.52	3.28	60	0.00	0	100	83	0	0	3	1	
TX BROWNSVILLE	80	66	82	58	73	13	0.04	-0.29	0.02	0.78	54	0.00	0	97	64	0	0	3	0	
TX CORPUS CHRISTI	80	61	88	55	70	15	0.25	-0.08	0.24	0.74	51	0.01	5	98	64	0	0	2	0	
TX DEL RIO	75	50	83	37	63	13	0.01	-0.22	0.01	0.36	30	0.01	8	99	47	0	0	1	0	
TX EL PASO	67	41	74	28	54	12	0.25	0.14	0.24	0.25	38	0.25	417	53	22	0	1	2	0	
TX FORT WORTH	71	51	78	39	61	19	0.02	-0.41	0.01	0.48	21	0.01	4	98	66	0	0	2	0	
TX GALVESTON	68	62	74	60	65	12	1.16	0.37	0.97	3.70	93	0.14	30	100	90	0	0	3	1	
TX HOUSTON	76	62	80	55	69	18	0.49	-0.45	0.43	3.34	63	0.03	6	97	72	0	0	4	0	
TX LUBBOCK	71	35	80	27	53	14	0.00	-0.09	0.00	0.02	3	0.00	0	93	25	0	3	0	0	
TX MIDLAND	72	40	82	31	56	13	0.02	-0.09	0.02	0.02	4	0.02	33	93	27	0	1	1	0	
TX SAN ANGELO	76	45	82	32	60	17	0.00	-0.17	0.00	0.05	6	0.00	0	93	38	0	1	0	0	
TX SAN ANTONIO	75	55	85	45	65	15	0.28	-0.05	0.27	1.57	93	0.01	5	99	50	0	0	2	0	
TX VICTORIA	78	63	84	60	71	18	1.66	0.94	1.13	3.19	94	1.13	263	99	57	0	0	3	1	
TX WACO	74	50	82	39	62	17	0.00	-0.37	0.00	2.54	124	0.00	0	98	58	0	0	0	0	
TX WICHITA FALLS	72	46	84	33	59	20	0.00	-0.31	0.00	0.00	0	0.00	0	92	41	0	0	0	0	
UT CEDAR CITY	50	33	57	27	42	13	0.60	0.46	0.60	1.58	208	0.60	750	86	53	0	4	1	1	
UT SALT LAKE CITY	54	40	63	25	47	20	0.66	0.37	0.50	2.39	152	0.66	413	73	36	0	1	2	1	
VT BURLINGTON	29	13	46	-8	21	3	0.19	-0.27	0.11	3.97	149	0.13	50	88	65	0	6	4	0	
VA NORFOLK	63	45	72	39	54	14	0.19	-0.62	0.19	3.96	104	0.00	0	98	73	0	0	1	0	
VA RICHMOND	63	42	73	33	53	16	0.13	-0.61	0.07	4.91	133	0.00	0	94	39	0	0	2	0	
VA ROANOKE	67	45	74	35	58	20	0.15	-0.47	0.12	2.67	81	0.02	8	93	56	0	0	3	0	
WA QUILLAYUTE	47	37	54	24	42	3	4.82	1.21	1.53	16.03	92	1.89	87	99	82	0	1	7	3	
WA SEATTLE-TACOMA	49	40	56	27	44	5	5.82	4.52	1.93	13.24	199	1.94	259	99	81	0	1	7	4	
WA SPOKANE	40	28	46	12	34	8	1.47	0.96	0.42	4.39	163	0.29	104	97	76	0	4	6	0	
WA YAKIMA	39	22	49	12	31	2	2.86	2.35	1.09	5.11	332	0.20	118	95	72	0	6	5	2	
WV BECKLEY	60	45	68	36	52	22	0.49	-0.21	0.21	3.10	85	0.04	10	92	67	0	0	4	0	
WV CHARLESTON	62	50	73	40	56	23	0.29	-0.41	0.14	2.04	54	0.00	0	93	70	0	0	3	0	
WV HUNTINGTON	60	49	71	36	55	23	0.20	-0.53	0.14	2.19	56	0.00	0	89	71	0	0	2	0	
WV PARKERSBURG	57	45	71	33	51	20	0.22	-0.48	0.22	2.42	72	0.00	0	95	70	0	0	1	0	
WI GREEN BAY	32	23	37	11	28	12	0.76	0.46	0.67	2.52	149	0.67	394	94	83	0	7	2	1	
WI LACROSSE	32	20	43	3	26	11	0.76	0.51	0.73	2.17	158	0.76	633	96	78	0	6	1	1	
WI MADISON	33	24	42	11	29	11	0.54	0.24	0.54	1.77	99	0.54	318	97	84	0	6	1	1	
WI MILWAUKEE	41	30	60	21	35	15	0.42	-0.02	0.42	1.96	77	0.42	175	96	74	0	3	1	0	
WI WAUSAU	28	22	36	12	25	12	1.17	0.91	0.88	2.74	176	0.97	693	93	62	0	7	4	1	
WY CASPER	48	33	58	0	40	18	0.07	-0.07	0.07	0.58	78	0.07	88	74	53	0	2	1	0	
WY CHEYENNE	53	32	64	16	43	16	0.03	-0.06	0.03	0.04	9	0.03	60	65	36	0	4	1	0	
WY LANDER	52	30	62	20	41	22	0.10	-0.01	0.10	0.41	65	0.10	167	80	41	0	4	1	0	
WY SHERIDAN	43	19	64	-5	31	10	0.07	-0.10	0.07	0.78	94	0.07	78	91	58	0	7	1	0	
PR SAN JUAN	-	73	-	72	-	-	1.79	0.97	-	4.25	87	0.96	213	96	86	-	-	-	-	

Based on 1961-90 normals

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



Western Flood Summary

In general, rivers in western Oregon crested at levels well below those observed in February 1996. The Columbia River at Vancouver peaked at 6.6 feet above flood stage, but 4.6 feet below the February level. Similarly, the Willamette River at Portland surged 5.5 feet above flood stage, but remained 5.1 feet below the February crest. Most rivers in Washington reached flood stage, but the fact that areas to the south absorbed the heaviest rainfall spared the State from flooding like that observed in late 1995. In southwestern Idaho, record flooding developed on the Weiser River, where the river's crest was estimated at a record 7.0 feet above flood stage at Weiser.

In California, the flooding came in two parts, first during the New Year's deluge, followed by a massive release from the Sierra Nevada watersheds after the precipitation ended. The first round of flooding affected small, fast-response rivers north and east of San Francisco Bay, including the Russian and Napa Rivers, which crested well above flood stage but shy of records set largely in 1986 or 1995. During the first several days of 1997, very severe flooding unfolded on both sides of the Sierra Nevada crest as runoff (rainfall and snowmelt) rushed down mountain canyons and spread out into the valleys.

On the east slopes, near-record to record flooding occurred on the entire Walker River system. Several crest records were established along the Truckee River from Lake Tahoe and Truckee, CA, downstream to Reno, NV. On the west slopes, several levee breaks caused extensive flooding and evacuations. Breaches of the Feather River levee near Yuba City and the Cosumnes River levee in Sacramento County resulted in more than 100,000 evacuations. Several record crests were reported, including points along the Tuolumne (at Modesto) and Cosumnes Rivers. By January 7, most river levels were receding, with the exception of the northern San Joaquin River valley, where reservoir releases and continued runoff have kept waters rising.

December Weather and Crop Summary

Weather

Arctic and Pacific air waged battle across the continental United States. The latter eventually overspread the Nation, but not before cold air made a serious but short-lived incursion into the South on December 18-19, delivering in some cases the lowest temperatures in 6 years. But the Northwest paid a steep price for the Pacific warmth, enduring flooding triggered by more than 40 inches of precipitation in the Sierra Nevada and the rapid melting of record snowfall from Washington to western Montana.

Although monthly temperatures averaged up to 9°F below normal in the northern Plains, most of the Nation experienced warmer-than-normal conditions. December-record warmth peppered New England, where departures ranged from +5 to +11°F.

Location	Average	Departure	Former Record
Caribou, ME	26.2°F	+11.4°	24.0°F in 1973
Burlington, VT	32.7°F	+9.7°	31.9°F in 1982
Portland, ME	34.5°F	+8.0°	33.7°F in 1990

The December 18-19 cold outbreak produced lows of 26°F in Tucson, AZ and 29°F in Brownsville, TX, the lowest readings since December 1990. In coastal Texas, Corpus Christi's reading of 21°F was their lowest since December 22, 1989. Farther north, patchy snow cover provided some winter wheat insulation. In Kansas, Goodland's low dipped to -9°F. During a second outbreak, on December 25-26, lows on the central Plains briefly dipped to near 0°F. Meanwhile in Montana, Glasgow's low plunged to -36°F.

In the Northwest, a 12-week wet spell culminated in major flooding at month's end. Monthly precipitation ranged from 200 to 400 percent of normal from Oregon to central California, northeastward into western Montana. Heavy snow fell throughout the Northwestern and North Central States, while rain--especially before mid-December--perpetuated the Northeast's 15-month period of wetness. In contrast, little or no precipitation fell from the southern Rockies into the central and southern Plains. As a result, records for both December-record wetness and dryness were set in various parts of the country:

Location	Total (Inches)	Former Record (Inches)/Year
Eureka, CA	21.26 (all-time)	19.42 in February 1902
Astoria, OR	20.38	16.57 in 1955
Olympia, WA	15.91	14.32 in 1970
Salem, OR	14.71	12.40 in 1964
Portland, OR	13.35	11.12 in 1968
Philadelphia, PA	8.47	7.37 in 1983

El Paso, TX	0.00	not available
Midland, TX	trace	not available
Abilene, TX	trace	not available
Wichita Falls, TX	trace	not available
Albuquerque, NM	trace	not available
Alamosa, CO	trace	trace in 1980 and earlier occasions
Tucson, AZ	trace	trace in 1981 and eight other times
Dodge City, KS	trace	trace in 1957, 1889
Oklahoma City, OK	trace	0.03 in 1955, 1910, 1908
Kansas City, MO	0.03	not available
Topeka, KS	0.04	0.05 in 1979, 1889

Monthly totals along the west slopes of the Sierra Nevada topped 40 inches in several locations, including 43.32 inches in the American River basin at Blue Canyon and 44.67 inches in the Feather River basin at Strawberry Valley. Precipitation fell heavily in the West until mid-month, then resumed more intensely than before around December 20. Toward month's end, freezing levels lifted and arctic air retreated northward, melting massive amounts of snow throughout the Northwest. Nevertheless, the Sierra Nevada snowpack's water equivalent averaged 20 inches (about 160 percent of normal) at year's end. Meanwhile, snow in Washington totaled a December-record 42.7 inches in Spokane (breaking their 1964 record of 42.0 inches), and accumulated to an all-time-record 27 inches in Yakima (eclipsing their December 21, 1964, standard of 22 inches).

Farther east, near-record snowfall blanketed locations such as Duluth, MN (41.7 inches) and Marquette, MI (79.8 inches). For the second consecutive month, snowfall topped 20 inches in

Fargo, ND (20.4 inches) and International Falls, MN (24.7 inches), as frequent white-out conditions continued to plague the North Central States. Some areas from the eastern Great Lakes to interior New England also received heavy snow, including Grand Rapids, MI (24.6 inches) and Worcester, MA (26.8 inches). During the cold outbreak on December 18-19, snow fell as far south as the Gulf Coast, totaling 2.0 inches in Montgomery, AL.

All but western and northern Alaska shared in the northern Plains' cold. Fairbanks' temperature averaged 7°F below normal, resulting in their coldest December since 1980. Precipitation averaged below normal nearly statewide. In Hawaii, heavy rain across Maui County late in the month interrupted an otherwise dry pattern, as the West Coast's impressive moisture fetch remained just north of the islands.

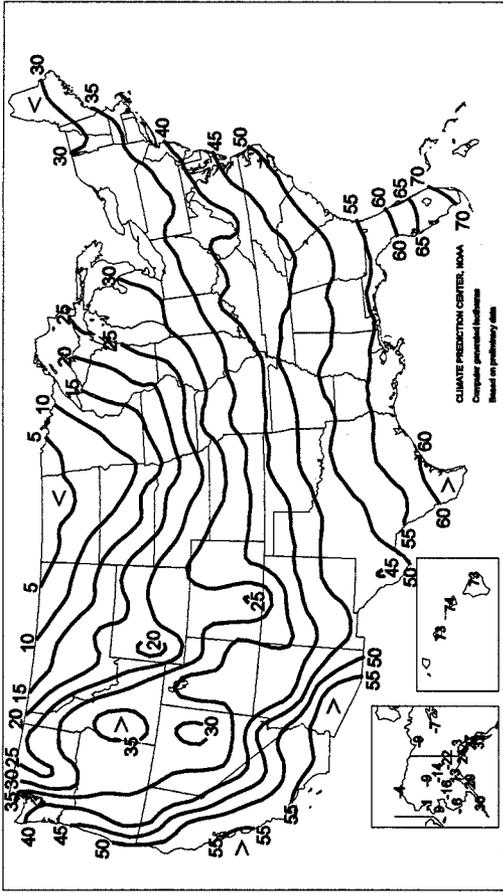
Fieldwork

The month started with heavy rains and high winds along the Pacific Northwest, caused flooding. Wheat producers in the Northern States were concerned about early snow accumulation and the lateness of small grain seedings, while producers in the central High Plains were concerned about the lack of moisture. In the southern Great Plains, cold, wet weather slowed the cotton harvest, but the moisture improved wheat conditions. Wet weather in early December across the Southeast slowed field operations and limited cotton harvest activity. Beneficial rain in Florida aided plants recovering from recent wind damage, but slowed some vegetable harvest for the holiday markets. Cool nights and cloudy conditions have helped citrus trees harden up, with most of the early fruit reported in good condition and coloring well.

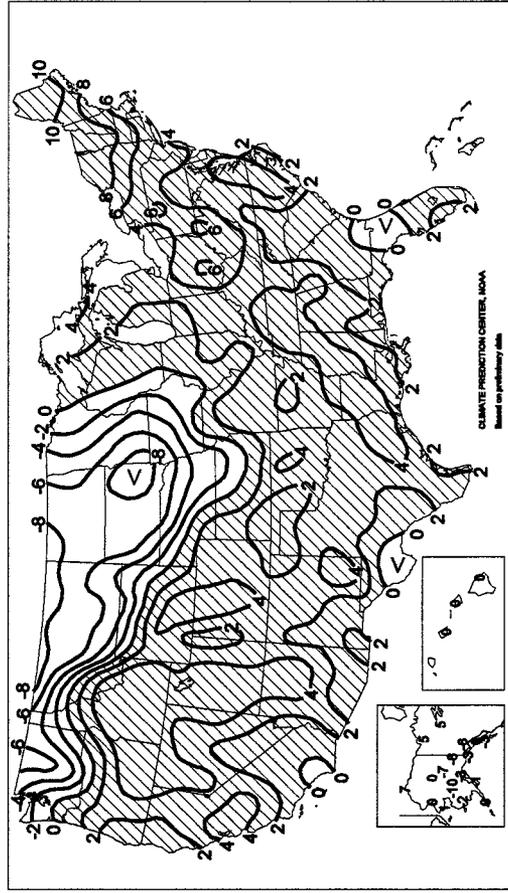
Later in the month, heavy rain continued along the Pacific Coast, causing flooding and leaving many fields too wet for fieldwork. Significant snowfall across the upper Great Plains and Great Lakes region provided adequate snow cover for small grains. Farther south, above-normal temperatures prevailed across the southern Great Plains, generating vigorous winter wheat growth, and allowing cotton producers to make good harvest progress. Continued dry

(Continued on page 9)

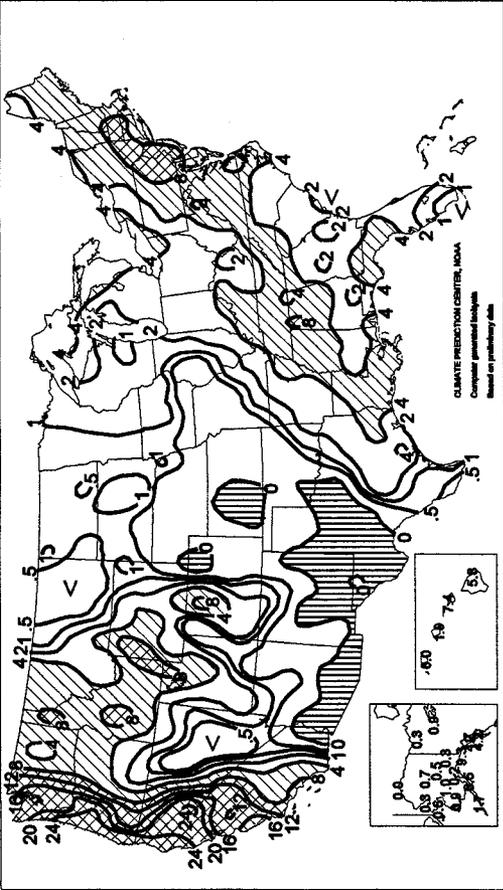
Average Temperature (°F)
December 1996



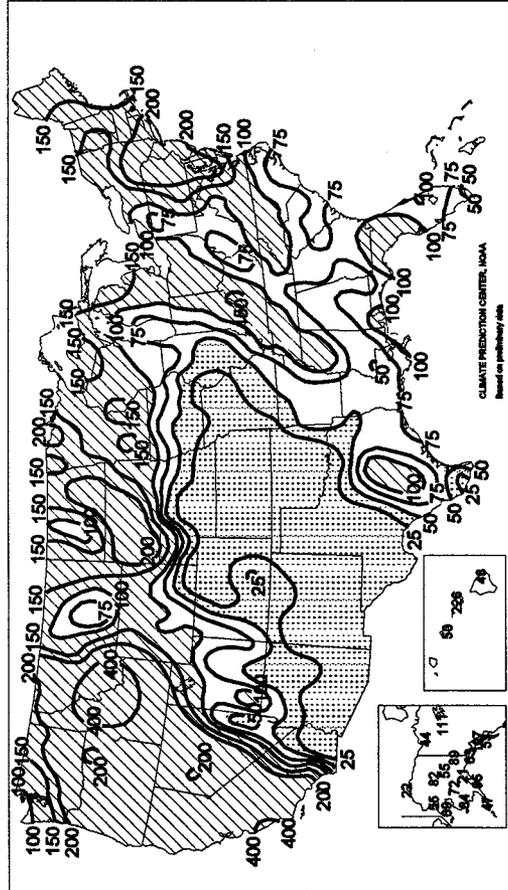
Departure of Average Temperature from Normal (°F)
December 1996



Total Precipitation (Inches)
December 1996



Percent Of Normal Precipitation
December 1996



TEMPERATURE AND PRECIPITATION SUMMARY December 1996

STATES AND STATIONS	TEMP. °F		PRECIP.		STATES AND STATIONS	TEMP. °F		PRECIP.		STATES AND STATIONS	TEMP. °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	49	4	3.28	-1.84	LA BATON ROUGE	55	2	1.83	-3.70	OK YOUNGSTOWN	33	4	3.01	0.08
AL HUNTSVILLE	46	3	4.15	-1.72	LA LAKE CHARLES	57	3	2.42	-2.63	OK OKLAHOMA CITY	42	3	T	-1.40
AL MOBILE	54	1	6.92	1.61	LA NEW ORLEANS	57	3	5.55	-0.20	OK TULSA	42	3	0.10	-2.06
AL MONTGOMERY	51	3	4.20	-0.96	LA SHREVEPORT	51	4	2.24	-2.56	OR ASTORIA	43	1	20.38	9.83
AK ANCHORAGE	13	-3	0.24	-0.88	ME CARIBOU	26	11	3.72	0.50	OR BURNS	30	5	2.95	1.80
AK BARROW	-4	7	0.04	-0.12	ME PORTLAND	34	8	6.53	1.98	OR MEDFORD	41	4	9.94	6.62
AK FAIRBANKS	-14	-7	0.47	-0.38	MD BALTIMORE	40	3	6.78	3.37	OR PENDLETON	34	1	2.32	0.69
AK JUNEAU	27	0	4.74	0.30	MD SALISBURY	43	3	6.26	2.58	OR PORTLAND	41	1	13.35	7.22
AK KODIAK	29	-2	6.49	-0.32	MA BOSTON	39	5	5.76	1.75	OR SALEM	42	3	14.71	7.91
AK NOME	9	1	0.63	-0.20	MA WORCESTER	33	6	6.75	2.70	PA ALLENTOWN	35	4	7.31	3.82
AZ FLAGSTAFF	33	3	0.64	-1.78	MI ALPENA	26	2	5.20	3.17	PA ERIE	34	3	2.32	-1.27
AZ PHOENIX	56	2	0.02	-0.98	MI DETROIT	31	3	2.57	-0.25	PA HARRISBURG	41	7	5.98	2.74
AZ PRESCOTT	40	-2	0.24	-1.39	MI FLINT	29	2	2.06	-0.05	PA PHILADELPHIA	40	6	8.48	4.83
AZ TUSCON	54	2	T	-1.07	MI GRAND RAPIDS	29	1	2.50	-0.35	PA PITTSBURGH	37	5	1.98	-0.94
AZ WINSLOW	-	-	-	-	MI HOUGHTON LAKE	25	2	2.18	0.23	PA SCRANTON	34	4	5.37	2.86
AR YUMA	59	3	0.01	-0.44	MI LANSING	29	3	2.82	0.58	PA WILLIAMSPORT	35	4	5.72	2.69
AR FORT SMITH	44	4	1.86	-1.17	MI MARQUETTE	20	3	4.45	1.84	RI PROVIDENCE	38	6	6.59	2.21
AR LITTLE ROCK	-	-	3.29	-1.40	MI MUSKEGON	29	1	1.94	-1.09	SC CHARLESTON	52	1	2.14	-1.01
CA BAKERSFIELD	50	3	1.72	1.09	MI SAULT ST. MARIE	23	4	4.07	1.19	SC COLUMBIA	48	1	2.34	-1.25
CA BISHOP	-	-	-	-	MN ALEXANDRIA	8	-5	-	-	SC FLORENCE	49	2	-	-
CA EUREKA	51	3	21.26	15.22	MN DULUTH	10	-1	1.51	0.27	SC GREENVILLE	45	2	4.17	0.03
CA FRESNO	49	4	4.28	2.84	MN INT'L FALLS	7	0	1.48	0.64	SD ABERDEEN	8	-9	0.87	0.33
CA LOS ANGELES	58	1	4.74	3.08	MN MINNEAPOLIS	14	-4	1.75	0.67	SD HURON	10	-8	0.72	0.25
CA REDDING	48	4	10.05	4.54	MN ROCHESTER	14	-3	1.37	0.34	SD RAPID CITY	19	-6	1.51	1.04
CA SACRAMENTO	51	6	5.81	3.30	MN ST. CLOUD	10	-4	1.00	0.17	SD SIOUX FALLS	11	-8	0.78	0.08
CA SAN DIEGO	58	0	0.64	-0.93	MS GREENWOOD	51	5	-	-	TN BRISTOL	40	2	3.90	0.51
CA SAN FRANCISCO	54	5	6.80	3.71	MS JACKSON	51	4	3.33	-2.93	TN CHATTANOOGA	45	3	3.46	-1.71
CA STOCKTON	50	5	3.54	1.43	MS MERIDIAN	50	2	2.70	-3.37	TN KNOXVILLE	43	3	5.44	0.90
CO ALAMOSA	22	4	T	-0.44	MS TUPELO	47	3	6.40	0.24	TN MEMPHIS	47	3	6.17	0.43
CO CO. SPRINGS	33	3	0.14	-0.32	MO CAPE GIRARDEAU	39	3	2.84	-1.57	TN NASHVILLE	45	4	4.78	0.15
CO DENVER	33	2	0.06	-0.58	MO COLUMBIA	33	3	0.48	-2.15	TX ABILENE	49	3	T	-1.03
CO GRAND JUNCTION	31	0	0.53	-0.16	MO KANSAS CITY	30	-1	0.03	-1.55	TX AMARILLO	40	3	0.05	-0.38
CO PUEBLO	33	2	0.22	-0.20	MO SAINT LOUIS	36	2	1.00	-2.03	TX AUSTIN	55	3	2.19	0.31
CT BRIDGEPORT	39	5	6.53	3.03	MO SPRINGFIELD	39	3	0.71	-2.00	TX BEAUMONT	57	3	3.26	-1.55
CT HARTFORD	37	6	6.11	2.20	MT BILLINGS	20	-6	0.23	-0.56	TX BROWNSVILLE	64	2	0.78	-0.47
DC WASHINGTON	43	3	5.51	2.39	MT GLASGOW	7	-9	0.51	0.13	TX CORPUS CHRISTI	61	2	0.73	-0.53
FL PANAMA CITY	56	3	-	-	MT GREAT FALLS	16	-8	1.22	0.37	TX DEL RIO	53	1	0.35	-0.75
FL DAYTONA BEACH	61	1	2.01	-0.58	MT HAVRE	11	-7	0.45	-0.08	TX EL PASO	46	3	0.00	-0.67
FL FT. MYERS	67	2	0.91	-0.62	MT HELENA	17	-4	0.66	0.07	TX FORT WORTH	49	4	0.47	-1.63
FL JACKSONVILLE	55	-3	3.24	0.36	MT KALISPELL	18	-4	3.27	1.54	TX GALVESTON	59	3	3.56	0.06
FL KEY WEST	73	1	1.44	-0.58	MT MILES CITY	15	-5	0.44	-0.20	TX HOUSTON	58	5	3.31	-1.51
FL MIAMI	70	1	1.05	-0.78	MT MISSOULA	24	1	4.65	3.49	TX LAREDO	-	-	-	-
FL ORLANDO	62	0	2.14	-0.01	NE GRAND ISLAND	24	-2	0.15	-0.56	TX LUBBOCK	44	3	0.02	-0.51
FL TALLAHASSEE	54	1	6.15	1.12	NE LINCOLN	23	-2	0.12	-0.76	TX MIDLAND	47	2	T	-0.49
FL TAMPA	63	1	2.11	-0.04	NE NORFOLK	17	-5	0.34	-0.40	TX SAN ANGELO	49	3	0.05	-0.74
FL WEST PALM BEACH	69	0	1.58	-0.72	NE NORTH PLATTE	25	1	0.03	-0.44	TX SAN ANTONIO	55	2	1.56	0.05
GA ATHENS	46	1	3.44	-0.85	NE OMAHA	22	-3	0.32	-0.70	TX VICTORIA	59	4	2.06	-0.90
GA ATLANTA	49	4	4.14	-0.19	NE SCOTTSBLUFF	28	2	0.19	-0.37	TX WACO	51	3	2.54	0.68
GA AUGUSTA	48	1	2.08	-1.32	NE VALENTINE	18	-8	0.14	-0.37	TX WICHITA FALLS	46	3	T	-1.58
GA MACON	49	0	3.24	-1.07	NV ELKO	29	3	3.10	2.10	UT BLANDING	-	-	-	-
GA SAVANNAH	53	1	2.70	-0.26	NV ELY	31	5	0.33	-0.37	UT CEDAR CITY	35	4	0.46	-0.24
HI HILO	73	1	6.89	-5.15	NV LAS VEGAS	48	2	0.18	-0.20	UT SALT LAKE CITY	37	7	1.73	0.33
HI HONOLULU	73	-1	1.89	-1.91	NV RENO	39	6	3.03	2.04	VT BURLINGTON	33	10	3.84	1.42
HI KAHULUI	73	0	7.41	4.14	NV WINNEMUCCA	34	4	2.98	2.10	VA LYNCHBURG	40	2	4.37	1.14
ID LIHUE	-	-	-	-	NH CONCORD	31	7	5.84	2.68	VA NORFOLK	47	3	3.86	0.63
ID BOISE	37	7	2.78	1.40	NJ ATLANTIC CITY	40	4	6.59	3.27	VA RICHMOND	44	3	4.91	1.65
ID LEWISTON	35	0	2.82	1.42	NM ALBUQUERQUE	39	4	T	-0.50	VA ROANOKE	39	1	2.65	-0.32
ID POCATELLO	31	6	3.13	2.02	NM CLOVIS	42	4	-	-	VA COLVILLE	-	-	-	-
IL CAIRO	-	-	-	-	NM ROSWELL	46	5	-	-	WA QUILLAYUTE	38	-3	14.34	-1.12
IL CHICAGO	28	1	1.21	-1.26	NY ALBANY	33	7	4.99	2.06	WA SEATTLE-TACOMA	39	-1	11.30	5.39
IL MOLINE	25	0	0.76	-1.47	NY BINGHAMTON	31	5	6.10	3.10	WA SPOKANE	25	-3	4.10	1.68
IL PEORIA	29	2	1.08	-1.36	NY BUFFALO	33	4	3.42	-0.25	WA WALLA WALLA	35	0	-	-
IL QUINCY	30	1	-	-	NY NEW YORK	42	5	4.34	0.94	WA YAKIMA	23	-6	4.07	2.66
IL ROCKFORD	24	0	2.14	0.09	NY ROCHESTER	34	4	2.97	0.24	WV BECKLEY	39	5	3.06	-0.17
IL SPRINGFIELD	32	2	0.72	-2.01	NY SYRACUSE	35	6	4.45	1.25	WV CHARLESTON	41	4	2.04	-1.35
IN EVANSVILLE	38	1	3.51	-0.27	NC ASHEVILLE	40	1	3.92	-0.51	WV ELKINS	37	5	3.39	-0.09
IN FORT WAYNE	30	2	3.27	0.98	NC CHARLOTTE	46	3	2.61	-0.87	WV HUNTINGTON	40	5	2.19	-1.35
IN INDIANAPOLIS	34	3	2.78	-0.58	NC GREENSBORO	41	1	3.84	0.48	WV PARKERSBURG	39	4	2.42	-0.50
IN SOUTH BEND	29	0	2.90	-0.40	NC HATTERAS	50	1	4.31	-0.23	WI GREEN BAY	22	2	1.85	0.32
IA DES MOINES	22	-2	0.95	-0.43	NC NEW BERN	51	4	2.31	-1.37	WI LACROSSE	20	0	1.41	0.14
IA DUBUQUE	21	-1	1.03	-0.93	NC RALEIGH	45	3	2.85	-0.39	WI MADISON	23	1	1.23	-0.41
IA SIOUX CITY	16	-8	0.43	-0.35	NC WILMINGTON	50	3	2.65	-1.42	WI MILWAUKEE	27	3	1.54	-0.79
IA WATERLOO	19	-1	0.91	-0.39	ND BISMARCK	8	-7	0.68	0.17	WI WAUSAU	19	1	1.77	0.34
KS CONCORDIA	28	-2	0.07	-0.77	ND FARGO	6	-5	1.14	0.49	WI CASPER	28	3	0.51	-0.15
KS DODGE CITY	35	2	0.00	-0.65	ND GRAND FORKS	6	-5	0.73	0.09	WI CHEYENNE	30	2	0.01	-0.41
KS GOODLAND	32	2	0.04	-0.37	ND WILLISTON	6	-7	1.29	0.71	WI LANDER	26	5	0.31	-0.27
KS TOPEKA	30	-1	0.04	-1.39	OH AKRON-CANTON	34	3	4.22	1.27	WI SHERIDAN	17	-5	0.71	0.01
KS WICHITA	34	0	0.03	-1.34	OH CINCINNATI	38	4	4.33	1.18	PR SAN JUAN	-	-	3.29	-1.17
KY BOWLING GREEN	42	4	2.91	-2.12	OH CLEVELAND	35	4	3.03	-0.06					
KY JACKSON	42	4	2.72	-1.66	OH COLUMBUS	37	7	3.46	0.48					
KY LEXINGTON	39	3	5.26	1.28	OH DAYTON	36	4	4.16	1.23					
KY LOUISVILLE	41	4	5.47	1.83	OH MANSFIELD	33	3	4.43	1.36					
KY PADUCAH	40	3	4.90	0.22	OH TOLEDO	32	4	3.26	0.33					

Based on 1961-90 normals.

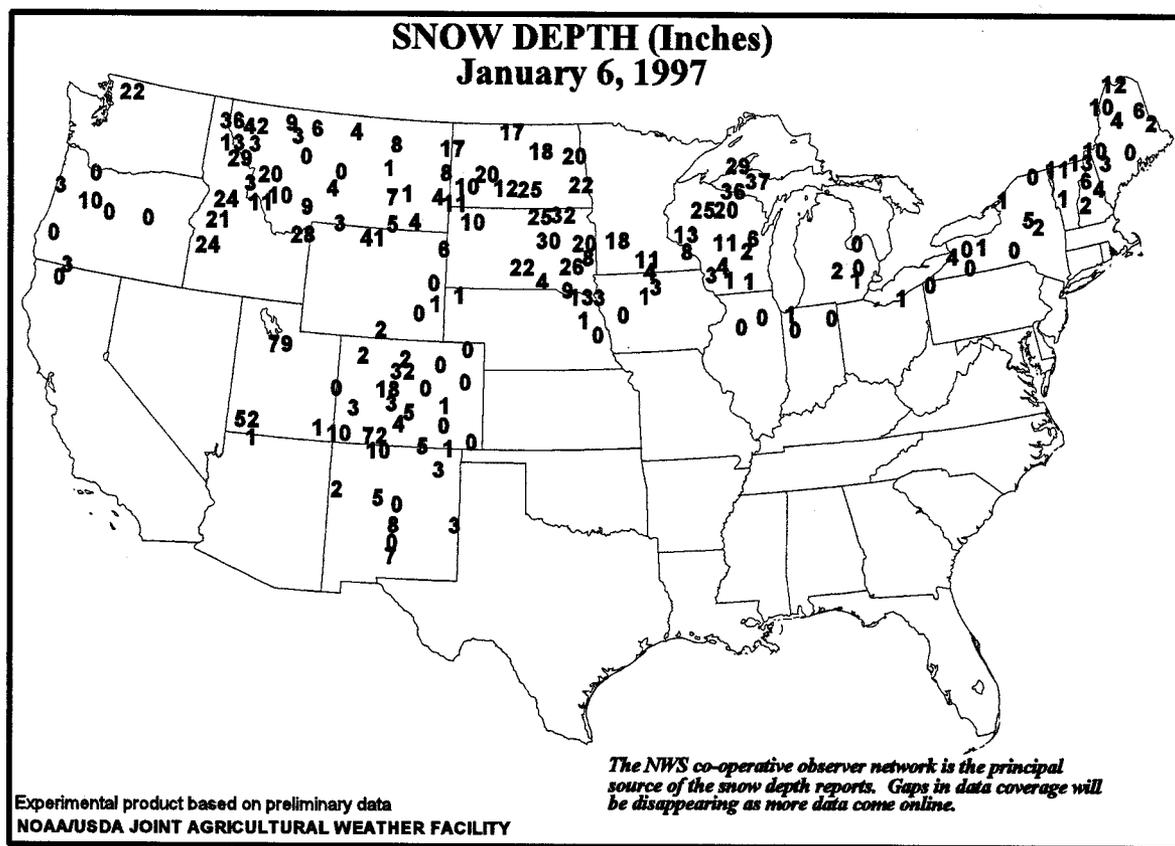
National Agricultural Summary

December 30, 1996 - January 5, 1997

HIGHLIGHTS

Rain and snowmelt in the Pacific Northwest caused flooding that threatened nursery stock and structures. Heavy rain in parts of California delayed ground preparation and harvest activity. A late-week snowstorm in the Northern States increased snow cover for small grains. Scattered rains over the Mississippi and Ohio Valleys brought beneficial moisture for winter wheat. Unseasonably warm

weather in Texas aided small grains affected by previous low temperatures. Persistent dry weather in the southern Great Plains stressed some small grain fields and pastures. The cotton harvest in Texas was virtually completed as the new year started. In Florida, the citrus area received little rain, but warm weather aided new growth. Florida's vegetable region benefited from the mild weather.



(Continued from page 7)

weather in the central High Plains, combined with windy weather, threatened some wheat fields. Dry weather in Florida furnished ideal harvesting conditions, while low temperatures and some scattered frost held new growth on citrus in check.

On December 20, low temperatures hit Florida's citrus belt, but windy weather prevented frost from forming. The cold weather slowed Florida's citrus trees' rate of growth. Most vegetables in south Florida were undamaged by the cold, but a hard frost farther north brought an end to harvest activity. Heavy rain returned to California, causing flooding and disrupting fieldwork. Below-freezing temperatures in parts of south Texas and Louisiana burned some crops' leaves and caused sugarcane producers to quickly complete the harvest of frost-damaged sugarcane. A blizzard across the upper Great Plains and Great Lakes region threatened livestock but provided adequate snow cover for small grains. Completion of the cotton harvest was delayed by precipitation later in the month from the Delta to the Tennessee

Valley. Patchy snow cover in parts of the central Great Plains, combined with very low temperatures, threatened some winter wheat.

At month's end, saturated fields in the Pacific Northwest were overwhelmed by a barrage of moisture that caused flooding. The heavy rain followed snow that caused significant damage and left many farms without electricity. High winds, combined with the freezing rain, threatened ornamental and fruit trees. The excessive downpour and potential flooding jeopardized vineyards in parts of California. Most winter wheat in the Northern States was unharmed by the frigid, sub-zero temperatures due to the substantial snow cover, but farther south, fluctuating temperatures and uneven snow cover in the central Great Plains stressed some exposed winter wheat. The end of December brought a return of mild weather in Florida, aiding vegetables recovering from last week's cold snap. Cool nights in Florida's citrus belt prevented new growth.

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 during December. Wheat condition was mostly good to excellent as fields benefited from showers, mostly mild weather. Unseasonably warm weather from late December to January 5th concerned peach producers. Additional chill hours are needed to prevent premature bloom set. Other activities included general care of livestock, poultry, catfish.

ARIZONA: Farmers were busy harvesting cotton as this year's crop once again continued later than normal. Near the beginning of the month only 88% of the acreage had been harvested, when near 98% complete is average. By month's end 98% of the acreage had been harvested, some fields remained for January harvest. Stalk shredding, plowdown were active. As a result of the late cotton crop, as well as kernal bunt concerns, many small grain fields awaited seeding. Early in the month only 16% of the acreage had been planted. As the month progressed, seeded acreage increased to 53%, remained well behind the average of 81%. Alfalfa hay harvest continued, with 37% of the acreage actively being harvested at the beginning of the month. That did slow considerably, and by month's end, 12% of the acreage had light harvest and 3% had moderate harvest. Hay condition dropped, as expected. Thirty-eight percent of hay was rated in excellent condition in early December, dropping to only 7% late in the month. Sheeping off increased during the month, but hay prices kept some field in production later than normal. Lettuce harvest in the Yuma area gained momentum throughout the month while the Central lettuce deal was mostly complete by mid-month. Melon harvest was mostly light at the beginning of the month and was complete by mid-month. Broccoli, cabbage, napa, and spinach were shipped throughout the month from both the central and western areas. Carrots, green onions, mixed greens, and radishes were among a list of other vegetables shipped from the central area throughout the month. The first cauliflower of the season was shipped from the western area the first week of the month. Western growers also shipped endive, escarole, and celery during the month. A cold snap just before the holidays had citrus growers taking precautions with little or no damage being reported. Lemon, grapefruit, and navels were packed and shipped throughout the month. Harvest of the State's pecan and apple crops was active. A limited volume of tangerines was available by mid-month. Grazing conditions have been downgraded slightly across the State, as precipitation was recorded only during the second week of December and then, only in Northern areas of the State. High elevation and low elevation grazing land was reported as two-thirds fair or better condition, while mid-elevation pastures were reported as 50% fair or better. Dry winds and heavy elk predation continued to be a nuisance to cattlemen. Cattle and calves were reported in mostly fair condition. Supplemental feeding was necessary for a few cattlemen. Stock water supplies continued short to adequate, but soil moisture supplies remained mostly short. Insect damage was negligible.

ARKANSAS: Main farming activities: Harvesting soybeans, cotton, ginning cotton, planting late wheat. Surplus soil moisture detained fieldwork. Harvest continued to fall behind schedule. Cotton ginning continued in several counties. To date, 99.9% of cotton has been ginned. Some producers attempted to plant wheat in December. Wheat conditions varied around the State. Wheat in several counties is standing in water. Warm weather assisted cattle producers in slowing down hay consumption. Livestock remain in good condition across the State.

CALIFORNIA: The month of December was notable for two tropical fronts that moved in from the Pacific. The mid-month system brought

moisture and warmer-than-normal temperatures. As the month ended, a huge tropical air mass blanketed the northern areas. The warm rain on upper elevations would result in considerable flooding in the valleys downstream. The progress of field activities in December was hampered by rain, wet soils in most areas. Cotton was harvested between rains. Plowdown for pink bollworm control was delayed. Small grains, winter forages were fertilized, sprayed aerially for broadleaf weeds in the Sacramento, San Joaquin valleys before the rains began. Some dryland wheat, new alfalfa fields were seeded in Fresno, Tulare Counties where conditions permitted. Emerging wheat, barley, forage crops, sugar beets, alfalfa grew well in most areas. Wheat growth in fields with heavier soils was stunted by excessive moisture. Alfalfa was treated for weeds in the Sacramento Valley. Ground preparation for planting next year's row crops was ongoing in the southern San Joaquin Valley. Pruning of vineyards, orchards was slowed by the rainy weather this month. Growers applied dormant spray in stone fruit orchards where conditions permitted. Navel orange and lemon harvests were slowed by wet weather. Rain slowed the harvesting of vegetables in central, northern counties. Broccoli, cauliflower were harvested in the Salinas-Watsonville area, in the San Joaquin Valley. Lettuce harvest continued in the Imperial Valley. Carrots were harvested in Kern County. Winter potatoes were harvested in the Perris-Hemet area. Parsley harvest continued. Green beans were harvested in Tulare County. Spring potato planting continued in Kern County. Harvest of brussels sprouts progressed in Monterey County. Cabbage was harvested in Imperial and Fresno Counties. Onion harvest continued in the Antelope Valley, Monterey County. Garlic was progressing well in the San Joaquin Valley. Forage quality of rangeland and pastures slowly improved throughout the month. Movement of livestock to winter pastures continued. Supplemental feeding was ongoing in some areas. Sheep were grazing in alfalfa and sudan grass. Livestock were in good condition.

COLORADO: The month of December was characterized by a wide range of temperatures. There was heavy snowfall in the mountain areas, but the Front Range and eastern Plains areas did not receive any significant amounts of moisture. This causes problems for the winter wheat crop because of insufficient coverage to protect the crop from cold, windy conditions. Also, the lack of moisture hinders the potential seed development of the winter wheat crop in the spring. Major farm activities include the caring and feeding of livestock, attending producer meetings, farm shows, tax gathering information.

DELAWARE: Small grains generally in good condition. Late seeding and cool weather in the fall have caused delays in some areas, stands look even. Flooding in low lying areas has created problems. Some sorghum, soybeans still in the field due to harvesting delays. Hay supplies vary. Some areas report shortages, while others report adequate supplies. Quality is variable due to excessive rain in the late summer. Livestock and poultry are in good condition with no major problems. Activities: Still waiting to harvest some sorghum and soybeans, pruning fruit trees, cleaning poultry houses (wet conditions are causing delays in spreading manure on fields), repairing equipment, catching up on paper work, and preparing for spring planting.

FLORIDA: Topsoil moisture adequate to surplus, Panhandle; Short to adequate northern Peninsula. Southern Peninsula moisture short to adequate. Sugarcane harvest active. Sugarcane planting winding down. Growers starting to plant tobacco beds. Very warm, dry

weather providing nearly ideal conditions for vegetable planting, harvesting; causing vegetables to rapidly reach maturity. Foggy mornings delaying some starting of fieldwork. Growers irrigating fields as needed. Vegetables available: Tomatoes, peppers, cucumbers, cabbage, snap beans, squash, strawberries, carrots, radishes, sweet corn, eggplant, lettuce, okra, parsley. Citrus areas had warm temperatures, very little if any rain. Citrus growers were irrigating. Harvest of all early and mid-season citrus fruit is increasing following the holidays. Grove caretakers cutting cover crops, fertilizing, hedging, topping. Pasture feed very poor 5%, poor 10%, fair 50%, good 35%. West central, southern pastures in poor condition due to lack of moisture. Small grain/winter pasture in Panhandle improved, helped by warmer weather. Condition of cattle herds; fair 60%, good 40%.

GEORGIA: Soil moisture adequate. Warm moist weather throughout the State has helped small grains get off to a good start. Some fields at end of December too wet to support equipment. Pecan harvest is about 93% complete. Small grain plantings approximately 99% complete. Soybean harvest nearing completion, about 99%. Cotton harvest complete or nearing completion throughout the State. All crops in good condition. Pastures rated mostly fair. Cattle, hogs mostly good. Activities for the month include pruning peach trees, clean up of fields, farm equipment maintenance.

HAWAII: Days suitable for fieldwork 6.5. Weather was variable for agriculture. High winds during first half of week caused damage to orchards and exposed crops. Rains, heavy at times, slowed or interrupted field operations in most areas. Rainfall continued to replenish soil moisture supplies, although some areas saturated. Hanalei river on Kauai overflowed, inundated adjacent taro fields. Fruit production light. Vegetable production light to moderate. Pastures, forage supplies in previously dry areas improved.

IDAHO: Precipitation during December was well above normal. Some low lying areas in the north, southwest have experienced severe flooding. Winter wheat 10% fair, 58% good, 32% excellent. Hay, roughage supply 7% very short, 35% short, 56% adequate, 2% surplus. Activities: Feeding livestock, equipment repair, farm planning, attending educational meetings, harvesting mink pelts.

ILLINOIS: Topsoil 11% surplus, 72% adequate, 14% short, 3% very short. Temperature fluctuations throughout the State have caused problems for livestock producers. Some lots are muddy, making it hard for cattle to stand. Hay is being fed faster than normal, some reporters expressed concern about availability of future supply. Many reporters stated that the winter wheat crop is bare, susceptible to damage if the weather turns much colder. Other activities included caring for livestock, winterizing equipment, hauling grain. Winter wheat 10% excellent, 61% good, 24% fair, 5% poor.

INDIANA: Rain, snow, wet field conditions have kept farmers out of fields during virtually all of December. Some counties have several fields of corn, scattered fields of soybeans remaining for harvest. Most of the corn remaining for harvest is located in the eastern, southern areas of the State. Farmers are hoping for a hard freeze to help wind up corn, soybean harvest. Lodging, mold are serious problems in remaining corn fields. Winter wheat is mostly in good condition. Livestock reported in mostly good condition. Hay supplies are short, some areas. Major activities: Limited tillage, chopping stalks, spreading fertilizer and lime, hauling grain, repairing buildings, tiling, winterizing equipment, attending meetings, purchasing supplies, recordingkeeping, and caring for livestock.

IOWA: Summary for December 1996. Average depth of snow cover 4 inches; average depth of frost penetration 13 inches. Soil moisture availability 1% very short, 6% short, 82% adequate, 11% surplus. Grain movement was light and was inhibited largely by bad weather and road conditions in the northern third of the State. Grain

movement was rated 13% none, 55% light, 30% moderate, 2% heavy. Availability of hay and roughage for livestock feed was short 19%, adequate 77%, and surplus 4%. Quality of hay and roughage was poor 7%, fair 48%, and good 45%. Utilization of stubble fields for grazing was 27% none, 26% light, 33% moderate, and 14% extensive. Extreme changes in weather have been hard on livestock. Incidence of advanced PRRS has affected some hog operations. Hog, pig losses 6% below average, 89% average, 5% above average; cattle, calf losses 10% below average, 85% average, 5% above average.

KANSAS: Winter wheat remained in mostly good to excellent at the end of December. Winter wheat 82% good to excellent, 17% fair, 1% poor at the month's end. A general lack of precipitation across most of the State during December resulted in dry surface moisture in western areas. This has created a potential blowing problem for some fields, although wind damage has been very light across the State through December. The wheat crop lacks snow cover across the State, little freeze damage has occurred to date. Open weather has allowed cows, stockers to remain on wheat, corn, milo stubble, pasture. Supplemental feeding is underway, with current hay, forage conditions generally adequate. Southeastern areas of the State have seen muddy conditions during December which stressed livestock. During December, the remaining fields of soybeans and milo were harvested.

KENTUCKY: Rainfall through December kept soil moisture generally adequate to surplus. Months' temperatures generally above normal limiting livestock stress except for short period of colder weather after mid-month. Supplemental feeding of cattle at moderate level most of period. Hay supplies remain adequate all areas. Lack of extreme cold temperatures has maintained generally good winter wheat crop conditions. Burley tobacco stripping made good progress as humidity levels were favorable most of month. Gross Burley sales volume through 12/19 was 297.4 million lbs. Auctions recessed for the Christmas break and will resume on Monday, January 6, 1997. Burley cooperatives have not received any tobacco this season. Average price \$192.33 per cwt. Routine farm chores conducted during the Holidays.

LOUISIANA: Days suitable for fieldwork 15.6. Soil moisture supplies in the northern portion of the State were generally adequate. Soil moisture supplies in the southern portion of the State were generally surplus. Temperatures were above normal for most of the month, the exception occurring around the middle of the month when temperatures dipped into the teens. Corn growers began preparing ground for planting. Sugarcane producers wrapped up harvesting activities as mills closed for the Christmas holidays. Rice growers began preparation for the coming year's crop. Some growers were building levees. Wheat producers finished planting, applied fertilizer to emerging fields. Sweet potatoes producers were busy packing potatoes for sale. Vegetables growers were spraying strawberry plants to control disease, harvesting greenhouse tomatoes. Livestock producers were active feeding hay, supplemental feeds to their herds. Crawfish producers harvested a few crawfish to supply restaurants. Pasture feed low temperatures mid-month halted growth of winter pastures, growth resumed toward the end of the month with the advent of warmer temperatures.

MARYLAND: Small grains in fair to good condition. High moisture, late planting causing problems in some areas. Wet weather has also delayed the completion of soybean, sorghum harvest. Hay supplies are short to adequate. Quality hay is short in many areas. A good corn crop provided a good supply of feed. Livestock in good condition. Warmer temperatures have allowed farmers to use pastures longer. Activities: tending livestock, trying to haul manure, waiting to finish harvest of fall crops, preparing for spring planting.

MICHIGAN: Farmers finished corn and soybean harvest as snow came and went. Completing harvest, spreading manure, tilling fields

were activities during the month. Winter wheat, alfalfa were exposed to some frost damage with alternating freezing, thawing. Topsoil moisture is in surplus due to snow melt, rains. Livestock conditions are good throughout the State. Hay is in short supply with high prices while other feed supplies are adequate.

MINNESOTA: Ice storms caused widespread, prolonged electrical outages in the southwest; also raised concerns over possible alfalfa winterkill. Snow later in the month accumulated to greater than normal depths across most of the State, created hardships for producers trying to feed livestock, keep yards, roads clear, move grain to market. Supplies of hay, silage are fairly tight, prices have increased accordingly.

MISSISSIPPI: Main farming activities included: Completing harvest of 1996 crops, feeding, tending livestock. The weather during December was extremely mild except one week when temperatures were in the teens, so winter grasses, wheat conditions were reported as fair to good. Cattle conditions were fair to good with hay in adequate supply due to later than normal feeding required.

MISSOURI: Topsoil moisture 6% short, 75% adequate, 19% surplus. Farmers remained busy during December with general farm activities, maintenance work. Some farmers completed row-crop harvesting activities which had been delayed by a wet November, while others were busy hauling grain and hay. Condition of winter wheat, 7% poor, 45% fair, 43% good, 5% excellent, with the most favorable ratings found west central, southwest. Supply of hay and other roughage 5% very short, 24% short, 67% adequate, 4% surplus. Some significant hay supply shortages are noted in the central, east central, southern third of State. Stock water supplies, 3% short, 92% adequate, 5% surplus. General condition of livestock, 3% poor, 21% fair, 69% good, 7% excellent.

MONTANA: Very cold temperatures, much snowfall during the first part of the month. Winter wheat condition rated at 3% poor, 55% fair, 38% good, 4% excellent. Protectiveness of Snow Cover on Winter Wheat 2% very poor, 9% poor, 46% fair, 26% good, 17% excellent. Wind damage to date on Winter Wheat 78% none, 17% light, 4% moderate, 1% heavy. Nearly 95% of the cattle and sheep were receiving supplemental feed. Grazing was rated only 15% open, 49% difficult, 36% closed.

NEBRASKA: December moisture in the form of rain and snow amounted to more than an inch in the east, north. Fieldwork activities were very limited due to wet soils, snow cover. More moisture was needed in southwest as less than 0.25 in. was recorded for the month. Farm stored grain needed attention during December as producers were running grain driers to aerate grain and protect against hot spots developing. Winter wheat 5% poor, 34% fair, 56% good, 5% excellent; the lack of snow cover, extreme cold weather conditions during December have been a source of concern for winter wheat. Corn, sorghum harvest activities continued where conditions permitted as producers worked toward wrapping-up the 1996 harvest. Feed grain supplies 1% short, 84% adequate, 15% surplus. Hay, forage supplies 10% short, 86% adequate, 4% surplus. Activities during December; marketing, delivering grain, record keeping, financial planning, livestock care, equipment repair and maintenance, and routine chores.

NEVADA: Above-normal precipitation was received at most locations during the month, culminating in flooding in the West commencing on New Year's day. Low lying fields along the Carson, Walker rivers were flooded, causing losses of alfalfa, winter grains, garlic. Extensive damage was done to irrigation ditches, canals, levees. Greatly increased mountain snow packs enhanced irrigation water supply outlook for the coming growing season. Main farm, ranch activities: Livestock feeding, livestock marketing, equipment maintenance.

NEW ENGLAND: Major farm activities: Tending livestock. Storm clean-up in early December, due to a significant amount of wet snow, tree damage. Winter lambing began in early December. Good year for Christmas tree sales. Potato growers in Aroostook County, Maine, on high alert for disease problems in storage.

NEW JERSEY: Activities during December: all vegetables harvested with the possible exception of cabbage, spinach. Few corn, soybeans fields remain unharvested because of extremely wet conditions. Other crop activities included movement of nursery stock, equipment, machinery repairs, deer hunting as a pest control measure, the spraying, pruning, and removal of trees.

NEW MEXICO: Month of December began with temperatures well above normal but after the middle of the month an arctic air mass pushed through the State dropping temperatures far below normal. Dry weather continued with most areas of the State receiving zero precipitation for the month. Supplemental feeding continues to take place in most counties. Farming activities consisted of turning crop stubble, land preparation for spring crops, end of the year bookkeeping, general maintenance.

NEW YORK: Abnormally warm, wet conditions dominated the month. Only one cold snap occurred, that lasted only a week. The wetness has made outside activities difficult, short cold spell made conditions worse. Most of the State lacks significant snowfall and much of the ground does not have frost. This contributes to messy conditions. Fieldwork cannot progress until the ground freezes enough to support machinery. Producers attended meetings and trade shows during the month while making plans for the upcoming year.

NORTH CAROLINA: Very warm weather was accompanied with rainfall throughout the State continuing to keep farmers out of the fields. Soil moisture 20% adequate, 80% surplus. Days suitable for fieldwork 2.9. Crop conditions: Oats 5% poor, 31% fair, 63% good, 1% excellent; barley 2% poor, 20% fair, 76% good, 2% excellent; rye 1% poor, 32% fair, 67% good; pasture feed 2% very poor, 16% poor, 41% fair, 39% good, 2% excellent. Activities included: Maintaining pastures; tending livestock; repairing equipment; general farm maintenance.

NORTH DAKOTA: Snowfall, below-normal temperatures, and high winds made travel difficult, raised concerns over livestock conditions, increased livestock feed requirements. Poor road conditions, depressed prices slowed grain marketing. State average snow depth was 19.3 in., up from 14.1 in. last month, up from 7.8 in. 1995. Snow cover sufficient to protect 100% of alfalfa. Livestock condition decreased from last month. Cattle 4% poor, 37% fair, 55% good, 4% excellent; sheep 3% poor, 37% fair, 56% good, 4% excellent. Hay, forage supplies were 4% very short, 22% short, 71% adequate, 3% surplus. All livestock receiving supplemental feed. Cattle sales: 11% below normal, 83% normal, 6% above normal.

OHIO: Topsoil moisture mostly adequate to surplus. Most counties in the northwestern half of State still have a few scattered fields of unharvested corn, soybeans. Winter wheat is rated 1% very poor, 8% poor, 24% fair, 51% good, 16% excellent. Warm weather has caused some wheat fields to come out of dormancy. This could help build root mass, which is below normal this winter. However, some agents expressed concern that a sudden drop in temperatures would cause winterkill. No heaving problems were reported but a hand full of the reporters mentioned standing water as a problem, while others claimed that little or no water damage had occurred in their counties. Despite the generally good condition rating, most reporters commented that a significant portion of the crop was susceptible to weather related damage. Lack of snow cover, coupled with below normal root mass, is the main cause for concern.

OKLAHOMA: Mild weather prevailed over the State, with only small amounts of rain received in southeastern. Cotton harvest continued. Supplemental feeding of cattle continued active across the State.

OREGON: Activities: Nursery digging, container movement continued. Winter orchard pruning continued statewide. Cattle, sheep good/excellent. Eastern cattle mostly in winter quarters, supplemental feed. Western pastures very wet conditions, supplemental feed. Western sections: above normal precipitation, mudslides, stream flooding. Eastern sections: increased snow pack in high elevations.

PENNSYLVANIA: Major activities for December were hauling manure, fixing fences, caring for livestock.

PUERTO RICO: No weather data available.

SOUTH CAROLINA: Excellent weather through the month allowed farmers to finish cotton, soybean harvesting ahead of normal, with excellent yields reported in most areas. Small grain planting was virtually completed, some tobacco bed preparation was underway. Small grains, winter grazing were in good to very good condition, although in some areas, rainfall was needed for continued growth, development. Pastures, livestock were in mostly good condition.

SOUTH DAKOTA: December was bitterly cold with abundant snowfall. Temperatures most of the month were well below normal; some areas reached -30°. A mid-month blizzard left an abundance of snow. It also caused high livestock death losses in some areas. Statewide, the average snow depth was 19.4 in. Virtually no crops were harvested during the month, leaving about 6% of the corn, 1% of the sorghum, 5% of the sunflowers still in the field. Snow cover was sufficient enough to protect 93% of the alfalfa, 97% of the winter rye, 88% of the winter wheat. Severe blowing that left some crops vulnerable to cold temperatures and a layer of ice under the snow could result in some winterkill. Winter wheat 2% very poor, 4% poor, 29% fair, 61% good, 4% excellent. Winter rye 27% fair, 62% good, 11% excellent. Cold temperatures stressed livestock, limited weight gain. Cattle rated 6% poor, 31% fair, 57% good, 6% excellent. Sheep rated 1% very poor, 10% poor, 29% fair, 49% good, 11% excellent. Feed supplies rated 1% very short, 16% short, 80% adequate, 3% excellent. Accessible feed supplies are dwindling rapidly because producers are feeding more with the low temperatures and drifted snow has made it difficult to move hay from fields.

TENNESSEE: Wet, unseasonably warm weather, during December, has been the main topic for farmers in State, as they were kept out of fields for most of the month. A few days of warm, dry weather hit the State, which farmers took advantage of to seed wheat and harvest cotton, soybeans. The wheat crop remains in mostly good condition, with some fields fair due to standing waters. A few cotton, soybean fields remain unharvested due to the rain, it is uncertain at this time whether the remaining acres will be harvested.

TEXAS: Wide, rapid changes in weather patterns dominated the State during December. Month was ushered in with cold, wet conditions in most areas of the State. The second week of December saw a warming trend, only to give way to the coldest temperatures so far this winter during the third week. The citrus crop in the Rio Grande Valley was spared any serious damage however there was some leaf burn reported. Some late fall vegetables were lost to the cold temperatures. Extremely cold temperatures in the Plains caused some setbacks in the winter wheat crop, however because the moisture conditions were good, damage will probably be minimal. The month ended with unseasonably warm conditions, allowing land preparations to continue without much delay. Scattered

fields in North Central Texas did receive some damage from these cold temperatures. Cotton harvest moved ahead with on minimal delays from cold, damp conditions and was virtually completed by the end of the month. Livestock were suffering from the wide swings in temperatures. Haying activity increased, decreased, increased, then decreased again. Protein supplementing remained active. Nearly all areas of the State received some beneficial rainfall during the month.

UTAH: Major farm, ranch activities: Feeding livestock, hauling manure, tillage, building projects, maintenance. There was also reseeding of rangeland that was burned last summer by range fires. Supplies were adequate, and in some areas, corn silage was in surplus. Cattle, sheep were in good condition. Fall seeded grains were in good condition.

VIRGINIA: Hard freeze needed to allow harvest of limited acres of corn, cotton, soybeans. Cool weather prevented late cotton from developing. Small grain crops appear on schedule, most areas. However, some fields too wet to seed. Producers scouting small grain crops for aphids. Wet conditions delayed fall plowing, cultivation. Tobacco stripping, marketing winding down. Fruit trees, grapes being pruned. Livestock doing well, most areas. Muddy pastures some localities. Hay quantity excellent, quality below average. Other activities include tending to livestock, tax preparation, equipment repair, fence repair, planning, attending producer meetings.

WASHINGTON: As December came to a close, temperatures 2° below to 10° above normal west; 5° below to 9° above normal east. Accumulated precipitation by the end of December was 109% to 149% of normal west; 42% to 244% of normal east. A series of storms moved across the State, bringing very heavy snow and rain statewide. Ice storms and flooding did heavy damage to both sides of the State. Hundreds of thousands of households were without electricity for several days following Christmas, mainly on the west side of the State. Topsoil moisture 60% adequate and 40% surplus; subsoil 85% adequate, 15% surplus. Hay, other roughage supplies, 25% short, 74% adequate, 1% surplus. All counties reported widespread feeding of hay due to very heavy snowfall. Eastern Washington reported good stands of winter wheat with adequate moisture and good snow cover. Pruning was the major activity in the fruit producing areas of central Washington. Sanding of cranberry bogs continued in Pacific County. On the west side of the State, the Christmas tree, wreath businesses were in the final clean-up stage.

WEST VIRGINIA: Activities for month of December: Continued wet conditions, lack of freezing temperatures have made fieldwork difficult. Corn harvest almost complete, harvest has been difficult due to high moisture level in grain, field conditions. Mild weather has required less hay feeding than normal. Tobacco producers taking tobacco to market. Equipment repair, fence repairs, general farm maintenance, hauling manure, bookkeeping.

WISCONSIN: As of late December, frost depths averaged 5.0 inches, compared with the normal of 7.4 inches. However, one year ago the frost level was 4.2 inches deeper, at 9.2 inches. The snow depth was 8.8 inches, 2.9 inches above the normal average of 5.9 inches. Depending on the weather, farmers were busy moving the large amounts of snow, hauling manure to the fields, or doing general chores. Above average temperatures made outside work easier.

WYOMING: Topsoil moisture supplies 22% short, 54% adequate, 24% surplus. Subsoil moisture supplies 30% short, 49% adequate, 21% surplus. Average depth of snow cover: 4.6 inches. The northeast received little to no snow. Winter wheat condition 89% fair, 11% good. Winter wheat wind damage 6% none, 82% light, 12% moderate. Winter wheat freeze damage 35% none, 65% light. Cattle and sheep were in mostly good condition. Hay and roughage supplies 42% short, 47% adequate, 11% surplus.

International Weather and Crop Summary

December 29, 1996 - January 4, 1997

HIGHLIGHTS

FSU-WESTERN: Bitter cold threatened winter grains in Russia, Ukraine, Belarus, and the Baltics.

EUROPE: Frigid air stressed winter grains over most of the continent.

NORTHWESTERN AFRICA: Heavy rain in Morocco kept soils waterlogged, creating the potential for some flooding.

AUSTRALIA: Warm, showery weather covered the main summer crop areas.

SOUTH ASIA: Seasonable dryness aided summer crop harvesting and brought additional flood relief to the far south.

SOUTH AFRICA: Heavy rain broke dry spells in the western corn belt and coastal sugarcane regions.

SOUTHEAST ASIA: Heavy showers caused flooding in central Java, while drier weather prevailed across Indochina, easing flooding.

EASTERN ASIA: Cooler weather prompted winter wheat to enter dormancy across the North China Plain.

SOUTH AMERICA: In central Argentina, variable showers, along with warm weather, favored winter wheat harvesting and summer crop development. Scattered showers continued to aid vegetative soybeans across southern Brazil.

December 1996

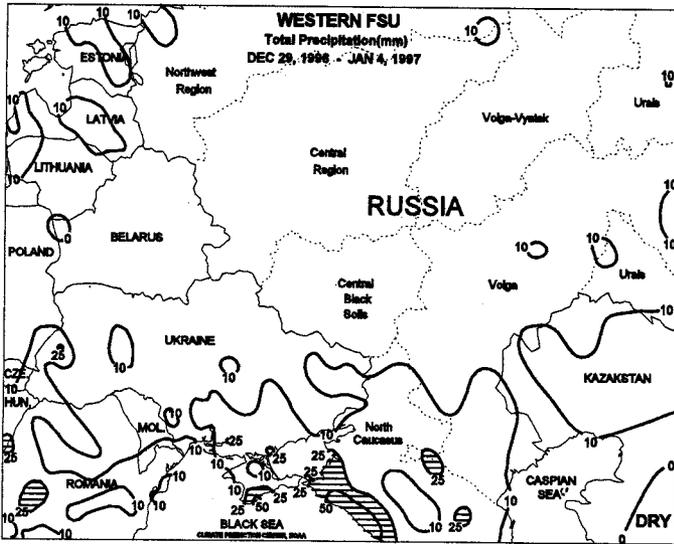
**MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE PREDICTION CENTER-NCEP-NWS-NOAA
***=DATA NOT AVAILABLE**

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY OSLO	-5	-10	4	-22	-8	-2.0	80	-5
SWEDEN STOCKHOLM	-2	-5	6	-17	-3	-2.2	34	-13
FINLND HELSINKI	-2	-7	5	-27	-5	-0.6	40	-17
U KING GLASGOW	6	1	10	-7	3	-1.8	78	-39
EDINBURGH	6	1	10	-7	3	-0.8	61	3
BIRMINGHAM	5	0	12	-8	3	-1.7	44	-22
LONDON	6	2	13	-4	4	-1.7	20	-58
IRELND DUBLIN	7	3	11	-4	5	-1.2	54	-22
ICELND REYKJAVIK	2	-1	8	-9	1	0.9	51	-28
DENMRK COPENHAGEN	1	-3	6	-12	-1	-3.2	14	-35
LUXEMB LUXEMBOURG	1	-3	8	-13	-1	-2.2	51	-28
SWITZL ZURICH	1	-2	10	-13	-1	-1.2	73	-4
GENEVA	4	0	11	-7	2	0.5	116	30
FRANCE PARIS/ORLY	4	1	12	-10	3	***	25	**
STRASBOURG	2	-2	13	-15	0	-2.0	51	9
BOURGES	5	1	14	-11	3	-0.8	93	31
BORDEAUX	10	4	19	-8	7	1.0	59	-39
TOULOUSE	10	5	16	-6	7	1.5	63	8
MARSEILLE	13	7	19	-5	10	2.9	40	-15
SPAIN VALLADOLID	9	3	15	-5	6	1.9	87	46
MADRID	11	5	17	-4	8	2.0	100	55
SEVILLE	16	11	21	2	**	***	269	185
PORTUG LISBON	15	10	19	8	13	1.0	289	185
GERMNY HAMBURG	1	-3	9	-14	-1	-2.9	32	-40
BERLIN	0	-4	9	-15	-2	-3.6	11	-42
DUSSELDORF	2	-2	9	-13	0	-2.8	44	-14
LEIPZIG	-1	-5	8	-20	-3	-4.5	26	-12
DRESDEN	-2	-5	8	-21	-3	-3.8	36	-1
STUTTGART	1	-4	11	-17	-2	-2.2	33	-14
NURNBERG	0	-5	10	-22	-3	-3.4	26	-27
AUSTRI VIENNA	-1	-4	8	-21	-3	-3.4	7	-30
INNSBRUCK	2	-5	12	-15	-2	-0.4	32	-19
CZECH PRAGUE	-3	-7	6	-23	-5	-4.8	16	-8
POLAND WARSAW	-3	-7	3	-21	-5	-4.4	5	-27
LODZ	-4	-8	5	-21	-6	-4.6	6	-36
KATOWICE	-3	-8	6	-24	-5	-4.2	12	-32
PRZEMYSL	-4	-7	6	-26	-5	-4.5	35	-5
HUNGAR BUDAPEST	0	-3	7	-16	-2	-2.0	59	18
F YUGO BELGRADE	4	0	16	-12	2	-0.2	95	37
ROMANI BUCHAREST	3	-1	13	-17	1	0.2	37	-9
BULGAR SOFIA	5	0	17	-13	2	1.9	50	0
ITALY MILAN	8	3	14	-7	6	3.5	110	55
VERONA	7	1	13	-9	4	1.3	130	79
VENICE	8	2	14	-9	5	1.5	100	51
GENOA	12	7	16	-4	9	0.1	132	24
ROME	14	5	19	-4	9	0.1	147	57
NAPLES	15	8	21	-1	12	2.1	126	9
GREECE THESSALONIKA	11	5	21	-2	8	1.2	51	-5
LARISSA	11	5	20	-1	8	1.4	50	-4
ATHENS	16	10	19	2	13	0.5	92	27
TURKEY ISTANBUL	12	8	17	0	10	2.2	133	42
ANKARA	9	2	15	-6	5	3.7	75	46
CYPRUS LARNACA	20	11	24	7	16	1.7	35	-68
ESTONI TALLINN	-1	-5	5	-15	-3	-0.4	74	20
FSU ST.PETERSBRG	-4	-7	6	-25	-5	-0.8	46	-1
LITHUA KAUNAS	-5	-9	2	-31	-7	-4.8	27	-18
FSU MINSK	-5	-9	7	-28	-7	-2.6	68	20
KAZAN	-9	-13	2	-32	-11	-2.1	34	-2
MOSCOW	-6	-9	5	-27	-7	-1.4	22	-28
YEKATERINBURG	-9	-12	2	-27	-10	0.0	14	-9
OMSK	-11	-17	0	-37	-14	0.7	39	19
KUSTANAY	-10	-16	4	-36	-13	-0.7	25	6
NOVOSTBIRSK	-11	-17	2	-35	-14	2.3	31	8
BARNAUL	-10	-17	6	-35	-14	-0.1	31	2
KHABAROVSK	-17	-26	-2	-33	-22	-4.3	14	-5
VLADIVOSTOK	-6	-12	4	-18	-9	0.8	14	-2
KIEV	-2	-5	7	-23	-4	-1.6	28	-16
LVOV	-3	-7	13	-23	-5	-3.2	71	19
KIROVOGRAD	-2	-5	8	-22	-4	-1.4	11	-27
ODESSA	2	-2	13	-20	0	-1.5	40	-8

Based on Preliminary Reports

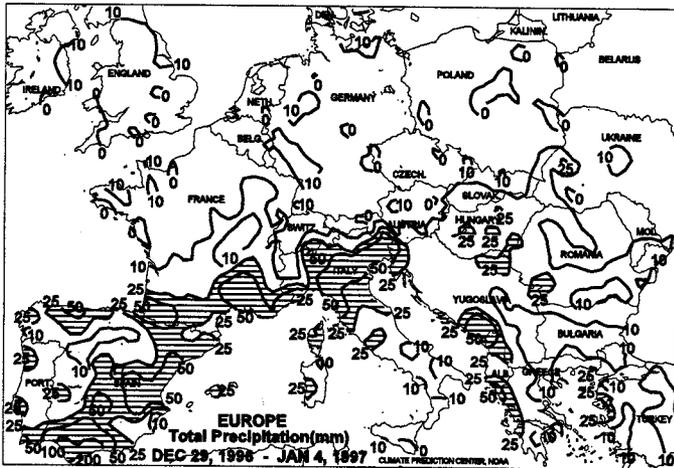
December 1996

COUNTRY CITY		TEMPERATURE (C)					PRECIPITATION (MM)		COUNTRY CITY		TEMPERATURE (C)					PRECIPITATION (MM)			
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM			AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
FSU	YALTA	10	6	17	-5	8	1.4	122	42	ETHIOP	ADDIS ABABA	**	**	24	4	**	***	**	**
	SARATOV	-7	-11	2	-28	-9	-1.3	30	-2	KENYA	NAIROBI	26	14	28	10	20	0.4	11	-68
	KHARKOV	-4	-7	8	-23	-5	-2.0	23	-22	TANZAN	DAR ES SALAAM	32	24	33	17	28	0.6	12	-90
	VOLGOGRAD	-4	-9	10	-24	-7	-1.5	42	-3	GABON	LIBREVILLE	29	**	30	20	**	***	159	-177
	ROSTOV	-1	-5	9	-20	-3	-2.0	80	7	TOGO	LOME	**	**	33	24	**	***	0	-9
	ASTRAKHAN	1	-5	10	-23	-2	0.0	35	21	B FASO	OUAGADOUGOU	35	18	37	14	27	1.5	0	0
	KRASNODAR	5	0	15	-12	2	0.4	114	39	IVRY C	ABIDJAN	30	25	32	23	28	0.6	43	-34
	ORENBURG	-8	-18	2	-36	-12	-2.7	27	-4	MOZAMB	MAPUTO	31	23	39	19	27	1.5	98	21
	TSELINOGRAD	-7	-15	2	-31	-11	3.8	19	10	ZAMBIA	LUSAKA	**	**	31	16	**	***	**	**
	KARAGANDA	-5	-12	3	-25	-9	2.5	22	3	ZIMBAB	HARARE	**	**	30	15	**	***	**	**
	TBILISI	10	4	16	-3	7	2.9	33	7	S AFRI	PRETORIA	28	17	31	15	23	0.8	99	-7
	TASHKENT	13	2	22	-6	8	4.4	5	-46		JOHANNESBURG	25	14	28	12	20	0.8	117	13
	ASHKhabad	15	0	25	-11	8	3.2	4	-20		BETHAL	25	13	30	10	19	0.0	125	0
SYRIA	DAMASCUS	16	4	22	-1	10	2.5	28	-23		DURBAN	28	21	33	17	24	1.2	72	-31
ISRAEL	JERUSALEM	16	7	22	4	12	1.5	75	-42		CAPE TOWN	24	15	31	10	20	0.0	21	2
PAKIST	KARACHI	28	12	31	8	20	0.2	0	-4	CANADA	TORONTO	3	-3	12	-15	0	2.9	96	30
INDIA	AMRITSAR	22	3	25	-2	12	-0.4	0	-17		MONTREAL	2	-4	11	-21	-1	5.5	89	3
	NEW DELHI	23	8	26	2	15	-1.0	0	-10		WINNIPEG	-14	-23	0	-37	-18	-3.7	18	0
	AHMEDABAD	30	13	36	11	22	0.2	0	-3		REGINA	-13	-24	1	-41	-18	-4.8	0	-16
	INDORE	28	10	31	6	19	0.6	0	-10		SASKATOON	-14	-25	-1	-39	-19	-4.4	17	0
	CALCUTTA	27	13	28	9	20	-0.7	0	-3		LETHBRIDGE	-6	-17	4	-37	-11	-4.8	31	11
	VERAVAL	31	18	33	12	24	1.1	0	0		CALGARY	-9	-20	3	-38	-14	-6.1	19	6
	BOMBAY	33	19	35	15	26	1.1	0	-1		EDMONTON	-11	-20	2	-33	-16	-5.1	8	-15
	POONA	28	11	30	6	20	-0.6	0	-7		VANCOUVER	4	-1	9	-12	1	-2.0	278	99
	BEGAMPET	28	15	30	11	22	0.3	0	-7	MEXICO	GUADALAJARA	22	8	28	6	15	-0.8	0	-17
	VISHAKHAPATNAM	28	21	29	18	24	***	9	**		MEXICO CITY	22	9	25	6	15	2.9	18	-1
	MADRAS	28	21	31	18	25	-0.1	434	276		ACAPULCO	32	22	34	21	27	0.5	10	7
	MANGALORE	33	21	36	18	27	0.4	11	-7	BERMUD	ST. GEORGES	20	17	21	13	19	-0.2	121	5
H KONG	KINGS PEAK	22	18	27	13	19	***	0	**	BAHAMA	NASSAU	28	19	29	14	22	0.6	20	-36
N KREA	PYONGYANG	**	**	8	-15	**	***	**	**	JAMAIC	KINGSTON	31	22	32	21	26	0.0	1	-34
S KREA	SEOUL	6	-2	13	-11	2	3.4	12	-20	P RICO	SAN JUAN	**	23	**	21	**	***	53	-67
JAPAN	SAPPORO	2	-3	8	-10	-1	0.6	103	3	GUADEL	RAIZET	29	21	31	16	25	0.4	75	-19
	NAGOYA	12	3	19	-1	7	1.1	62	22	MARTINQ	LAMENTIN	29	22	31	19	26	0.8	83	-89
	TOKYO	13	6	19	2	10	1.6	50	4	BARBAD	BRIDGETOWN	29	24	30	19	26	0.4	31	-73
	YOKOHAMA	13	8	18	3	9	1.9	51	-7	TRINID	PORT OF SPAIN	31	23	32	21	27	1.5	53	-83
	KYOTO	12	3	17	0	8	1.3	71	25	COLOMB	BOGOTA	20	8	22	2	13	-0.1	35	-12
	OSAKA	13	5	18	1	9	0.9	103	69	VENEZU	CARACAS	30	23	32	21	27	1.2	106	58
THAILN	PHETCHABUN	30	17	34	11	23	0.5	4	4	F GUIA	CAYENNE	31	23	31	22	27	1.1	98	-264
	BANGKOK	31	22	35	17	26	0.3	0	-12	BRAZIL	FORTALEZA	30	25	31	23	28	0.5	12	-56
MALAYS	KUALA LUMPUR	31	23	33	22	27	1.2	211	-20		RECIFE	**	**	30	21	**	***	33	-27
VIETNM	HANOI	22	16	26	13	19	0.4	5	-15		BELO HORIZONTE	28	19	31	18	24	0.6	348	31
CHINA	HARBIN	-10	-19	1	-27	-14	3.1	1	-4		CAMPO GRANDE	30	22	33	19	26	1.2	147	-72
	HAMI	-2	-14	3	-17	-8	-0.9	0	-1		FRANCA	27	19	30	14	23	4.0	230	-48
	LANCHOW	3	-9	7	-12	-3	1.5	0	-1		RIO DE JANEIRO	**	**	29	21	**	***	**	**
	BEIJING	6	-3	16	-9	1	3.1	3	1		LONDRINA	28	21	32	16	24	1.1	221	-18
	TIENTSIN	5	-4	12	-10	0	1.5	3	-2		SANTA MARIA	30	20	40	13	25	2.1	215	81
	LHASA	10	-8	16	-11	1	1.5	1	1		PORTO ALEGRE	30	20	36	15	25	1.2	7	-81
	KUNMING	14	5	21	2	10	1.6	7	-10	PERU	LIMA	23	18	28	16	21	-0.6	0	0
	CHENGCHOW	10	-1	19	-6	5	3.6	0	-10	BOLIVI	LA PAZ	13	3	16	0	8	-1.5	104	2
	YECHANG	14	5	20	0	9	2.2	0	-22	CHILE	SANTIAGO	28	11	32	6	20	-0.1	5	2
	HANKOW	13	4	19	-1	8	3.1	0	-27	ARGENT	IGUAZU	30	20	35	15	25	***	345	**
	CHUNGKING	11	7	16	3	9	***	5	**		FORMOSA	31	22	37	16	27	0.4	309	164
	CHIHKIANG	14	5	21	1	10	2.1	22	-13		CERES	30	18	36	12	24	-0.4	227	98
	WU HU	12	2	19	-3	7	***	12	**		CORDOBA	29	17	34	11	23	0.0	221	77
	SHANGHAI	11	4	18	-2	8	***	16	**		RIO CUARTO	28	17	35	12	23	0.4	91	-51
	NANCHANG	14	4	18	1	9	1.1	28	-13		ROSARIO	30	19	34	13	24	1.1	80	-44
	TAIPEI	20	16	25	10	18	0.7	20	-54		BUENOS AIRES	30	18	35	10	24	2.0	43	-50
	CANTON	21	12	26	7	16	1.3	2	-23		SANTO ROSA	27	15	35	9	21	-1.2	380	295
	NANNING	20	12	27	9	16	1.4	11	-12		TRES ARROYOS	25	15	34	9	20	0.1	174	79
CNRY I	LAS PALMAS	23	16	29	14	20	1.6	29	7	N CALD	NOUMEA	30	23	33	20	26	1.5	60	-13
MOROCC	CASABLANCA	18	12	24	8	15	2.1	360	278	FUJI	NAUSORI	30	25	33	23	27	2.2	140	-123
	MARRAKECH	19	9	24	5	14	1.7	60	34	SAMOA	PAGO PAGO	31	26	33	24	29	1.5	279	-86
ALGERI	ALGER	19	8	26	-2	14	1.9	32	-77	TAHITI	PAPEETE	30	24	32	21	27	0.5	154	-146
	BATNA	15	4	23	-4	9	3.4	15	-15	PA N G	PORT MORESBY	31	24	33	23	27	-0.4	106	-21
TUNISI	TUNIS	19	10	27	2	14	1.8	35	-29	AUSTRL	DARWIN	31	25	34	22	28	-1.2	680	426
NIGER	NIAMEY	35	17	37	11	26	1.2	0	0		BRISBANE	27	20	34	16	23	-1.1	142	-5
MALI	TIMBUKTU	32	18	35	10	25	3.0	0	0		PERTH	27	15	39	10	21	-1.1	9	-1
	BAMAKO	33	19	36	16	28	1.4	0	0		CEDUNA	25	14	40	5	20	-1.2	4	-13
MAURIT	NOUAKHOTT	**	**	27	15	**	***	**	**		ADELAIDE	24	14	37	10	19	-1.2	13	-12
SENEGL	DAKAR	27	22	31	20	24	1.6	0	0		MELBOURNE	20	10	34	5	15	-2.8	16	-33
CHAG A	DIEGO GARCIA	**	27	34	25	**	***	110	-155		WAGGA	28	12	38	5	20	-1.7	49	-1
LIBYA	TRIPOLI	21	11	30	4	16	2.8	19	-26		CANBERRA	24	10	33	6	17	-1.4	81	8
	BENGHAZI	19	11	24	8	15	0.7	57	-10	INDONE	DJAKARTA	31	24	34	22	27	0.7	231	**



FSU-WESTERN

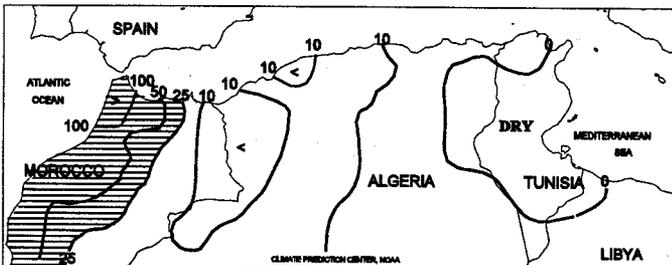
Bitterly cold weather continued to prevail over winter grain areas in Russia, Ukraine, Belarus, and the Baltics, and was accompanied by light, widespread snow (less than 10 mm liquid equivalent). Lowest temperatures (-20 to -30 degrees C) occurred early in the week, with a gradual warming trend as the week progressed. Furthermore, weekly temperatures averaged 7 to 13 degrees C below normal over most areas. A shallow to moderate snow cover provided protection from extreme cold in most areas. However, snow cover was patchy in a band that stretched across the northern Ukraine eastward into Russia (northern tip of North Caucasus and central Volga Valley), leaving winter grains vulnerable to potential freeze damage.



EUROPE

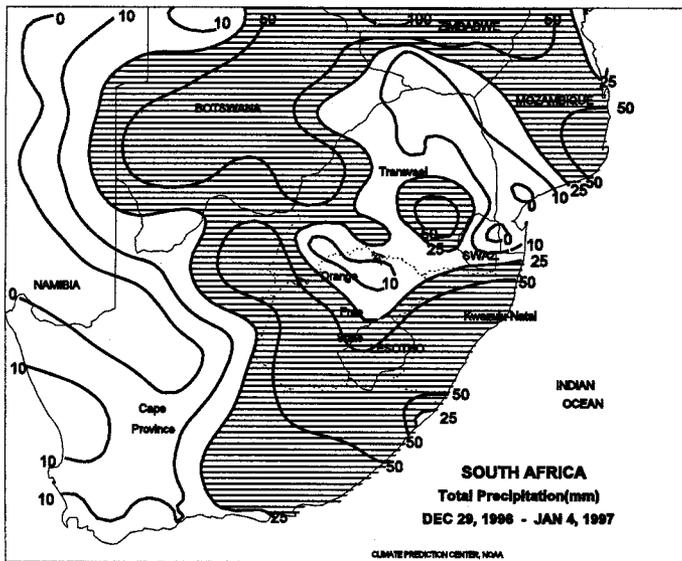
Frigid air prevailed across most of northern Europe, stressing winter crops. Minimum temperatures in the Netherlands, Belgium, and western Germany ranged from -15 to -20 degrees C, while temperatures in eastern Germany, the Czech Republic, and Poland ranged from -20 to -27 degrees C. A variable snow cover in eastern Germany and central Poland created the potential for some crop damage, especially to winter oilseeds and barley, which are less resistant to extreme cold than winter wheat or rye. Farther west, extreme minimum temperatures in England and France ranged from -5 to -15 degrees C, where a shallow snow cover was sufficient to protect overwintering crops. In southeastern Europe, heavy snow (10-25 mm liquid equivalent) accompanied the Arctic chill, providing a fresh blanket of snow for overwintering crops. Although near to below-freezing temperatures plunged as far south as northern citrus areas in Italy and Greece, temperatures did not fall low enough to cause significant damage to fruit or trees. Temperatures in citrus areas in Spain remained above freezing.

NORTHWEST AFRICA Total Precipitation (mm)
DEC 29, 1996 - JAN 4, 1997



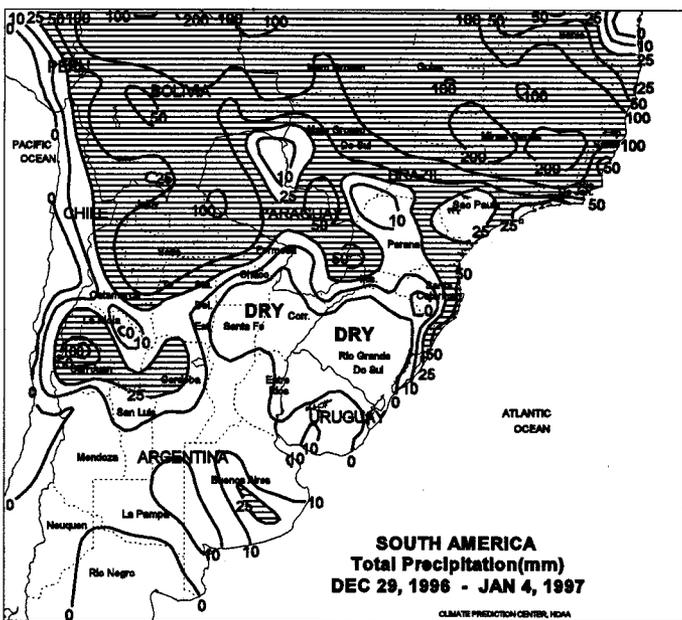
NORTHWESTERN AFRICA

Heavy rain in Morocco (50 to over 100 mm) kept soils waterlogged, causing further delays in late-season winter grain planting and increasing the potential for some flooding. Farther east, light showers (2-22 mm) fell in western Algeria, while mostly dry weather prevailed over central and eastern Algeria and Tunisia. Unfavorable dryness in Algeria and Tunisia since the beginning of the growing season has created highly adverse conditions for winter grain planting and crop establishment. Rain is needed soon to avert significant declines in crop production.



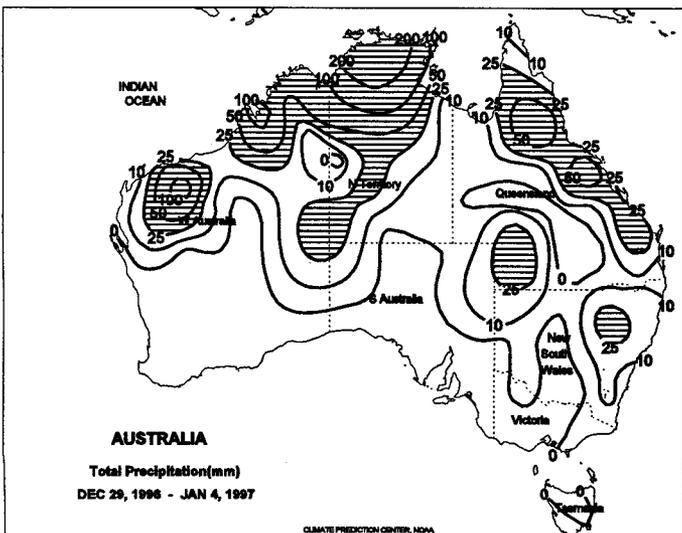
SOUTH AFRICA

Moderate to heavy showers (25-50 mm or more) covered a broad section of the western corn belt, ending a drying trend that had depleted topsoil moisture reserves. In contrast, drier weather returned to the central and eastern corn belt, with only a few locations reporting rainfall of 25 to 50 mm or greater. However, those areas were wet last week, and now most of the corn belt has received a soaking rain just prior to crops entering reproduction. Highs across the corn belt peaked at about 28 to 32 degrees C, favoring crop development. Elsewhere, moderate to heavy rain (25-50 mm or more) covered most coastal crop areas, including the coastal sugarcane area of Kwazulu-Natal that had been trending dry.



SOUTH AMERICA

In central Argentina, warm weather (maximum temperatures ranging from 33-37 degrees C) aided winter wheat harvesting and summer crop development. Occasional light to moderate showers (8-25 mm) fell across Buenos Aires, maintaining soil moisture for vegetative to reproductive corn and vegetative soybeans. However, southern Santa Fe and Cordoba received little or no rain, where the warm weather increased evapotranspiration rates. Periods of dryness between the showers allowed winter wheat harvesting to progress in Buenos Aires. As of the end of December, about 70 percent of the winter wheat crop had been harvested. In southern Brazil and southern Paraguay, scattered showers (10-60 mm) fell across Mato Grosso do Sul and Parana, keeping soils moist for vegetative soybeans. Dry weather prevailed across Rio Grande do Sul, where soil moisture is adequate due to previous rainfall. Widespread heavy showers (80-160 mm) covered Mato Grosso, Goias, and Minas Gerais, boosting soil moisture for soybeans. However, excessive showers (amounts greater than 200 mm) likely caused flooding across southern and western Minas Gerais. Temperatures averaged 1 to 3 degrees C above normal across central Argentina and most of southern Brazil.

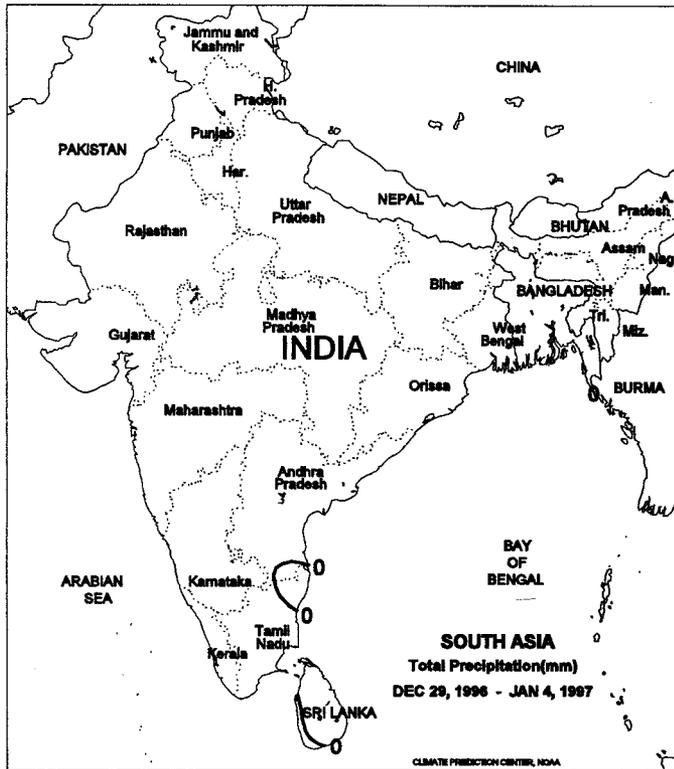


AUSTRALIA

Scattered showers (10-25 mm or more, exceeding 50 mm locally) fell along the eastern coast, benefiting the main sugarcane areas (Queensland and northern New South Wales). The rain spread inland, reaching eastern sorghum and cotton areas as well, but rainfall declined west of Darling Downs. Most western pasture and grazing land was dry, although a pocket of beneficial showers (10-36 mm) covered southwestern Queensland.

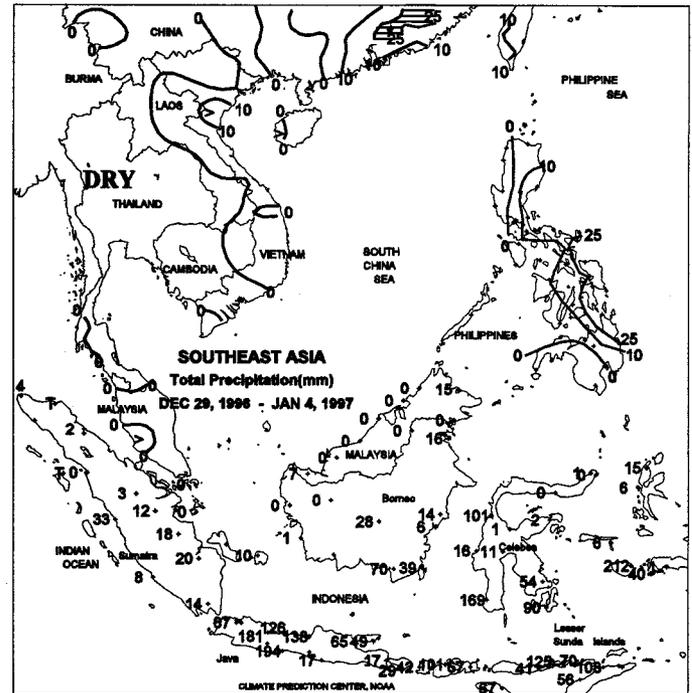
SOUTH ASIA

Seasonable dryness throughout the region favored grain, oilseed, and cotton harvests. The dry weather in southern India was especially welcomed for coastal rice, still recovering from prior excessive rain and flooding. Winter grain and oilseed plantings should be nearing completion. Weekly summaries are being suspended until June, when the southwest monsoon typically commences. In the meantime, regular updates will appear with the publication of monthly analyses.



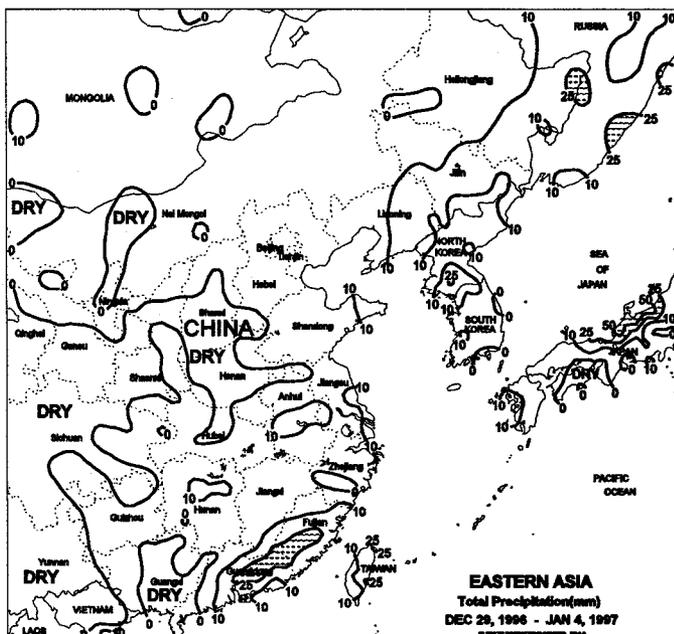
SOUTHEAST ASIA

Heavy showers (80-180 mm) covered central Java, causing some flooding, but boosting irrigation supplies for main-season rice. Elsewhere in Java, rainfall ranged from 10 to 50 mm, maintaining moisture supplies. Mostly dry weather prevailed across Indochina, aiding rice harvesting. The dryness also eased excessive wetness across central Vietnam and peninsular Thailand and Malaysia. Moderate showers (10-50 mm) fell across the eastern Philippines, increasing moisture supplies for second-season grains. Elsewhere in the Philippines, mostly dry weather prevailed.



EASTERN ASIA

Cooler weather (weekly average temperatures less than 5 degrees C) prompted winter wheat to enter dormancy across the North China Plain. Very light precipitation (less than 5 mm) fell across the eastern North China Plain, with widespread snow (5-18 mm liquid equivalent) across Manchuria. Central China received light rain (3-8 mm), with extreme southern China (Guangdong and Fujian) reporting moderate rainfall (10-30 mm).



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(Continued from front cover)

The flood-affected area, from Washington to western Montana, southward to central California and western Nevada, has been inundated frequently in recent years. In February 1996, western Oregon was particularly hard-hit, just 2 months after near-record to record flooding swept through river basins in western Washington. And in January and March 1995, California weathered back-to-back flood events. This time, Blue Canyon, CA, on the heels of December precipitation that totaled 43.32 inches, netted 14.48 inches during a 48-hour period on December 31 - January 2. Blue Canyon, which lies in the American River basin and typically receives 10.46 inches in December and 62.67 inches in an average year, collected 59.26 inches during the 34-day period ending January 3. Closer to the coast, Eureka's December rainfall was 21.26 inches, bettering their all-time monthly mark of 19.02 inches, set in February 1902. Even on the San Joaquin Valley floor, Fresno posted a record season-to-date rainfall (8.95 inches) through January 2.

In addition to the rainfall, high winds buffeted the region early in the week. On Sunday, winds reached 87 mph near Reno, NV, and gusts in excess of 100 mph were clocked along the Oregon coast. Farther north, snow changed to rain, but not before as much as 1 to 2 feet buried western Washington, even at sea level. Seattle reported about 12.0 inches. East of the Cascades, snow and freezing rain lingered on Sunday. In Washington, 12.0 inches of snow blanketed Yakima on December 29, leaving their depth at an all-time-record 27 inches. Another 6.2 inches in Spokane lifted their monthly total to a December-record 42.7 inches. Monthly snowfall in Montana reached 54.1 inches in Missoula and 47.4 inches in Kalispell. In western Oregon, the late-month rainfall boosted totals to December-record levels in Astoria

(20.38 inches), Salem (14.71 inches), and Portland (13.35 inches). Olympia, WA (15.91 inches) also collected December-record rainfall.

Only 2 days after snow and freezing rain ended in Washington, daily-record highs on December 31 included 69°F in Walla Walla and 56°F in Seattle. Farther east, the warmth peaked on Thursday with January-record highs in Laramie, WY (59°F), Colorado Springs, CO (73°F), and Pueblo, CO (81°F). A day earlier, Pensacola, FL welcomed the New Year with a third consecutive daily-record high (80°F). The thaw briefly reached heavily snow-covered portions of the North Central States. In North Dakota, Grand Forks' maximum of 40°F on January 2 marked their first above-freezing high since November 8. Despite the warm-up, December snowfall approached record levels in locations such as Duluth, MN (41.7 inches) and Marquette, MI (79.8 inches). Heavy snow returned to the region at week's end, accompanied by windy, colder conditions. On Saturday, snowfall included 10.7 inches in Fargo, ND, 12.8 inches in Aberdeen, SD, 13.5 inches in Duluth, and 16.1 inches in Marquette. Peak wind gusts ranged from 40 to 50 mph across the Dakotas.

Cooler air overspread the Nation at week's end, forcing warmth to retreat into the South and East. On Friday, highs rose to 84°F in Wichita Falls, TX and 74°F in Roanoke, VA. A final day of record warmth graced the Midwest at week's end, as highs surged to 65°F in Peoria, IL and 61°F in Jackson, MI. Farther south, Corpus Christi, TX noted 88°F. But as cooler air arrived, showers and thunderstorms dropped about 1 inch of rain on locations such as Indianapolis, IN and Birmingham, AL. Meanwhile, light precipitation and milder air spread into the Northeast, replacing snow and early- to midweek temperatures that dropped to 0°F as far south as southern New England.

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