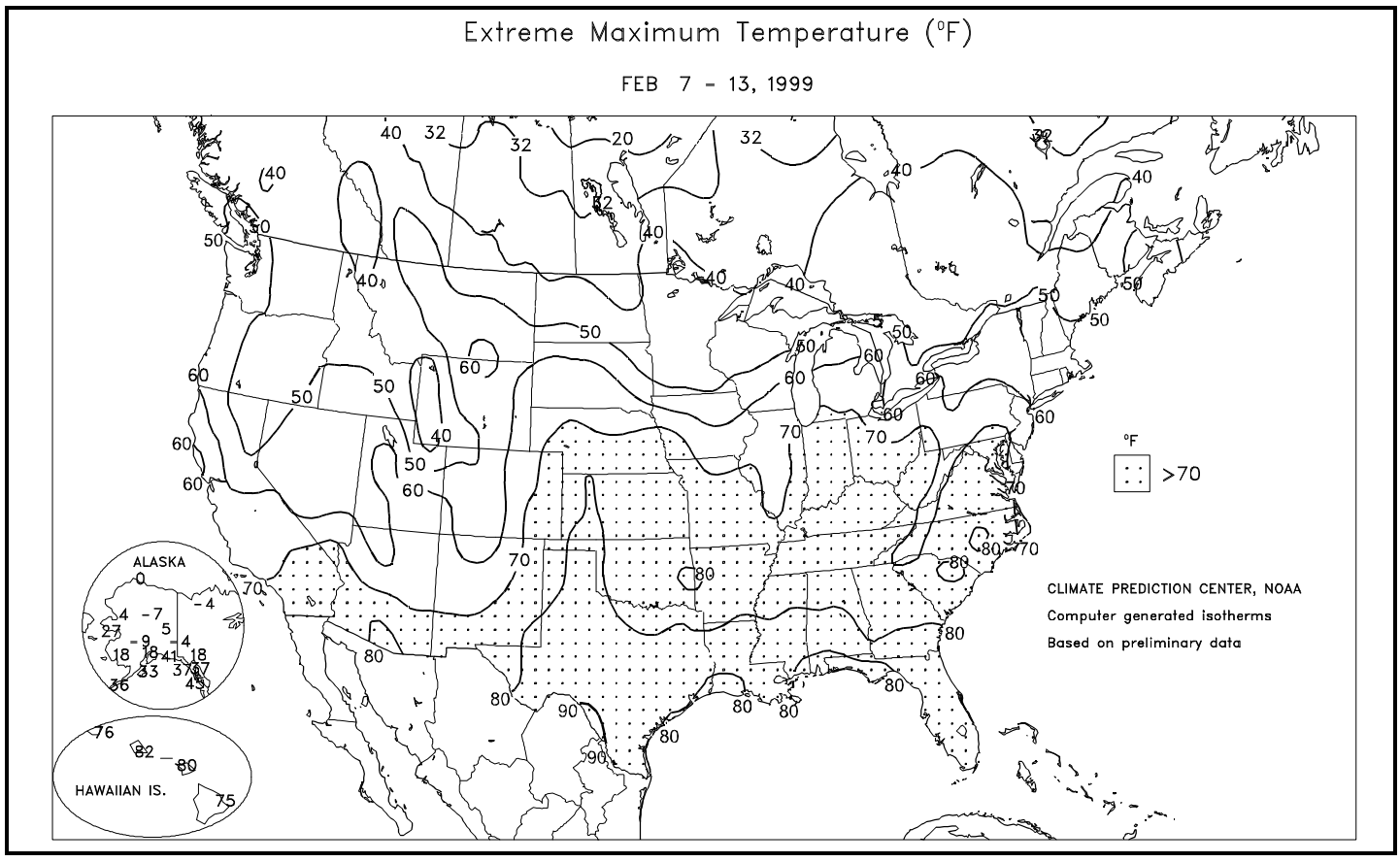
Volume 86, No. 7 **February 17, 1999**

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



HIGHLIGHTS

February 7 - 13, 1999

A late-week cold snap interrupted a month-long warm spell from the **Rockies eastward**, lowering temperatures to the freezing mark (32°F) or below north of a line from **central Louisiana to northern Florida** (on February 14 and 15). The colder weather was mostly beneficial across the **South**, slowing the development of fruit trees and winter grains, but burning back some recent growth. Despite the cool-down, weekly temperatures generally ranged from 5 to 15°F above normal across the **eastern two-thirds of the Nation**, resulting in more than 225 daily-record highs and nearly a dozen February-record highs. In contrast, cool weather persisted in parts of the **West**. Temperatures

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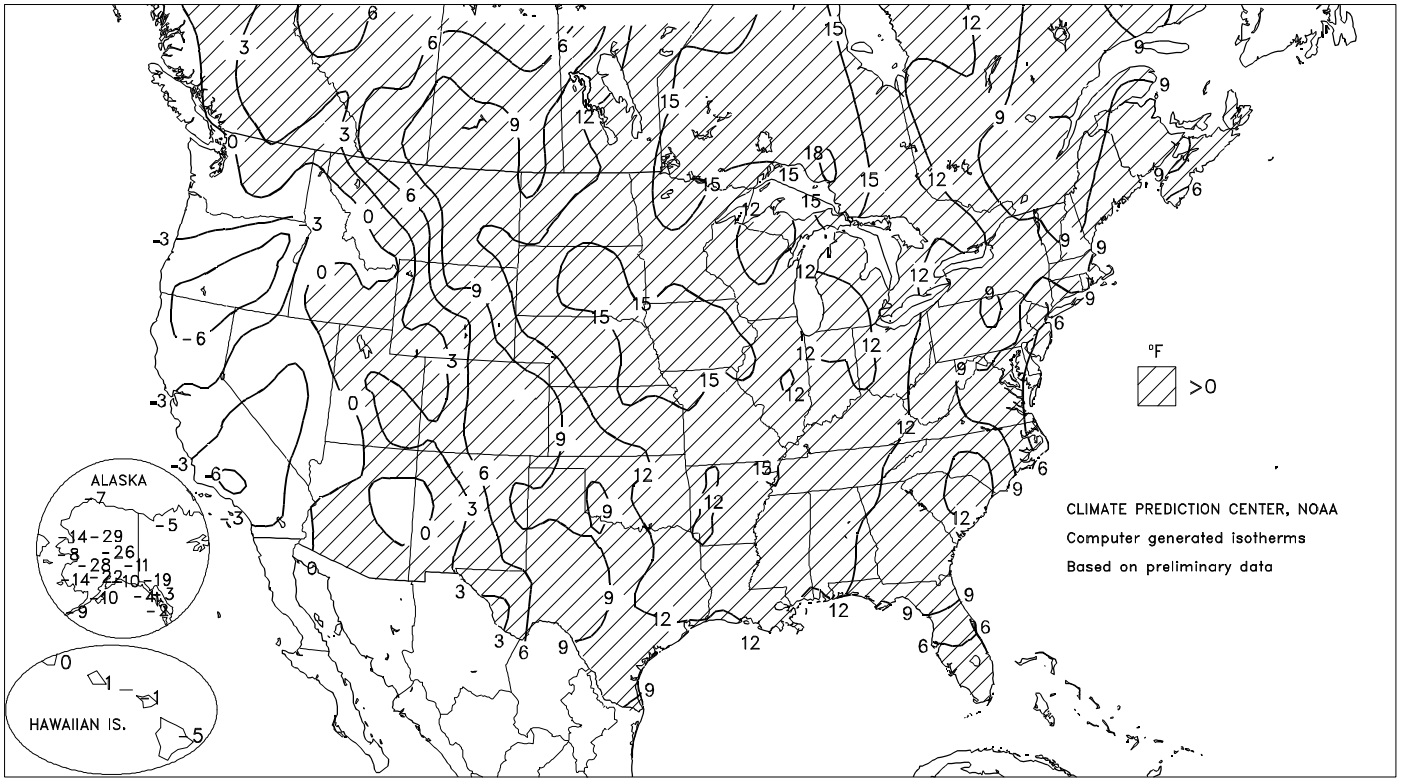
Contents

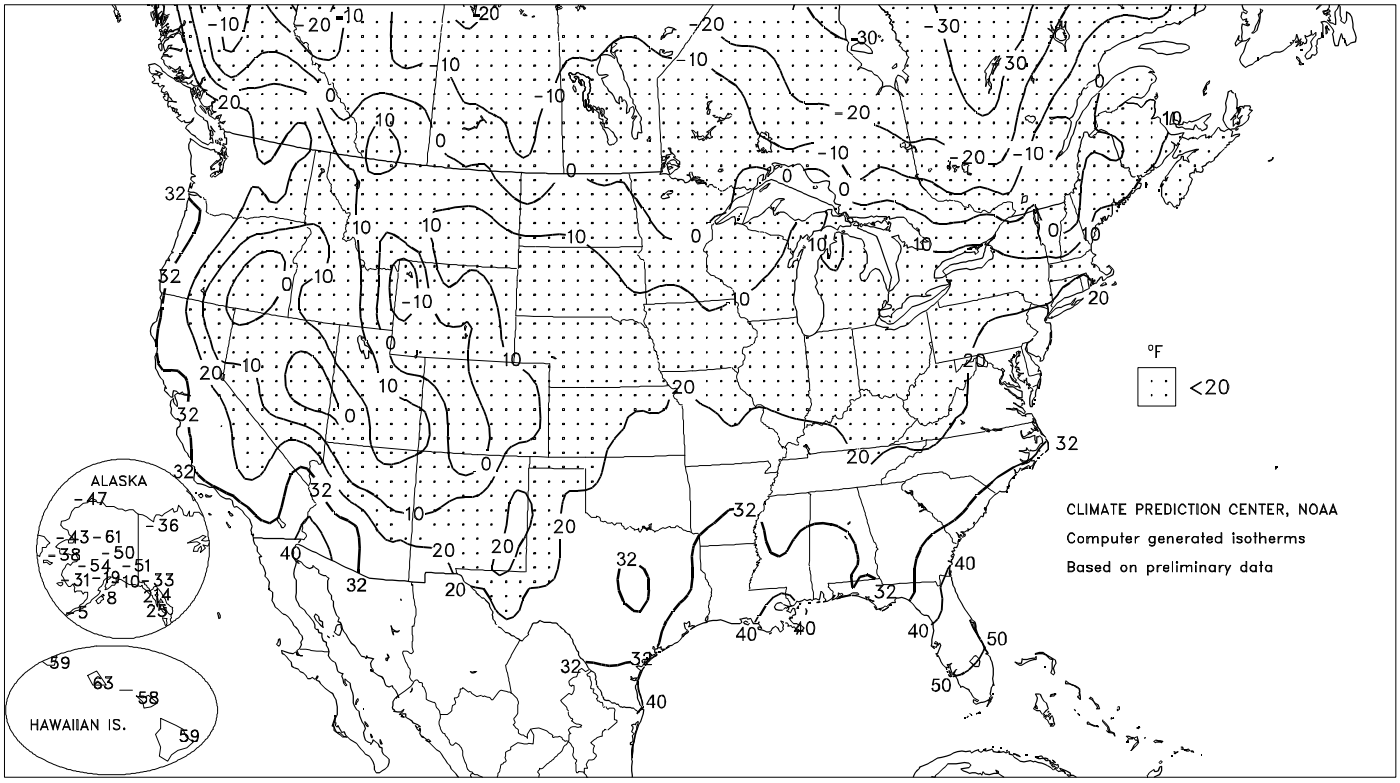
Departure of Average Temperature from Normal (°F)

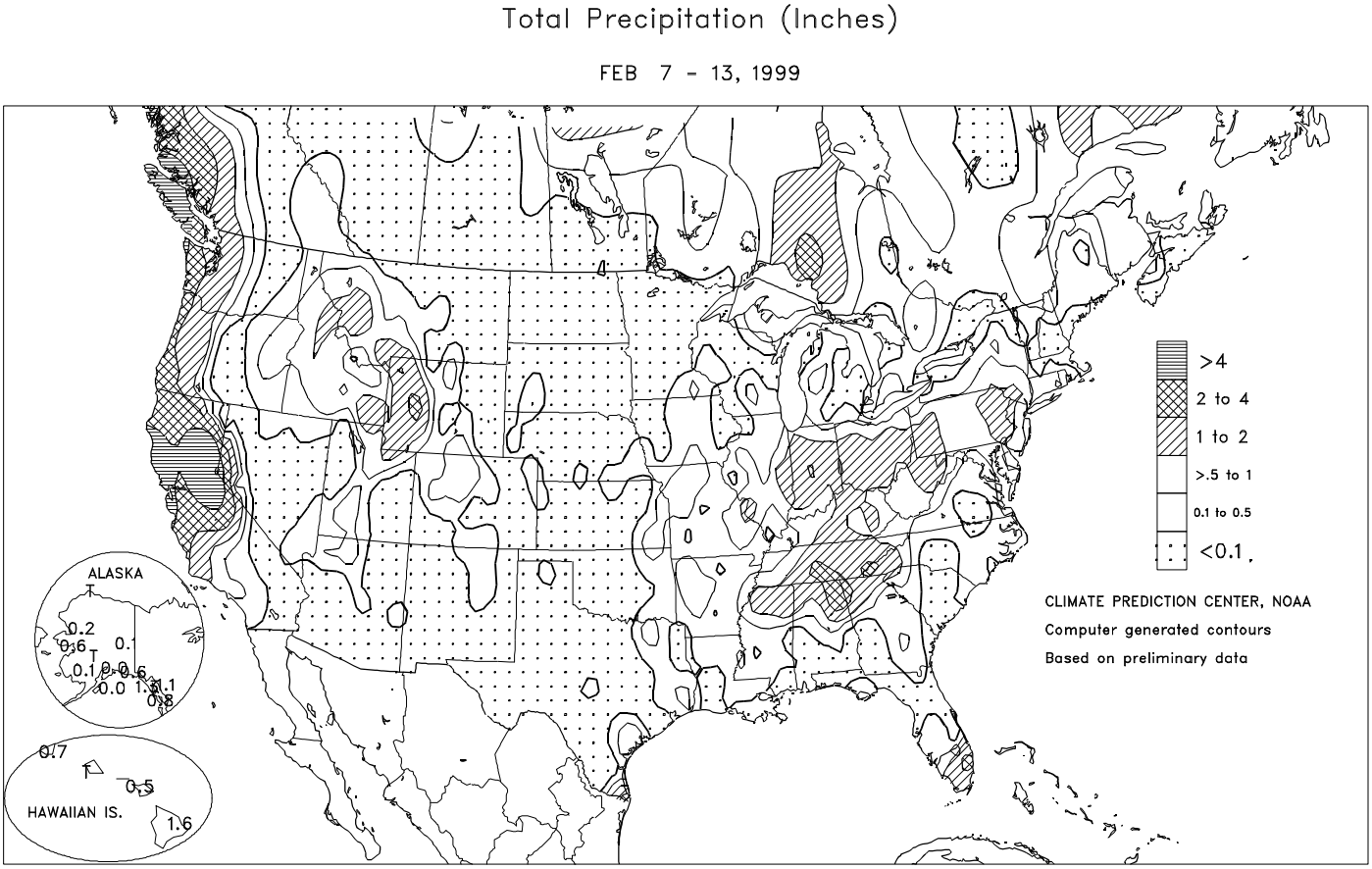
FEB 7 - 13, 1999



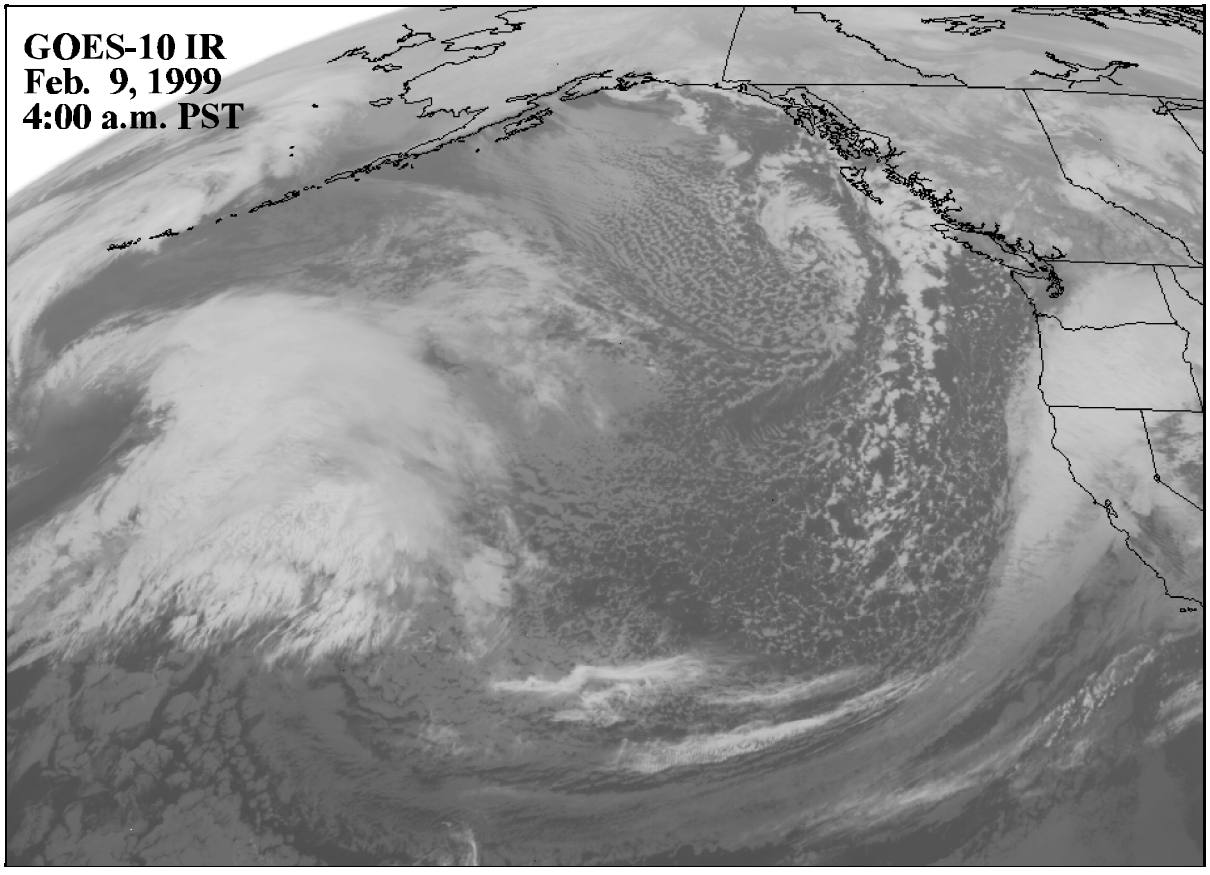
Extreme Minimum Temperature (°F)

FEB 7 - 13, 1999





Stormy Pacific: On a morning when temperatures in Alaska will drop to -60°F in Bettles (their coldest on record for so late in the year) and -5°F in Cold Bay (their lowest February reading since February 6, 1991), cold air streams southeastward across the northeastern Pacific Ocean. Meanwhile, another round of heavy precipitation overspreads the U.S. West Coast. During the first half of February, about 8 inches of water equivalent fell in the northern Sierra Nevada.



Record-High February Temperatures (°F)

February 11, 1999

Location	High	Former Record/Date(s)
Indianapolis, IN	75	74 (date not available)
Columbus, OH	74	73 on February 25, 1957
Dayton, OH	73	72 on February 16, 1883 and February 10, 1932
Detroit, MI	70	68 on February 26, 1944
Grand Rapids, MI	69	67 on February 22, 1930 and February 27, 1976
Lansing, MI	69	66 on February 22, 1930
Milwaukee, WI	68	65 on February 27, 1976
Flint, MI	68	63 on February 23, 1984
Muskegon, MI	67	62 on February 27, 1976

Earliest Occurrence of 70-Degree Warmth

February 11, 1999

Location	High	Date of Former Record
Detroit, MI	70	March 7, 1987
Chicago, IL	70	not available

(Continued from front cover)

averaged as much as 6°F below normal in **northern and central California**, accompanied by heavy precipitation. Although rain halted fieldwork in **California's Central Valley**, heavy snow in the **Sierra Nevada** further improved spring runoff prospects. Only light precipitation fell across the **Southwest**, however, maintaining unfavorably dry topsoils. Farther east, occasional rainfall kept soils wet and perpetuated lowland flooding in winter grain fields from the **Ohio Valley** southward to the **Delta**.

Early in the week, record warmth overspread the **Plains**, **Midwest**, and **Southeast**. On Monday, daily records included 87°F in **San Angelo, TX** and 77°F in **Memphis, TN**. Meanwhile, heavy precipitation fell in the **West Coast States**, trailed by sharply cooler weather. On Sunday, downtown **Sacramento, CA** netted 1.21 inches, a daily-record rainfall. According to the California Department of Water Resources, the water equivalent of the **Sierra Nevada** snow pack increased to 24 inches (110 percent of normal) at mid-month, up from 17 inches (90 percent) at the end of January.

On Tuesday, **Burns, OR** noted their first of three consecutive daily-record lows (-4, -11, and -11°F). A day later, **Redding, CA** (27°F) posted a daily-record low. Elsewhere in **California**, **San Luis Obispo** (29 and 32°F) and **Santa Barbara** (30 and 33°F) closed the week with consecutive daily-record lows. Farther east, however, record warmth dominated areas in advance of a strong cold front.

Record highs on February 9 included 62°F in **Salt Lake City, UT** and 64°F in **Grand Junction, CO**. On Wednesday, **Lincoln, NE** (75°F) noted their earliest calendar-date occurrence of 75-degree warmth. Meanwhile, highs topped 80°F as far north as **Liberal, KS** (81°F). Nine cities in

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Weather Data for Selected Locations in the Delta

For the Week Ending February 13, 1999

Data provided by the Mississippi State Delta Research and Extension Center and compiled by USDA/OCE/WAOB's Stoneville Field Office

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							4-INCH SOIL TEMP, °F		NUMBER OF DAYS			
																	TEMP, °F		PRECIP.	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
MS	INDIANOLA 1S	68	50	77	34	59	–	0.37	–	0.20	17.91	–	10.34	–	61	58	0	0	3	0
	LYON	66	47	76	31	57	–	1.24	--	0.38	14.98	–	10.38	--	--	–	0	1	5	0
	ONWARD	70	52	79	36	61	–	0.15	–	0.10	--	–	9.61	–	61	58	0	0	2	0
	STONEVILLE *	73	52	83	35	63	19	0.47	-0.65	0.26	20.39	159	14.29	210	67	58	0	0	2	0

*** Based on 1964-93 normals.**

Weather and Crop Summary: Unseasonably warm weather and scattered, light precipitation prevailed for most of the week. By week's end, however, temperatures plunged and skies cleared due to the approach of a strong high-pressure system. As a result, isolated areas within the Mississippi Delta experienced a light freeze, but there appeared to be no significant crop damage. In spite of the briefly colder weather, soil temperatures remained above normal.

U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on February 10, 1999. Forecasts refer to February 1.

The **all orange** production forecast for 1998-99 is 10.3 million tons, up 2 percent from last month, but down 26 percent from last year's record-large crop of 13.9 million tons. Florida's all orange forecast is increased to 194 million boxes (8.73 million tons), 2 percent higher than the January 1 forecast, but 20 percent lower than the record-large 244 million boxes produced last season. Early and midseason varieties in Florida are forecast at 116 million boxes (5.22 million tons), up 4 percent from January, but down 17 percent from a year ago. Florida's Valencia forecast remains unchanged at 78 million boxes (3.51 million tons), 25 percent below last season's 104 million boxes. California's all orange production forecast of 38 million boxes (1.43 million tons) is carried forward from January and is 49 percent less than last season. The Navel orange forecast is 19 million boxes (712,500 tons), down 57 percent from last year, and the Valencia forecast is 19 million boxes (712,500 tons), 37 percent less than a year ago.

(Continued from page 4)

the **Great Lakes region** reported February-record highs on Thursday, including **Indianapolis, IN** (75°F), **Columbus, OH** (74°F), and **Detroit, MI** (70°F). Before the cold front swept off the **East Coast** on Friday, temperatures reached 70°F as far north as **Newark, NJ**.

Temperatures plummeted in the front's wake. On Thursday, 5-hour temperature falls included 36°F (from 70 to 34°F) in **Quincy, IL** and 30°F (from 62 to 32°F) in **Des Moines, IA**. Post-frontal wind gusts topped 50 mph in many areas from the **Plains eastward**, reaching 55 mph in **Wichita, KS** and 68 mph in **Rockford, IL**. Despite the sharp weather change, temperatures remained above normal in many locations. For example, Saturday marked the 34th consecutive day with above-normal readings in **Burlington, IA**.

In **Alaska**, bitterly cold weather eased toward week's end. Nevertheless, weekly temperatures ranged from 7 to 29°F below normal in all areas of the State except the southeast. On Monday, lows of -60°F in **Bettles**, **Galena**, and **Tanana** were the lowest on record for so late in the winter. **McGrath** noted daily-record lows on Sunday (-53°F), Monday (-55°F), and Tuesday (-52°F). On Wednesday, the temperature in **Nome** climbed above 0°F for the first time since January 24. **Nome's** 16-day streak with temperatures at or below 0°F was their longest such occurrence since 1989. In **Fairbanks**, the high temperature peaked at -19°F on February 11, ending their longest streak (16 days) with readings at or below -20°F since January 14-31, 1971 (18 days). **Fairbanks** established a record, however, for the most consecutive number of days (19, from January 26 to February 13) with lows below -35°F, breaking their standard of 18 days, set in 1964 and 1971.

National Weather Data for Selected Cities

Weather Data for the Week Ending February 13, 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			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	70	48	79	31	59	14	0.15	-0.98	0.12	15.06	122	8.79	122	89	46	0	1	3	0
	HUNTSVILLE	67	45	75	27	56	14	0.63	-0.52	0.20	17.23	131	10.10	139	95	55	0	1	5	0
	MOBILE	73	54	79	32	64	11	0.06	-1.25	0.04	7.58	61	5.38	75	96	55	0	1	3	0
	MONTGOMERY	71	51	82	34	61	12	0.13	-1.19	0.13	5.93	48	3.92	55	90	49	0	0	1	0
AK	ANCHORAGE	6	-14	18	-19	-4	-22	0.00	-0.19	0.00	1.83	82	0.37	32	90	49	0	7	0	0
	BARROW	-18	-30	0	-47	-24	-7	0.02	-0.01	0.01	0.61	203	0.14	82	82	72	0	7	2	0
	FAIRBANKS	-20	-42	5	-50	-31	-26	0.05	-0.06	0.03	0.93	62	0.42	63	71	67	0	7	2	0
	JUNEAU	30	21	37	14	25	-2	1.11	0.15	0.31	15.61	144	10.11	159	97	63	0	7	5	0
	KODIAK	26	15	33	8	20	-10	0.00	-1.37	0.00	13.45	80	8.94	89	62	34	0	7	0	0
	NOME	3	-13	27	-38	-5	-8	0.66	0.50	0.29	3.13	160	2.09	190	78	55	0	7	4	0
AZ	FLAGSTAFF	45	19	57	10	32	1	0.13	-0.37	0.13	1.32	25	0.82	28	81	35	0	7	1	0
	PHOENIX	70	46	80	39	58	1	0.00	-0.17	0.00	0.87	45	0.19	20	57	16	0	0	0	0
	TUCSON	70	41	80	24	56	2	0.00	-0.17	0.00	0.46	20	0.02	2	39	11	0	1	0	0
	YUMA	69	48	77	45	59	-1	0.00	-0.06	0.00	0.78	86	0.60	136	57	24	0	0	0	0
AR	FORT SMITH	67	41	80	27	54	13	0.31	-0.28	0.28	6.35	106	3.31	112	88	35	0	2	2	0
	LITTLE ROCK	67	45	77	33	56	14	0.09	-0.77	0.00	11.08	113	7.72	155	85	50	0	0	1	0
CA	BAKERSFIELD	61	39	67	31	50	-2	0.37	0.11	0.37	4.83	248	4.30	323	94	41	0	1	1	0
	EUREKA	51	39	64	31	45	-4	2.25	1.08	0.83	14.06	99	8.66	105	83	57	0	1	5	1
	FRESNO	59	39	63	32	49	-2	0.93	0.49	0.64	4.45	106	3.78	135	93	47	0	1	4	1
	LOS ANGELES	63	46	75	37	55	-3	0.18	-0.45	0.17	3.00	57	2.35	66	75	46	0	0	2	0
	REDDING	53	35	59	26	44	-6	1.83	0.70	0.68	8.67	63	6.46	79	90	37	0	3	4	2
	SACRAMENTO	56	39	59	29	47	-3	2.16	1.42	1.34	6.08	79	5.43	105	99	56	0	2	4	2
	SAN DIEGO	63	48	70	43	56	-3	0.11	-0.28	0.09	2.86	69	2.26	89	80	43	0	0	2	0
	SAN FRANCISCO	54	44	59	39	49	-3	2.28	1.47	0.95	6.75	75	5.77	97	91	59	0	0	4	2
CO	ALAMOSA	48	7	58	-5	27	6	0.08	0.02	0.00	0.16	20	0.15	41	83	19	0	7	1	0
	CO SPRINGS	56	21	63	8	39	7	0.00	-0.08	0.00	0.27	30	0.12	29	55	17	0	6	0	0
	DENVER	58	23	69	12	41	8	0.12	0.00	0.12	0.87	64	0.51	73	63	16	0	7	1	0
	GRAND JUNCTION	49	23	62	11	36	3	0.16	0.05	0.16	0.62	45	0.36	47	85	35	0	5	1	0
	PUEBLO	63	17	74	1	40	6	0.01	-0.05	0.01	0.45	53	0.12	29	72	14	0	7	1	0
CT	BRIDGEPORT	43	28	52	22	36	6	0.30	-0.43	0.19	9.17	113	8.12	177	96	47	0	6	3	0
	HARTFORD	44	27	54	20	36	9	0.32	-0.48	0.25	8.05	91	7.22	147	89	38	0	6	2	0
DC	WASHINGTON	54	35	74	29	44	8	0.50	-0.16	0.48	8.24	117	6.50	165	94	49	0	2	2	0
DE	WILMINGTON	50	29	71	27	40	7	1.02	0.30	0.56	8.30	106	7.26	166	90	50	0	6	3	1
FL	DAYTONA BEACH	76	56	82	47	66	8	0.00	-0.77	0.00	6.74	100	5.39	129	96	50	0	0	0	0
	JACKSONVILLE	75	52	81	36	64	9	0.09	-0.89	0.06	6.19	79	5.76	113	96	51	0	0	2	0
	KEY WEST	80	69	82	63	74	4	0.20	-0.26	0.12	5.47	111	3.87	134	90	64	0	0	3	0
	MIAMI	79	65	82	55	72	4	0.21	-0.31	0.08	5.19	108	3.21	108	94	57	0	0	2	0
	ORLANDO	79	56	83	46	68	7	0.00	-0.73	0.00	3.90	67	3.28	91	100	44	0	0	0	0
	PENSACOLA	72	55	79	34	63	11	0.01	-1.32	0.01	10.42	91	6.06	85	96	62	0	0	1	0
	TALLAHASSEE	76	48	81	27	62	10	0.03	-1.31	0.02	6.35	52	4.69	65	98	44	0	1	2	0
	TAMPA	76	60	80	46	68	7	0.00	-0.74	0.00	4.09	75	3.17	96	97	53	0	0	0	0
	WEST PALM BEACH	78	60	81	52	69	4	1.05	0.41	1.02	12.10	188	8.19	207	96	58	0	0	2	1
GA	ATHENS	65	45	74	29	55	11	0.30	-0.77	0.13	8.58	80	6.73	102	89	49	0	1	4	0
	ATLANTA	64	47	73	28	55	12	0.50	-0.67	0.24	8.28	74	6.48	94	88	50	0	1	3	0
	AUGUSTA	73	42	80	26	57	11	0.43	-0.62	0.21	9.15	98	7.78	130	97	41	0	1	4	0
	COLUMBUS	70	49	78	32	59	11	0.08	-1.09	0.01	6.51	56	4.92	73	93	41	0	1	2	0
	MACON	70	46	77	31	58	11	0.03	-1.15	0.01	9.02	82	7.50	112	95	47	0	2	3	0
	SAVANNAH	74	47	80	34	61	10	0.00	-0.80	0.00	9.92	123	7.60	149	94	43	0	0	0	0
HI	HILO	72	61	75	59	67	-5	1.64	-0.81	0.61	34.01	129	23.70	165	99	70	0	0	6	1
	HONOLULU	80	68	82	63	74	1	0.04	-0.53	0.03	2.74	32	2.43	52	78	47	0	0	2	0
	KAHULUI	78	64	80	58	71	-1	0.50	-0.24	0.45	4.27	48	3.11	56	86	54	0	0	2	0
	LIHUE	75	67	76	59	71	0	0.65	-0.20	0.53	7.87	62	5.50	73	88	63	0	0	6	1
ID	BOISE	43	27	55	20	35	0	0.41	0.14	0.30	3.75	114	2.10	108	81	45	0	6	3	0
	LEWISTON	42	30	52	24	36	-2	0.22	0.00	0.12	1.86	63	0.86	50	78	41	0	5	5	0
	POCATELLO	36	18	50	6	27	-1	0.87	0.65	0.43	3.24	127	2.51	173	88	60	0	7	4	0
IL	CHICAGO/O'HARE	47	24	69	14	36	12	0.39	0.09	0.39	6.47	142	5.27	253	90	47	0	6	1	0
	MOLINE	50	26	69	17	38	15	0.47	0.21	0.47	4.69	111	3.50	174	88	51	0	6	1	0
	PEORIA	50	29	68	16	39	15	0.70	0.39	0.59	5.63	125	3.87	186	90	55	0	5	2	1
	ROCKFORD	46	23	67	13	34	13	0.47	0.22	0.47	4.81	127	3.90	223	91	54	0	7	1	0
	SPRINGFIELD	50	29	69	17	40	13	1.42	1.03	1.14	4.12	83	3.48	157	92	56	0	4	2	1
IN	EVANSVILLE	59	34	75	19	46	13	0.43	-0.28	0.28	10.48	138	7.00	178	90	47	0	2	3	0
	FORT WAYNE	47	27	71	15	37	13	0.95	0.51	0.52	5.20	94	4.10	154	92	58	0	6	2	1
	INDIANAPOLIS	50	30	74	14	40	12	2.05	1.49	1.53	9.79	147	8.79	264	90	47	0	2	3	1
	SOUTH BEND	45	26	71	12	35	10	0.57	0.13	0.36	6.15	97	4.11	135	92	56	0	7	3	0
IA	BURLINGTON	53	31	70	18	42	17	0.22	-0.02	0.00	5.83	160	4.19	252	80	48	0	3	1	0
	CEDAR RAPIDS	47	25	61	14	36	15	0.04	-0.17	0.00	2.74	92	2.25	163	89	55	0	6	1	0
	DES MOINES	51	29	66	14	40	17	0.35	0.11	0.35	1.82	68	1.42	103	84	47	0	4	1	0
	DUBUQUE	43	25	61	13	34	15	0.00	-0.28	0.00	2.35	63	2.20	126	89	60	0	5	0	0
	SIOUX CITY	49	26	68	13	38	16	0.02	-0.11	0.00	0.50	32	0.38	49	87	50	0	6	1	0
	WATERLOO	46	26	58	12	36	18	0.29	0.06	0.29	2.19	88	1.91	161	84	57	0	5	1	0
KS	CONCORDIA	61	30	77	19	45	16	0.10	-0.03	0.10	0.93	57	0.83	104	85	33	0	3	1	0
	DODGE CITY	61	29	80	19	45	11	0.05	-0.07	0.05	2.26	166	1.97	281	84	25	0	5	1	0
	GOODLAND	58	22	75	11	40	8	0.12	0.05	0.12	0.77	85	0.65	130	77	24	0	7	1	0
	TOPEKA	57	33	74	21	45	14	0.36	0.15	0.31	3.05	111	1.83	138	89	48	0	3	2	0

Based on 1961-90 normals

Weather Data for the Week Ending February 13, 1999

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	60	34	74	21	47	13	0.03	-0.16	0.00	3.00	129	1.94	173	89	42	0	3	1	0
KY	JACKSON	59	37	72	18	48	13	1.00	0.08	0.75	13.19	134	8.03	147	86	39	0	2	4	1
	LEXINGTON	56	35	73	17	46	13	0.86	0.11	0.55	10.67	130	7.44	176	86	43	0	2	3	1
	LOUISVILLE	57	35	74	20	46	12	0.80	0.03	0.49	11.51	146	8.24	193	91	45	0	2	3	1
	PADUCAH	61	36	73	24	49	13	0.29	-0.64	0.21	11.02	115	7.31	148	88	52	0	2	2	0
LA	BATON ROUGE	74	55	81	34	65	13	0.25	-1.15	0.25	9.02	69	5.44	73	95	48	0	0	1	0
	LAKE CHARLES	73	56	79	33	64	12	0.02	-0.90	0.01	9.11	80	5.49	88	99	61	0	0	2	0
	NEW ORLEANS	76	59	82	44	67	14	0.02	-1.50	0.02	5.57	41	3.32	42	91	51	0	0	1	0
	SHREVEPORT	74	50	81	35	62	14	0.31	-0.68	0.31	19.53	198	13.29	231	89	39	0	0	1	0
ME	CARIBOU	29	9	39	-7	19	9	0.12	-0.35	0.08	5.78	89	4.20	127	90	53	0	7	2	0
	PORTLAND	41	22	48	15	32	10	0.02	-0.81	0.02	9.35	97	7.79	154	85	35	0	6	1	0
MD	BALTIMORE	52	29	73	26	40	7	0.43	-0.34	0.38	7.07	90	5.80	129	92	47	0	6	2	0
MA	BOSTON	44	31	58	26	37	8	0.22	-0.69	0.22	9.20	99	7.61	145	81	37	0	4	1	0
	WORCESTER	43	27	56	21	35	11	0.21	-0.64	0.21	9.29	100	7.83	149	87	34	0	6	1	0
MI	ALPENA	40	20	58	11	30	13	0.55	0.25	0.37	4.51	107	3.10	141	96	59	0	6	4	0
	GRAND RAPIDS	43	26	68	14	34	12	0.49	0.16	0.47	5.67	107	4.47	183	89	56	0	6	2	0
	HOUGHTON LAKE	39	22	57	12	30	13	0.56	0.28	0.49	3.63	92	2.59	129	97	65	0	6	3	0
	LANSING	45	21	69	12	33	12	0.17	-0.14	0.12	4.02	92	2.84	139	90	56	0	6	2	0
	MARQUETTE	31	15	41	8	23	10	0.32	-0.09	0.23	7.22	130	5.62	191	89	58	0	7	2	0
	MUSKEGON	43	26	67	14	35	11	0.37	0.01	0.37	4.46	74	3.14	104	92	56	0	6	1	0
MN	DULUTH	33	15	47	-1	24	13	0.02	-0.15	0.02	2.50	89	0.93	60	85	54	0	7	1	0
	INT'L FALLS	34	10	41	-6	22	16	0.10	-0.04	0.08	0.67	33	0.30	26	87	50	0	7	2	0
	MINNEAPOLIS	36	22	45	7	29	13	0.08	-0.11	0.08	3.23	137	2.77	215	84	59	0	6	1	0
	ROCHESTER	35	22	47	9	28	13	0.60	0.44	0.60	2.96	142	2.67	252	94	76	0	5	1	1
	ST. CLOUD	35	20	43	2	27	15	0.02	-0.12	0.00	1.80	99	0.91	92	86	58	0	7	1	0
MS	JACKSON	71	49	83	32	60	14	0.38	-0.76	0.16	15.21	115	8.97	122	95	42	0	1	5	0
	MERIDIAN	72	49	82	32	61	13	0.11	-1.19	0.07	9.71	71	5.72	76	93	43	0	1	4	0
	TUPELO	67	46	78	29	57	14	1.01	-0.12	0.31	20.86	159	12.68	182	88	48	0	1	5	0
MO	COLUMBIA	56	34	73	19	45	14	0.95	0.54	0.79	5.22	112	4.00	183	88	55	0	3	2	1
	KANSAS CITY	55	34	73	20	44	15	0.78	0.55	0.43	4.52	146	3.41	226	90	54	0	3	2	0
	SAINT LOUIS	56	35	72	20	46	13	2.21	1.74	1.82	8.95	158	8.12	308	87	50	0	3	2	1
	SPRINGFIELD	58	36	74	21	47	13	0.67	0.19	0.33	7.17	124	5.81	221	91	52	0	3	2	0
MT	BILLINGS	50	28	61	19	39	11	0.08	-0.07	0.02	1.58	79	0.99	82	80	35	0	5	3	0
	BUTTE	33	8	44	-8	20	-1	0.43	0.35	0.19	2.02	170	0.93	129	90	45	0	7	3	0
	GLASGOW	34	16	45	3	25	9	0.15	0.09	0.08	1.59	187	1.00	204	83	62	0	6	2	0
	GREAT FALLS	39	22	52	5	30	4	0.32	0.18	0.24	0.91	45	0.69	59	77	37	0	6	3	0
	KALISPELL	35	21	41	11	28	3	0.10	-0.18	0.05	3.57	94	1.56	75	89	50	0	7	3	0
	MILES CITY	45	24	57	16	35	13	0.01	-0.10	0.00	1.07	78	0.50	66	86	44	0	7	1	0
	MISSOULA	33	18	42	7	26	-2	0.39	0.19	0.21	2.42	87	1.15	70	95	51	0	7	5	0
NE	GRAND ISLAND	57	24	72	15	41	15	0.00	-0.14	0.00	0.46	32	0.35	49	82	27	0	5	0	0
	LINCOLN	55	28	75	15	42	17	0.30	0.17	0.24	0.85	52	0.66	87	87	38	0	4	2	0
	NORFOLK	53	24	70	14	39	16	0.03	-0.12	0.03	0.41	27	0.28	36	81	33	0	6	1	0
	NORTH PLATTE	59	21	76	12	40	14	0.01	-0.07	0.01	0.36	37	0.35	67	86	21	0	7	1	0
	OMAHA	53	28	77	17	40	15	0.49	0.34	0.48	1.23	61	1.10	109	87	44	0	5	2	0
	SCOTTSBLUFF	56	25	67	13	40	11	0.16	0.06	0.16	1.09	88	0.23	35	73	18	0	5	1	0
	VALENTINE	54	23	66	14	38	15	0.02	-0.07	0.01	0.65	82	0.23	56	75	29	0	7	2	0
NV	ELY	39	12	51	-11	26	-3	0.40	0.23	0.25	1.20	69	0.89	87	88	46	0	5	2	0
	LAS VEGAS	60	38	71	29	49	-1	0.03	-0.08	0.01	0.14	13	0.10	14	59	22	0	1	1	0
	RENO	43	27	54	16	35	-2	1.17	0.92	0.71	1.97	77	1.93	122	81	41	0	5	3	1
	WINNEMUCCA	44	23	58	10	34	-2	0.35	0.21	0.28	2.05	107	1.63	158	84	42	0	6	2	0
NH	CONCORD	40	22	51	12	31	11	0.13	-0.50	0.13	7.63	112	6.78	185	81	36	0	7	1	0
NJ	NEWARK	49	32	70	27	40	8	0.37	-0.37	0.16	9.21	112	8.18	171	96	56	0	3	3	0
NM	ALBUQUERQUE	55	26	64	14	41	2	0.00	-0.11	0.00	0.34	29	0.12	17	67	24	0	6	0	0
NY	ALBANY	41	22	54	15	31	9	0.36	-0.19	0.36	6.59	104	5.55	164	94	48	0	7	1	0
	BINGHAMTON	40	22	60	11	31	9	0.54	-0.03	0.37	7.47	116	5.88	170	95	54	0	7	3	0
	BUFFALO	42	26	63	17	34	11	0.48	-0.10	0.21	8.15	110	6.61	175	91	61	0	7	4	0
	ROCHESTER	44	24	61	19	34	10	0.05	-0.47	0.04	5.97	103	4.37	144	88	51	0	7	2	0
	SYRACUSE	44	23	60	16	34	11	0.26	-0.26	0.23	7.68	118	5.97	180	86	44	0	7	3	0
NC	ASHEVILLE	58	37	68	21	48	10	0.66	-0.28	0.57	10.90	129	7.86	159	95	46	0	2	3	1
	CHARLOTTE	66	40	73	24	53	12	0.07	-0.86	0.00	8.19	92	4.91	90	86	34	0	1	1	0
	GREENSBORO	63	36	73	24	50	11	0.15	-0.66	0.15	11.23	140	6.01	129	85	38	0	2	1	0
	HATTERAS	60	40	67	33	50	6	0.16	-0.88	0.16	11.03	93	6.31	87	91	58	0	0	1	0
	RALEIGH	66	36	75	26	51	11	0.10	-0.81	0.03	9.94	118	6.50	126	89	38	0	1	2	0
	WILMINGTON	70	44	76	33	57	10	0.29	-0.62	0.19	10.17	110	6.21	111	89	42	0	0	2	0
ND	BISMARCK	37	15	45	8	26	12	0.02	-0.09	0.02	1.48	129	1.24	188	87	62	0	7	1	0
	DICKINSON	39	20	47	8	30	12	0.03	-0.05	0.00	1.04	117	0.85	163	86	58	0	7	1	0
	FARGO	33	18	39	5	26	16	0.03	-0.08	0.00	1.60	105	1.29	145	84	67	0	7	1	0
	GRAND FORKS	30	10	38	-2	20	11	0.00	-0.11	0.00	1.34	85	1.10	118	92	75	0	7	0	0
	JAMESTOWN	34	12	40	2	23	11	0.07	-0.04	0.02	1.59	121	1.41	174	91	63	0	7	3	0
	WILLISTON	33	9	40	-7	21	7	0.00	-0.11	0.00	2.67	201	1.91	258	92	67	0	7	0	0
OH	AKRON-CANTON	47	27	68	15	37	11	0.88	0.36	0.57	7.12	118	4.98	161	92	61	0	6	2	1
	CINCINNATI	54	31	73	16	42	12	1.63	1.01	1.30	10.67	156	6.85	185	88	46	0	3	4	1
	CLEVELAND	49	29	70	16	39	13	0.66	0.14	0.41	6.76	112	4.84	162	90	56	0	5	4	0
	COLUMBUS	53	31	73	17	42	14	0.98	0.45	0.79	7.65	128	4.40	140	87	48	0	3	3	1
	DAYTON	49	30	72	15	39	11	1.65	1.15	1.18	8.17	137	6.04	199	91	51	0	5	3	1
	MANSFIELD	47	27	67	13	37	12	0.88	0.42	0.67	6.53	111	4.98	177	88	54	0	5	2	1

Based on 1961-90 normals

Weather Data for the Week Ending February 13, 1999

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	46	26	69	14	36	12	0.41	0.01	0.31	4.51	83	3.90	158	90	46	0	6	3	0
	YOUNGSTOWN	47	27	69	16	37	13	0.72	0.25	0.43	8.35	141	5.99	199	86	55	0	6	4	0
OK	OKLAHOMA CITY	66	39	77	28	52	13	0.00	-0.34	0.00	4.63	148	3.01	174	86	42	0	3	0	0
	TULSA	64	38	77	27	51	12	0.59	0.16	0.31	5.83	131	4.26	185	88	46	0	2	2	0
OR	ASTORIA	47	36	55	30	42	-2	2.65	0.71	1.07	37.94	156	21.41	156	91	59	0	1	5	2
	BURNS	33	7	41	-11	20	-8	0.55	0.36	0.35	3.53	141	2.38	176	93	60	0	7	4	0
	EUGENE	47	34	56	32	41	-3	1.47	0.03	0.73	19.89	103	11.36	106	94	67	0	2	5	1
	MEDFORD	46	31	59	26	39	-3	1.36	0.87	0.58	7.00	101	5.77	159	94	50	0	6	4	1
	PENDLETON	44	29	51	23	37	-2	0.21	-0.08	0.12	2.41	65	1.04	50	86	47	0	6	3	0
	PORTLAND	45	37	51	34	41	-2	1.21	0.22	0.88	16.79	125	10.05	139	88	56	0	0	5	1
	SALEM	46	35	54	33	40	-2	1.30	0.15	0.79	22.41	150	13.61	168	96	65	0	0	6	1
PA	ALLENTOWN	47	26	68	21	36	8	0.63	-0.09	0.43	7.43	93	6.79	150	93	51	0	7	3	0
	ERIE	46	29	69	19	37	13	0.31	-0.23	0.18	9.31	137	5.72	179	87	50	0	5	3	0
	MIDDLETOWN	50	29	74	26	39	10	0.39	-0.33	0.24	6.25	84	5.94	142	93	46	0	6	2	0
	PHILADELPHIA	50	30	70	27	40	8	0.76	0.07	0.37	7.23	92	6.41	143	99	57	0	4	3	0
	PITTSBURGH	48	26	70	16	37	10	0.97	0.41	0.79	8.42	130	6.61	185	90	51	0	7	2	1
	WILKES-BARRE	43	24	62	18	34	8	0.69	0.17	0.43	6.72	120	5.86	190	95	51	0	7	2	0
	WILLIAMSPORT	43	24	59	20	34	7	0.73	0.06	0.55	7.02	103	6.13	163	98	52	0	7	4	1
RI	PROVIDENCE	47	30	61	20	38	10	0.29	-0.59	0.24	11.06	111	9.79	177	94	42	0	4	2	0
SC	BEAUFORT	72	49	79	34	60	10	0.01	-0.79	0.01	7.93	94	4.65	89	92	47	0	0	1	0
	CHARLESTON	73	49	79	36	61	12	0.01	-0.77	0.01	10.98	137	6.64	136	91	39	0	0	1	0
	COLUMBIA	72	44	79	30	58	13	0.06	-0.95	0.06	7.93	80	5.64	89	88	40	0	1	1	0
	GREENVILLE	64	44	70	27	54	12	0.21	-0.85	0.19	9.69	95	5.45	90	84	43	0	1	3	0
SD	ABERDEEN	41	21	51	10	31	16	0.04	-0.05	0.04	0.85	91	0.67	129	88	57	0	7	1	0
	HURON	47	23	59	13	35	17	0.00	-0.14	0.00	0.67	61	0.46	74	85	46	0	7	0	0
	RAPID CITY	53	24	66	18	38	13	0.11	0.00	0.10	0.36	34	0.31	54	76	26	0	7	2	0
	SIOUX FALLS	44	22	55	10	33	15	0.00	-0.13	0.00	0.60	42	0.36	49	87	47	0	7	0	0
TN	BRISTOL	60	33	74	18	46	10	0.39	-0.46	0.21	10.32	126	5.10	107	93	46	0	4	3	0
	CHATTANOOGA	65	44	74	28	54	14	0.92	-0.24	0.79	17.43	143	11.13	159	91	51	0	1	3	1
	KNOXVILLE	61	39	73	22	50	11	0.95	-0.02	0.53	13.76	131	7.81	131	94	51	0	2	4	1
	MEMPHIS	66	47	77	31	57	14	1.38	0.34	0.75	11.80	104	7.55	135	89	52	0	1	3	2
	NASHVILLE	62	41	73	25	51	12	1.13	0.22	0.57	16.81	170	10.41	199	91	52	0	2	3	1
TX	ABILENE	71	39	81	24	55	9	0.00	-0.28	0.00	3.30	129	1.93	125	72	21	0	2	0	0
	AMARILLO	67	30	80	17	49	11	0.00	-0.14	0.00	3.08	268	2.67	361	78	21	0	4	0	0
	AUSTIN	75	54	84	38	64	13	0.04	-0.51	0.02	1.80	39	0.24	9	84	29	0	0	1	0
	BEAUMONT	74	57	80	35	65	12	0.20	-0.67	0.10	6.27	56	3.48	54	96	60	0	0	4	0
	BROWNSVILLE	78	59	84	41	69	7	1.42	1.12	1.41	2.10	62	1.81	85	91	48	0	0	2	1
	CORPUS CHRISTI	77	56	86	31	67	9	0.24	-0.28	0.24	1.42	36	0.70	26	91	52	0	1	1	0
	DEL RIO	77	47	89	28	62	8	0.01	-0.24	0.01	0.23	14	0.04	4	82	18	0	1	1	0
	EL PASO	64	36	73	20	50	3	0.00	-0.11	0.00	0.44	37	0.10	17	46	18	0	3	0	0
	FORT WORTH	70	45	77	33	57	11	0.04	-0.48	0.04	6.35	137	1.93	69	87	37	0	0	1	0
	GALVESTON	72	59	77	44	65	11	0.04	-0.54	0.01	5.97	75	2.28	52	91	68	0	0	4	0
	HOUSTON	76	54	83	31	65	12	0.12	-0.62	0.12	6.21	76	2.32	49	90	47	0	1	1	0
	LUBBOCK	69	32	83	18	50	8	0.00	-0.16	0.00	1.61	134	1.35	201	74	17	0	3	0	0
	MIDLAND	70	35	82	18	53	7	0.00	-0.16	0.00	0.91	74	0.33	50	54	15	0	2	0	0
	SAN ANGELO	73	36	87	22	55	8	0.00	-0.28	0.00	1.10	53	0.61	47	71	15	0	2	0	0
	SAN ANTONIO	74	51	84	29	63	11	0.01	-0.46	0.01	0.58	14	0.18	7	85	30	0	1	1	0
	VICTORIA	73	55	81	32	64	9	1.74	1.22	1.73	6.00	115	2.41	76	96	57	0	1	2	1
	WACO	73	48	84	32	61	12	0.09	-0.42	0.08	6.47	146	2.39	93	91	33	0	2	2	0
	WICHITA FALLS	67	38	78	28	52	9	0.00	-0.34	0.00	4.52	155	2.59	159	87	33	0	2	0	0
UT	SALT LAKE CITY	42	26	62	14	34	1	0.34	0.06	0.13	3.39	110	2.20	133	85	46	0	4	4	0
VT	BURLINGTON	38	18	56	7	28	11	0.54	0.15	0.44	4.65	94	4.28	169	88	47	0	7	2	0
VA	LYNCHBURG	58	30	72	18	44	8	0.24	-0.50	0.15	8.76	118	5.68	135	91	40	0	5	2	0
	NORFOLK	59	35	72	31	47	7	0.42	-0.44	0.38	9.64	112	4.31	80	97	49	0	1	2	0
	RICHMOND	60	32	74	27	46	9	0.23	-0.54	0.20	10.20	128	5.22	112	93	39	0	4	2	0
	ROANOKE	60	34	73	23	47	11	0.21	-0.53	0.16	7.00	101	4.69	119	81	34	0	3	2	0
	WASH/DULLES	53	28	74	25	40	8	0.53	-0.16	0.51	8.02	112	6.49	163	97	46	0	7	2	1
WA	OLYMPIA	43	31	50	28	37	-4	1.45	-0.05	0.93	31.12	164	18.13	166	100	76	0	5	5	1
	QUILLAYUTE	45	34	52	25	39	-2	5.18	1.99	1.69	50.38	141	28.91	142	98	62	0	3	7	4
	SEATTLE-TACOMA	45	36	52	31	40	-3	1.09	0.07	0.52	18.52	140	9.54	130	87	54	0	1	6	1
	SPOKANE	37	23	43	14	30	-2	0.30	-0.08	0.16	6.14	120	2.86	106	92	61	0	7	4	0
	YAKIMA	44	26	49	18	35	-1	0.02	-0.17	0.02	2.52	83	1.78	112	91	42	0	6	1	0
WV	BECKLEY	53	31	71	15	42	11	0.71	-0.01	0.31	11.18	149	6.84	161	97	46	0	3	4	0
	CHARLESTON	58	32	75	20	45	11	0.76	0.02	0.41	9.37	123	6.19	146	99	49	0	3	3	0
	ELKINS	52	23	71	15	37	9	0.79	0.07	0.56	9.89	125	7.90	179	99	53	0	7	4	1
	HUNTINGTON	59	33	75	20	46	12	0.43	-0.27	0.24	8.59	115	5.63	137	81	36	0	3	3	0
WI	EAU CLAIRE	38	18	46	5	28	13	0.41	0.24	0.38	2.63	110	2.14	166	92	57	0	7	1	0
	GREEN BAY	38	22	58	13	30	13	0.50	0.28	0.50	2.34	76	2.04	131	90	58	0	7	1	1
	LACROSSE	42	23	55	10	32	14	0.00	-0.19	0.00	3.23	126	2.93	227	84	47	0	6	0	0
	MADISON	42	23	61	12	32	13	0.53	0.30	0.51	3.01	91	2.72	184	88	49	0	7	2	1
	MILWAUKEE	44	24	68	14	34	12	0.57	0.24	0.55	6.02	133	5.14	235	84	49	0	7	2	1
WY	CASPER	42	21	54	-4	31	6	0.08	-0.06	0.06	0.56	38	0.46	58	76	38	0	6	3	0
	CHEYENNE	49	23	63	9	36	7	0.05	-0.03	0.05	0.89	96	0.43	83	65	28	0	6	1	0
	LANDER	39	16	51	0	28	3	0.73	0.60	0.43	1.07	84	0.83	117	86	36	0	6	3	0
	SHERIDAN	51	20	61	7	35	10	0.08	-0.09	0.05	0.81	46	0.58	56	85	31	0	7	3	0

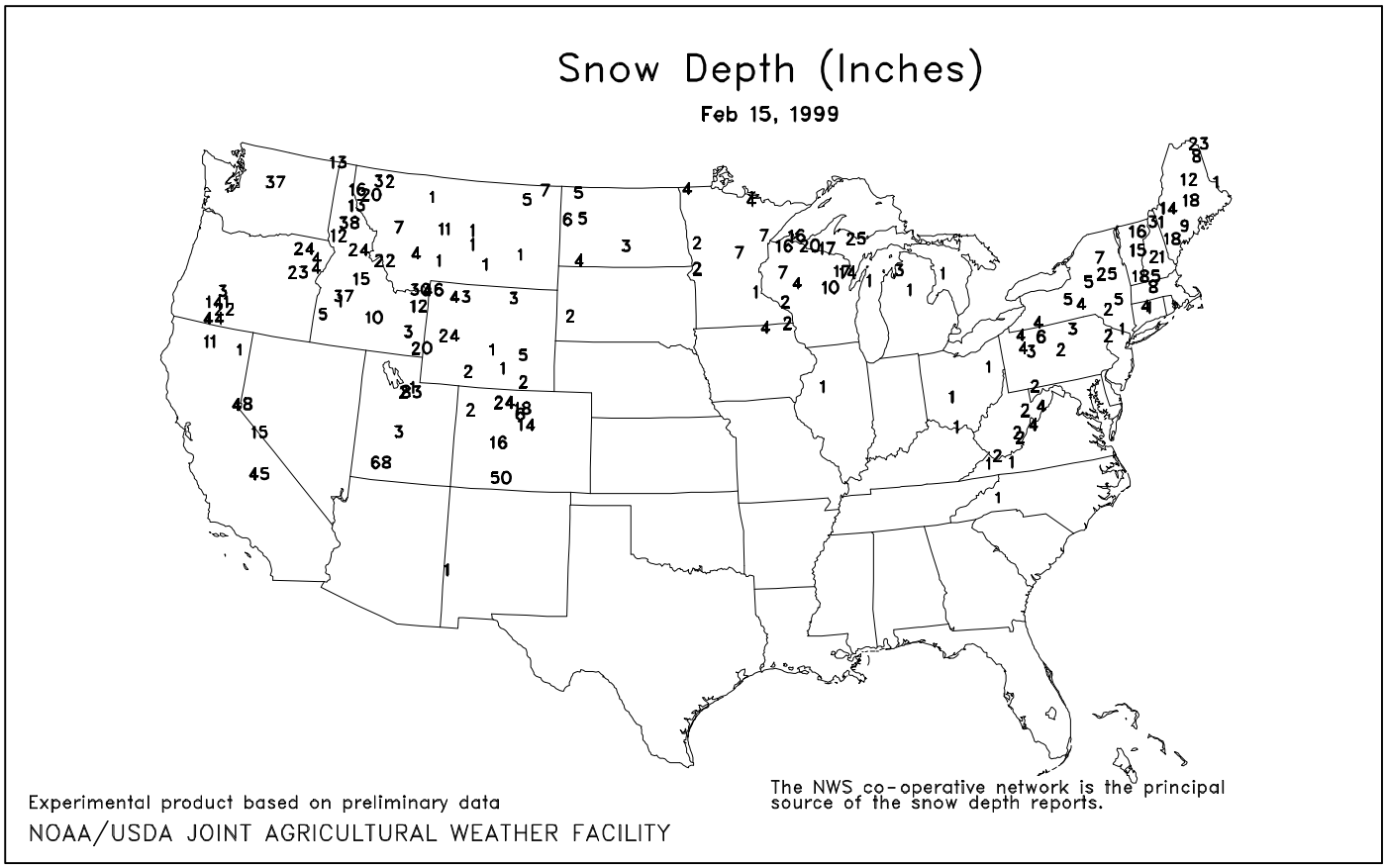
NOTE: These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.

National Agricultural Summary

February 8 - 14, 1999

HIGHLIGHTS

Temperatures continued to average well above normal across most of the Nation. Only areas along the Pacific Coast and adjacent areas of the Rocky Mountains experienced below-normal average temperatures. Storms continued to pound coastal areas of the Pacific Northwest and points as far south as central California, causing flooding, erosion, and mud slides. Farther inland, at higher elevations of the northern Rockies, the storms delivered additional snow. In California, the rain and wet soils curtailed field activities in most areas until late in the week. Abundant moisture aided development of small grains, winter forages, and sugarbeets. East of the Rockies, from the northern High Plains to the Great Lakes and extending south through the Corn Belt, Great Plains, and lower Mississippi Valley remained in a dry pattern. In Texas, fieldwork continued unhindered in most areas. Corn and sorghum planting increased in southern and coastal areas until a late-week cold front arrived. Growth of grasses and small grains improved due to warm weather. Some early-planted corn fields emerged despite late-week cold temperatures. An area stretching from the eastern Corn Belt through the Ohio Valley into the Southeast remained wet due to additional showers. In Florida, warm, dry weather aided sugarcane harvest and field preparations for spring crops. However, winter grains were stressed by moisture shortages. The late-week frost and strong winds caused some minor citrus leaf burn and bloom bud damage. Crews rapidly harvested the early- and mid-season orange crop. Vegetable growth was normal and quality was mostly good.



La Niña Update: February 12, 1999

The following is derived from Diagnostic Advisory 99/2 issued by the Climate Prediction Center/National Centers for Environmental Prediction (NCEP) on February 12, 1999.

Cold episode conditions continued to strengthen throughout the tropical Pacific during January. This strengthening was highlighted by a decrease in the Niño 4 sea surface temperature (SST) index to -1.5 for the first time since February 1989. Overall, SSTs were more than 1°C below average along the equator from 165°E eastward to near 110°W, and more than 2°C below normal from 175°E to 115°W.

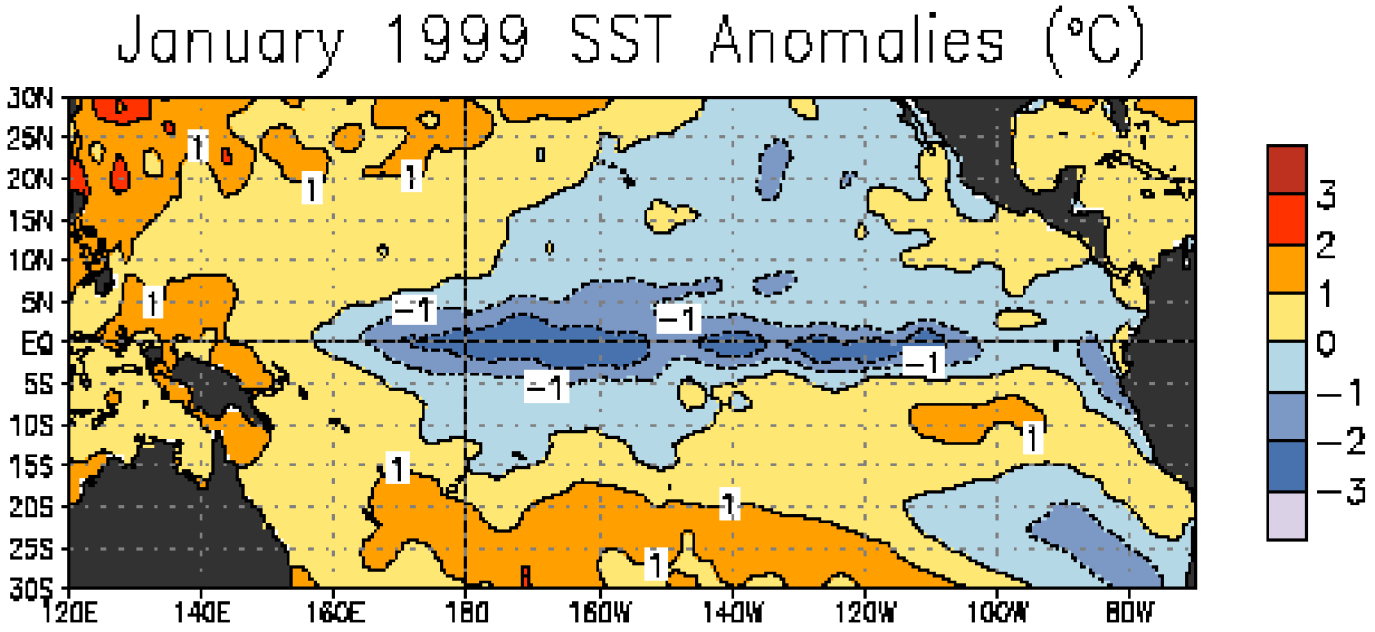
Tropical convection during January (as inferred from the outgoing longwave radiation (OLR) measured by NOAA's polar-orbiting satellites) was again suppressed over the western and central equatorial Pacific and enhanced over portions of Indonesia and Malaysia. These conditions are consistent with the pattern of SSTs, and with stronger-than-normal, low-level (850-hPa) easterly winds across the central and western tropical Pacific. They are also consistent with stronger-than-average, upper-level westerlies across the eastern half of the equatorial Pacific. All of these features are consistent with ongoing strong La Niña conditions.

Collectively these conditions reflect several well-known aspects of La Niña. These include an enhanced east-to-west thermal contrast in Pacific Ocean SSTs and reduced atmospheric heating and cooler-than-normal temperatures over the eastern tropical Pacific. They also include in both hemispheres stronger-than-normal subtropical high pressure systems, stronger-than-normal, upper-level mid-oceanic troughs and poleward shifts of the jet streams over the mid-latitudes of the central and eastern Pacific. These large-scale circulation anomalies have resulted in above-normal storminess and precipitation in the Hawaiian Islands and the Pacific Northwest, below-normal precipitation in the Southwest, and warmer-than-average conditions throughout much of the contiguous United States.

Given the strength and evolution of existing La Niña conditions, we expect the cold episode to last at least for the next 6 months. This is supported by available statistical and coupled model predictions. Based on current conditions in the tropical Pacific, on the NCEP SST predictions and results from historical studies on the effects of cold episodes, we expect wetter-than-normal conditions to continue through March over Indonesia, northern Australia, and southern Africa. Wetter-than-normal conditions are likely to develop over northeast Brazil and continue through May. Over the United States during the next 3 months, drier- and warmer-than-normal average conditions are expected in southern sections from southern California eastward to the Carolinas. Wetter-than-normal average conditions are expected in the northern Great Plains and upper Midwest. Cooler-than-normal conditions are likely over western and central Canada and Alaska.

Weekly updates for SST, 850-hPa wind, and OLR are available on the Climate Prediction Center homepage at:

http://nic.fb4.noaa.gov (Weekly Update).



International Weather and Crop Summary

February 7 - 13, 1999

HIGHLIGHTS

FSU-WESTERN: A storm system spread moderate to locally heavy snow over western Ukraine and parts of northern Russia, increasing snow cover. Mild weather in eastern Ukraine and southern Russia continued to diminish protective snow cover, leaving crop areas exposed to potentially extreme cold.

EUROPE: Stormy weather brought widespread rain and snow to most of the continent, except in Spain, where prolonged dryness in the south continued to hamper winter grain development.

NORTHWESTERN AFRICA: The third consecutive week of dryness in Morocco reduced moisture for winter grain development.

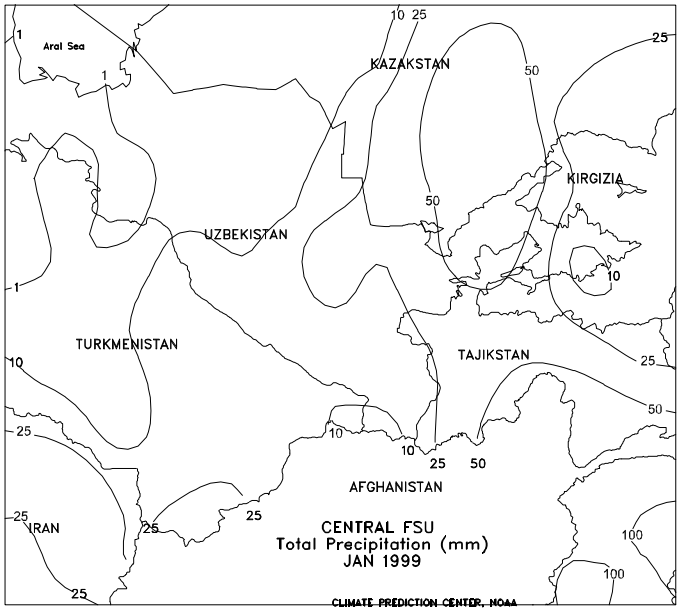
AUSTRALIA: A cyclone inundated Queensland's northern sugarcane areas, while more moderate showers covered important cotton, sorghum, and winter grain areas.

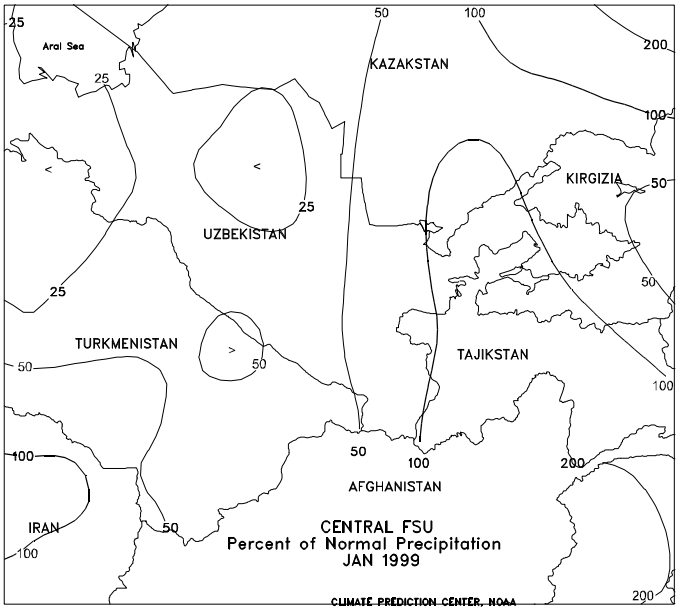
SOUTH AFRICA: Mostly dry, seasonably warm weather increased moisture demands on reproductive to filling corn and other summer crops.

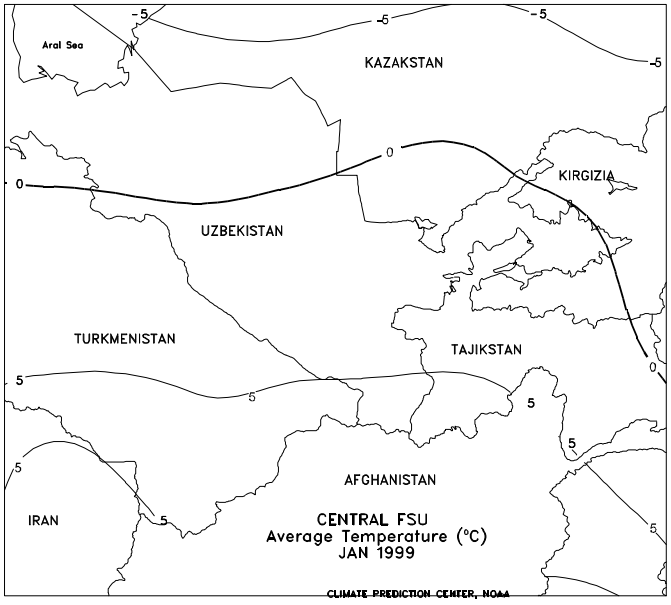
SOUTHEAST ASIA: Heavy showers caused local flooding along the east-central Philippines and peninsular Thailand.

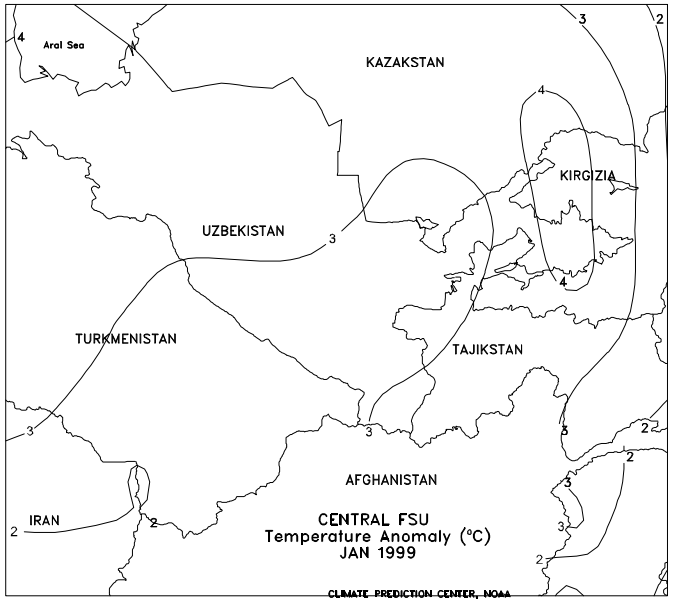
EASTERN ASIA: Persistent mild weather caused winter wheat to lose winter hardiness across the North China Plain.

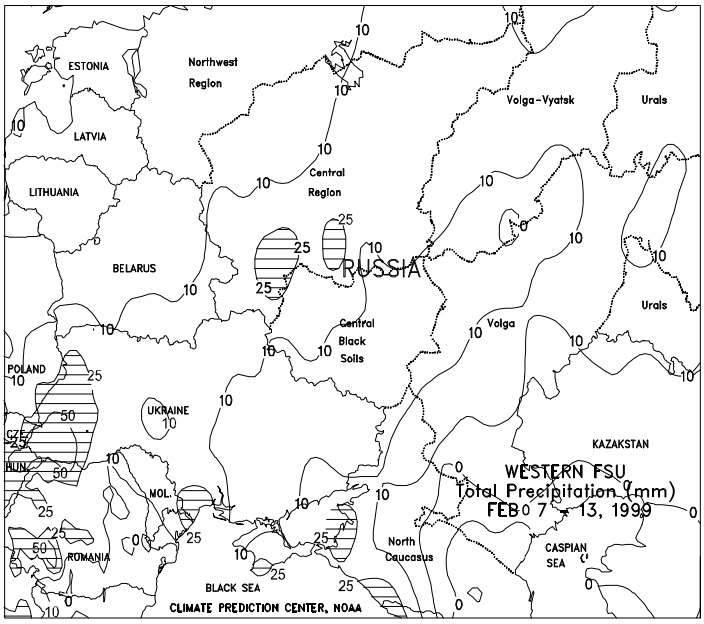
SOUTH AMERICA: Widespread showers continued to benefit vegetative to reproductive summer crops in southern Brazil and central Argentina.





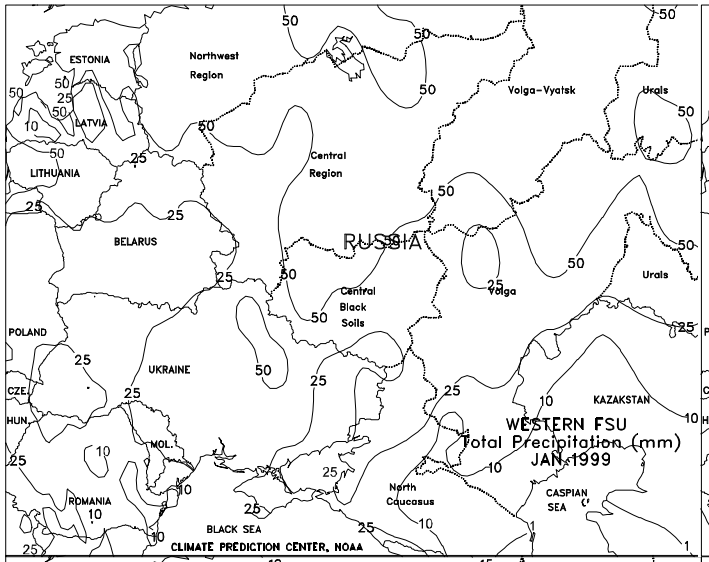


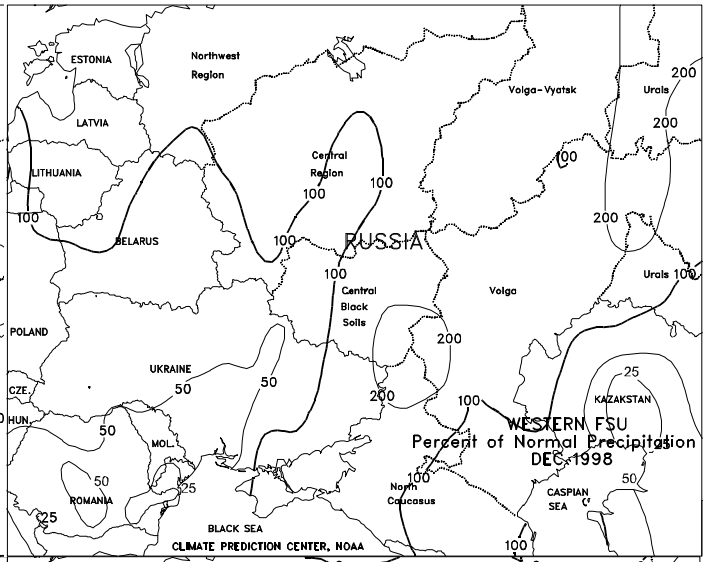


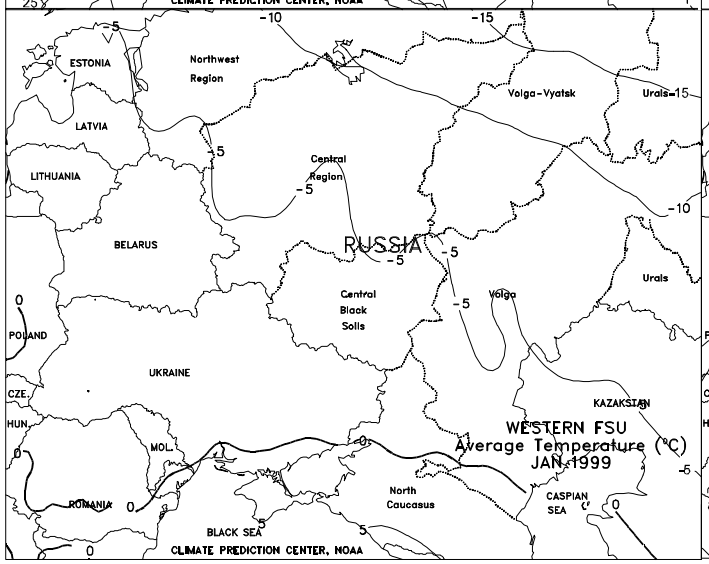


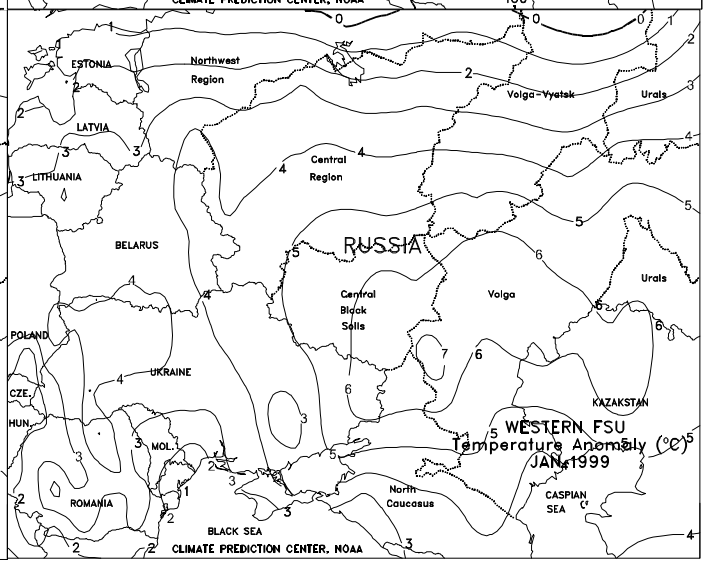
WESTERN FSU

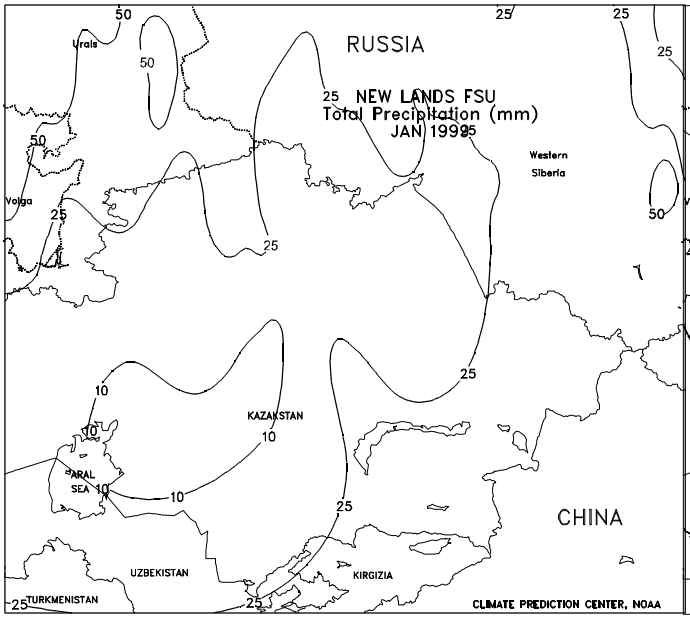
A storm system tracked northeastward through Ukraine into Russia, spreading moderate to heavy snow from western Ukraine into western portions of northern Russia (western Black Soils Region and Central Region). Ahead of the storm, mild weather pushed northward into eastern Ukraine and southern Russia (North Caucasus and lower Volga Valley). Maximum temperatures in these areas ranged from 5 to 19 degrees C, keeping winter wheat areas snow-free and leaving them vulnerable to potential extreme cold. However, the combination of unseasonable warmth and several days of dry weather in the North Caucasus provided a window of opportunity for early-season fieldwork. Elsewhere, very cold weather persisted over the Baltics, where minimum temperatures ranged from -10 to -23 on several days during the week. In January, overwintering conditions continued favorable for winter grains throughout most of the former USSR. Temperatures averaged 3 to 6 degrees C above normal in Ukraine, most of Russia, and Belarus. Snow cover in winter grain areas of the Ukraine and southern Russia (North Caucasus and lower Volga Valley) was patchy or nonexistent. However, temperatures in these areas were not low enough for a sufficient amount of time to threaten exposed crops. A moderate to deep snow cover persisted in winter grain areas of northern and central Russia during the month, protecting winter grains from periods of very cold weather. Above-normal precipitation boosted potential soil moisture reserves in northern Russia, the Baltics, and central Ukraine. Below-normal precipitation was observed in Ukraine and southern Russia.

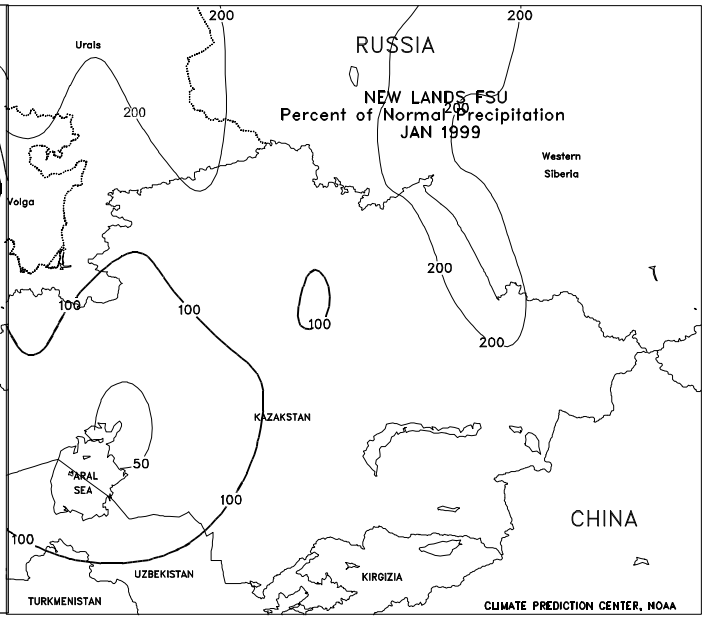


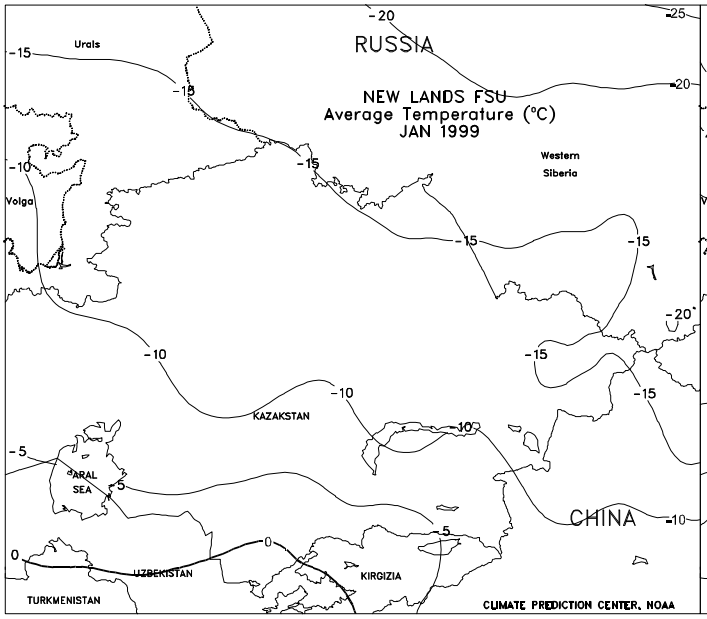


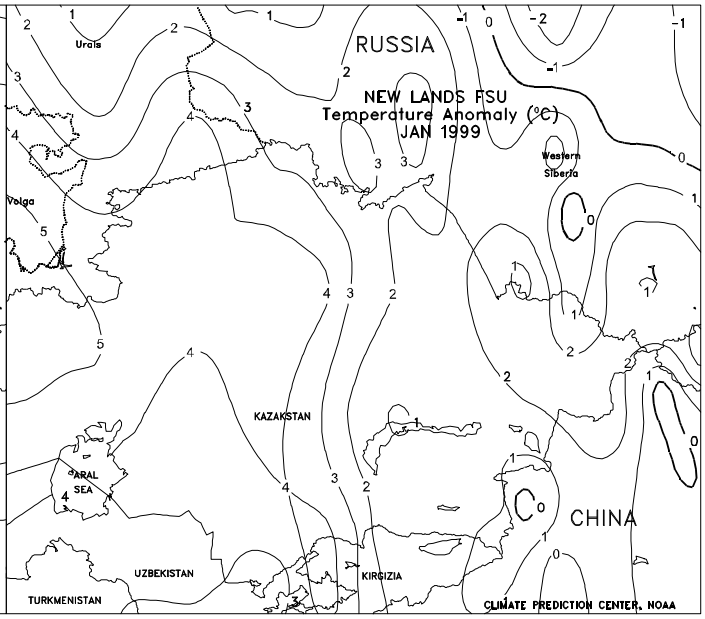





RUSSIA
NEW LANDS FSU
Total Precipitation (mm)
JAN 1999
Urals
Western Siberia
Volga
KAZAKSTAN
ARAL SEA
CHINA
UZBEKISTAN
KIRGIZIA
TURKMENISTAN
CLIMATE PREDICTION CENTER, NOAA

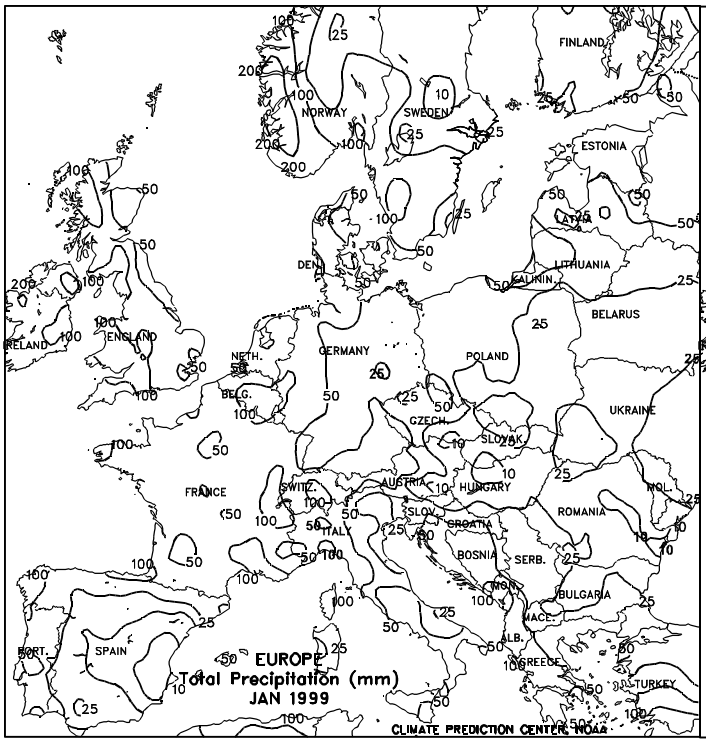

RUSSIA
NEW LANDS FSU
Percent of Normal Precipitation
JAN 1999
Urals
Western Siberia
Volga
KAZAKSTAN
ARAL SEA
CHINA
UZBEKISTAN
KIRGIZIA
TURKMENISTAN
CLIMATE PREDICTION CENTER, NOAA

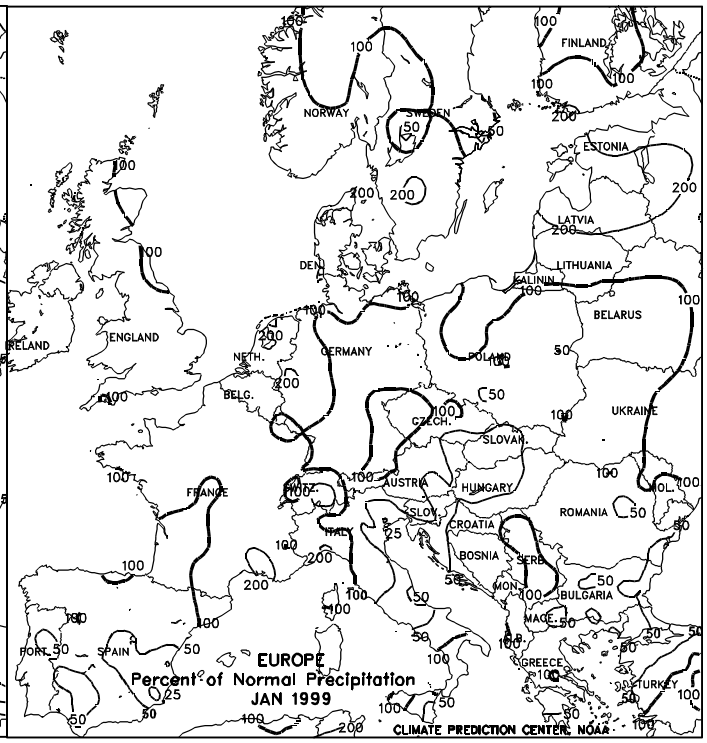

RUSSIA
NEW LANDS FSU
Average Temperature (°C)
JAN 1999
Urals
Western Siberia
Volga
KAZAKSTAN
ARAL SEA
CHINA
UZBEKISTAN
KIRGIZIA
TURKMENISTAN
CLIMATE PREDICTION CENTER, NOAA

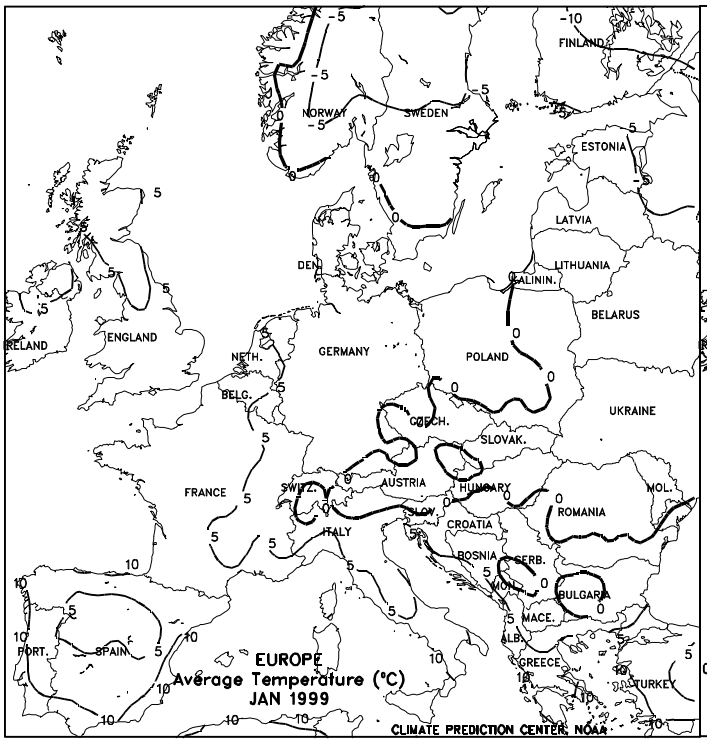

RUSSIA
NEW LANDS FSU
Temperature Anomaly (°C)
JAN 1999
Urals
Western Siberia
Volga
KAZAKSTAN
ARAL SEA
CHINA
UZBEKISTAN
KIRGIZIA
TURKMENISTAN
CLIMATE PREDICTION CENTER, NOAA

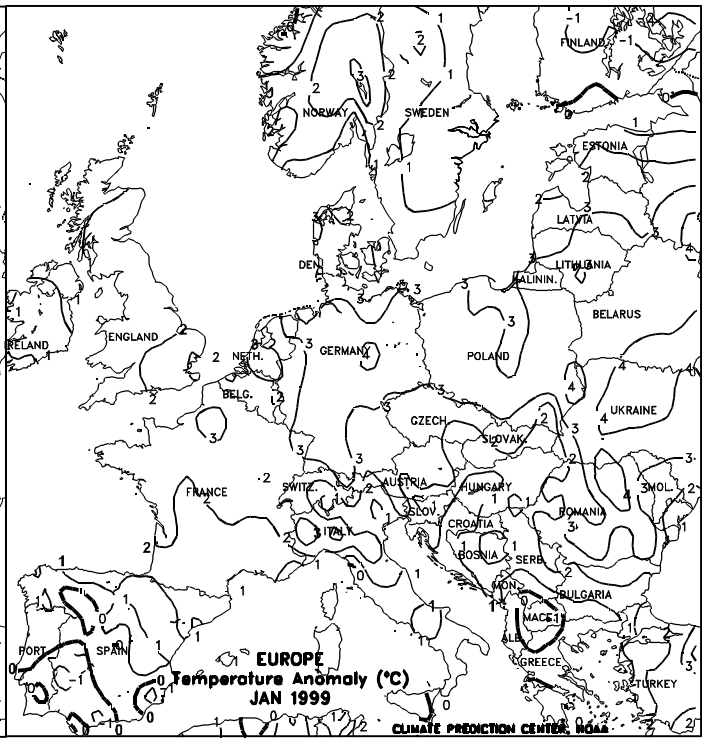
EUROPE

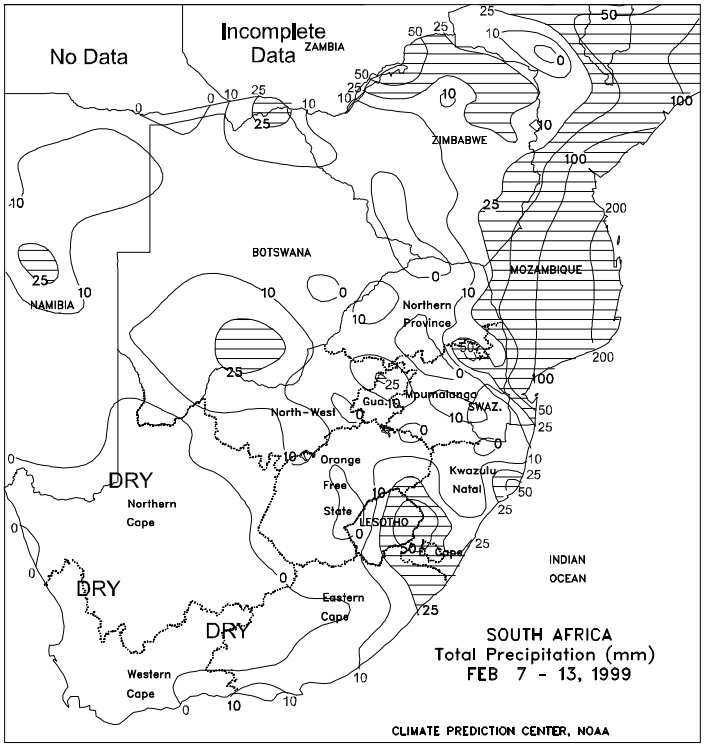
A stormy weather pattern prevailed over Europe during the week, spreading rain and snow over most winter grain areas. The exception was in central and southern Spain, where a developing drought has created unfavorable conditions for winter grain development. Light to moderate showers (3-40 mm) fell from England southward through the western half of France into northern Spain, boosting soil moisture. Moderate to heavy snow (10-40 mm or more, liquid equivalent) extended from east-central France eastward through central Europe into portions of eastern Europe (southern Poland, the Czech Republic, Slovakia, and Hungary), increasing protective snow cover over winter grain areas. Gusty winds accompanied the snowfall, causing considerable drifting of snow. Cold weather in northern Europe, was accompanied by light rain that turned to light snow (generally less than 10 mm, liquid equivalent). Moderate to heavy rain (25-50 mm or more) spread from peninsular Italy into Greece, providing abundant moisture for winter grains. In January, overwintering conditions were mostly favorable for winter grains over most of the continent. Above-normal precipitation fell from England southward into France, boosting soil moisture reserves. Below-normal precipitation was observed across the Mediterranean region, hampering winter grain growth. The dryness was of greatest concern in central and southern Spain, where December's rainfall also trended below normal. Precipitation trended below normal in eastern Europe as well, limiting moisture recharge.





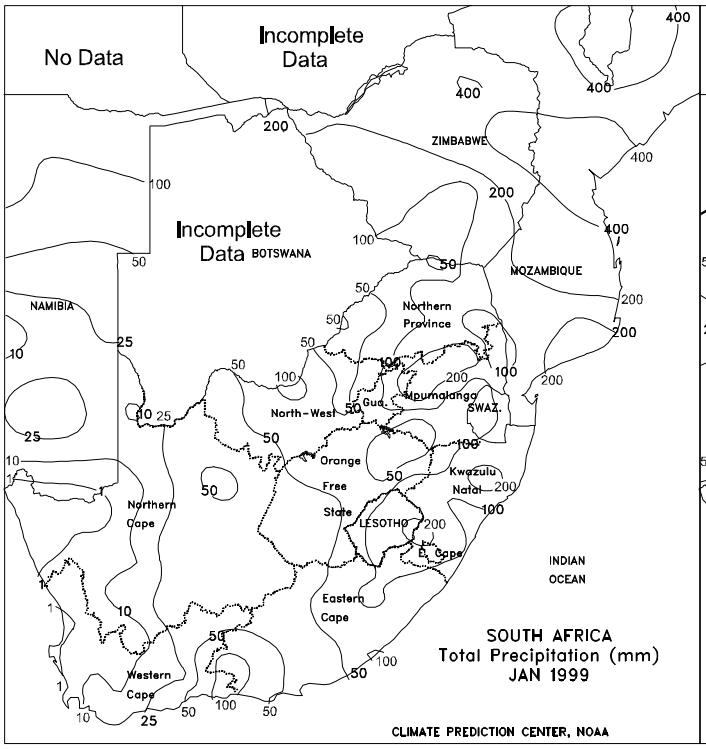






SOUTH AFRICA

Mostly dry, seasonably warm weather dominated the region. Across the corn belt, summer crops are advancing through critical reproductive phases of development and need additional moisture as crops fill out. This is especially true in eastern corn areas centered around eastern Free State, which have trended dry for the past 4 weeks. In coastal crop areas, the break in rainfall was welcomed following last week's inundations. In January, rainfall was near to below normal across the corn belt, with large sections of Free State and Mpumalanga reporting less than half of their normal rainfall. However, a lack of heat stress and favorable long-term moisture reserves reduced the potential for stress on crops advancing through reproduction. Elsewhere, periods of heavy rain from the coastal sugarcane areas of KwaZulu-Natal to eastern sections of Western Cape favored summer crop development. Outbreaks of hot, dry weather in Western Cape posed some stress to orchards and vineyards.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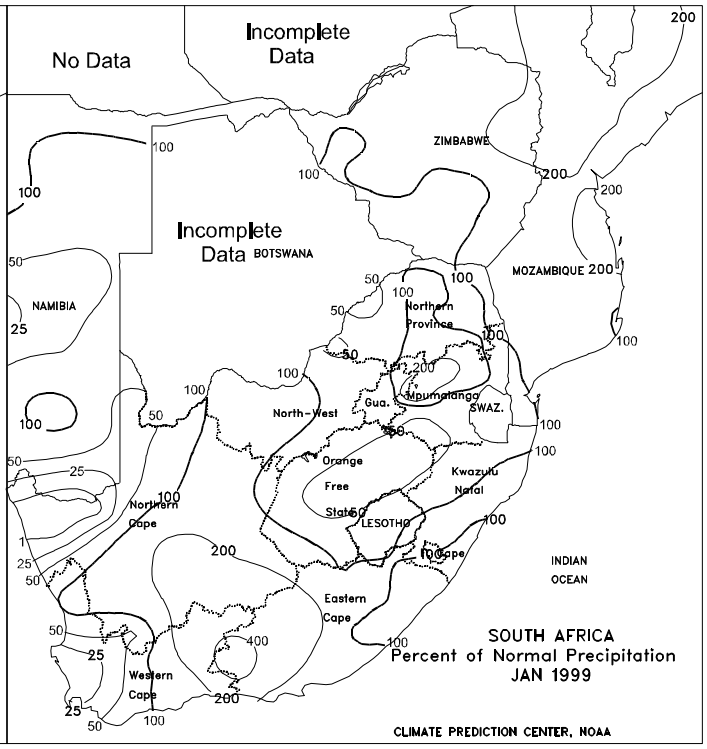
MOZAMBIQUE
NAMIBIA
Northern Province
North-West
Gua.
Mpumalanga
SWAZ.
Orange Free State
Kwazulu Natal
Northern Cape
LESOTHO
E. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Total Precipitation (mm)
JAN 1999
CLIMATE PREDICTION CENTER, NOAA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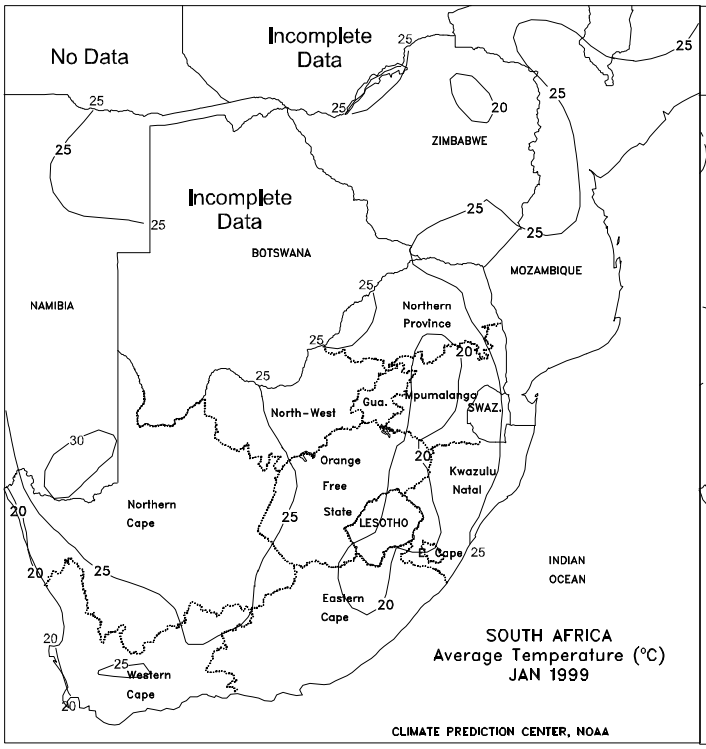
SWAZ.
Orange Free State
Kwazulu Natal
Northern Cape
LESOTHO
E. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Percent of Normal Precipitation
JAN 1999
CLIMATE PREDICTION CENTER, NOAA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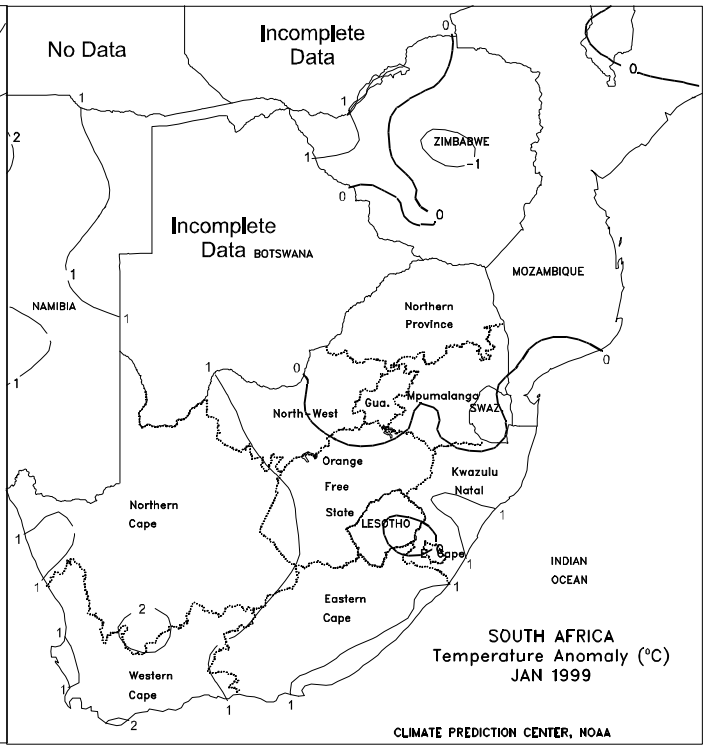
Gua.
Mpumalanga
SWAZ.
Orange Free State
Kwazulu Natal
Northern Cape
LESOTHO
E. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Average Temperature (°C)
JAN 1999
CLIMATE PREDICTION CENTER, NOAA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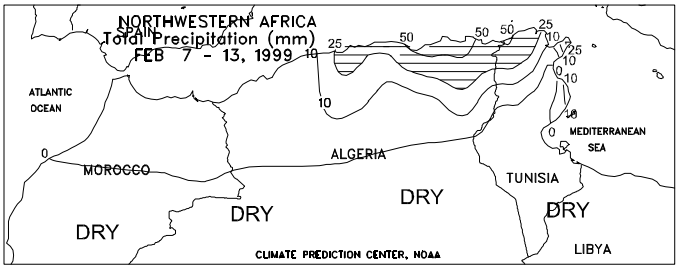
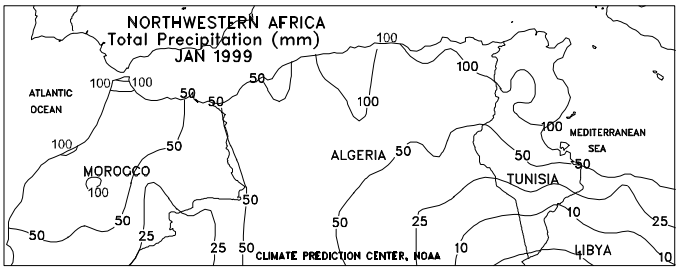
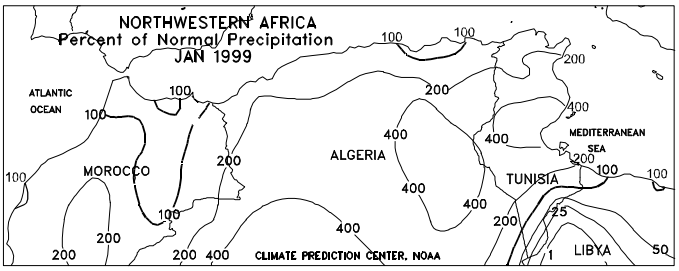
Gua.
Mpumalanga
SWAZ
Orange Free State
Kwazulu Natal
Northern Cape
LESOTHO
E. Cape
Eastern Cape
Western Cape
INDIAN OCEAN
SOUTH AFRICA
Temperature Anomaly (°C)
JAN 1999
CLIMATE PREDICTION CENTER, NOAA

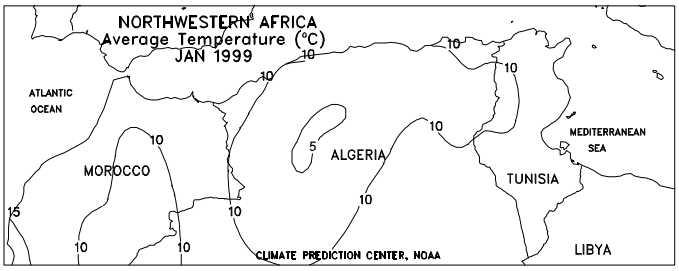


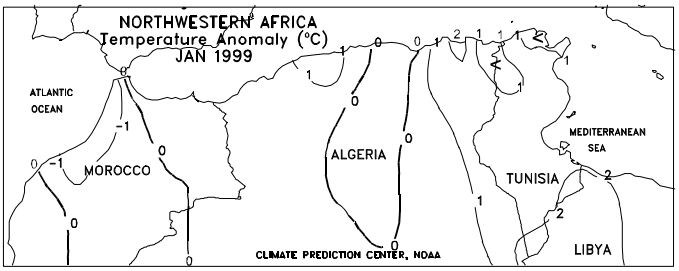
NORTHWESTERN AFRICA

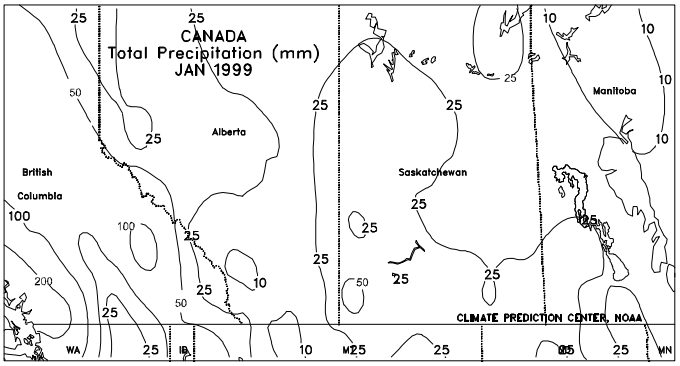
Winter grains remained in the vegetative stage over most of the region. The third consecutive week of dry weather prevailed over winter grain areas in Morocco, where moisture was once again becoming limited for crops advancing through the jointing stage in southern areas. Farther east, light to moderate showers (10-25 mm or more) provided sufficient moisture for winter grain development in Algeria and Tunisia. Greatest amounts of moisture (30-40 mm) fell over crop areas closest to the Mediterranean coast. Weekly temperatures averaged 2 to 4 degrees C below normal over Morocco, Algeria, and Tunisia, lowering crop-water requirements and slowing crop development. In January, above-normal precipitation fell over winter grain areas in Morocco, Algeria, and Tunisia, improving growing conditions for winter grains. However, soil moisture reserves likely remain limited in most areas, especially in Morocco and western Algeria, where autumn drought (October-December) occurred. Timely rains will be needed throughout the region in upcoming weeks, as winter grains advance through the reproductive phase of development.

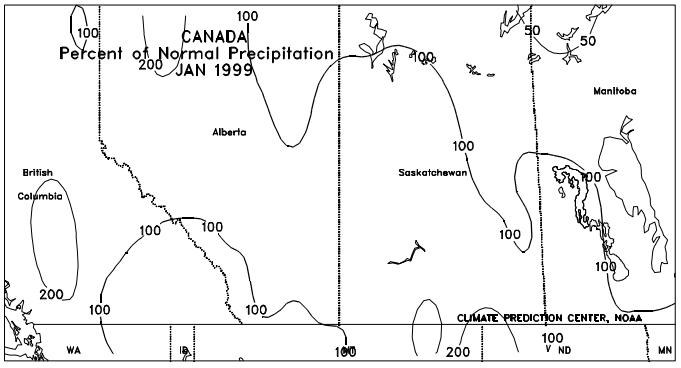


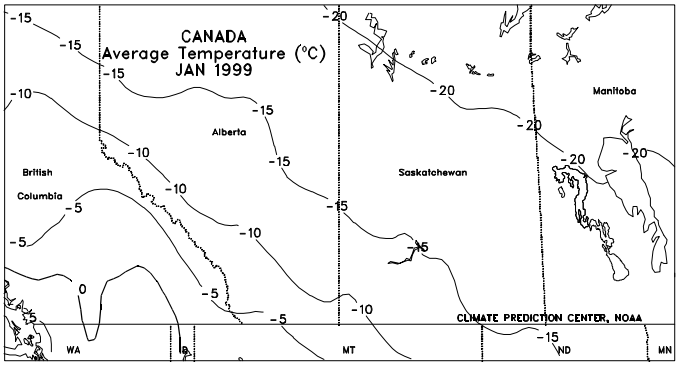


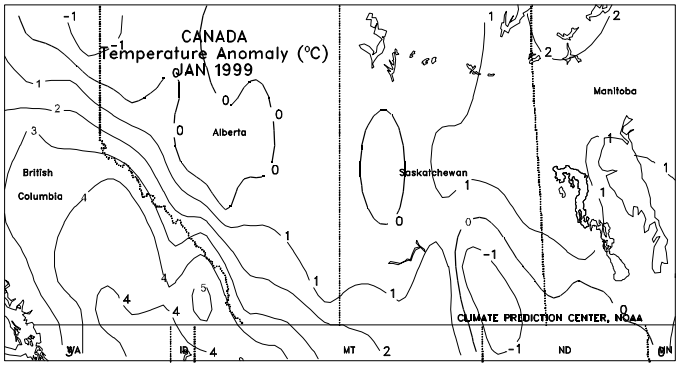


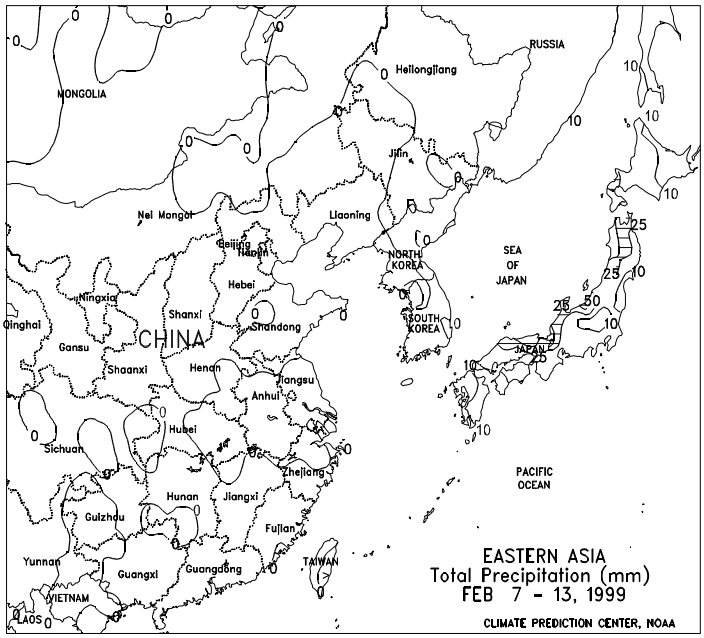






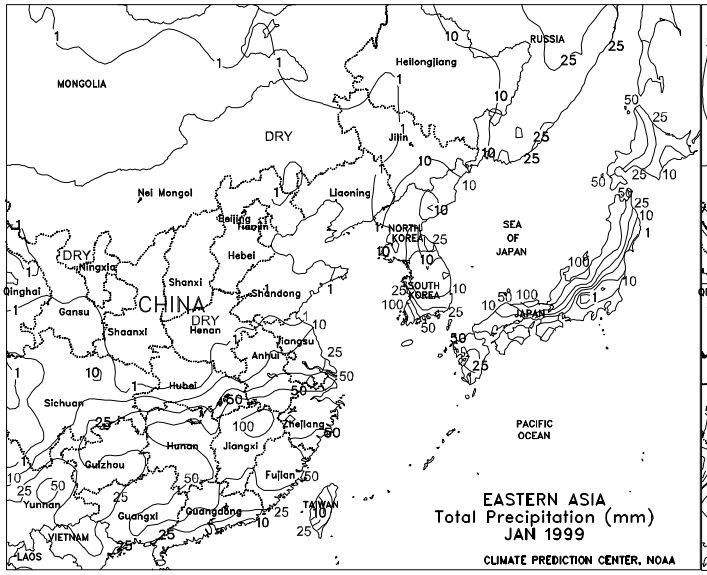


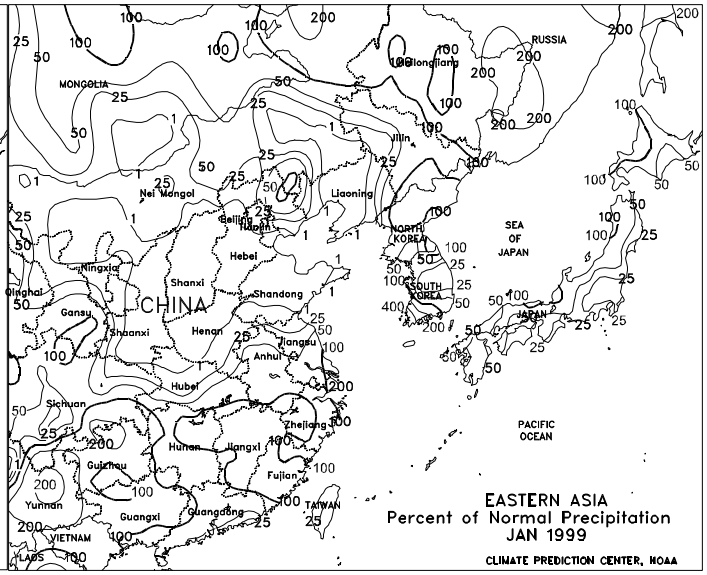


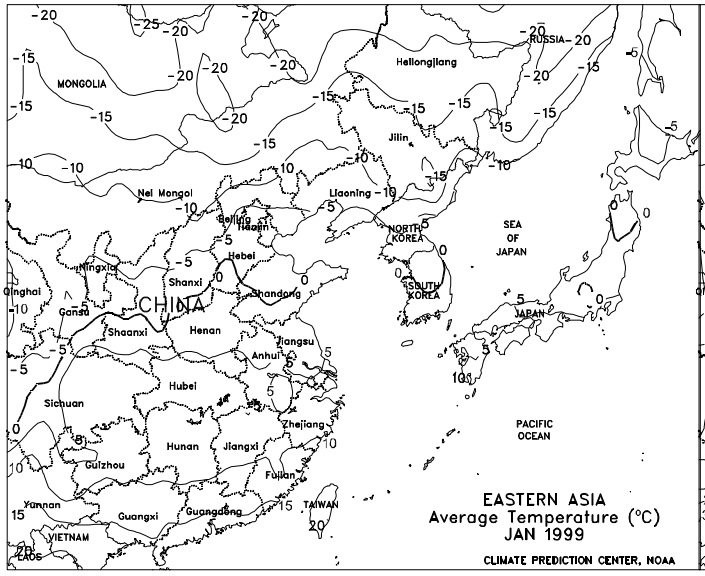


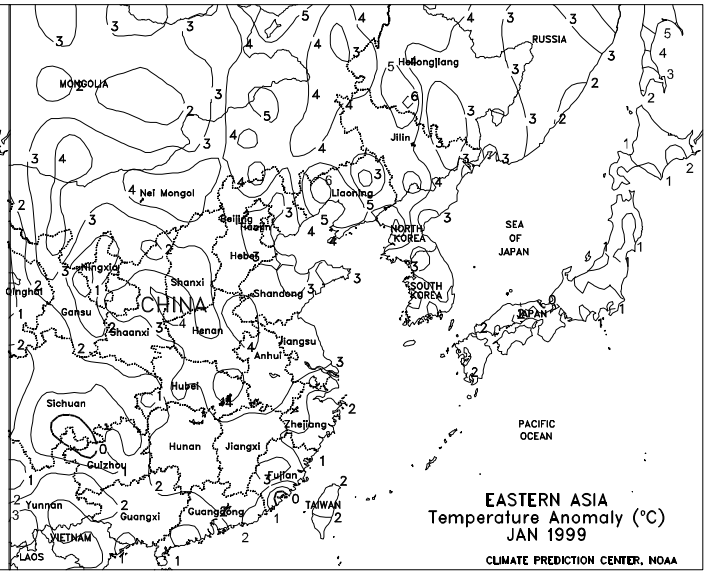
EASTERN ASIA

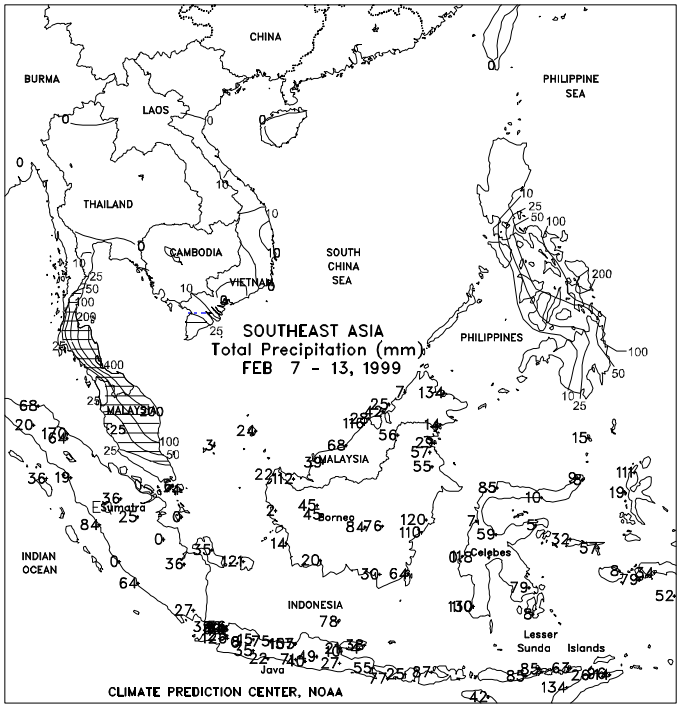
Persistent mild weather (temperatures averaged 3-6 degrees C above normal) caused winter wheat to lose winter hardiness across the North China Plain. Seasonably dry weather prevailed across the region, where soil moisture is limited for rainfed wheat. However, most of the winter wheat is irrigated and irrigation supplies are adequate. Light rain (less than 10 mm) fell across the Yangtze Valley, maintaining adequate moisture for vegetative winter grains and oilseeds. In January, although seasonably dry weather prevailed across the North China Plain, cumulative precipitation since last autumn has been running below normal. Winter wheat remained dormant during the month, despite temperatures 2 to 4 degrees C above normal for January. Above-normal precipitation favored vegetative winter grains and oilseeds across the lower Yangtze Valley.





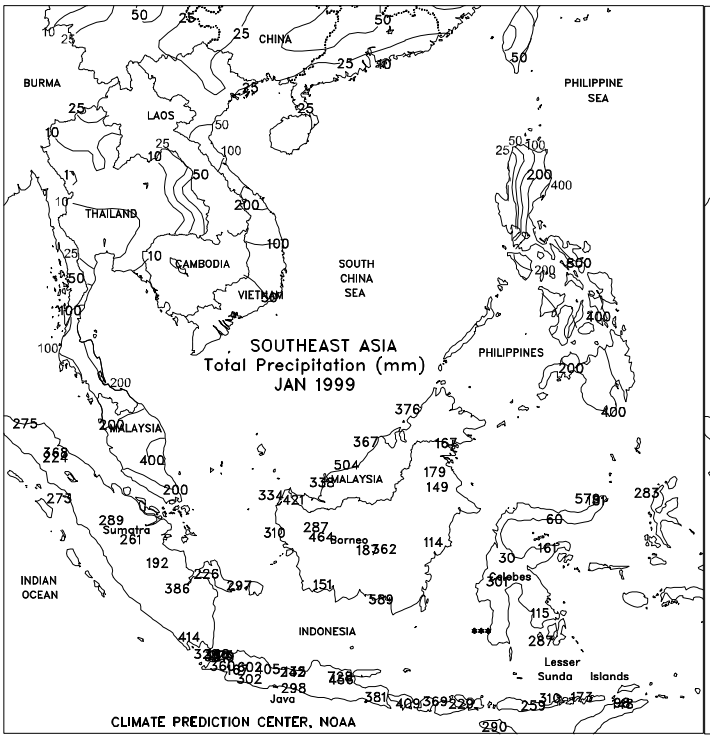


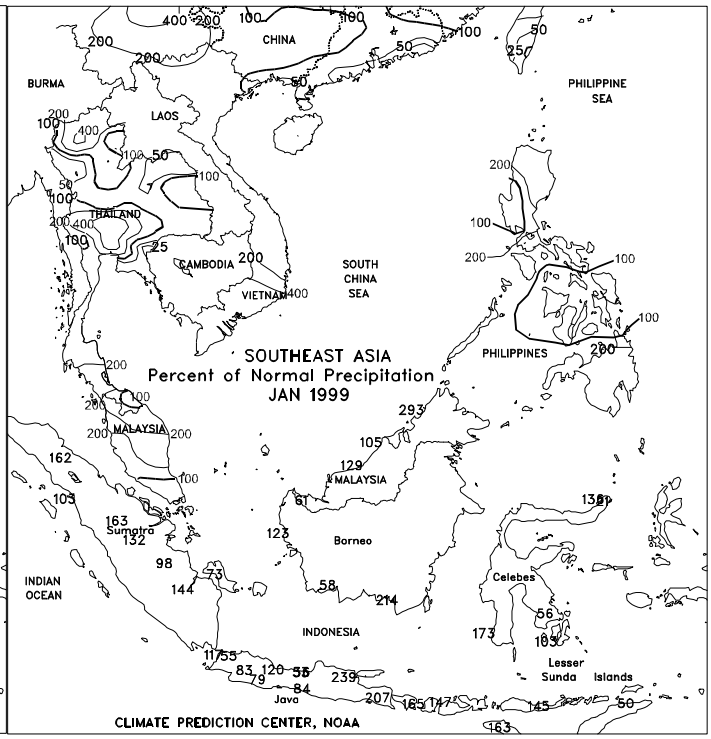


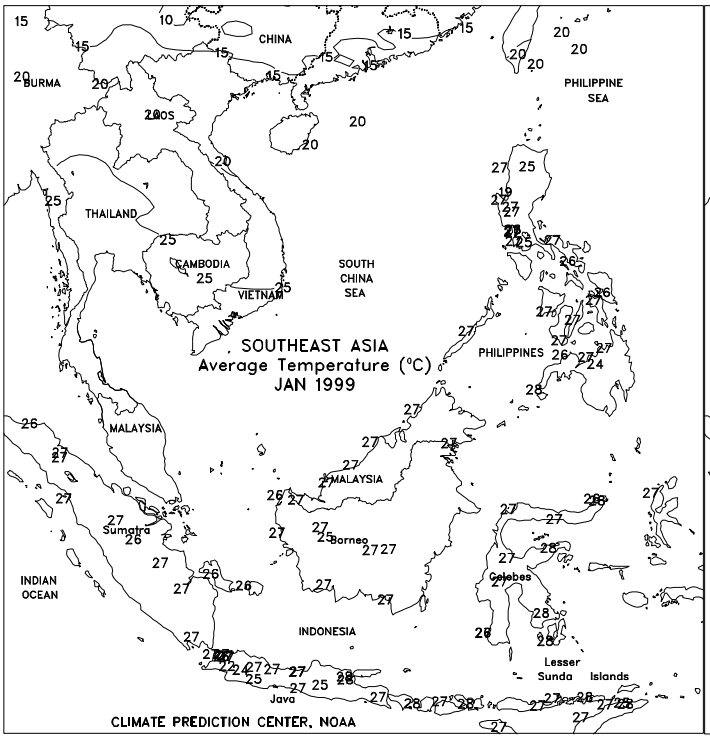


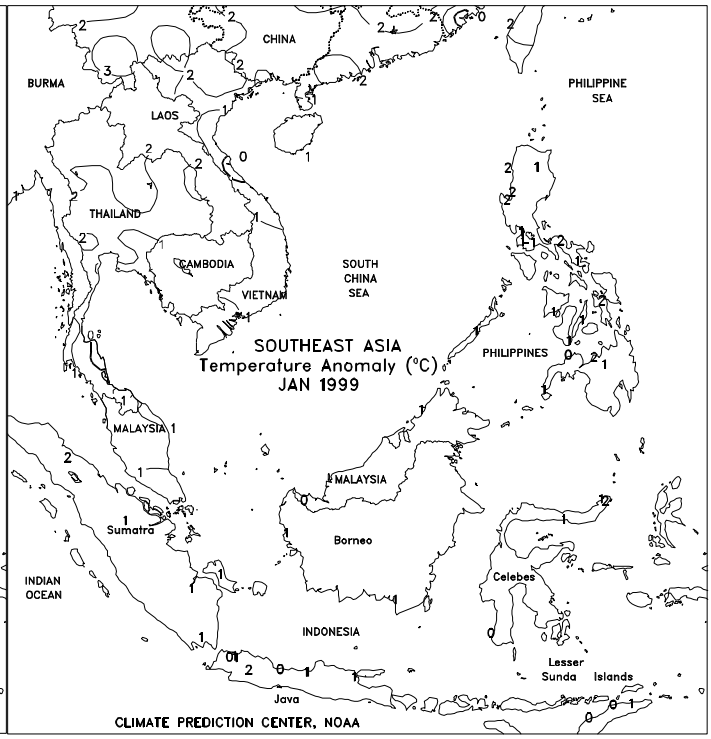
SOUTHEAST ASIA

Heavy showers (90-325 mm) caused local flooding in grain and plantation crop areas across the east-central Philippines. Seasonable showers (5-50 mm) prevailed elsewhere in the Philippines. Seasonably dry weather dominated Thailand, with light showers (less than 25 mm) in Vietnam. However, heavy showers (200-500 mm) caused flooding along the east coast of peninsular Thailand. Showers (50-120 mm) maintained favorable moisture supplies for oil palm across peninsula Malaysia. Moderate showers (15-70 mm, with isolated amounts greater than 100 mm) maintained moisture supplies for main-season rice in Java, Indonesia. In January, above-normal rainfall provided ample moisture supplies across the Philippines and peninsular Malaysia, but caused some flooding. In late January and early February, unseasonably heavy showers increased irrigation supplies in Thailand. Near- to above-normal January rainfall maintained adequate moisture for main-season grains in Java.


SOUTHEAST ASIA
Total Precipitation (mm)
JAN 1999
CLIMATE PREDICTION CENTER, NOAA
CHINA
BURMA
LAOS
THAILAND
CAMBODIA
VIETNAM
SOUTH CHINA SEA
PHILIPPINE SEA
PHILIPPINES
MALAYSIA
Sumatra
Borneo
Celebes
INDIAN OCEAN
INDONESIA
Lesser Sunda Islands
Java

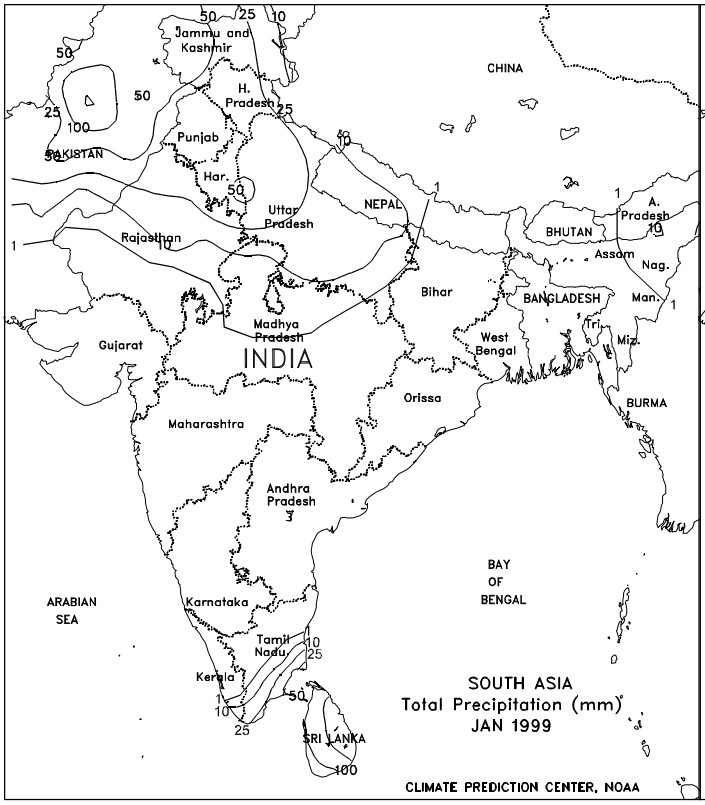

SOUTHEAST ASIA
Percent of Normal Precipitation
JAN 1999
CLIMATE PREDICTION CENTER, NOAA
CHINA
BURMA
LAOS
THAILAND
CAMBODIA
VIETNAM
SOUTH CHINA SEA
PHILIPPINE SEA
PHILIPPINES
MALAYSIA
Sumatra
Borneo
Celebes
INDIAN OCEAN
INDONESIA
Lesser Sunda Islands
Java

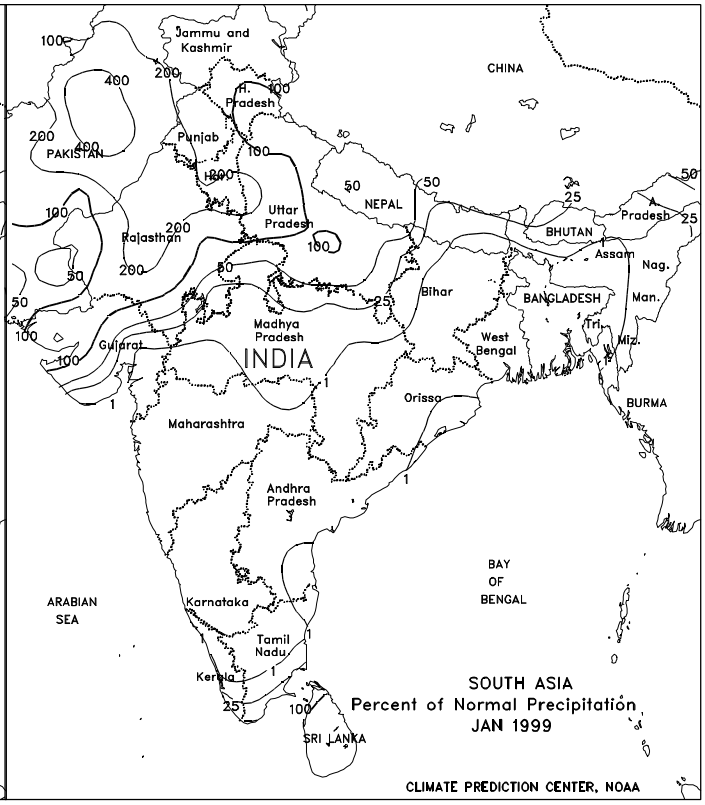

SOUTHEAST ASIA
Average Temperature (°C)
JAN 1999
CLIMATE PREDICTION CENTER, NOAA
CHINA
BURMA
LAOS
THAILAND
CAMBODIA
VIETNAM
SOUTH CHINA SEA
PHILIPPINE SEA
PHILIPPINES
MALAYSIA
Sumatra
Borneo
Celebes
INDIAN OCEAN
INDONESIA
Lesser Sunda Islands
Java

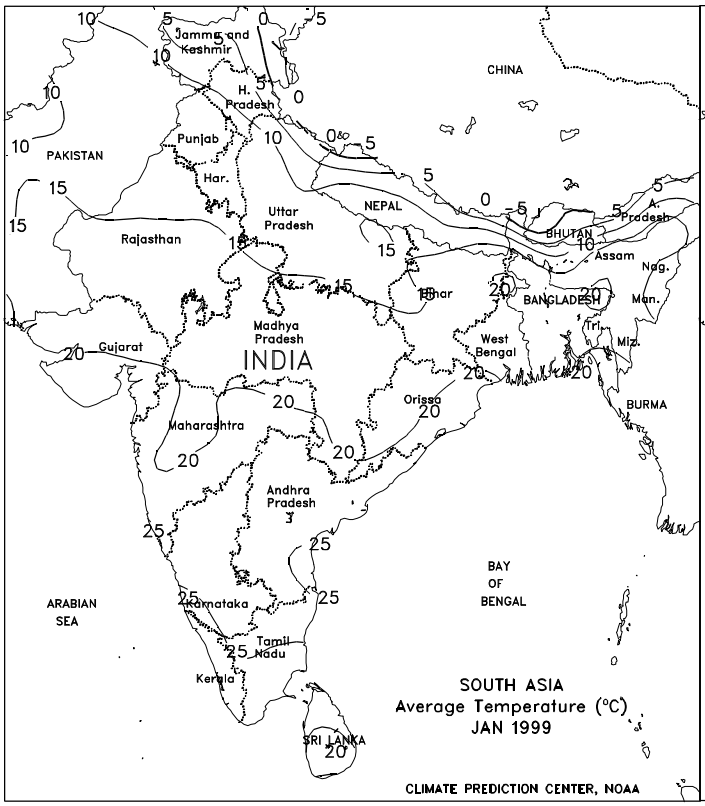

SOUTHEAST ASIA
Temperature Anomaly (°C)
JAN 1999
CLIMATE PREDICTION CENTER, NOAA
CHINA
BURMA
LAOS
THAILAND
CAMBODIA
VIETNAM
SOUTH CHINA SEA
PHILIPPINE SEA
PHILIPPINES
MALAYSIA
Sumatra
Borneo
Celebes
INDIAN OCEAN
INDONESIA
Lesser Sunda Islands
Java

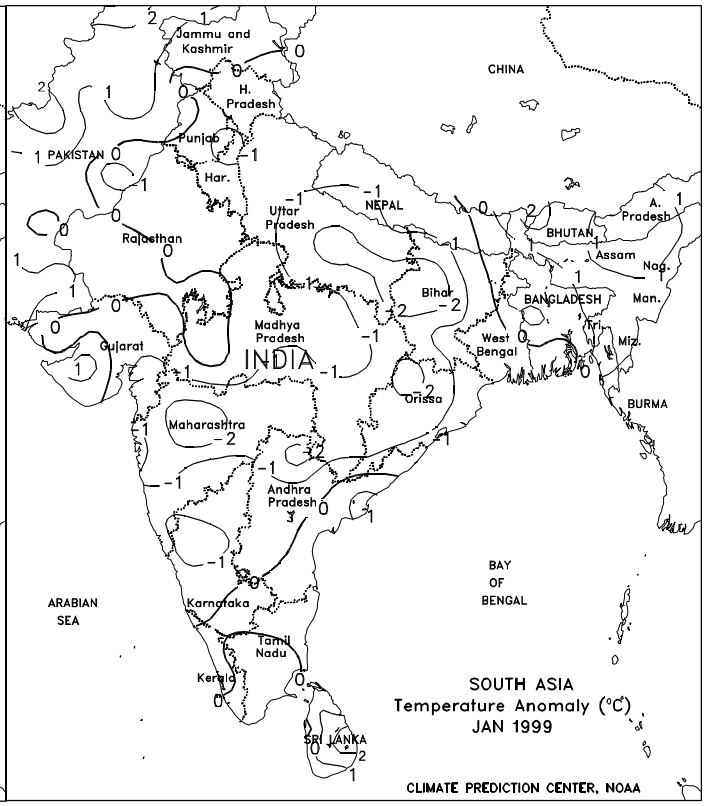
SOUTH ASIA

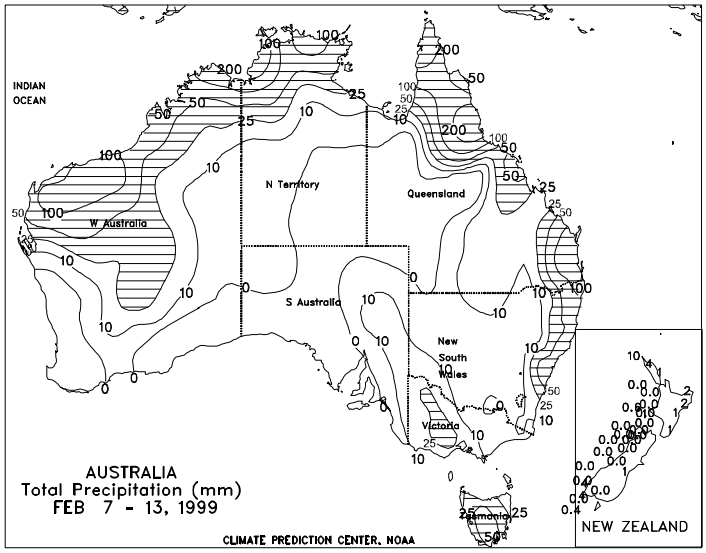
In January, locally heavy rain (25-50 mm or more) covered much of Pakistan and north-central India. The moisture was highly beneficial for winter grains and oilseeds, especially the rainfed portion of the crops, which typically accounts for 10-20 percent of the total production. Minor growing areas of central India (Gujarat, Madhya Pradesh, and Bihar) were dry. Temperatures averaged near to slightly above normal in Pakistan but below normal over India.





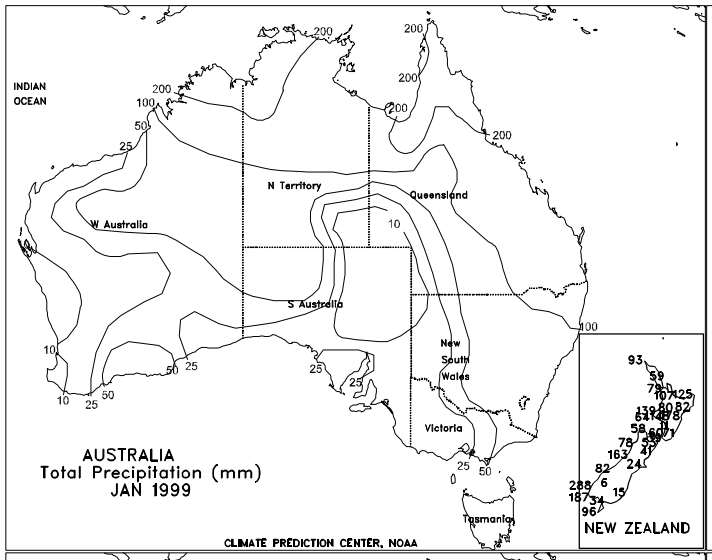


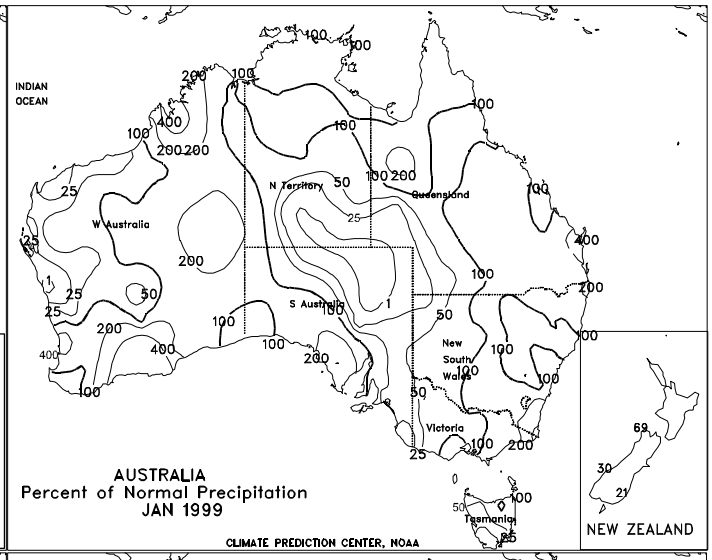


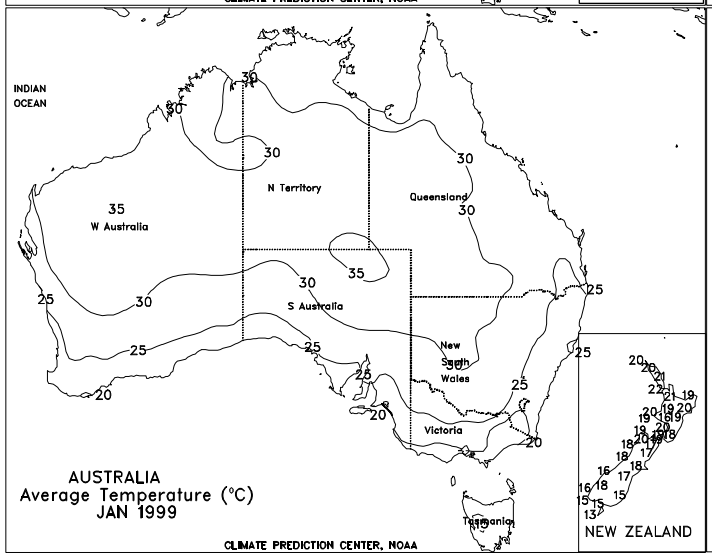


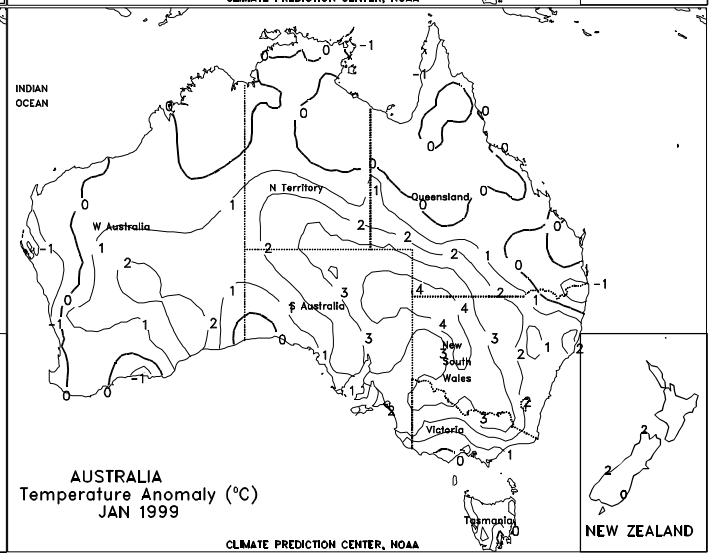
AUSTRALIA

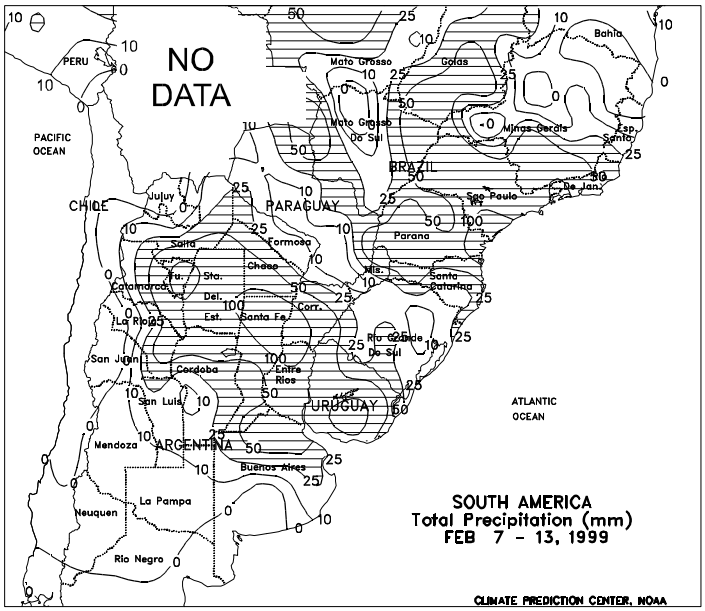
A tropical cyclone brought very heavy rainfall (200-400 mm or more) to Queensland's northern sugarcane areas as it made landfall and moved slowly inland. Farther south, more moderate showers (10-25 mm or more) kept the state's immature cotton and sorghum well watered, but drier conditions were needed for maturing crops. In New South Wales, rainfall was light (10 mm or less) over interior summer crop areas, but heavy showers (50 mm or more) lingered in coastal sugarcane areas, exacerbating localized flooding. Elsewhere, moderate rain (greater than 25 mm) boosted moisture reserves in chronically dry agricultural districts along the Victoria-South Australia border. Most farmland in the west and southeast remained dry. New Zealand also stayed dry, worsening drought conditions. In January, near- to above-normal rainfall throughout the east maintained abundant soil moisture levels for cotton, sorghum, and sugarcane development. Showers also benefited agricultural districts in Western Australia, but drier- and warmer-than-normal conditions in southeastern Australia depleted topsoil moisture reserves and stressed pastures.





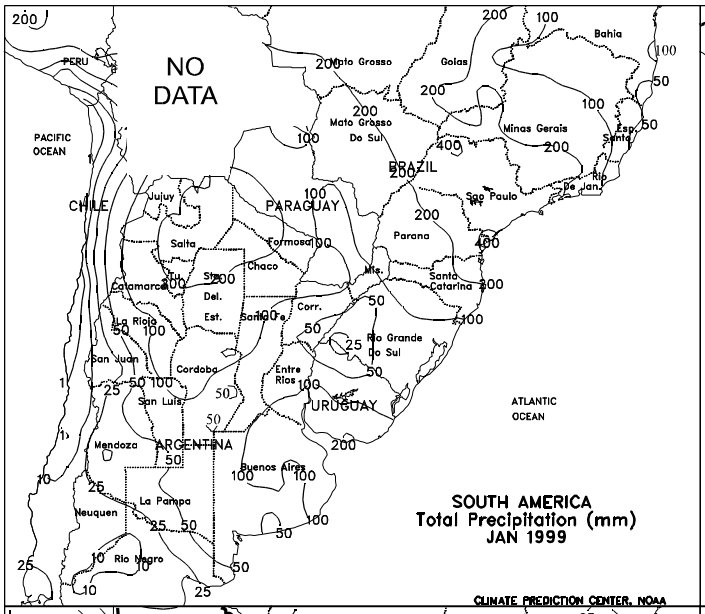


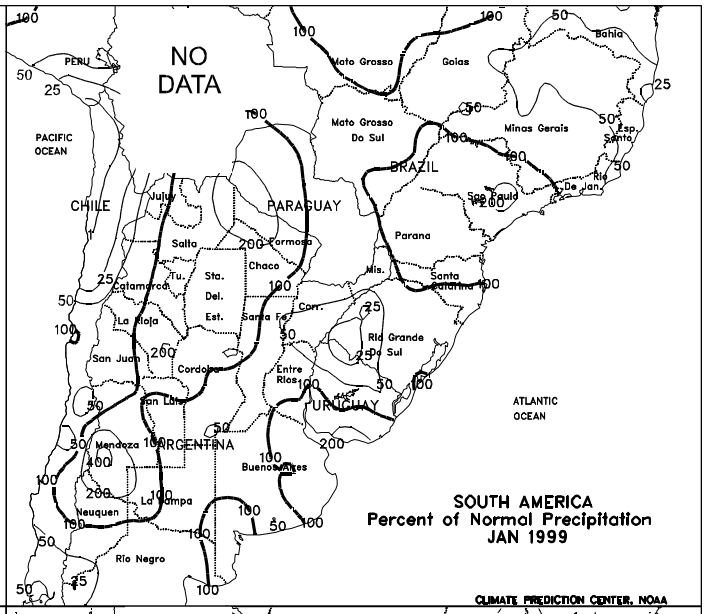


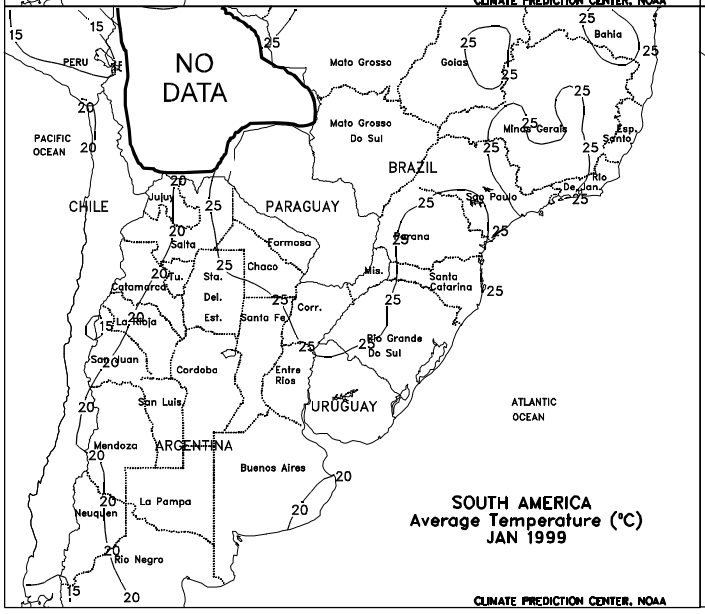


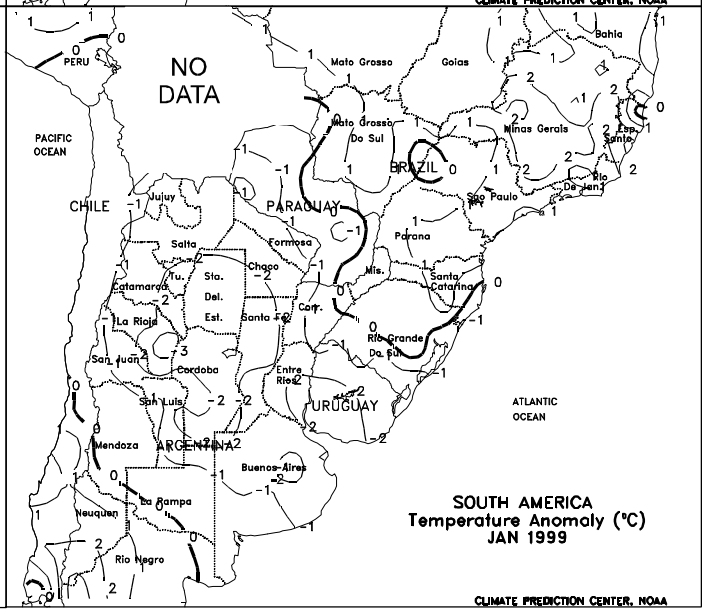
SOUTH AMERICA

In southern Brazil, showers (10-75 mm) favored reproductive to filling crops from Rio Grande do Sul northward into Parana and Sao Paulo. Lighter amounts (5-35 mm) were reported in Mato Grosso do Sul and southern Mato Grosso. In central Argentina, showers (30-60 mm) continued to benefit summer crops in northern Buenos Aires, southern Cordoba, and southern Santa Fe. Scattered heavy showers (100-160 mm) caused local flooding in the northern cotton areas. Only light rain (less than 10 mm) fell across southern Paraguay, where topsoils are becoming dry. Temperatures averaged 2 to 4 degrees C below normal in central Argentina and Rio Grande do Sul, Brazil, and 1 to 2 degrees C above normal in southern Brazil from Parana northward. During the first half of January, below-normal rainfall stressed summer crops in central Argentina and Rio Grande do Sul, Brazil. Timely late-January and early-February rainfall improved soil moisture for vegetative to reproductive corn and soybeans in those regions. Elsewhere in southern Brazil, above-normal rainfall maintained adequate soil moisture for soybean development.









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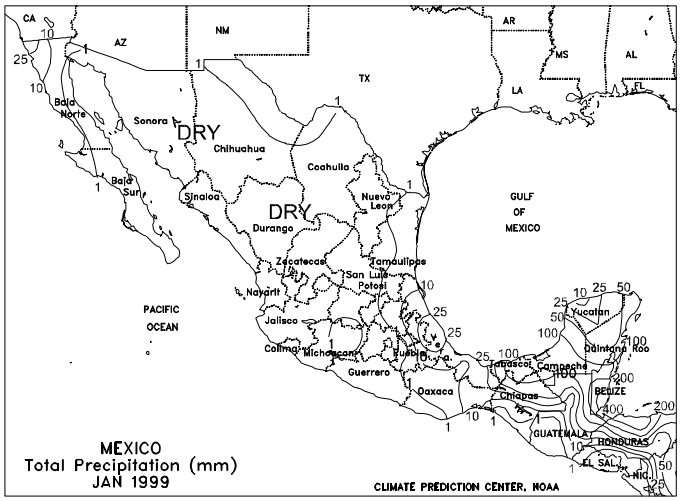

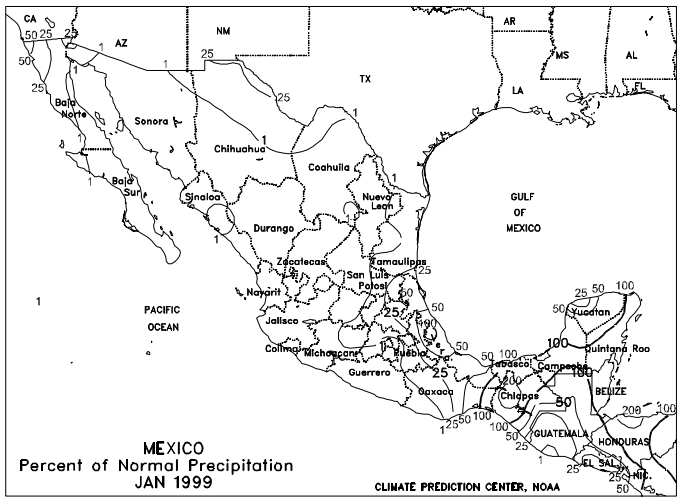

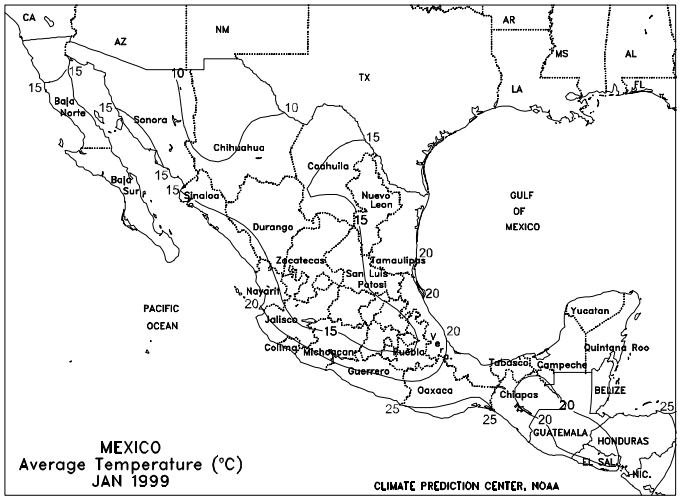

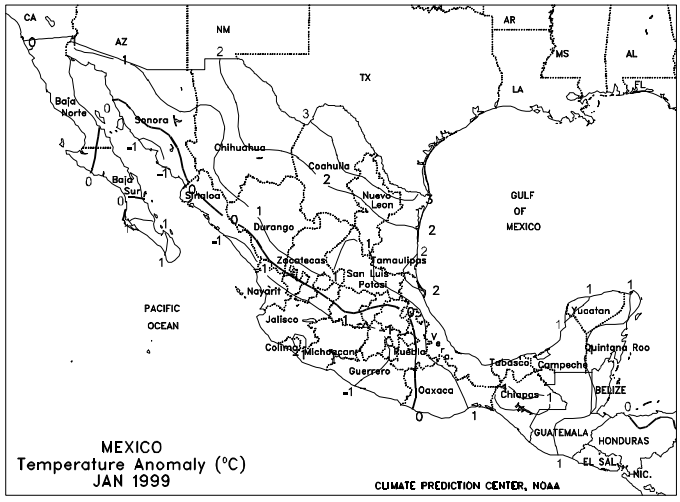

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