

# WEEKLY WEATHER AND CROP BULLETIN

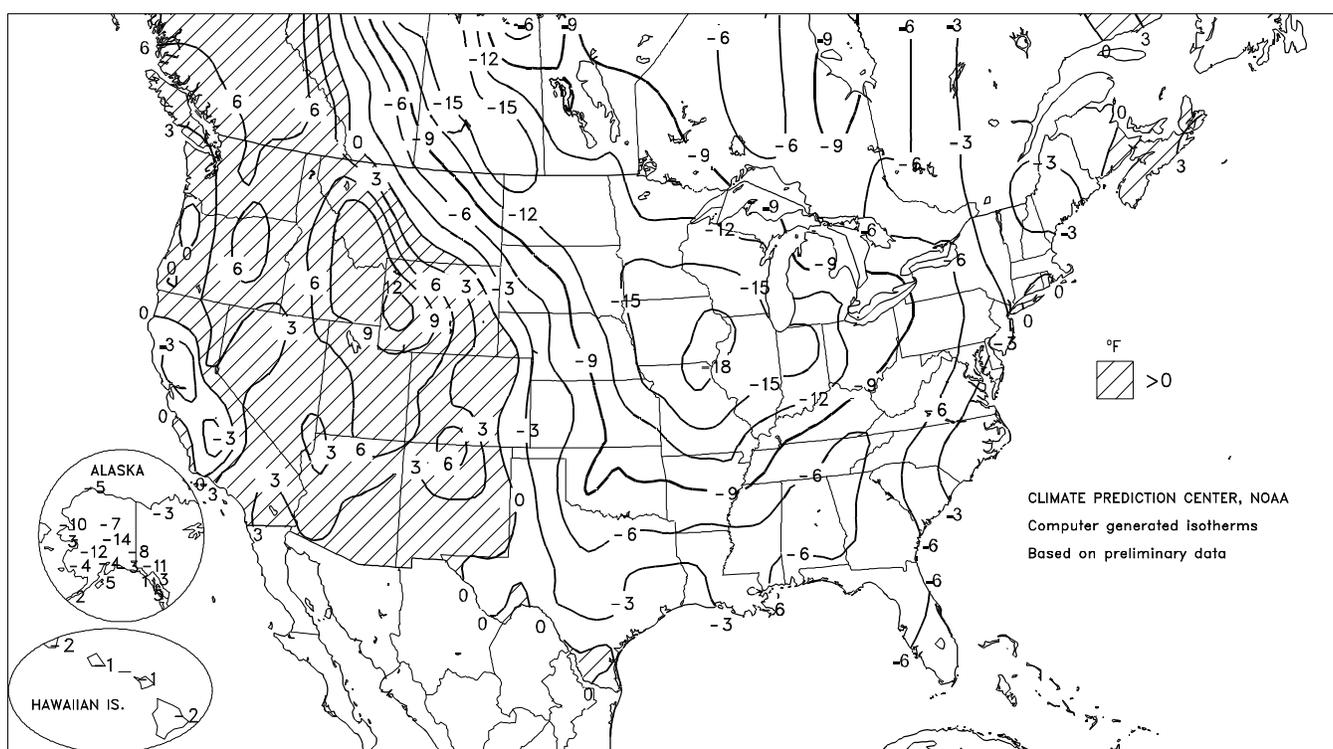
U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service

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



Departure of Average Temperature from Normal (°F)

JAN 3 - 9, 1999



## HIGHLIGHTS

January 3 - 9, 1999

**V**ery cold air remained in place from the **Plains eastward**, resulting in two hard freezes (January 4-5) in **southern Louisiana's** sugarcane areas, a minor freeze (January 6) in citrus and vegetable areas of **central and southwestern Florida**, and the lowest temperature on record (-36 degrees F on January 5) in **Illinois**. The **Louisiana** freezes and subsequent rapid warming adversely affected unharvested and newly planted sugarcane, while the **Florida** freeze caused generally minor damage to tender ground crops. A deep snow cover insulated the **Midwest's** soft red winter wheat crop from the bitterly cold conditions, but increased the region's livestock stress. On the **central Plains**, where only

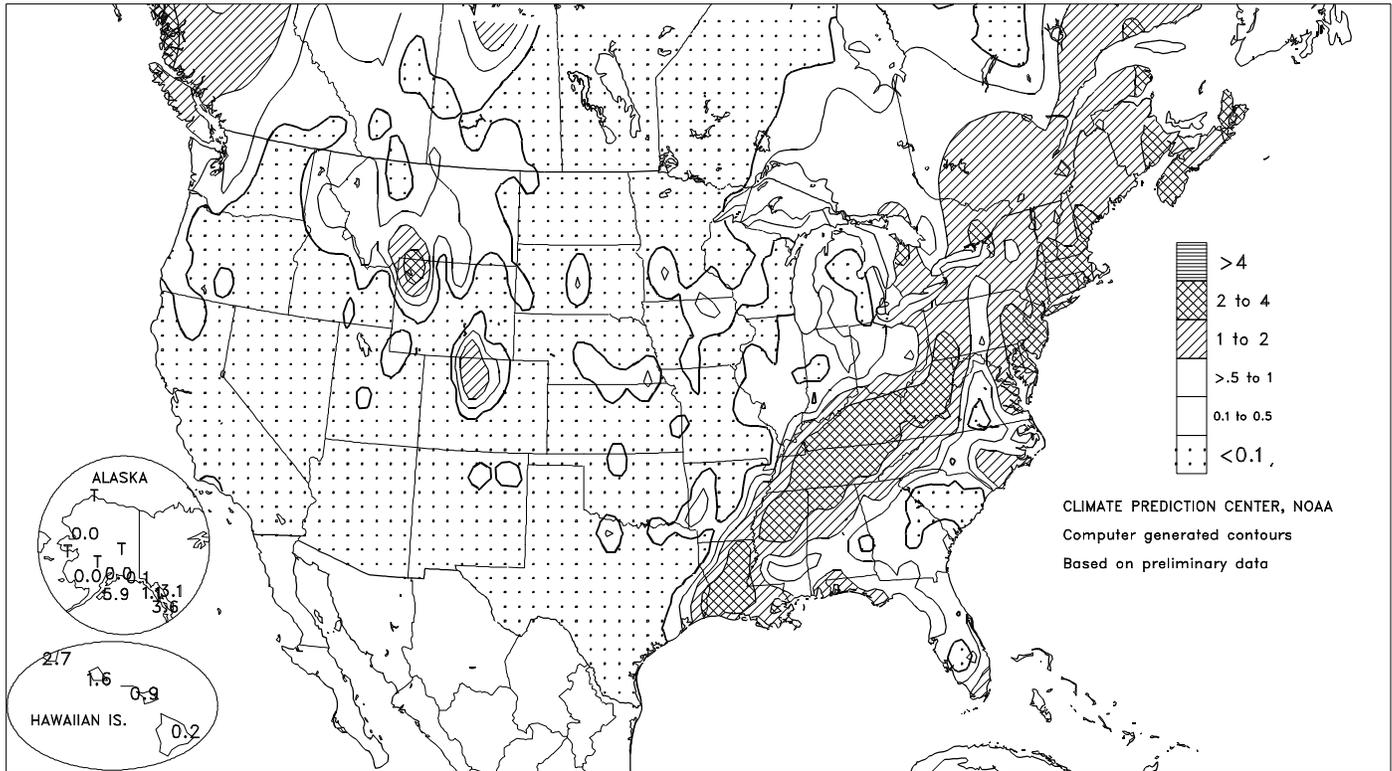
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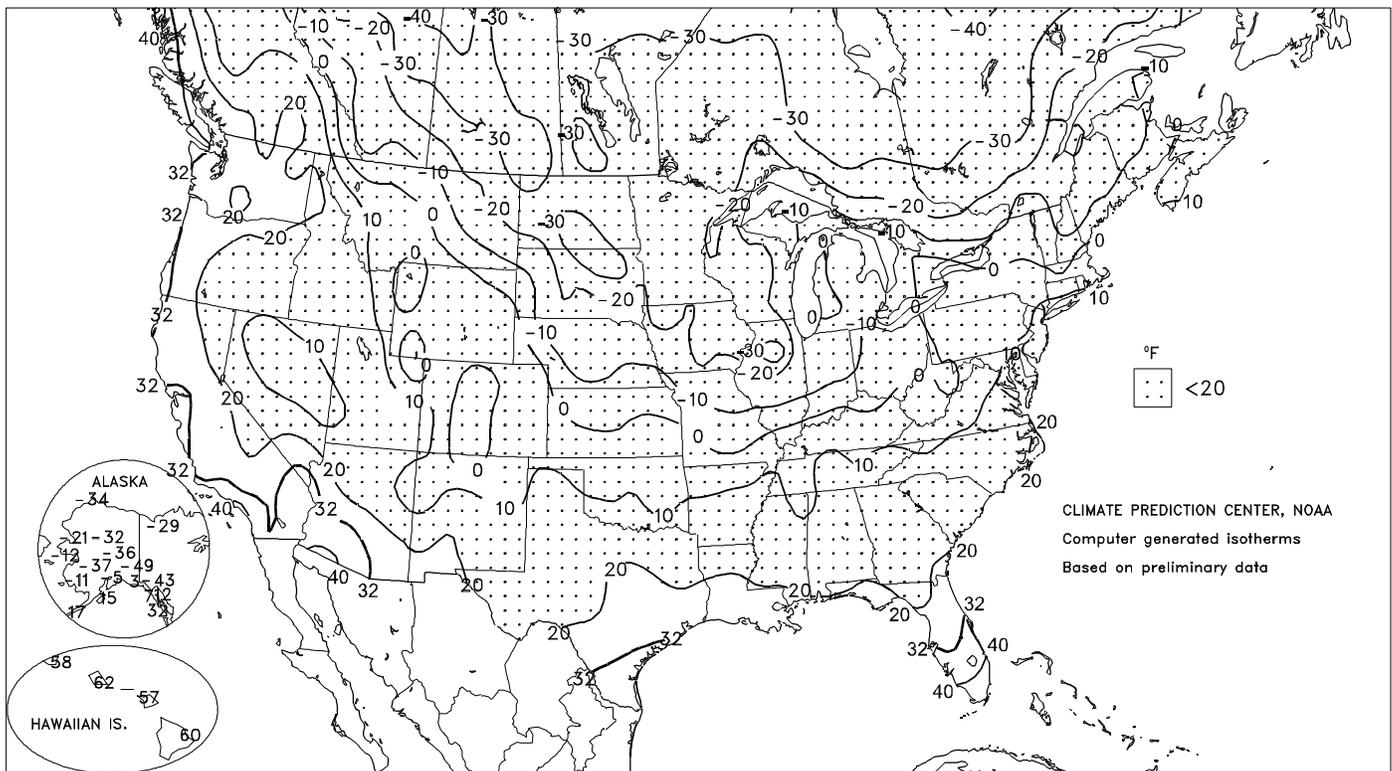
Total Precipitation (Inches)

JAN 3 - 9, 1999



Extreme Minimum Temperature (°F)

JAN 3 - 9, 1999



## U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on January 11, 1999. Forecasts refer to January 1.

**All orange** production forecast for 1998-99 is 10.1 million tons, down 8 percent (%) from last month's forecast and down 27% from last year's record-large crop of 13.9 million tons. Due to the December freeze in the San Joaquin Valley, California's all orange production forecast is 38 million boxes (1.43 million tons), down 39% from the October forecast and down 49% from the 1997-98 utilization.

The freeze during the nights of December 20-23, 1998, caused considerable losses to both the Navel and Valencia crops. California's Navel forecast, at 19 million boxes (712,500 tons), is down 44% from the previous forecast. Close to 90% of the Navel acreage is in the San Joaquin Valley and only 15% of the crop had been harvested before the freeze. Approximately 60% of California's Valencia acreage is in the San Joaquin Valley and the State forecast of 19 million boxes (712,500 tons) is down 32% from October.

Florida's all orange forecast remains at 190 million boxes (8.55 million tons), 22% less than the record-large 244 million boxes (11.00 million tons) utilized last season. Early and midseason varieties in Florida are forecast at 112 million boxes (5.04 million tons), 20% lower than last season. Florida's Valencia forecast of 78 million boxes (3.51 million tons) is 25% lower than last season's utilization.

**All cotton** production is forecast at 13.8 million bales, up 3% from last month, but down 27% from 1997. Yield is expected to average 618 pounds per harvested acre, down 55 pounds from last year. Texas production was increased 200,000 bales from December's forecast, and the yield, at 509 pounds, ties their record set in 1996. Georgia's production is up 150,000 bales from last month, as the open fall weather benefited crop development.

*(Continued from front cover)*

patchy snow cover existed, temperatures generally ranged from -10 to 10 degrees F on January 3, 4, and 9. Weekly temperatures ranged from nearly 20 degrees F below normal in the **Midwest** to more than 10 degrees F above normal in parts of the **northern Rockies**. Mostly dry, mild weather prevailed throughout the **West**, except in **California's Central Valley**, where seasonal fog and cool conditions persisted. Late in the week, widespread precipitation developed across the **North** and from the **Mississippi Valley eastward**. Additional snow blanketed the **northern Plains, Midwest, and Northeast**, while freezing rain or rain occurred from the **Ohio Valley and Mid-Atlantic region southward**.

Early in the week, heavy rain continued along the **East Coast**, while snowfall gradually diminished across the **Midwest**. Daily-record rainfalls were reported on Sunday in locations such as **Bridgeport, CT** (2.73 inches) and **Boston, MA** (1.51 inches). Winds gusted to 71 mph in **Chatham, MA**, 65 mph in **Tiverton, RI**, and 38 mph in **Bridgeport**. Meanwhile, storm-total (January 2-4) snowfall reached 22.0 inches in **Grand Rapids, MI**, breaking their single-storm record of 21.1 inches, set in December 1970. With additional snowfall during the week, **Grand Rapids'** month-to-date snowfall climbed to 29.1 inches by January 9. In **Holland, MI**, January 2-6 snowfall totaled 37.8 inches.

Extremely cold air trailed the stormy weather, producing **Illinois'** lowest temperature on record (-36 degrees F on January 5 in **Congerville**). The previous record, -35 degrees F, had been set in **Elizabeth** on February 3, 1996, and in **Mt. Carroll** on January 22, 1930. Elsewhere on Tuesday, bitterly cold conditions produced about two dozen of the week's nearly five dozen daily-record lows. Minima dipped to -25 degrees F in **Lincoln, IL** and **Cedar Rapids, IA**. **Lincoln's** lowest temperature during the

entire winter of 1997-98 was 5 degrees F. **Champaign, IL** also posted a low of -25 degrees F, tying their all-time record set on January 19, 1994. A minimum of -21 degrees F in **Springfield, IL** was their lowest reading since December 23, 1989. Farther south, Tuesday's lows of 2 degrees F in **Louisville, KY** and 13 degrees F in **Nashville, TN** were both locations' lowest readings since January 1997.

Sub-freezing temperatures reached deep into the **South**, where **Baton Rouge, LA** (20 degrees F on January 5) notched a daily-record low. A day later, records were reported in another two dozen locations, including **Savannah, GA** (17 degrees F), **Lakeland, FL** (26 degrees F), **Tampa, FL** (30 degrees F), **Orlando, FL** (31 degrees F), and **Ft. Myers, FL** (32 degrees F). Temperatures in **central and southwestern Florida** generally ranged from the middle 20's to lower 30's degrees F, causing minimal damage to citrus and minor damage to ground crops.

Meanwhile, unusually mild weather prevailed across the **West**, resulting in nearly two dozen daily-record highs. **San Luis Obispo, CA** registered daily-record highs on Sunday (73 degrees F), Monday (78 degrees F), and Saturday (77 degrees F). Farther east, late-week precipitation returned to the **North** and **East**. As much as 2 to 4 inches of rain fell from **Louisiana** to the **southern Ohio Valley**, with freezing rain glazing the northern portion of this region. On Friday, **London, KY** collected a daily-record rainfall of 1.48 inches. Farther east, 2.2 inches of snow fell on **Washington, DC**, their first 1-inch accumulation since February 8, 1997. A day later, a daily-record snowfall (15.1 inches) blanketed **Caribou, ME**. At week's end, snow depths included 12 inches in **Lewistown, MT** and **Columbus, OH**; 18 inches in **Mason City, IA** and **Chicago, IL**; and 26 inches in **Caribou**.

# National Weather Data for Selected Cities

Weather Data for the Week Ending January 9, 1999

Data Provided by Climate Prediction Center (301-763-8000 EXT. 7503) and the Southern Regional Climate Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	50 INCH OR MORE
AL BIRMINGHAM	46	28	67	12	37	-5	0.94	-0.25	0.61	8.60	129	2.33	153	84	49	0	5	4	1
AL HUNTSVILLE	42	26	61	12	34	-5	1.54	0.31	0.72	9.71	130	2.58	162	94	68	0	5	7	1
AL MOBILE	56	32	74	18	44	-6	1.32	0.23	1.26	5.06	76	2.87	205	90	49	0	5	4	1
AL MONTGOMERY	52	27	71	15	40	-7	0.17	-0.89	0.08	2.59	39	0.57	42	85	44	0	5	5	0
AK ANCHORAGE	17	4	26	-5	10	-4	0.00	-0.19	0.00	1.48	110	0.01	4	94	71	0	7	0	0
AK BARROW	-10	-26	0	-34	-18	-5	0.01	-0.02	0.00	0.47	294	0.01	25	79	69	0	7	1	0
AK FAIRBANKS	-18	-32	4	-36	-25	-14	0.02	-0.11	0.01	0.55	55	0.02	12	79	68	0	7	1	0
AK JUNEAU	30	23	40	12	27	2	3.07	2.02	1.00	8.79	152	3.29	244	97	79	0	6	6	3
AK KODIAK	38	31	40	15	34	5	5.88	4.15	2.17	10.47	116	5.96	268	86	67	0	4	5	4
AZ NOME	18	3	30	-12	10	3	0.01	-0.18	0.01	1.06	96	0.02	8	71	46	0	7	1	0
AZ FLAGSTAFF	50	17	57	11	33	5	0.00	-0.48	0.00	0.50	17	0.00	0	73	19	0	7	0	0
AZ PHOENIX	68	41	70	38	54	1	0.00	-0.17	0.00	0.68	57	0.00	0	57	17	0	0	0	0
AZ TUCSON	69	34	75	30	51	1	0.00	-0.22	0.00	0.45	33	0.00	0	42	11	0	3	0	0
AZ YUMA	72	47	74	41	59	3	0.00	-0.08	0.00	0.17	30	0.00	0	40	21	0	0	0	0
AR FORT SMITH	37	20	58	11	29	-8	0.00	-0.46	0.00	3.68	101	0.64	107	86	55	0	7	0	0
AR LITTLE ROCK	38	23	55	14	31	-9	0.09	-0.75	0.09	4.47	76	1.11	102	84	55	0	7	1	0
CA BAKERSFIELD	42	30	47	27	36	-11	0.04	-0.13	0.01	0.59	71	0.05	23	99	72	0	6	4	0
CA EUREKA	57	37	65	32	47	-1	0.00	-1.41	0.00	5.40	69	0.00	0	93	68	0	1	0	0
CA FRESNO	43	34	48	32	39	-6	0.01	-0.42	0.01	0.68	35	0.01	2	99	75	0	2	1	0
CA LOS ANGELES	70	48	79	42	59	2	0.03	-0.47	0.02	0.70	31	0.04	6	74	22	0	0	2	0
CA REDDING	59	33	69	28	46	2	0.00	-1.41	0.00	2.20	30	0.00	0	84	35	0	5	0	0
CA SACRAMENTO	42	34	48	33	38	-6	0.01	-0.80	0.01	0.66	19	0.01	1	100	85	0	0	1	0
CA SAN DIEGO	70	48	79	47	59	2	0.00	-0.41	0.00	0.60	28	0.00	0	81	34	0	0	0	0
CA SAN FRANCISCO	53	41	61	38	47	-1	0.00	-0.97	0.00	0.98	23	0.00	0	94	57	0	0	0	0
CO ALAMOSA	41	3	51	-4	22	8	0.00	-0.06	0.00	0.04	7	0.03	33	83	27	0	7	0	0
CO CO SPRINGS	41	17	57	6	29	1	0.05	-0.03	0.00	0.22	39	0.07	64	86	32	0	7	2	0
CO DENVER	42	18	57	-3	30	1	0.04	-0.07	0.04	0.52	65	0.17	113	89	41	0	6	1	0
CO GRAND JUNCTION	39	20	43	15	29	5	0.00	-0.14	0.00	0.27	34	0.01	6	86	42	0	7	0	0
CO PUEBLO	45	14	62	6	29	0	0.07	-0.01	0.04	0.41	77	0.07	64	92	36	0	7	2	0
CT BRIDGEPORT	38	20	48	14	29	-1	3.40	2.65	2.73	4.45	100	3.40	351	86	39	0	7	3	1
CT HARTFORD	32	12	46	4	22	-3	1.19	0.39	0.47	2.03	41	1.19	114	91	47	0	7	3	0
DC WASHINGTON	37	22	51	16	30	-5	1.55	0.92	1.14	3.31	84	1.56	190	75	36	0	7	3	1
DE WILMINGTON	36	20	55	13	28	-3	1.91	1.19	1.44	3.05	69	2.01	216	83	50	0	7	3	1
FL DAYTONA BEACH	63	41	78	30	52	-6	0.89	0.29	0.42	2.63	79	1.28	168	88	47	0	2	3	0
FL JACKSONVILLE	59	32	73	22	45	-7	0.32	-0.38	0.29	1.46	40	1.04	117	93	46	0	4	3	0
FL KEY WEST	72	61	80	52	66	-4	0.56	0.09	0.21	2.58	99	0.98	166	88	62	0	0	4	0
FL MIAMI	71	55	80	44	63	-4	1.50	1.06	0.82	3.67	152	1.68	295	89	58	0	0	3	2
FL ORLANDO	65	43	80	32	54	-6	0.57	0.09	0.29	2.03	73	1.41	227	90	48	0	2	2	0
FL PENSACOLA	54	34	72	20	44	-6	0.79	-0.23	0.76	6.21	111	1.85	141	84	46	0	5	2	1
FL TALLAHASSEE	55	29	70	19	42	-9	0.98	-0.09	0.98	3.56	55	1.89	137	92	40	0	4	1	1
FL TAMPA	63	43	75	30	53	-7	0.51	0.10	0.51	2.57	96	1.65	311	90	63	0	1	1	1
FL WEST PALM BEACH	70	53	80	41	61	-4	0.56	-0.05	0.39	8.03	246	4.12	528	90	55	0	0	3	0
GA ATHENS	44	25	57	15	35	-7	0.21	-0.82	0.09	3.37	62	1.52	115	87	51	0	6	3	0
GA ATLANTA	44	26	62	13	35	-6	0.64	-0.42	0.47	3.27	57	1.47	108	83	45	0	5	3	0
GA AUGUSTA	50	26	68	13	38	-6	0.10	-0.79	0.09	2.26	50	0.89	79	87	43	0	5	2	0
GA COLUMBUS	52	30	67	17	41	-5	0.37	-0.69	0.36	2.44	38	0.85	62	79	37	0	5	1	0
GA MACON	50	27	68	16	39	-7	0.49	-0.53	0.48	3.20	57	1.68	128	83	41	0	5	2	0
GA SAVANNAH	56	29	71	17	42	-7	0.27	-0.53	0.24	3.31	83	0.99	96	90	42	0	4	2	0
HI HILO	77	62	80	60	69	-2	0.22	-2.10	0.22	10.11	67	0.22	7	92	66	0	0	1	0
HI HONOLULU	78	66	78	62	72	-1	1.55	0.68	0.98	2.79	57	1.63	144	92	65	0	0	3	1
HI KAHULUI	79	62	81	57	71	-1	0.85	-0.10	0.85	2.04	46	0.87	72	90	57	0	0	1	1
HI LIHUE	76	64	80	58	70	-2	2.66	1.26	2.28	4.83	70	2.66	148	97	70	0	0	6	1
ID BOISE	41	25	44	23	33	6	0.00	-0.33	0.00	1.65	93	0.00	0	91	56	0	7	0	0
ID LEWISTON	39	31	44	27	35	2	0.05	-0.25	0.01	1.05	65	0.05	13	98	78	0	4	3	0
ID POCATELLO	38	26	42	15	32	9	0.00	-0.25	0.00	0.73	51	0.00	0	83	53	0	6	0	0
IL CHICAGO/O'HARE	16	-3	26	-16	7	-15	0.02	-0.38	0.00	1.26	42	0.06	11	89	59	0	7	1	0
IL MOLINE	12	-9	24	-26	2	-19	0.08	-0.32	0.00	1.28	47	0.10	19	85	64	0	7	3	0
IL PEORIA	15	-5	33	-20	5	-17	0.09	-0.31	0.03	2.15	73	0.39	75	85	63	0	7	3	0
IL ROCKFORD	11	-9	17	-21	1	-18	0.02	-0.32	0.00	0.94	38	0.03	7	89	63	0	7	1	0
IL SPRINGFIELD	17	-3	36	-21	7	-17	0.10	-0.30	0.05	1.08	33	0.44	83	87	66	0	7	4	0
IN EVANSVILLE	26	13	41	2	19	-11	0.59	-0.05	0.42	4.46	99	0.98	118	88	67	0	7	5	0
IN FORT WAYNE	17	-2	29	-14	7	-16	0.24	-0.24	0.20	1.39	40	0.30	48	90	64	0	7	2	0
IN INDIANAPOLIS	20	2	34	-9	11	-15	0.38	-0.19	0.12	1.61	39	0.60	80	89	62	0	7	5	0
IN SOUTH BEND	17	-1	24	-16	8	-16	0.32	-0.25	0.08	2.85	70	0.81	108	90	68	0	7	6	0
IA BURLINGTON	16	-6	34	-20	5	-17	0.04	-0.28	0.04	1.91	79	0.26	60	79	56	0	7	1	0
IA CEDAR RAPIDS	10	-13	21	-25	-1	-19	0.02	-0.24	0.01	0.56	29	0.07	21	85	69	0	7	2	0
IA DES MOINES	13	-7	27	-14	3	-16	0.02	-0.21	0.01	0.43	27	0.02	7	84	62	0	7	2	0
IA DUBUQUE	8	-13	16	-23	-2	-18	0.17	-0.15	0.02	0.35	15	0.20	48	86	64	0	7	5	0
IA SIOUX CITY	14	-8	26	-20	3	-14	0.04	-0.10	0.04	0.18	19	0.04	22	86	65	0	7	1	0
IA WATERLOO	10	-14	19	-22	-2	-17	0.14	-0.06	0.09	0.50	32	0.22	85	86	63	0	7	5	0
KS CONCORDIA	24	5	43	-4	14	-12	0.03	-0.11	0.02	0.24	24	0.14	74	83	61	0	7	2	0
KS DODGE CITY	39	10	64	1	25	-5	0.00	-0.11	0.00	0.34	42	0.05	36	82	45	0	7	0	0
KS GOODLAND	37	11	52	0	24	-3	0.00	-0.09	0.00	0.13	25	0.01	8	86	43	0	7	0	0
KS TOPEKA	23	5	47	0	14	-13	0.12	-0.12	0.07	1.44	83	0.23	74	84	63	0	7	2	0

Based on 1961-90 normals

Weather Data for the Week Ending January 9, 1999

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY WICHITA	30	12	57	2	21	-9	0.01	-0.19	0.00	1.08	74	0.02	8	85	50	0	7	1	0
KY JACKSON	36	17	52	3	26	-7	2.64	1.75	1.37	8.28	149	3.12	271	93	65	0	7	4	2
KY LEXINGTON	30	14	50	2	22	-9	2.13	1.43	1.82	5.87	120	2.64	290	93	66	0	7	6	1
LA LOUISVILLE	28	15	37	4	22	-10	2.17	1.50	1.88	6.55	145	3.28	377	91	65	0	7	6	1
LA PADUCAH	28	17	44	7	22	-10	0.54	-0.25	0.43	5.23	92	1.52	148	90	69	0	7	3	0
LA BATON ROUGE	58	35	75	20	46	-4	1.57	0.45	1.37	6.55	94	2.97	206	89	40	0	4	3	1
LA LAKE CHARLES	58	40	73	25	49	-1	2.76	1.67	1.99	8.07	125	4.45	318	88	57	0	3	2	2
LA NEW ORLEANS	59	39	76	28	49	-3	1.70	0.56	1.54	4.65	64	2.40	163	81	42	0	3	2	1
LA SHREVEPORT	52	31	77	17	41	-4	0.02	-0.86	0.01	8.43	161	2.19	194	84	48	0	4	2	0
ME CARIBOU	22	-3	31	-14	10	0	1.22	0.62	0.87	2.80	70	1.22	156	91	50	0	7	4	1
ME PORTLAND	31	9	44	-1	20	-1	1.01	0.16	0.36	2.59	46	1.03	94	93	50	0	7	3	1
MD BALTIMORE	36	19	53	7	27	-5	2.00	1.29	1.22	3.50	81	2.23	245	87	43	0	7	4	2
MA BOSTON	38	20	56	16	29	0	2.09	1.26	1.51	3.70	73	2.11	197	90	43	0	7	4	1
MA WORCESTER	33	14	52	11	24	1	1.76	0.91	1.19	3.24	63	1.78	160	88	50	0	7	4	1
MI ALPENA	18	4	29	0	11	-8	0.23	-0.18	0.13	1.89	74	0.47	89	89	59	0	7	5	0
MI GRAND RAPIDS	17	6	24	-2	12	-11	0.30	-0.18	0.20	1.75	50	0.54	86	91	71	0	7	6	0
MI HOUGHTON LAKE	17	1	26	-11	9	-9	0.29	-0.09	0.14	1.67	68	0.63	129	90	64	0	7	6	0
MI LANSING	16	0	23	-10	8	-13	0.29	-0.10	0.10	1.69	60	0.52	104	91	67	0	7	6	0
MI MARQUETTE	10	-8	17	-17	1	-13	0.81	0.28	0.75	2.41	73	0.81	117	88	53	0	7	2	1
MI MUSKEGON	19	10	26	1	14	-10	0.40	-0.20	0.13	1.78	47	0.46	59	88	67	0	7	7	0
MN DULUTH	2	-13	6	-19	-6	-13	0.07	-0.23	0.00	1.70	103	0.12	31	78	53	0	7	2	0
MN INT'L FALLS	-1	-19	5	-28	-10	-11	0.03	-0.19	0.00	0.45	40	0.08	29	79	55	0	7	1	0
MN MINNEAPOLIS	7	-12	13	-22	-3	-15	0.09	-0.13	0.03	0.61	45	0.16	57	82	56	0	7	2	0
MN ROCHESTER	5	-15	12	-22	-5	-17	0.05	-0.14	0.00	0.39	30	0.10	40	86	71	0	7	3	0
MN ST. CLOUD	4	-17	11	-25	-6	-14	0.06	-0.11	0.04	1.09	104	0.19	86	81	59	0	7	2	0
MS JACKSON	51	31	72	15	41	-3	1.17	-0.08	0.44	8.67	115	2.43	150	95	50	0	4	4	0
MS MERIDIAN	51	28	71	11	40	-5	0.74	-0.48	0.27	4.88	64	0.90	57	95	48	0	5	4	0
MO TUPELO	44	25	68	11	34	-6	2.07	0.88	1.65	11.44	149	3.26	212	92	58	0	5	5	1
MO COLUMBIA	19	2	41	-8	10	-17	0.05	-0.32	0.04	1.79	61	0.57	119	87	61	0	7	2	0
MO KANSAS CITY	20	2	43	-4	11	-14	0.12	-0.16	0.08	1.22	63	0.12	33	85	61	0	7	2	0
MO SAINT LOUIS	22	6	43	-5	14	-15	0.15	-0.31	0.09	2.22	61	1.39	232	91	69	0	7	4	0
MO SPRINGFIELD	26	11	47	1	19	-12	0.04	-0.42	0.02	2.85	76	1.50	246	94	73	0	7	2	0
MT BILLINGS	32	14	46	3	23	1	0.45	0.23	0.18	1.04	98	0.45	161	95	64	0	6	5	0
MT BUTTE	36	24	41	2	30	14	0.04	-0.10	0.01	1.16	178	0.06	33	83	58	0	7	4	0
MT GLASGOW	15	-7	37	-14	4	-6	0.35	0.27	0.17	0.95	202	0.35	318	90	69	0	7	5	0
MT GREAT FALLS	31	11	46	2	21	1	0.09	-0.13	0.03	0.40	35	0.18	64	86	66	0	7	4	0
MT KALISPELL	34	24	39	7	29	9	0.59	0.21	0.22	2.59	118	0.59	120	95	71	0	6	5	0
MT MILES CITY	22	0	37	-15	11	-4	0.42	0.28	0.12	1.00	127	0.42	233	92	71	0	7	7	0
MT MISSOULA	36	28	42	15	32	10	0.27	-0.03	0.08	1.54	100	0.27	69	95	65	0	7	6	0
NE GRAND ISLAND	21	0	39	-11	11	-11	0.12	0.01	0.08	0.38	38	0.22	157	84	65	0	7	2	0
NE LINCOLN	18	-1	37	-9	9	-13	0.08	-0.06	0.04	0.41	39	0.22	122	85	64	0	7	4	0
NE NORFOLK	17	-3	39	-12	7	-12	0.04	-0.08	0.01	0.32	36	0.19	119	86	62	0	7	1	0
NE NORTH PLATTE	28	1	43	-13	14	-7	0.21	0.13	0.08	0.43	75	0.41	373	88	64	0	7	3	0
NE OMAHA	16	-4	38	-10	6	-15	0.06	-0.13	0.01	0.39	31	0.27	112	84	64	0	7	3	0
NE SCOTTSBLUFF	35	15	47	7	25	1	0.02	-0.09	0.00	0.88	122	0.02	14	88	52	0	6	1	0
NE VALENTINE	29	-2	41	-20	14	-6	0.13	0.07	0.06	0.66	147	0.23	329	88	64	0	7	2	0
NV ELY	49	14	57	7	31	8	0.00	-0.17	0.00	0.31	33	0.00	0	80	20	0	7	0	0
NV LAS VEGAS	60	37	62	33	48	4	0.00	-0.11	0.00	0.04	8	0.00	0	40	17	0	0	0	0
NV RENO	48	19	54	17	34	2	0.00	-0.25	0.00	0.04	3	0.00	0	94	36	0	7	0	0
NV WINNEMUCCA	44	12	48	7	28	0	0.00	-0.18	0.00	0.42	38	0.00	0	94	40	0	7	0	0
NH CONCORD	28	6	34	-4	17	-2	1.70	1.11	1.06	2.59	66	1.74	226	93	55	0	7	4	1
NJ NEWARK	36	21	51	14	29	-3	3.35	2.57	2.56	4.42	99	3.39	336	84	39	0	7	3	1
NM ALBUQUERQUE	50	25	55	20	37	4	0.00	-0.11	0.00	0.22	35	0.00	0	60	23	0	7	0	0
NY ALBANY	28	10	38	2	19	-2	1.16	0.60	0.64	2.20	60	1.16	159	95	52	0	7	4	1
NY BINGHAMTON	26	10	36	5	18	-4	1.63	1.06	0.85	3.25	87	1.66	221	90	57	0	7	5	2
NY BUFFALO	23	10	39	6	17	-8	2.18	1.51	0.75	4.38	96	2.83	325	93	60	0	7	6	1
NY ROCHESTER	24	11	36	7	17	-7	1.08	0.58	0.64	3.02	89	1.42	218	87	58	0	7	6	1
NY SYRACUSE	25	11	31	3	18	-5	1.31	0.74	0.44	3.26	83	1.54	205	86	59	0	7	7	0
NC ASHEVILLE	38	21	51	11	30	-6	0.24	-0.48	0.11	4.70	106	1.66	178	90	64	0	5	3	0
NC CHARLOTTE	45	26	59	13	35	-4	0.29	-0.54	0.13	4.76	105	1.48	140	88	51	0	5	4	0
NC GREENSBORO	40	23	52	13	32	-5	0.17	-0.55	0.15	7.19	167	1.97	212	93	57	0	5	3	0
NC HATTERAS	53	34	68	28	44	-2	2.25	1.05	1.77	6.99	115	2.26	147	88	59	0	3	3	1
NC RALEIGH	48	26	64	12	37	-2	1.31	0.54	1.22	5.38	127	1.94	196	87	45	0	4	3	1
NC WILMINGTON	56	32	69	18	44	-2	1.38	0.50	0.63	5.72	120	1.76	156	86	41	0	3	3	1
ND BISMARCK	8	-18	20	-30	-5	-14	0.14	0.03	0.06	0.65	103	0.40	286	85	69	0	7	4	0
ND DICKINSON	16	-8	37	-20	4	-9	0.15	0.07	0.05	0.41	87	0.23	209	89	73	0	7	6	0
ND FARGO	1	-17	8	-23	-8	-14	0.04	-0.13	0.00	0.38	45	0.07	33	81	64	0	7	2	0
ND GRAND FORKS	-1	-17	5	-22	-9	-13	0.04	-0.13	0.00	0.37	44	0.12	57	79	67	0	7	2	0
ND JAMESTOWN	2	-17	11	-24	-7	-15	0.07	-0.07	0.04	0.40	60	0.21	117	85	69	0	7	1	0
ND WILLISTON	8	-21	21	-29	-6	-15	0.20	0.06	0.11	1.12	147	0.36	200	85	70	0	7	5	0
OH AKRON-CANTON	22	6	36	-5	14	-12	0.89	0.36	0.29	3.41	94	1.27	184	96	63	0	7	4	0
OH CINCINNATI	24	7	34	-8	16	-13	1.03	0.42	0.94	5.80	147	1.97	246	96	68	0	7	4	1
OH CLEVELAND	22	7	37	-3	14	-11	1.10	0.59	0.33	3.94	105	2.02	301	91	62	0	7	5	0
OH COLUMBUS	25	8	39	-3	17	-10	0.84	0.31	0.59	4.62	131	1.37	199	92	64	0	7	6	1

Based on 1961-90 normals

Weather Data for the Week Ending January 9, 1999

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	21	7	35	0	14	-9	0.17	-0.29	0.07	1.51	43	0.91	152	84	59	0	7	4	0
OK YOUNGSTOWN	22	5	33	-2	13	-11	1.20	0.67	0.43	4.22	117	1.86	270	93	63	0	7	7	0
OK OKLAHOMA CITY	38	19	63	11	28	-7	0.00	-0.25	0.00	1.69	98	0.07	22	80	46	0	7	0	0
OR TULSA	33	17	57	9	25	-10	0.05	-0.31	0.04	1.90	72	0.33	70	84	53	0	7	2	0
OR ASTORIA	48	36	50	30	42	1	0.66	-1.72	0.34	17.20	126	0.67	22	96	72	0	2	3	0
BURNS	42	18	46	15	30	7	0.02	-0.23	0.02	1.18	80	0.03	9	95	52	0	7	1	0
EUGENE	46	30	50	25	38	-2	0.05	-1.86	0.03	8.58	77	0.05	2	98	74	0	4	2	0
MEDFORD	45	26	49	23	36	-2	0.00	-0.67	0.00	1.23	29	0.00	0	98	59	0	7	0	0
PENDLETON	45	33	52	25	39	7	0.01	-0.35	0.00	1.38	66	0.01	2	87	57	0	3	1	0
PORTLAND	45	32	49	27	39	0	0.17	-1.14	0.08	6.91	88	0.17	10	100	73	0	4	3	0
SALEM	44	30	50	26	37	-2	0.01	-1.43	0.01	8.80	101	0.01	1	99	74	0	5	1	0
PA ALLENTOWN	39	17	54	11	28	1	2.46	1.72	1.70	3.12	70	2.48	261	86	36	0	7	4	2
ERIE	23	11	35	5	17	-9	0.14	-0.42	0.05	3.76	87	0.16	22	92	55	0	7	4	0
MIDDLETOWN	32	16	46	9	24	-5	1.99	1.33	1.05	2.48	61	2.17	255	81	45	0	7	4	2
PHILADELPHIA	38	22	54	14	30	-1	2.86	1.28	1.50	2.86	66	2.05	211	79	43	0	7	4	1
PITTSBURGH	27	8	42	-1	18	-9	1.35	0.74	0.76	3.65	99	1.85	237	93	59	0	7	5	1
WILKES-BARRE	29	13	40	5	21	-5	1.80	1.30	0.87	2.66	84	1.80	281	88	50	0	7	3	2
WILLIAMSPORT	24	12	33	5	18	-8	0.77	0.19	0.29	1.65	44	0.77	101	80	53	0	7	4	0
RI PROVIDENCE	40	17	58	6	28	0	2.53	1.62	1.70	3.80	68	2.53	214	94	47	0	7	4	1
SC BEAUFORT	55	31	71	19	43	-6	0.56	-0.28	0.56	4.58	107	1.30	120	87	45	0	4	1	1
CHARLESTON	56	30	70	17	43	-5	0.73	-0.04	0.48	5.58	135	1.25	126	85	42	0	4	3	0
COLUMBIA	50	28	62	15	39	-5	0.09	-0.89	0.08	3.19	66	0.89	71	85	45	0	4	2	0
GREENVILLE	44	26	59	14	35	-5	0.40	-0.54	0.17	5.91	110	1.67	139	88	52	0	5	3	0
SD ABERDEEN	9	-19	19	-31	-5	-15	0.14	0.06	0.06	0.56	110	0.36	327	87	65	0	7	4	0
HURON	13	-11	25	-22	1	-12	0.02	-0.06	0.00	0.27	47	0.06	55	83	64	0	7	1	0
RAPID CITY	28	5	41	-5	17	-5	0.10	0.02	0.03	0.26	44	0.20	182	90	71	0	7	4	0
SIoux FALLS	11	-12	22	-18	0	-14	0.12	0.00	0.04	0.48	55	0.25	156	87	66	0	7	5	0
TN BRISTOL	38	21	56	10	30	-5	0.71	-0.03	0.46	6.40	147	1.17	123	93	66	0	6	5	1
CHATTANOOGA	41	25	59	14	33	-4	1.08	-0.05	0.47	7.83	118	1.52	104	90	58	0	5	4	0
KNOXVILLE	41	24	59	15	33	-3	1.17	0.19	0.70	7.97	137	2.03	161	89	59	0	5	5	1
MEMPHIS	37	22	62	12	30	-10	0.96	0.04	0.68	6.61	95	2.36	197	91	67	0	5	4	1
NASHVILLE	35	22	58	13	28	-8	2.07	1.21	1.58	9.35	163	2.96	267	89	58	0	6	6	1
TX ABILENE	49	25	67	17	37	-6	0.00	-0.22	0.00	1.40	107	0.03	11	73	33	0	7	0	0
AMARILLO	47	18	62	12	32	-2	0.03	-0.08	0.01	0.47	85	0.06	43	84	34	0	7	2	0
AUSTIN	57	35	75	27	46	-2	0.01	-0.35	0.01	1.58	67	0.02	4	80	49	0	4	1	0
BEAUMONT	60	43	75	27	51	0	1.01	-0.12	0.68	4.95	79	2.15	148	86	54	0	3	2	1
BROWNVILLE	68	50	81	36	59	0	0.01	-0.35	0.01	0.55	32	0.26	58	90	55	0	0	1	0
CORPUS CHRISTI	64	45	77	35	55	0	0.01	-0.34	0.01	1.17	69	0.45	102	87	54	0	0	1	0
DEL RIO	60	31	73	20	45	-4	0.01	-0.10	0.01	0.20	26	0.01	7	87	33	0	4	1	0
EL PASO	56	29	64	21	42	0	0.00	-0.10	0.00	0.34	47	0.00	0	58	21	0	6	0	0
FORT WORTH	46	28	59	17	37	-6	0.00	-0.41	0.00	4.44	187	0.01	2	82	53	0	5	0	0
GALVESTON	58	45	69	32	52	-1	0.49	-0.30	0.47	5.36	119	1.67	164	85	63	0	1	2	0
HOUSTON	61	39	78	25	50	0	0.20	-0.57	0.09	5.01	113	1.12	113	88	48	0	3	3	0
LUBBOCK	52	21	69	15	36	-2	0.00	-0.08	0.00	0.26	41	0.00	0	70	29	0	7	0	0
MIDLAND	58	24	71	17	41	-1	0.00	-0.08	0.00	0.58	85	0.00	0	63	21	0	6	0	0
SAN ANGELO	57	26	75	15	42	-2	0.00	-0.17	0.00	0.49	49	0.00	0	78	22	0	7	0	0
SAN ANTONIO	57	33	72	23	45	-4	0.04	-0.32	0.04	0.46	23	0.06	13	84	46	0	4	1	0
VICTORIA	61	39	77	31	50	-3	0.00	-0.48	0.00	3.68	138	0.09	15	92	55	0	3	0	0
WACO	54	31	71	20	42	-3	0.00	-0.36	0.00	4.08	177	0.00	0	87	51	0	4	0	0
WICHITA FALLS	43	22	61	15	33	-7	0.00	-0.23	0.00	1.93	121	0.00	0	83	46	0	7	0	0
UT SALT LAKE CITY	44	25	53	20	35	8	0.00	-0.27	0.00	1.23	69	0.04	11	85	38	0	7	0	0
VT BURLINGTON	26	8	36	1	17	0	1.48	1.04	0.71	1.90	63	1.53	264	87	52	0	7	5	2
VA LYNCHBURG	36	19	45	6	27	-7	1.06	0.40	0.17	4.70	115	1.61	189	88	49	0	7	3	1
NORFOLK	50	30	66	17	40	0	0.54	-0.31	0.16	5.87	136	0.54	50	89	54	0	4	3	0
RICHMOND	43	25	61	13	34	-2	1.89	1.15	1.81	6.87	162	1.89	197	84	43	0	6	2	1
ROANOKE	35	20	43	10	28	-7	0.73	0.14	0.56	3.13	84	0.81	107	80	50	0	7	3	1
WA WASH/DULLES	35	18	45	4	26	-5	1.96	1.33	1.30	3.62	90	2.09	255	82	40	0	7	3	2
HANFORD	40	29	55	20	34	-	0.00	-	0.00	0.44	-	0.00	-	94	70	0	5	0	0
OLYMPIA	45	33	50	23	39	2	0.12	-1.78	0.04	13.11	124	0.12	5	100	78	0	3	3	0
QUILLAYUTE	47	36	52	25	42	2	1.11	-2.25	0.41	22.59	114	1.13	26	100	81	0	2	5	0
SEATTLE-TACOMA	46	38	49	31	42	2	0.29	-1.00	0.16	9.27	122	0.29	17	96	69	0	1	3	0
SPOKANE	33	26	36	18	30	3	0.38	-0.11	0.19	3.65	120	0.38	60	98	88	0	7	5	0
WV YAKIMA	39	23	48	18	31	2	0.00	-0.30	0.00	0.74	41	0.00	0	96	63	0	7	0	0
BECKLEY	30	14	47	4	22	-7	1.24	0.56	0.51	5.81	141	1.47	167	94	71	0	7	6	1
CHARLESTON	36	16	51	7	26	-7	2.12	1.44	0.99	5.57	131	2.39	275	94	68	0	7	6	2
ELKINS	33	8	54	-5	21	-7	0.80	0.08	0.32	2.81	63	0.82	87	92	58	0	7	5	0
HUNTINGTON	35	17	50	4	26	-6	2.21	1.54	1.27	5.49	130	2.53	294	88	53	0	7	7	2
WI EAU CLAIRE	5	-12	13	-20	-4	-15	0.24	-0.01	0.09	0.80	56	0.31	97	83	62	0	7	5	0
GREEN BAY	9	-7	21	-19	1	-14	0.10	-0.18	0.04	0.59	31	0.28	76	81	56	0	7	4	0
MADISON	9	-7	15	-20	1	-15	0.13	-0.15	0.07	0.93	42	0.64	173	84	53	0	7	4	0
MILWAUKEE	13	-3	24	-15	5	-14	0.07	-0.34	0.05	1.69	59	0.80	151	81	54	0	7	2	0
WY CASPER	36	16	46	2	26	4	0.03	-0.11	0.02	0.19	23	0.09	50	86	54	0	7	2	0
CHEYENNE	37	18	48	4	28	2	0.18	0.10	0.11	0.78	150	0.33	300	93	48	0	6	3	0
LANDER	43	18	50	6	31	12	0.00	-0.11	0.00	0.27	38	0.03	21	76	29	0	7	0	0

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

# National Agricultural Summary

January 4 - 10, 1998

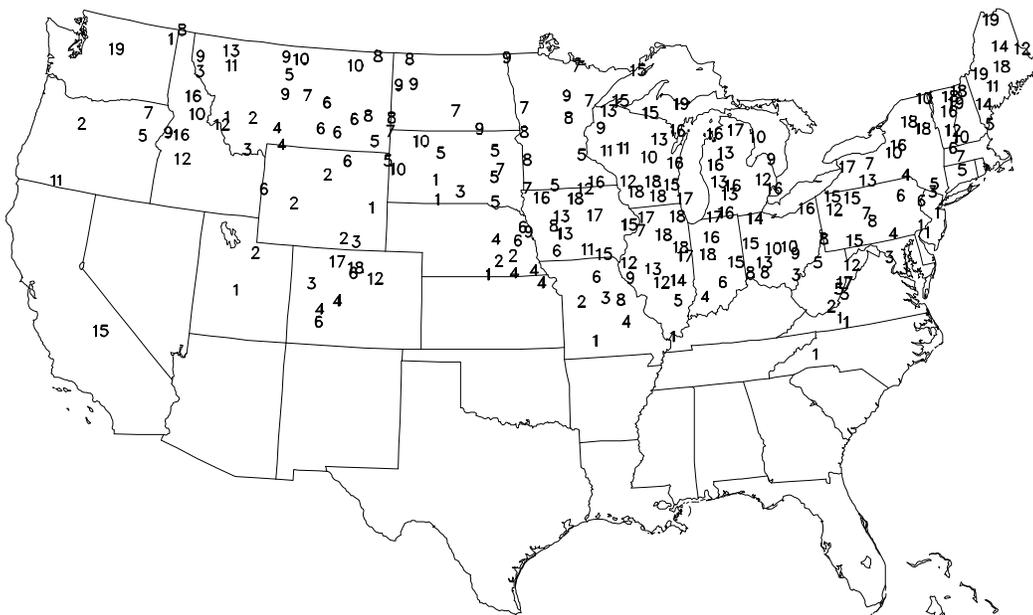
## HIGHLIGHTS

Frigid temperatures continued east of the Rocky Mountains, with below freezing temperatures recorded in most of Texas and as far south as central Florida. In Florida's lowland citrus groves, some fruit was partially frozen and some new foliage was frost bitten, but damage statewide was minimal. Orange harvest and movement was very active. Vegetable development were hindered by the cold weather, with tomatoes suffering minor leaf burn. Sugarcane harvest continued in the Panhandle. In Texas, the cold weather halted small grain development. Snow, freezing rain, and sleet only partially eased moisture shortages in central Texas. Snow in the eastern Corn Belt protected winter wheat from sub-zero temperatures. Rain, freezing precipitation, and snow provided beneficial moisture along a band that stretched from the lower Mississippi Valley, through the Appalachian and mid-

Atlantic States, and into the Northeast. Temperatures in the Rocky Mountains, Pacific Northwest, and most of the Southwest were seasonably mild. High pressure forced storms to the north of the Pacific Northwest coastal areas, allowing soils to dry and streams to recede from their banks. Parts of the northern and central Rocky Mountains received additional snow, while the southern Rocky's and Southwest remained dry. Below-normal temperatures persisted in California's valleys, hindering growth of small grains, winter forages, vegetable crops, and emerging sugarbeets. Increasing dryness also contributed to slow growth. Most of the remaining navel orange crop was damaged and some was destroyed. Picking of mature fruit continued in southern California. Pruning, weed control, and fertilizing activities continued in vineyards and non-citrus fruit orchards.

## Snow Depth (Inches)

Jan 11, 1999



Experimental product based on preliminary data  
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

The NWS co-operative network is the principal source of the snow depth reports.

## December Weather and Crop Summary

### Weather

Arctic air enveloped much of the Nation following early- to mid-month record warmth, severely damaging citrus in California's San Joaquin Valley (December 21-25) and threatening soft white winter wheat in the Northwest (December 20-24). In the Plains and Ohio Valley, however, winter wheat escaped with only some burning back of top-growth, as snow cover insulated the potentially vulnerable portion of the crop. During the coldest period (December 19-26), only a few areas, including coastal southern California, the lower Colorado Valley, extreme southern Texas, and Peninsular Florida, escaped sub-freezing temperatures. Lowest temperatures ranged from -10 to -30°F across the northern and central Plains as far south as eastern Colorado and west-central Kansas. A reinforcing Arctic blast arrived at year's end (December 29-31), primarily affecting the northern Plains and Midwest.

Despite the late-month chill, December temperatures averaged 4 to 10°F above normal across the Midwest. Similar departures (+2 to +8°F) were noted in the East. During the first 8 days of the month, nearly 500 daily-record highs were set or tied, while more than 50 locations reported December-record highs. A second warm spell, beginning on December 12, produced more than 100 additional daily-record highs before an Arctic cold front swept off the east coast on December 22. In California, the cold wave helped to hold monthly temperatures as much as 4°F below normal.

Heavy precipitation continued across the Pacific Northwest for a second consecutive month, contributing to late-month flooding west of the Cascades. Some of the moisture spread across the Cascades into the northern Rockies, but most areas in a broad swath from California to the Northeast, including the Great Lakes region, received below-normal precipitation. Meanwhile, a series of low-pressure systems crossed the South, producing monthly precipitation greater than 4 inches in areas from eastern Texas and southeastern Oklahoma to North Carolina and southern Virginia. A pair of storms during the second week of December provided this region with heavy rainfall, but a December 22-24 ice storm caused power outages and transportation disruptions. Although the Southeast's precipitation provided significant relief from long-term dryness, many locations both north and south of the primary storm track saw moisture deficits mount. Drought stretched through a sixth month in portions of the northern Mid-Atlantic region.

Mild weather during the first 8 days of December raised the number of daily-record highs during the 2½-week warm spell (November 22 - December 8) to more than 700 days. The month opened with the high soaring to 77°F in Pierre, SD. Elsewhere in South Dakota, Sioux Falls' highs reached 63 degrees F on the first 3 days of the month, breaking their monthly record by 1 degree, which had been set on December 3, 1941. Several locations in the East, such as Washington, DC and New York's Central Park, set December records on the 4<sup>th</sup>, only to see them broken again. Highs finally peaked on December 7 in Washington (79°F) and New York (75°F). In Virginia on the 6<sup>th</sup>, maxima reached or exceeded 80°F as far north as Richmond (81°F) and Roanoke (80°F). A day later, Bridgeport, CT notched 76°F. Prior to this year, Bridgeport's previous December record had been 65°F on December 11, 1971 (Figure 1).

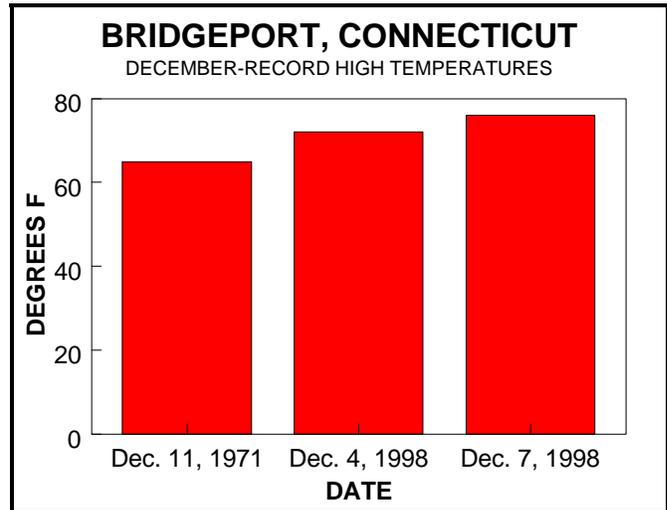


Figure 1

The warm conditions held off first autumn freezes to record-late dates at several sites across the South and East, including Midland, TX on December 7 (formerly December 6, 1954), Oklahoma City, OK on December 8 (November 30, 1934), Atlanta, GA on December 18 (December 11, 1994), Little Rock, AR on December 21 (December 11, 1994), and New York's Central Park on December 22 (December 11, 1948). A day after Midland's first freeze, the region's first hard freeze helped to defoliate unharvested cotton on the southern High Plains. Chicago, IL, coming off their record latest 5-day (November 26-30) streak with highs above 60°F, repeated the feat from December 2-6. Chicago also noted their second-sunniest December on record, with insolation observed during 62 percent (%) of the daylight hours. Normal for December is 37%, and the record, 65%, occurred in 1988.

In the West, however, a 21.2-inch snowfall buried Livingston, MT on December 3-4. A trace of snow fell in Phoenix on December 6, their first such observance since February 4, 1994. On the same day, 1.0 inch whitened Las Vegas, NV. The only other time when at least an inch of snow accumulated in Las Vegas during December was on the 15<sup>th</sup> in 1967, 2.0 inches fell. On December 11, heavy snowfall disrupted an otherwise dry pattern across the southernmost High Plains. In Texas, 9.8 inches blanketed Midland, breaking their records for snowfall during a 24-hour period (6.8 inches on January 23-24, 1974) and an entire month (9.0 inches in January 1985). Wintry weather also accompanied Arctic air into California's San Joaquin Valley on December 20, resulting in the most significant snowfall there in exactly 30 years.

In the snow's wake, damaging cold settled across the San Joaquin Valley from December 21-25. Bakersfield, CA noted 19°F on December 23, tying their all-time record low set seven times during the freezes of December 1990, January 1937, and December 1929 - January 1930. Bakersfield's high had reached only 34°F the previous afternoon, their coldest maximum on record (formerly 35°F on December 11, 1932). Citrus and vegetables in the valley

sustained serious damage from the 5-day freeze, but key agricultural areas in southern California escaped with minor damage. Farther east, Grand Junction, CO reported a minimum of -12°F on December 22, their lowest temperature since December 24, 1990. Boise, ID, with a low of -2°F on December 21, registered a sub-zero temperature for the first time since November 24, 1993. Most of the Northwest's soft white winter wheat had no protective snow cover when temperatures dipped to near- or sub-zero levels from December 20-24, raising concerns about potential damage to the portion of the crop that entered dormancy poorly established. Elsewhere in the West, temperatures bottomed out at -45°F (on December 21) in West Yellowstone, MT and -40°F (on December 22) in Greenville, UT.

Farther east, the Arctic outbreak ended a 29-day streak (November 20 to December 18) of above-normal temperatures in Huron, SD. Temperatures in Huron averaged 16°F above normal during that span. Elsewhere in South Dakota, Rapid City reported a 91-degree F temperature drop in 4 days, from a high of 69°F on the 17<sup>th</sup> to a low of -22°F on the 21<sup>st</sup>. On December 19, readings dipped below 20°F in Omaha, NE for the first time during the autumn, breaking a record that had stood since December 13, 1915. Little Rock, AR noted only 12 days with lows at or below 32°F during the first 354 days of 1998, but 9 such days during the last 11 days of December. Their previous annual record of 19 days, set in 1931, remained intact. In Indiana, Indianapolis' lowest temperature of the year (4°F) was recorded on December 31.

Light snow accompanied the arrival of bitterly cold air in many areas. Omaha had no measurable precipitation from November 11 to December 19, a 39-day period, but 0.15 inch (3.4 inches of snow) fell thereafter. Heavier snow blanketed parts of the Intermountain West, where Grand Junction, CO measured their greatest single-day accumulation (6.3 inches on December 20) since January 4, 1991. In southern Utah, snow depths reached 11 inches in Richfield and 15 inches in Milford. Across the Southeast, moisture overran the newly entrenched Arctic air from December 22-24, resulting in a major ice storm from central Texas to the southern Mid-Atlantic region. Farther north, one of the month's only snow-producing storms crossed the Midwest on December 30, dumping 6.6 inches in Des Moines, IA, and the season's first measurable snowfall in locations such as Columbia, MO (1.0 inch) and Evansville, IN (1.5 inches).

Frequent rains in the Northwest resulted in the wettest November-December period on record in Seattle, WA, breaking a 1995 record by more than 2 inches. Seattle's December rainfall totaled 8.98 inches (152% of normal), boosting their 2-month total to 20.60 inches. The wet spell culminated in late-month flooding, especially west of the Cascades. On December 28, several coastal rivers in western Oregon—including the Siletz and Wilson Rivers—crested at levels slightly above those observed during the February 1996 flood. In contrast, continued dry weather in the Northeast left Portland, ME (3.36 inches) with their second-driest November-December period on record. Only 3.11 inches dampened Portland in November-December 1924. In Washington, DC, July-December 1998 precipitation was a mere 7.45 inches (37% of normal), ahead of only 6.79 inches in July-December 1930 (Figure 2).

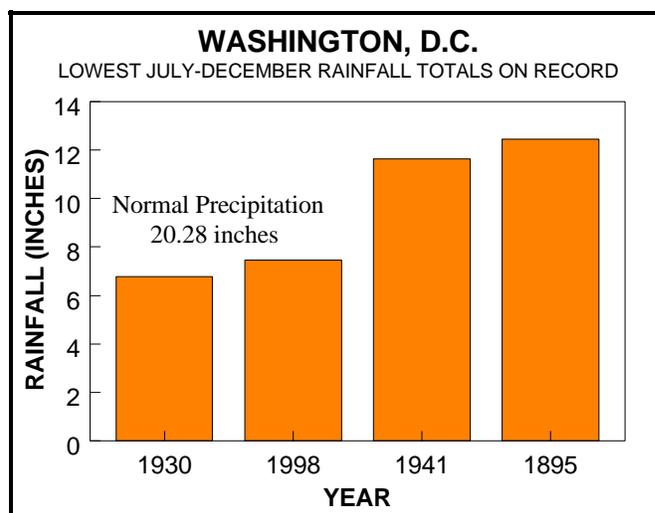


Figure 2

In Alaska, monthly temperatures ranged from as much as 5°F below normal in southwestern areas to 9°F above normal across the extreme north. Precipitation patterns were highly variable. While Yakutat experienced their fifth-driest December (8.31 inches, or 59% of normal) in the past 30 years, Anchorage netted their greatest December snowfall (37.6 inches, or 271%) since 1955. Annual precipitation reached 27.51 inches in Nome (second only to a 29.49-inch total in 1922), and 106.21 inches (157% of normal) in Kodiak

Despite 0.84 inches of rain on December 31, Honolulu, HI ended 1998 with 4.52 inches (21% of normal), their driest year on record. The previous record (5.03 inches) had been set in 1983. At the major reporting sites, December rainfall ranged from 1.15 inches (30% of normal) in Honolulu to 9.89 inches (82%) in Hilo. Despite December's dry weather, most of Hawaii—especially in windward (east-facing) locations—experienced significant drought relief during the latter half of the year with the transition from El Niño to La Niña. The El Niño-driven drought peaked during the spring of 1998.

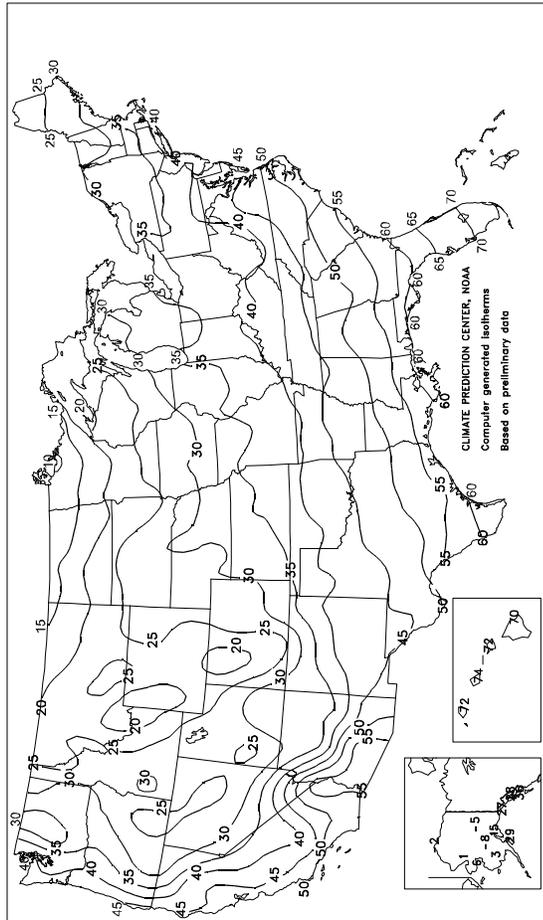
## Fieldwork

A large mass of cold air descended from Canada early in the month and brought the first major snowstorm days later. Harvest activities were halted and wheat fields were blanketed with at least a few inches of snow in the northern Great Plains. A few days later, another storm delivered a mixture of snow and freezing rain in the northern Plains. As the system moved eastward, it produced heavy rains and damaging winds in parts of the Corn Belt and Mississippi Valley. During the second half of the month, temperatures averaged well above normal across most of the Nation, aiding development of winter wheat in the central and southern Great Plains, Mississippi Delta, southern and eastern Corn Belt, and Southeast. Dry conditions also prevailed over much of the Nation during the last half of the month, aiding harvest and fall tillage. Harvest activities slowly resumed late in the month in the northern Plains and upper Mississippi Valley following earlier storms.

(Continued on page 11)

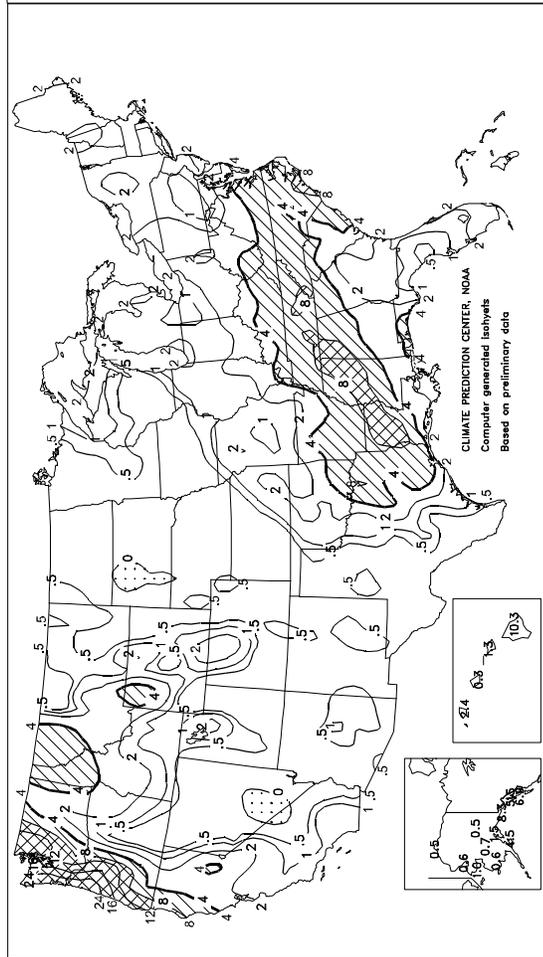
Average Temperature (°F)

DEC 1998



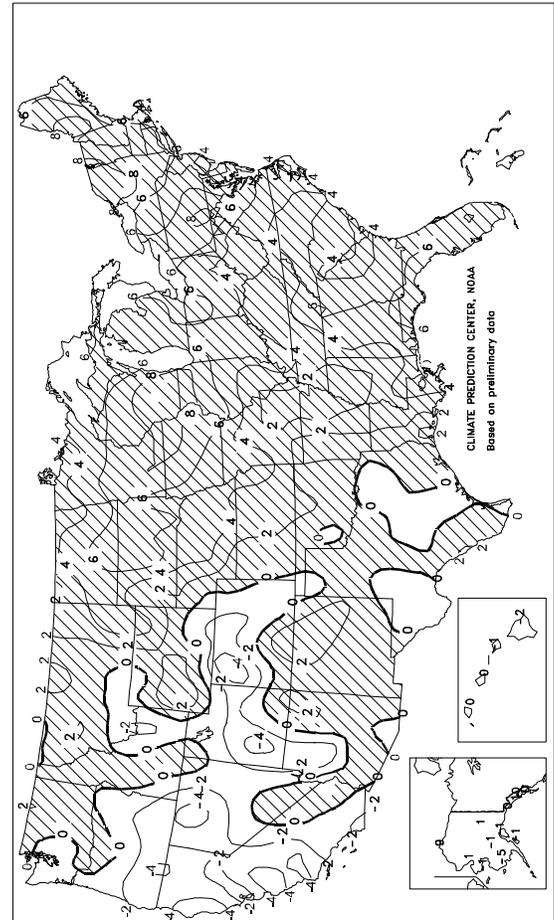
Total Precipitation (Inches)

DEC 1998



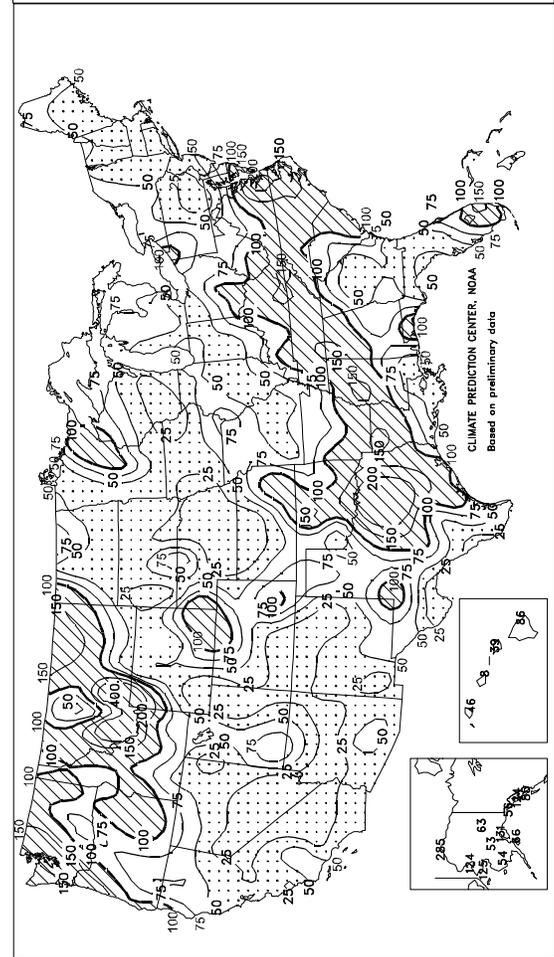
Departure of Average Temperature from Normal (°F)

DEC 1998



Percent Of Normal Precipitation

DEC 1998



(Continued from page 9)

The harvest of the Nation's corn and soybean crops was nearing completion as the month began. Progress for both exceeded the average due to early ripening and good harvest weather. Nationally, the corn harvest was more than 1 week ahead of normal, with some areas of the northern Corn Belt more than 2 weeks ahead of the 5-year average. The soybean harvest pace slowed as the end of the season approached, and was less than 1 week ahead of the average as the month began. Favorable weather during the month allowed the corn and soybean harvests pace to continue ahead of normal, despite isolated delays. The corn harvest briefly fell behind normal in parts of the central Great Plains near mid-month, but warm, dry weather returned and the harvest pace quickly increased to ahead of the average.

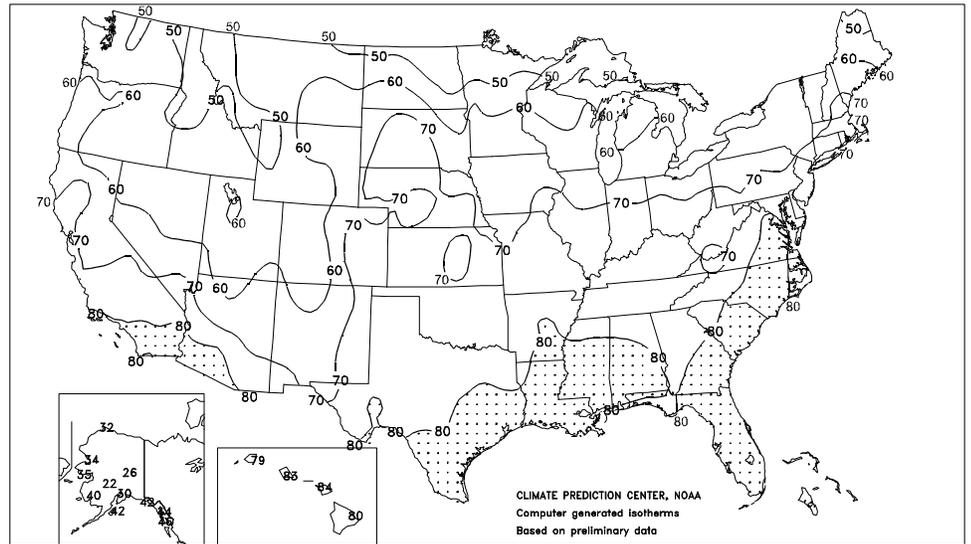
Most of the Nation's winter wheat was seeded as the month began, but progress was slightly behind normal. Planting was virtually complete in the northern Plains and Rocky Mountains, while growers in the Southeast and Southwest were just starting to gain momentum. By mid-month, most planting in the central and southern Great Plains and eastern Corn Belt was complete. Rain delayed planting in parts of the southern Corn Belt. Dry soils forced growers in the Southeast to delay planting until early-month showers partially relieved topsoil dryness. Emergence also lagged behind normal, partly because of late planting and dry soils, especially in the Great Plains and Southeast. Emergence improved in the Great Plains and Mississippi Delta after early-month soaking rains. Warm weather during the last half of the month stimulated growth in the central and southern Great Plains, Corn Belt, and lower Mississippi Valley.

The cotton harvest began the month more than 1 week ahead of normal and remained ahead of the average throughout the month. Mostly dry conditions allowed growers in the lower Mississippi Valley to complete their harvest by mid-month. Dry weather also aided harvest in the Southeast, but harvest progress lagged in California due to the late-maturing crop.

Sorghum harvest progressed slightly ahead of normal until mid-month, when rains slowed progress in the Great Plains and southern Corn Belt. Dry conditions aided progress during the second half of the month, except in the northern Plains, where progress was halted by early-month winter storms. Harvest resumed late in the month as muddy fields slowly dried. The peanut harvest also progressed ahead of normal, as dry weather prevailed in most peanut-producing regions. Florida growers finished harvesting far ahead of the average.

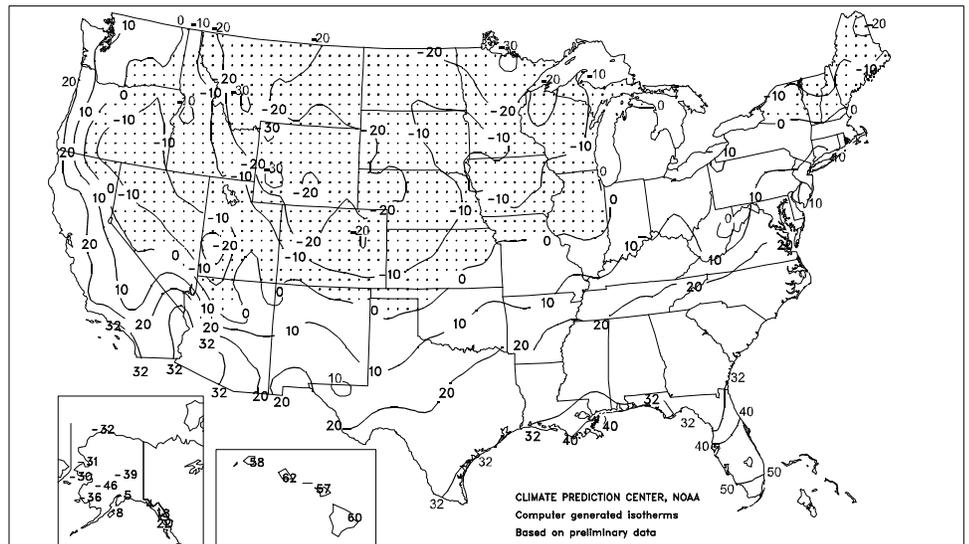
Extreme Maximum Temperature (°F)

December 1998



Extreme Minimum Temperature (°F)

December 1998



# TEMPERATURE AND PRECIPITATION SUMMARY

## December 1998

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	51	5	6.27	1.14	LAKE CHARLES	56	2	3.62	-1.43	MIDDLETOWN	40	7	0.31	-2.93
HUNTSVILLE	47	4	7.13	1.25	NEW ORLEANS	59	5	2.25	-3.50	PHILADELPHIA	42	6	0.82	-2.57
MOBILE	57	4	2.20	-3.10	SHREVEPORT	49	1	6.24	2.15	PITTSBURGH	37	6	1.81	-1.09
MONTGOMERY	54	4	2.01	-3.18	ME CARIBOU	21	6	1.57	-1.65	WILKES-BARRE	34	3	1.65	-0.81
AK ANCHORAGE	15	-2	1.47	0.38	PORTLAND	32	6	1.56	-3.00	WILLIAMSPORT	36	5	0.89	-2.14
BARROW	-2	9	0.46	0.34	MD BALTIMORE	41	4	1.27	-2.12	RI PROVIDENCE	38	5	1.27	-3.12
COLD BAY	28	-3	2.62	-1.05	MA BOSTON	39	5	1.59	-2.42	SC BEAUFORT	56	4	3.28	0.08
FAIRBANKS	-5	1	0.53	-0.30	WORCESTER	35	8	1.46	-2.60	CHARLESTON	55	4	4.34	1.19
JUNEAU	28	0	5.50	1.07	MI ALPENA	29	5	1.41	-0.62	COLUMBIA	52	4	2.29	-1.30
KODIAK	29	-2	4.51	-2.30	GRAND RAPIDS	33	6	1.20	-1.64	GREENVILLE	48	4	4.24	0.09
NOME	6	-2	1.04	0.19	HOUGHTON LAKE	28	6	1.04	-0.91	SD ABERDEEN	23	7	0.18	-0.22
VALDEZ	24	1	2.64	-4.16	LANSING	32	5	1.18	-1.15	HURON	26	7	0.21	-0.25
YAKUTAT	27	-1	8.31	-5.80	MARQUETTE	22	5	1.60	-1.01	RAPID CITY	27	2	0.05	-0.44
AZ FLAGSTAFF	31	1	0.50	-1.91	MUSKOGON	34	5	1.32	-1.71	SIoux FALLS	24	6	0.24	-0.46
PHOENIX	54	0	0.68	-0.30	MN DULUTH	19	6	1.57	0.31	TN BRISTOL	41	3	5.22	1.83
TUCSON	52	0	0.45	-0.62	INTL FALLS	7	3	0.37	-0.48	CHATTANOOGA	47	6	6.30	1.12
YUMA	56	0	0.17	-0.29	MINNEAPOLIS	25	7	0.46	-0.61	KNOXVILLE	44	4	5.95	1.40
AR FORT SMITH	43	3	3.04	0.00	ROCHESTER	25	8	0.29	-0.74	MEMPHIS	45	1	4.25	-1.49
LITTLE ROCK	45	2	3.36	-1.47	ST. CLOUD	21	7	0.89	0.06	NASHVILLE	43	3	6.40	1.78
BAKERSFIELD	43	-4	0.54	-0.08	MS JACKSON	51	4	6.24	0.33	TX ABILENE	45	-1	1.37	0.35
CA EUREKA	44	-4	5.40	-0.63	MERIDIAN	51	3	3.99	-2.08	AMARILLO	38	1	0.41	0.00
FRESNO	42	-3	0.67	-0.75	MO TUPELO	46	2	8.18	2.02	AUSTIN	53	1	1.56	-0.32
LOS ANGELES	55	-2	0.65	-1.00	COLUMBIA	35	3	1.22	-1.25	BEAUMONT	56	2	2.79	-2.00
REDDING	44	-1	2.20	-3.30	KANSAS CITY	35	4	1.11	-0.47	BROWNSVILLE	62	0	0.29	-0.97
SACRAMENTO	42	-3	0.65	-1.86	SAINT LOUIS	37	3	0.83	-2.21	CORPUS CHRISTI	59	1	0.72	-0.54
SAN DIEGO	55	-2	0.60	-0.99	SPRINGFIELD	37	2	1.36	-1.81	DEL RIO	52	0	0.19	-0.43
SAN FRANCISCO	47	-3	0.98	-2.11	MT BILLINGS	26	1	0.59	-0.19	EL PASO	46	1	0.34	-0.25
ALAMOSA	23	6	0.01	-0.45	BUTTE	17	0	1.10	0.63	FORT WORTH	47	0	4.43	2.57
CO SPRINGS	28	-1	0.15	-0.32	GLASGOW	18	2	0.60	0.23	GLAVESTON	58	2	4.87	1.34
DENVER	29	-2	0.35	-0.30	GREAT FALLS	25	1	0.22	-0.63	HOUSTON	55	2	3.89	0.43
GRAND JUNCTION	26	-3	0.26	-0.35	KALISPELL	26	3	2.01	0.29	LUBBOCK	41	0	0.26	-0.28
PUEBLO	29	-2	0.33	-0.10	MILES CITY	24	5	0.57	-0.04	MIDLAND	44	-1	0.58	0.01
CT BRIDGEPORT	39	4	1.05	-2.45	MISSOULA	25	2	1.27	0.12	SAN ANGELO	46	0	0.49	-0.29
HARTFORD	36	7	0.83	-3.08	NE GRAND ISLAND	31	5	0.11	-0.61	SAN ANTONIO	53	0	0.40	-1.10
WASHINGTON	44	5	1.74	-1.38	LINCOLN	31	5	0.19	-0.69	VICTORIA	55	-1	3.59	1.54
DE WILMINGTON	41	5	1.04	-2.45	NORFOLK	29	7	0.13	-0.61	WACO	48	0	4.08	2.23
FL DAYTONA BEACH	65	5	1.35	-1.22	NORTH PLATTE	28	3	0.01	-0.45	WICHITA FALLS	43	1	1.93	0.64
JACKSONVILLE	59	4	0.42	-2.30	OMAHA	31	6	0.13	-0.89	UT SALT LAKE CITY	29	0	1.19	-0.23
KEY WEST	75	3	2.02	0.01	SCOTTSBLUFF	26	0	0.86	0.29	VT BURLINGTON	32	9	0.37	-2.05
MIAMI	73	4	1.98	0.13	VALENTINE	28	6	0.42	0.04	VA LYNCHBURG	41	3	3.08	-0.17
ORLANDO	67	5	0.62	-1.54	NV ELY	25	-1	0.31	-0.42	NORFOLK	49	5	5.33	2.10
PENSACOLA	59	5	4.36	0.07	LAS VEGAS	48	2	0.04	-0.33	RICHMOND	44	4	4.98	1.71
TALLAHASSEE	58	5	1.67	-3.37	RENO	32	-1	0.04	-0.94	ROANOKE	43	5	2.32	-0.64
TAMPA	68	6	0.92	-1.24	WINNEMUCCA	25	-5	0.42	-0.47	WASH/DULLES	41	5	1.53	-1.68
GA WEST PALM BEACH	71	4	3.91	1.43	NH CONCORD	31	7	0.85	-2.31	WA HANFORD	33	--	0.44	--
ATHENS	49	4	1.85	-2.24	NJ NEWARK	42	6	1.03	-2.41	OLYMPIA	38	0	12.99	4.88
ATLANTA	50	5	1.80	-2.53	NM ALBUQUERQUE	38	3	0.22	-0.27	QUILLAYUTE	40	-1	21.47	6.00
AUGUSTA	52	4	1.37	-2.03	NY ALBANY	34	7	1.04	-1.89	SEATTLE-TACOMA	40	-1	8.98	3.07
COLUMBUS	54	5	1.59	-3.38	BINGHAMTON	33	7	1.59	-1.41	SPOKANE	29	1	3.28	0.87
MACON	52	4	1.52	-2.79	BUFFALO	35	6	1.54	-2.13	YAKIMA	30	1	0.74	-0.69
SAVANNAH	55	4	2.32	-0.64	ROCHESTER	35	5	1.60	-1.13	WV BECKLEY	37	3	4.34	1.10
HI HILO	70	-3	9.89	-2.15	SYRACUSE	35	7	1.71	-1.49	CHARLESTON	40	3	3.18	-0.21
HONOLULU	74	0	1.15	-2.65	NC ASHEVILLE	44	4	3.04	-0.48	ELKINS	35	3	1.99	-1.50
KAHULUI	72	-1	1.16	-2.11	CHARLOTTE	48	5	3.28	-0.20	HUNTINGTON	40	3	2.96	-0.39
LIHUE	72	-1	2.16	-2.99	GREENSBORO	45	4	5.22	1.85	WI EAU CLAIRE	24	8	0.49	-0.61
ID BOISE	31	1	1.65	0.30	HATTERAS	54	5	4.72	0.18	GREEN BAY	28	7	0.30	-1.23
LEWISTON	34	0	1.00	-0.22	RALEIGH	46	3	3.44	0.20	MADISON	31	10	0.29	-1.55
POCATELLO	23	-2	0.73	-0.37	WILMINGTON	53	4	3.96	0.33	MILWAUKEE	32	8	0.88	-1.45
IL CHICAGO/O'HARE	35	8	1.20	-1.27	ND BISMARCK	21	7	0.24	-0.25	CASPER	25	1	0.10	-0.56
MOLINE	33	7	1.18	-1.05	DICKINSON	22	5	0.18	-0.19	CHEYENNE	27	-1	0.46	0.05
PEORIA	33	6	1.75	-0.69	FARGO	17	6	0.31	-0.33	LANDER	24	3	0.24	-0.33
ROCKFORD	32	8	0.91	-1.14	GRAND FORKS	12	2	0.24	-0.40	SHERIDAN	24	1	0.23	-0.50
SPRINGFIELD	34	4	0.64	-2.10	JAMESTOWN	18	5	0.18	-0.31	PR SAN JUAN	79	1	7.99	3.53
IN EVANSVILLE	39	4	3.48	-0.19	WILLISTON	17	3	0.76	0.17					
FORT WAYNE	34	6	1.10	-1.79	OH AKRON-CANTON	35	4	2.14	-0.81					
INDIANAPOLIS	36	5	1.00	-2.34	CINCINNATI	38	4	3.82	0.67					
SOUTH BEND	34	5	2.04	-1.27	CLEVELAND	37	6	1.92	-1.17					
IA BURLINGTON	34	7	1.84	-0.12	COLUMBUS	38	6	3.25	0.39					
CEDAR RAPIDS	26	0	0.57	-0.93	DAYTON	36	5	2.13	-0.80					
DES MOINES	30	6	0.40	-0.91	MANSFIELD	35	5	1.55	-1.52					
DUBUQUE	30	8	0.15	-1.81	TOLEDO	35	7	0.61	-2.33					
SIoux CITY	28	6	0.13	-0.65	YOUNGSTOWN	36	6	2.36	-0.57					
WATERLOO	29	8	0.28	-1.02	OK OKLAHOMA CITY	42	2	1.62	0.22					
KS CONCORDIA	34	4	0.10	-0.74	TULSA	41	2	1.57	-0.59					
DODGE CITY	34	2	0.29	-0.37	OR ASTORIA	42	-1	16.53	5.97					
GOODLAND	30	0	0.12	-0.29	BURNS	24	-1	1.15	0.00					
TOPEKA	36	5	1.22	-0.21	EUGENE	40	-2	8.53	-0.08					
WICHITA	36	3	1.06	-0.14	MEDFORD	35	-2	1.23	-2.08					
KY JACKSON	41	3	5.16	0.77	PENDLETON	36	2	1.37	-0.25					
LEXINGTON	39	3	3.23	-0.76	PORTLAND	41	0	6.74	0.60					
LOUISVILLE	42	5	3.27	-0.38	SALEM	40	0	8.79	1.98					
PADUCAH	40	3	3.71	-0.97	PA ALLENTOWN	37	6	0.64	-2.85					
LA BATON ROUGE	56	3	3.58	-1.95	ERIE	38	6	3.59	0.00					

Based on 1961-90 normals.

# International Weather and Crop Summary

January 3 - 9, 1999

## HIGHLIGHTS

**FSU-WESTERN:** Unseasonably mild weather favored winter grains but diminished protective snow cover in the west and south.

**EUROPE:** Mild weather continued over Europe, with most winter grain areas lacking a protective snow cover.

**NORTHWESTERN AFRICA:** Mostly dry weather prevailed over winter grain areas in Morocco, Algeria, and Tunisia.

**AUSTRALIA:** Locally heavy rain sustained abundant moisture levels in Queensland's northern and eastern summer crop areas.

**SOUTH AFRICA:** Prospects were favorable for corn, sugarcane, and other summer crops advancing toward reproduction.

**SOUTHEAST ASIA:** Heavy showers continued across the central Philippines, but drier weather eased wetness for oil palm in peninsular Malaysia.

**EASTERN ASIA:** Cold weather kept winter wheat dormant across the North China Plain.

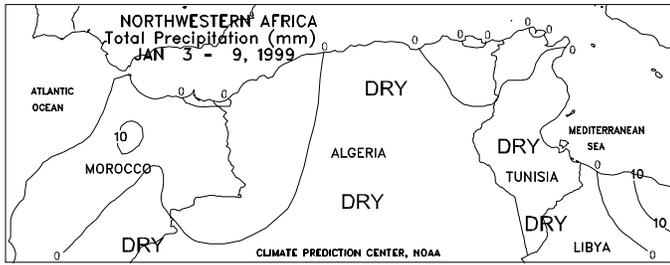
**SOUTH AMERICA:** Warm, mostly dry weather limited soil moisture in Rio Grande do Sul, while soil moisture was adequate to abundant elsewhere in southern Brazil.

**CENTRAL AMERICA:** Along the northern coast of Honduras, heavy showers caused local flooding and hampered recovery efforts after Hurricane Mitch.



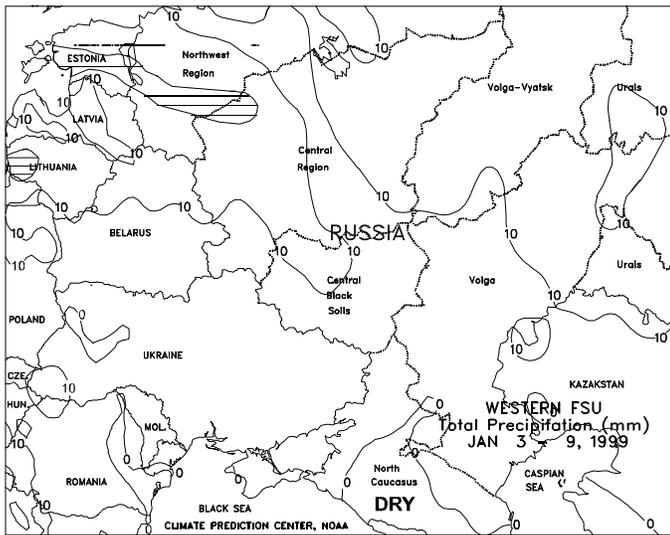
## EUROPE

A strong westerly flow of maritime air continued to spread across the region. Frequent showers (10-25 mm) fell over winter grain areas from England and northern France eastward through Germany, increasing moisture reserves. Farther south, light showers (10-20 mm) continued to favor winter wheat in northern Spain and Portugal, while dry weather returned to crop areas in southern Spain. Elsewhere, early-week showers (10-25 mm) moistened topsoils in southern Italy and Greece, followed by mostly dry weather. Precipitation in eastern Europe was generally light (4-10 mm), except in southern Hungary and Serbia, where precipitation amounts from 10 to 22 mm were observed. Weekly temperatures averaged 4 to 8 degrees C above normal in northern Europe and 3 to 6 degrees C above normal in the south. As a result of the mild weather conditions, winter grain areas over most of Europe lacked a protective snow cover.



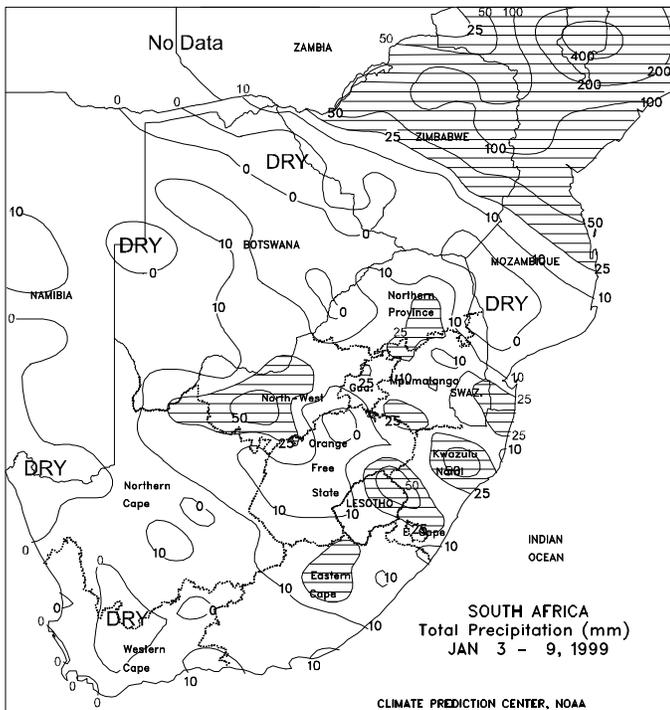
**NORTHWESTERN AFRICA**

Unseasonably warm, dry weather prevailed over winter grain areas in Morocco, Algeria, and Tunisia. The dryness in these areas favored late planting activities. Winter grains were mostly in the vegetative stage over the region. Morocco has had only 2 weeks of significant rain since the beginning of the growing season, and moisture reserves remained limited for crop development. Farther east, a drying trend since December in southern growing areas of Algeria and Tunisia has reduced moisture for winter grains, and rain is needed soon to prevent a decline in crop conditions. Weekly temperatures averaged 2 to 4 degrees C above normal in Morocco, and 1 to 3 degrees C above normal in Algeria and Tunisia.



**FSU-WESTERN**

A strong westerly flow of air from Europe continued to usher in unseasonably mild weather to most winter grain areas. Weekly temperatures averaged 3 to 6 degrees C above normal over most of the region. Temperatures rose above freezing over most areas, with the warmest weather (extreme maximum temperatures ranging from 5 to 14 degrees C) in Ukraine, Belarus, Lithuania, and the North Caucasus region in Russia. The continued mild weather in these areas diminished protective snow cover, leaving crop areas vulnerable to potential extreme cold. Elsewhere, extreme maximum temperatures in northern Russia ranged from 1 to 4 degrees C, causing some melting of protective snow cover. Light, scattered precipitation (2-10 mm) fell mostly in the form of rain in Ukraine, Belarus, and southern areas in Russia.

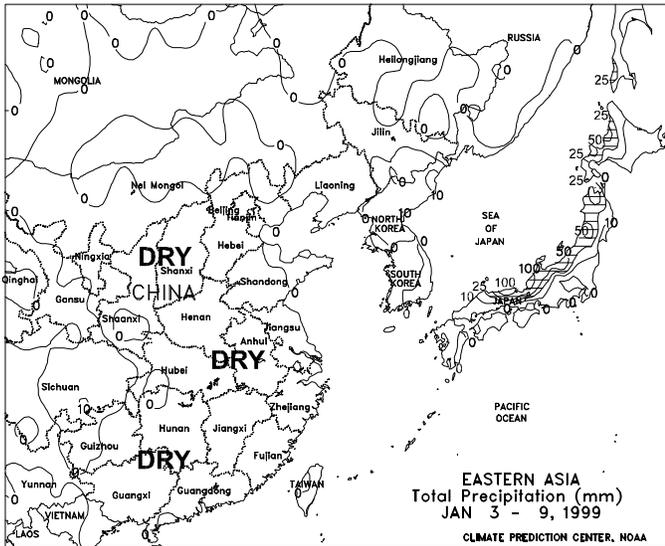


**SOUTH AFRICA**

Light to moderate showers (5-25 mm or more) and summer warmth maintained favorable growing conditions throughout the primary summer crop areas. In coastal areas, the moisture extended westward through the main sugarcane areas into eastern sections of Eastern Cape. Corn, sugarcane, and other summer crops were approaching reproductive phases of development, and would benefit from a continuation of seasonable conditions through February. In Western Cape, drier weather continued to ease the problem of saturated soils but periods of heat (highs in the upper 30's to lower 40's degrees C) posed some stress on crops and livestock.

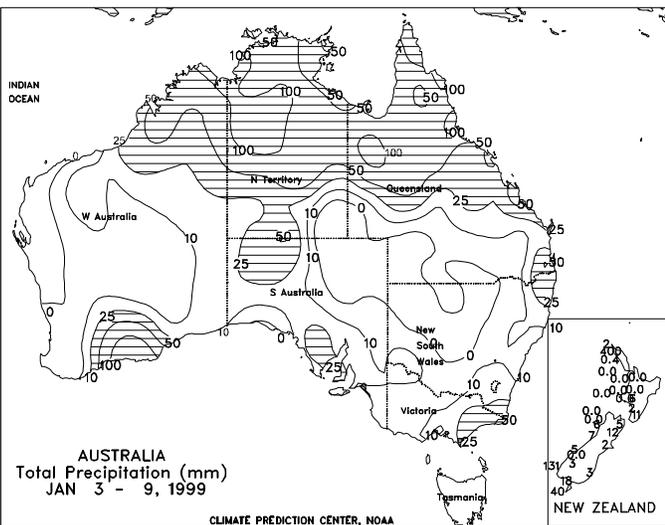
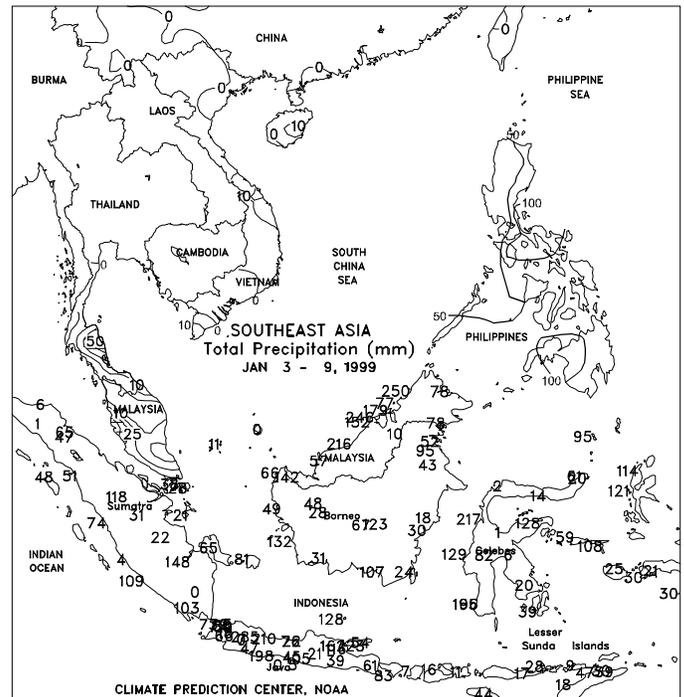
**EASTERN ASIA**

Cold weather (minimum temperatures ranging from -5 to -10 degrees C) kept winter wheat dormant across the North China Plain. Precipitation averaged less than 25 percent of normal from September 1 to December 31 in the North China Plain, resulting in the poor establishment of rainfed winter wheat. A significant portion of winter wheat, however, is irrigated or partially irrigated, therefore reducing the impact of the dryness. Dry weather prevailed across most of the country.



**SOUTHEAST ASIA**

In the Philippines, heavy showers (50-200 mm) continued across southern Luzon and the central islands, boosting moisture for second-crop grains, but causing some flooding. Seasonably dry weather prevailed across Thailand and southern Vietnam, favoring rice fieldwork. Drier weather (10-80 mm) eased wetness for oil palm across peninsular Malaysia. In Java, widespread showers (40-150 mm) continued to maintain moisture supplies for main-season rice development.



**AUSTRALIA**

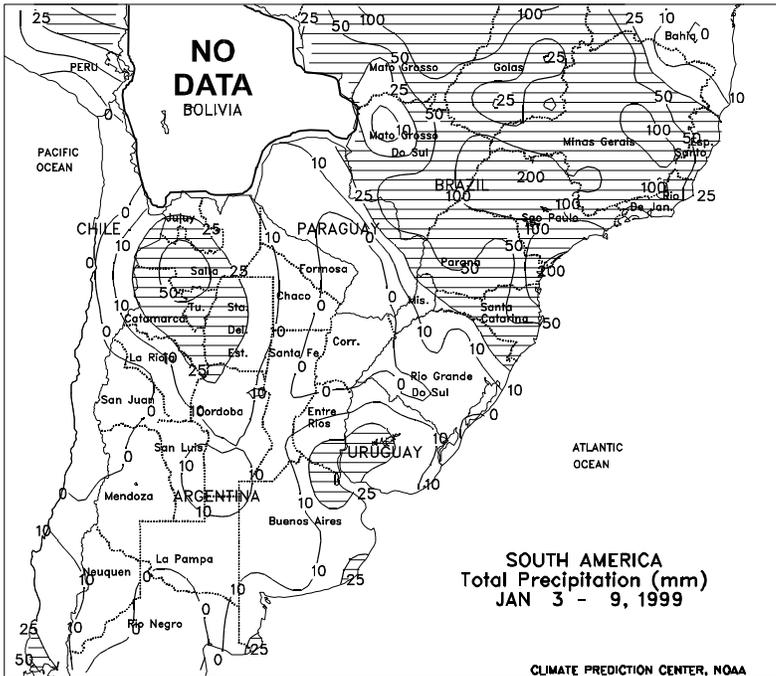
Locally heavy rain (10-50 mm or more) continued over Queensland's northern cotton and sorghum areas, maintaining above-normal moisture reserves. Moderate to heavy showers (25-50 mm or more) along the east coast benefited sugarcane growth. However, harvesting was reportedly still under way and declines in sugar content resulting from the wetness were anticipated. In the inland summer crop areas of southern Queensland and northern New South Wales, warmer, somewhat drier weather (highs in the middle 30's degrees C, with rainfall generally less than 10 mm) favored cotton and sorghum growth. However, hot, dry weather in the western rangelands likely stressed livestock. Elsewhere, scattered showers (5-25 mm, locally exceeding 50 mm) in western and southern agricultural districts benefited pasture and grazing lands but hampered late fieldwork. Winter grain harvesting is typically completed by now. In New Zealand, dry, seasonably warm weather led to further declines in moisture available to crops and livestock.

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**SOUTH AMERICA**

In Rio Grande do Sul, Brazil, warmer weather and below-normal rainfall (less than 15 mm) limited soil moisture for soybean development. Typically, weekly rainfall averages 30 to 35 mm per week during early January across the state. Elsewhere in southern Brazil, widespread showers (30-125 mm) maintained adequate to abundant soil moisture for soybeans. Temperatures averaged 2 to 3 degrees C above normal in Rio Grande do Sul and near normal elsewhere in southern Brazil. In central Argentina, light rain (5-20 mm) covered the region and cool weather (temperatures 2-3 degrees C below normal) eased crop water use. Heavier rain (25-35 mm) fell near the city of Buenos Aires. Dry weather covered northern Argentina and most of southern Paraguay, favoring cotton development. According to reports on January 1, Argentine corn was 93 percent planted versus 96 percent last year, soybeans were 94 percent planted versus 92 percent last year, and cotton was 95 percent planted. Wheat harvesting was 93 percent completed versus 64 percent last year.

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