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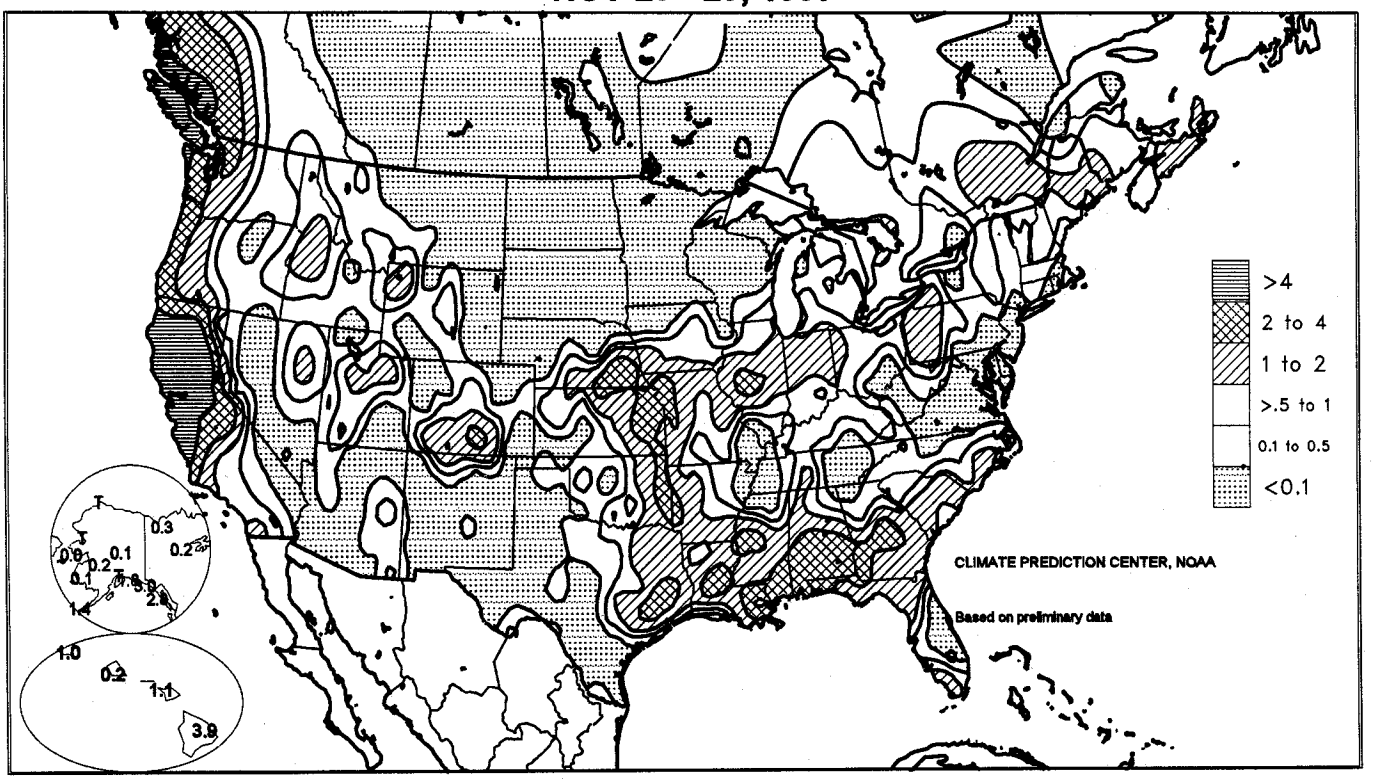
WEEKLY WEATHER AND CROP BULLETIN

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

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

Total Precipitation (Inches)
NOV 23 - 29, 1997



HIGHLIGHTS

November 23 - 29, 1997

A strong **Pacific** storm, imbued with subtropical moisture, hurtled southeastward through **California**, dumping as much as 4 to 9 inches of precipitation, then turned eastward, delivering more than 2 inches of rain to parts of the **east-central Plains** and the **Gulf Coast region.** That storm, and another at week's end, traveled along the southern branch of a split jet stream, characteristic of El Niño-driven weather patterns during late autumn and winter. **California's** precipitation perpetuated a 3-week wet spell, while in the **Southeast**, moisture surpluses continued to grow for the seventh consecutive week. Rain on the **central Plains** represented the region's first substantial precipitation since the late-October blizzard.

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(Continued from front cover)
Cold air gradually departed most areas **east of the Rockies**, ending a 6-week spell of subnormal temperatures. Departures ranged from +4 to +12°F on the **Plains**. The chill persisted in **New England**, however, where weekly temperatures averaged as much as 7°F below normal.

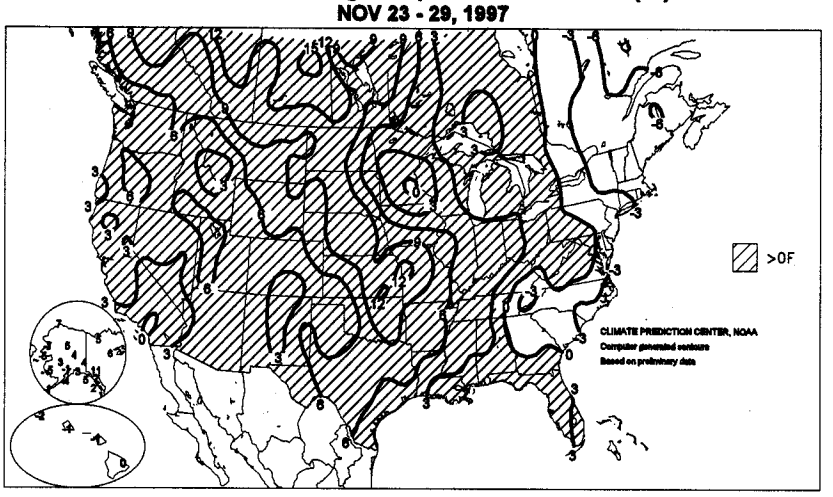
Early in the week, chilly conditions lingered across the **North** and **East**. On November 23-24, lows in **Embarrass, MN** dipped to -16 and -25°F, respectively. **Montpelier, VT** notched a daily-record-tying low of 4°F on Tuesday. By midweek, however, warmer air overspread much of the Nation in advance of the **West Coast** storm. In **Rochester, MN**, a 23-day streak (November 2-24) of below-normal temperatures ended on Tuesday. Farther south, **Midland, TX** recorded a high of 80°F. On Wednesday, **Las Vegas, NV** (75°F) tied a daily record. By Friday, daily-record highs were tied in **International Falls, MN** (43°F) and **Evansville, IN** (70°F).

Several dry days in the **Southeast** permitted late summer-crop harvesting and winter wheat planting to progress, but rain returned toward week's end. Late-week totals topped 2 inches in locations such as **Macon, GA** and **Valparaiso, FL**. Another band of rainfall (1 to 2 inches, with locally higher totals) stretched from **eastern Kansas** and **southeastern Nebraska** to **western Ohio**, boosting soil moisture for winter wheat establishment. Farther east, a powerful coastal storm developed on November 26-27, buffeting **New England** with Thanksgiving Day wind gusts that reached 71 mph in **Milton, MA** (Blue Hill Observatory) and 61 mph in **Tiverton, RI**. Less than 1 inch of snow fell in **Portland, ME**, but the monthly total was 20.5 inches, their highest in November since 1921.

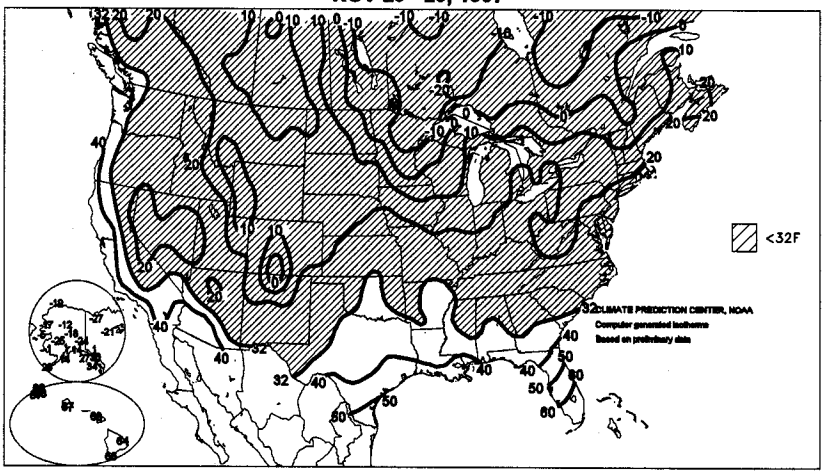
At the end of October, **California's** 155-reservoir water-supply system held about 7.1 trillion gallons (21.8 million acre feet) of water, 105 percent of the long-term average and 58 percent of capacity. November precipitation was above normal across most of the State. In **San Francisco**, the monthly rainfall of 6.97 inches was 268 percent of normal, their 10th highest November total in the past 149 years. Weekly precipitation reached 4.93 inches in the **Sierra Nevada** foothills at **Blue Canyon** and 4.73 inches in the **Bay Area** at **Kentfield**. On Wednesday, daily-record rainfalls were reported in **Chatsworth** (0.86 inches) and downtown **Sacramento** (1.07 inches). As the storm moved inland, snow accumulated across higher elevations of the **West** as far south as **southern California**.

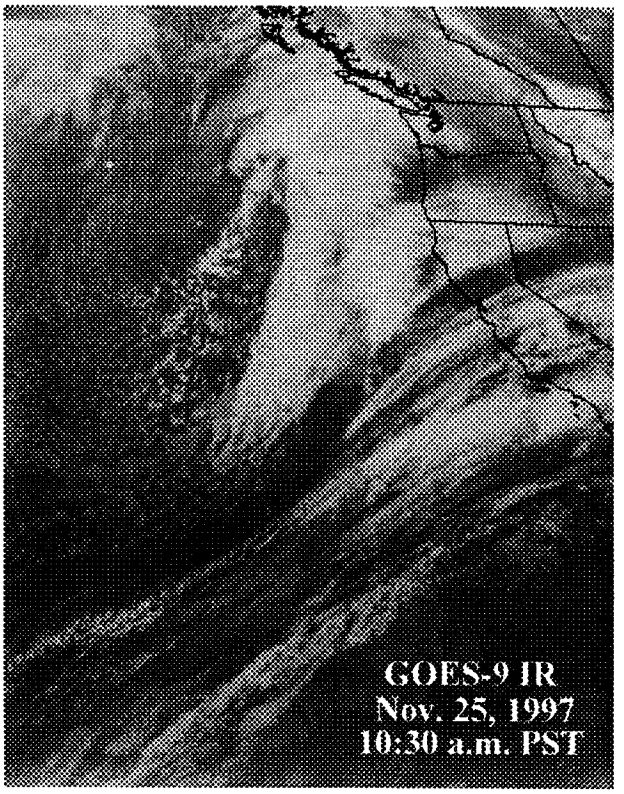
Alaskan temperatures fell sharply, as weekly departures ranged from -7 to +7°F. **Fairbanks'** monthly temperature averaged 10.8°F (more than 8° above normal) and was their highest in November since 1981. A November average of 28.0°F in **Anchorage** (6.8° above normal) was their highest since 1979. Significant precipitation during the week was confined to southernmost locations.

Departure of Average Temperature from Normal (°F)
NOV 23 - 29, 1997



Extreme Minimum Temperature (°F)
NOV 23 - 29, 1997





Poised to Strike: A day before moving inland, an eastern Pacific storm taps moisture originating southeast of Hawaii. In California, the system lifted July-November rainfall to 14.77 inches (164% of normal) in Redding and 5.93 inches (173% of normal) in San Jose.

National Weather Data for Selected Cities

Weather Data for the Week Ending November 29, 1997

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

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 Sep 1	PCT. NORMAL SINCE Sep 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	64	43	71	33	54	4	0.92	-0.21	0.70	13.91	128	51.50	104	89	48	0	0	2	1
	HUNTSVILLE	61	39	70	31	50	2	0.20	-1.07	0.10	16.06	134	54.55	107	90	53	0	3	3	0
	MOBILE	69	47	74	38	58	1	4.04	2.95	2.77	18.00	141	77.28	132	95	51	0	0	2	2
	MONTGOMERY	66	41	75	32	54	0	0.88	-0.22	0.44	11.15	107	43.26	90	97	48	0	1	2	0
AK	ANCHORAGE	24	11	32	1	18	-1	0.03	-0.19	0.02	5.08	88	17.43	118	92	67	0	7	2	0
	BARROW	6	-4	12	-12	1	7	0.01	-0.05	0.01	1.46	113	5.47	130	86	79	0	7	1	0
	FAIRBANKS	9	-5	11	-18	2	4	0.13	-0.06	0.05	1.69	65	5.51	55	86	78	0	7	4	0
	JUNEAU	40	33	48	30	37	7	--	--	--	--	--	--	--	98	87	0	2	-	-
	KODIAK	35	23	42	14	29	-4	0.55	-0.83	0.22	17.22	86	57.12	94	88	66	0	7	4	0
	NOME	13	1	20	-5	7	-5	0.00	-0.22	0.00	5.96	124	16.82	120	80	64	0	7	0	0
AZ	FLAGSTAFF	52	23	58	15	38	4	0.19	-0.31	0.17	5.80	105	14.82	73	79	31	0	6	2	0
	PHOENIX	73	51	79	45	62	4	0.00	-0.18	0.00	0.84	39	4.10	61	56	29	0	0	0	0
	PRESCOTT	61	32	75	26	46	6	0.10	-0.29	0.10	4.50	98	14.11	79	72	26	0	4	1	0
	TUCSON	76	46	84	38	61	5	0.01	-0.16	0.01	2.31	69	7.69	70	58	21	0	0	1	0
	YUMA	76	52	82	46	64	4	0.00	-0.06	0.00	4.54	575	5.11	190	61	31	0	0	0	0
AR	FORT SMITH	68	44	72	30	56	9	0.70	-0.20	0.49	10.11	94	36.45	96	93	52	0	1	2	0
	LITTLE ROCK	68	46	76	34	57	9	0.55	-0.72	--	12.41	98	55.46	125	93	49	0	0	-	-
CA	BAKERSFIELD	63	45	73	36	54	2	0.47	0.30	0.47	1.60	143	4.59	91	93	61	0	0	1	0
	EUREKA	60	48	65	43	54	3	3.89	2.26	1.47	12.04	123	32.19	103	92	77	0	0	5	3
	FRESNO	63	46	72	40	55	5	1.03	0.67	1.02	2.69	129	6.68	74	89	53	0	0	2	1
	LOS ANGELES	66	52	73	48	59	0	0.82	0.35	0.77	2.59	108	8.22	80	93	59	0	0	3	1
	REDDING	56	44	60	37	50	1	3.68	2.34	2.28	12.48	153	30.37	110	99	79	0	0	6	2
	SACRAM/MCCLELL	63	48	68	43	56	--	1.83	--	1.60	3.48	--	12.99	--	98	73	0	0	4	1
	SAN DIEGO	69	55	75	49	62	2	0.20	-0.19	0.10	1.68	84	5.01	61	88	58	0	0	2	0
	SAN FRANCISCO	61	51	67	46	56	3	3.29	2.56	1.79	8.11	194	17.48	106	95	75	0	0	6	2
CO	ALAMOSA	42	12	57	-3	27	2	0.58	0.50	0.43	2.83	142	7.69	109	88	48	0	7	2	0
	CO SPRINGS	52	26	66	17	39	5	0.06	-0.05	0.04	2.98	112	23.02	146	74	30	0	7	2	0
	DENVER	52	29	66	19	41	5	0.28	0.09	0.16	3.44	112	20.26	137	76	42	0	4	2	0
	GRAND JUNCTION	51	27	55	21	39	3	0.16	0.02	0.14	4.69	188	13.11	163	85	45	0	6	2	0
	PUEBLO	53	23	71	14	38	2	1.71	1.60	1.04	5.08	263	15.70	146	87	41	0	7	3	2
CT	BRIDGEPORT	46	32	52	23	39	-3	0.16	-0.75	0.11	6.49	66	33.52	88	78	44	0	4	4	0
	HARTFORD	42	27	53	20	35	-3	0.16	-0.80	0.08	6.91	61	35.07	87	86	51	0	6	4	0
DC	WASHINGTON	53	38	59	28	46	0	0.00	-0.74	0.00	9.63	103	31.81	90	74	43	0	2	0	0
DE	WILMINGTON	48	35	55	24	42	-1	0.02	-0.78	0.02	8.33	88	--	--	79	49	0	2	1	0
FL	DAYTONA BEACH	74	55	78	52	64	1	0.08	-0.53	0.08	12.75	96	46.59	103	95	61	0	0	1	0
	JACKSONVILLE	70	48	76	42	59	0	1.14	0.60	1.14	11.39	94	47.44	98	94	58	0	0	1	1
	KEY WEST	80	72	82	70	76	2	1.32	0.76	1.32	9.26	71	34.79	93	88	72	0	0	1	1
	MIAMI	80	70	82	65	75	3	1.11	0.65	0.98	17.43	110	64.81	120	87	64	0	0	2	1
	ORLANDO	75	58	81	53	66	1	0.04	-0.51	0.04	9.79	92	51.73	113	99	61	0	0	1	0
	TAMPA	75	58	80	53	66	1	0.22	-0.23	0.22	20.20	208	51.89	125	92	56	0	0	1	0
	VALPARAISO/EGLIN	68	49	73	39	59	3	2.52	1.69	2.52	12.11	94	60.29	105	92	49	0	0	1	1
	WEST PALM BEACH	79	68	81	60	74	3	0.18	-0.72	0.10	9.85	50	55.39	95	86	62	0	0	2	0
GA	ATHENS	61	37	66	29	49	-1	0.55	-0.34	0.55	18.39	181	49.15	108	91	42	0	2	1	1
	ATLANTA	60	39	64	32	49	-1	0.55	-0.41	0.55	13.44	132	46.80	101	89	50	0	1	1	1
	AUGUSTA	66	37	73	28	51	-1	0.83	0.22	0.83	16.35	198	45.42	110	99	48	0	3	1	1
	COLUMBUS	66	42	71	32	54	0	0.58	-0.39	0.58	10.41	118	44.98	98	93	46	0	1	1	1
	MACON	65	38	69	29	51	-2	2.81	2.06	2.81	14.74	195	38.32	95	97	46	0	2	1	1
	SAVANNAH	68	45	74	33	56	0	1.19	0.63	1.18	15.94	178	51.81	112	98	55	0	0	2	1
HI	HILO	79	67	81	64	73	0	3.95	0.49	0.87	29.88	93	123.41	106	92	65	0	0	7	4
	HONOLULU	81	70	83	67	75	-1	0.14	-0.63	--	4.17	70	19.61	108	78	52	0	0	-	-
	KAHULUI	80	69	81	68	74	0	1.06	0.38	0.47	3.97	98	--	--	88	60	0	0	5	0
	LIHUE	77	69	79	68	73	-2	1.06	-0.22	0.28	9.01	75	--	--	86	60	0	0	7	0
ID	BOISE	51	35	57	31	43	7	0.14	-0.22	0.05	1.98	67	10.48	98	87	53	0	2	4	0
	LEWISTON	49	36	53	31	43	4	0.08	-0.20	0.05	4.02	142	15.09	134	88	64	0	2	3	0
	POCATELLO	44	25	54	20	34	3	0.33	0.05	0.19	3.45	120	12.64	115	94	62	0	7	3	0
IL	CHICAGO/O'HARE	47	31	57	16	39	4	0.48	-0.21	0.23	5.79	64	30.10	91	87	62	0	3	3	0
	MOLINE	50	32	60	17	41	7	0.47	-0.10	0.30	6.56	70	32.90	90	92	68	0	4	3	0
	PEORIA	51	34	60	20	43	7	0.96	0.33	0.44	7.96	87	30.30	90	90	58	0	4	3	0
	ROCKFORD	45	29	54	11	37	4	0.49	-0.08	0.31	4.39	48	26.17	77	92	67	0	4	3	0
	SPRINGFIELD	53	34	60	21	44	6	1.67	1.06	0.82	8.47	101	26.99	83	89	61	0	4	3	2
IN	EVANSVILLE	58	33	70	21	46	3	0.28	-0.63	0.28	5.58	59	43.61	111	85	46	0	3	1	0
	FORT WAYNE	47	33	56	24	40	3	1.41	0.73	1.07	8.90	114	39.19	124	88	62	0	4	3	1
	INDIANAPOLIS	52	34	66	22	43	4	0.23	-0.57	0.14	4.41	51	31.13	85	90	53	0	5	3	0
	SOUTH BEND	47	32	57	21	40	3	0.90	0.11	0.52	7.62	77	31.46	88	88	62	0	4	3	1
IA	BURLINGTON	--	--	--	--	--	--	1.43	0.93	--	6.64	71	30.98	91	--	--	-	-	-	-
	CEDAR RAPIDS	--	--	--	--	--	--	0.23	-0.21	--	6.28	76	24.89	77	--	--	-	-	-	-
	DES MOINES	50	30	61	19	40	6	0.89	0.52	0.89	8.30	105	30.72	97	91	58	0	3	1	1
	DUBUQUE	42	27	50	10	35	4	0.26	-0.35	0.21	6.08	61	28.66	79	93	70	0	5	3	0
	SIOUX CITY	50	26	60	16	38	7	0.00	-0.21	0.00	3.98	68	18.24	73	87	53	0	6	0	0
	WATERLOO	43	23	53	7	33	3	0.47	0.10	0.47	10.57	135	30.74	95	93	64	0	6	1	0
KS	CONCORDIA	54	35	65	24	45	8	0.71	0.49	0.53	7.22	118	24.09	86	87	56	0	3	2	1
	DODGE CITY	55	34	67	25	45	6	0.06	-0.11	0.02	7.38	185	27.17	131	84	50	0	2	3	0
	GOODLAND	53	29	67	22	41	6	0.51	0.37	0.42	3.91	125	18.07	102	80	40	0	6	2	0
	TOPEKA	59	38	63	22	49	10	1.98	1.60	1.33	7.80	89	28.09	83	91	60	0	1	2	2

Based on 1961-90 normals

Weather Data for the Week Ending November 29, 1997

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 Sep 1	PCT. NORMAL SINCE Sep 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	59	40	66	31	50	10	1.24	0.91	0.81	8.18	113	34.37	122	93	60	0	1	2	1
KY	JACKSON	54	38	65	27	46	2	0.00	-1.04	0.00	7.41	68	45.60	101	75	45	0	3	0	0
	LEXINGTON	54	35	66	25	45	3	0.24	-0.63	0.24	7.42	82	55.08	136	78	47	0	4	1	0
	LOUISVILLE	58	39	70	28	48	5	0.28	-0.63	0.28	5.21	55	52.60	129	82	46	0	4	1	0
	PADUCAH	60	36	70	24	48	4	0.08	-1.01	0.08	6.89	63	47.46	107	87	53	0	4	1	0
LA	BATON ROUGE	72	47	78	36	59	2	1.79	0.67	1.60	11.48	92	62.21	113	96	51	0	0	2	1
	LAKE CHARLES	73	52	76	43	62	5	0.10	-0.97	0.10	14.49	105	59.94	121	94	54	0	0	1	0
	NEW ORLEANS	72	51	78	44	61	3	3.89	2.50	2.09	10.31	81	49.15	88	94	58	0	0	2	2
	SHREVEPORT	70	49	77	35	59	6	0.95	-0.10	0.93	13.59	122	63.34	151	95	49	0	0	2	1
ME	CARIBOU	26	12	36	6	19	-6	0.74	-0.09	0.31	6.03	60	32.30	97	88	67	0	7	5	0
	PORTLAND	38	22	48	15	30	-4	0.44	-0.79	0.26	7.74	65	33.31	84	87	53	0	7	3	0
MD	BALTIMORE	51	34	57	22	42	-1	0.01	-0.79	0.01	10.80	113	36.22	97	80	44	0	2	1	0
MA	BOSTON	43	29	56	22	36	-5	0.09	-0.93	0.07	8.37	80	29.47	79	75	46	0	5	2	0
	WORCESTER	37	25	49	16	31	-4	0.13	-0.90	0.06	6.91	55	31.76	73	88	52	0	6	3	0
MI	ALPENA	40	25	52	15	32	1	0.56	0.04	0.27	5.97	81	28.33	106	93	66	0	6	4	0
	GRAND RAPIDS	44	30	51	15	37	3	0.39	-0.40	0.22	6.22	80	28.50	86	92	71	0	5	6	0
	HOUGHTON LAKE	38	25	46	17	31	0	0.52	0.00	0.28	6.83	88	25.88	99	92	76	0	7	3	0
	LANSING	44	28	54	17	36	2	0.26	-0.37	0.14	5.96	73	25.89	92	89	66	0	5	5	0
	MARQUETTE	--	--	--	--	--	--	0.16	-0.47	--	7.20	69	30.47	93	--	--	-	-	-	-
	MUSKEGON	43	31	48	23	37	1	0.58	-0.16	0.28	6.80	70	25.18	86	89	68	0	4	4	0
MN	DULUTH	37	16	45	-9	26	4	0.00	-0.37	0.00	4.43	55	22.94	80	89	60	0	7	0	0
	INT'L FALLS	36	11	45	-11	23	5	0.02	-0.20	0.02	7.20	116	18.64	79	92	58	0	7	1	0
	MINNEAPOLIS	37	17	47	-4	27	0	0.00	-0.31	0.00	5.40	84	33.61	124	88	65	0	7	0	0
	ROCHESTER	36	20	45	2	28	1	0.01	-0.31	0.01	4.64	63	29.07	102	92	71	0	7	1	0
	ST. CLOUD	36	14	42	-9	25	1	0.00	-0.24	0.00	3.62	55	23.98	90	91	65	0	7	0	0
MS	JACKSON	68	46	74	34	57	4	1.36	0.10	0.89	10.52	92	52.95	108	96	55	0	0	2	1
	MERIDIAN	67	41	74	31	54	1	0.93	-0.27	0.83	8.58	79	50.53	100	99	52	0	2	2	1
	TUPELO	63	41	70	30	52	3	0.28	-1.00	0.25	8.83	76	60.14	121	96	59	0	2	3	0
MO	COLUMBIA	58	39	65	22	48	9	1.66	1.00	1.06	8.53	86	35.14	96	85	58	0	3	3	2
	KANSAS CITY	60	41	64	24	51	13	1.46	1.07	0.93	8.15	81	30.58	85	84	58	0	1	3	2
	SAINT LOUIS	58	39	67	25	48	7	0.50	-0.30	0.47	7.34	82	29.64	86	85	55	0	3	2	0
	SPRINGFIELD	61	41	65	30	51	9	0.51	-0.36	0.39	8.89	75	35.32	89	93	63	0	1	2	0
MT	BILLINGS	46	30	58	20	38	7	0.29	0.10	0.29	2.39	72	14.71	103	81	52	0	5	1	0
	BUTTE	37	9	47	-5	23	0	0.66	0.55	0.36	2.96	120	19.99	171	91	66	0	7	2	0
	GLASGOW	41	20	54	5	31	7	0.00	-0.06	0.00	1.56	83	11.71	111	85	65	0	7	0	0
	GREAT FALLS	48	32	54	25	40	10	0.00	-0.17	0.00	1.65	62	14.06	98	69	38	0	5	0	0
	KALISPELL	39	23	49	18	31	4	0.07	-0.28	0.04	2.98	88	17.03	116	96	71	0	7	4	0
	MILES CITY	50	26	58	18	38	11	0.00	-0.11	0.00	1.50	56	10.48	78	88	46	0	6	0	0
	MISSOULA	40	27	48	22	33	5	0.11	-0.11	0.07	2.38	90	14.60	119	91	71	0	7	2	0
NE	GRAND ISLAND	55	31	65	20	43	10	0.63	0.41	0.63	10.02	193	28.93	120	82	41	0	4	1	1
	LINCOLN	53	32	65	24	43	9	2.29	2.04	2.15	7.65	112	24.17	88	88	51	0	3	3	1
	NORFOLK	52	29	64	21	41	10	0.00	-0.20	0.00	5.38	107	19.89	82	82	44	0	6	0	0
	NORTH PLATTE	58	24	67	14	41	10	0.00	-0.14	0.00	4.57	142	17.41	93	82	32	0	6	0	0
	OMAHA	52	32	64	24	42	8	1.83	1.53	1.81	12.00	161	29.92	104	92	60	0	3	2	1
	SCOTTSBLUFF	53	22	65	11	38	6	0.00	-0.14	0.00	2.88	116	20.03	137	85	35	0	7	0	0
	VALENTINE	55	24	61	16	39	10	0.02	-0.09	0.02	4.94	164	21.82	123	83	36	0	7	1	0
NV	ELY	46	19	57	11	33	2	0.43	0.29	0.41	2.73	106	9.09	96	82	49	0	7	3	0
	LAS VEGAS	64	43	75	38	54	3	0.06	-0.05	0.06	2.31	254	3.74	101	56	27	0	0	1	0
	RENO	54	30	63	23	42	5	0.43	0.21	0.39	1.61	103	7.21	111	83	40	0	5	2	0
	WINNEMUCCA	52	29	62	22	40	6	0.24	0.02	0.13	1.30	69	7.66	105	83	46	0	5	3	0
NH	CONCORD	37	21	48	16	29	-3	0.24	-0.61	0.12	8.32	87	31.56	95	88	52	0	7	5	0
NJ	NEWARK	47	36	53	27	41	-2	0.05	-0.88	0.04	8.65	82	38.05	94	80	46	0	2	2	0
NM	ALBUQUERQUE	54	31	61	26	43	2	0.06	-0.02	0.06	3.54	155	11.42	137	71	31	0	5	1	0
NY	ALBANY	39	24	45	14	32	-4	0.16	-0.60	0.14	10.93	122	31.49	95	92	67	0	6	2	0
	BINGHAMTON	38	26	44	15	32	-2	0.16	-0.61	0.08	8.42	90	28.24	83	91	67	0	6	4	0
	BUFFALO	43	30	49	19	36	0	0.53	-0.41	0.47	11.11	108	37.64	108	90	65	0	4	5	0
	ROCHESTER	43	29	49	19	36	0	0.41	-0.28	0.34	10.25	125	31.35	107	92	64	0	5	4	0
	SYRACUSE	42	28	50	21	35	-1	0.35	-0.52	0.20	8.14	77	28.07	79	89	61	0	5	6	0
NC	ASHEVILLE	56	29	65	20	42	-2	0.04	-0.79	0.04	10.20	94	46.22	105	92	43	0	5	1	0
	CHARLOTTE	61	37	67	29	49	1	0.11	-0.65	0.11	10.81	109	44.45	113	80	35	0	2	1	0
	GREENSBORO	58	33	65	22	45	-1	0.01	-0.68	0.01	8.46	85	36.82	94	76	35	0	3	1	0
	HATTERAS	57	42	62	34	49	-5	0.22	-0.91	0.22	15.49	103	47.34	92	83	52	0	0	1	0
	RALEIGH	59	32	69	22	46	-3	0.01	-0.71	0.01	10.65	120	38.34	101	83	36	0	4	1	0
	WILMINGTON	64	36	69	28	50	-4	0.39	-0.40	0.23	13.69	128	41.87	83	92	43	0	3	2	0
ND	BISMARCK	43	20	51	13	32	9	0.01	-0.10	0.01	4.33	150	14.81	99	92	62	0	7	1	0
	DICKINSON	47	24	57	11	36	11	0.00	-0.08	0.00	1.27	41	16.06	102	83	49	0	7	0	0
	FARGO	32	15	38	-8	23	2	0.03	-0.11	0.03	7.49	171	27.75	147	91	75	0	7	1	0
	GRAND FORKS	33	17	43	-4	25	5	--	--	--	--	--	--	--	91	74	0	7	-	-
	JAMESTOWN	38	21	44	11	30	8	0.02	-0.09	0.02	3.08	96	20.31	124	92	68	0	7	1	0
	WILLISTON	38	16	42	0	27	6	0.00	-0.11	0.00	1.17	46	11.76	90	93	72	0	7	0	0
OH	AKRON-CANTON	45	30	52	18	38	0	0.42	-0.32	0.35	5.89	69	30.27	90	87	58	0	4	4	0
	CINCINNATI	56	36	67	25	46	5	0.00	-0.83	0.00	4.24	47	36.40	96	74	48	0	4	0	0
	CLEVELAND	46	32	53	20	39	1	0.94	0.17	0.57	8.51	94	32.99	99	89	54	0	4	6	1
	COLUMBUS	51	33	62	23	42	3	0.27	-0.52	0.21	5.26	64	35.12	100	83	55	0	4	2	0
	DAYTON	51	34	63	23	42	4	0.12	-0.62	0.07	4.51	57	28.27	84	84	52	0	4	3	0
	MANSFIELD	46	31	55	20	39	2	0.36	-0.49	0.25	5.95	65	36.68	101	87	50	0	4	3	0

Based on 1961-90 normals

Weather Data for the Week Ending November 29, 1997

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 Sep 1	PCT. NORMAL SINCE Sep 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	32	53	22	39	3	0.83	0.12	0.46	8.09	105	36.77	123	84	65	0	4	4	0
	YOUNGSTOWN	44	31	50	18	38	1	0.81	0.07	0.54	8.13	89	30.60	89	88	60	0	4	6	1
OK	OKLAHOMA CITY	65	43	70	35	54	8	0.02	-0.37	0.02	4.88	54	25.01	78	92	49	0	0	1	0
	TULSA	66	44	70	29	55	10	0.75	0.08	0.73	6.68	59	37.23	97	88	52	0	1	3	1
OR	ASTORIA	55	44	57	36	49	4	3.82	1.08	1.19	27.10	148	77.98	141	93	73	0	0	6	4
	BURNS	43	28	54	22	36	6	0.59	0.29	0.32	2.27	91	8.97	102	95	67	0	6	6	0
	EUGENE	53	42	58	35	48	4	2.10	-0.06	1.22	12.65	97	37.20	92	88	71	0	0	7	1
	MEDFORD	54	40	67	34	47	6	1.01	0.18	0.43	5.36	99	16.81	109	98	65	0	0	5	0
	PENDLETON	54	35	64	29	45	6	0.20	-0.20	0.08	4.10	138	10.87	105	92	54	0	2	4	0
	PORTLAND	55	44	60	35	49	6	1.47	0.07	0.49	13.05	137	41.53	139	91	66	0	0	6	0
	SALEM	54	42	57	34	48	5	1.49	-0.14	0.77	15.26	144	42.78	133	91	63	0	0	6	1
PA	ALLENTOWN	46	30	52	20	38	-1	0.16	-0.78	0.13	8.15	77	35.99	90	85	51	0	6	2	0
	ERIE	45	34	51	26	40	0	0.54	-0.40	0.22	8.64	72	36.78	97	92	62	0	4	6	0
	MIDDLETOWN	48	35	55	25	41	1	0.06	-0.77	0.04	7.57	77	29.89	80	83	50	0	2	3	0
	PHILADELPHIA	49	36	54	25	42	0	0.07	-0.76	0.05	6.91	75	29.43	78	72	45	0	2	2	0
	PITTSBURGH	46	32	53	19	39	1	0.92	0.23	0.87	8.96	111	32.37	96	84	54	0	3	3	1
	SCRANTON	42	28	51	19	35	-2	0.08	-0.62	0.03	6.02	66	24.96	74	94	66	0	5	4	0
	WILLIAMSPORT	43	28	50	19	36	-2	0.09	-0.76	0.05	8.87	86	28.15	75	88	58	0	6	2	0
RI	PROVIDENCE	44	29	55	22	36	-4	0.17	-0.90	0.14	8.74	76	37.18	91	88	49	0	6	2	0
SC	BEAUFORT	66	46	73	36	56	0	0.70	0.11	0.70	9.36	95	39.93	83	95	51	0	0	1	1
	CHARLESTON	67	43	75	32	55	-1	0.33	-0.28	0.32	16.76	167	57.18	118	93	35	0	1	2	0
	COLUMBIA	64	36	70	28	50	-2	0.75	0.05	0.75	13.65	144	43.13	93	93	43	0	3	1	1
	GREENVILLE	60	36	66	27	48	0	0.12	-0.75	0.12	11.72	102	45.72	97	89	36	0	1	1	0
SD	ABERDEEN	41	17	49	5	29	5	0.00	-0.11	0.00	4.56	128	19.11	106	90	69	0	7	0	0
	HURON	47	22	55	13	34	7	0.00	-0.13	0.00	6.53	168	24.38	124	88	56	0	7	0	0
	RAPID CITY	53	23	62	15	38	8	0.03	-0.08	0.03	1.43	49	20.63	128	83	34	0	7	1	0
	SIOUX FALLS	46	21	56	14	33	6	0.00	-0.22	0.00	3.68	63	20.01	87	90	56	0	7	0	0
TN	BRISTOL	52	28	57	18	40	-4	0.00	-0.73	0.00	5.97	69	38.93	105	90	48	0	6	0	0
	CHATTANOOGA	59	33	67	26	46	-1	0.10	-1.07	0.10	12.64	107	52.86	110	94	50	0	4	1	0
	KNOXVILLE	55	31	61	24	43	-2	0.01	-0.95	0.01	8.57	90	49.18	116	93	49	0	4	1	0
	MEMPHIS	64	45	70	32	55	6	0.00	-1.33	0.00	12.36	108	66.54	144	88	54	0	1	0	0
	NASHVILLE	60	38	71	28	49	2	0.04	-1.02	0.04	10.85	108	48.07	113	86	49	0	4	1	0
TX	ABILENE	70	46	78	39	58	7	0.33	0.05	0.31	3.59	50	23.93	103	88	39	0	0	2	0
	AMARILLO	61	33	77	24	47	5	0.20	0.08	0.11	3.46	86	23.03	121	74	38	0	3	3	0
	AUSTIN	73	55	79	43	64	7	0.39	-0.09	0.34	9.93	110	42.93	143	92	58	0	0	3	0
	BEAUMONT	73	54	76	46	63	5	0.38	-0.78	0.33	10.26	67	45.85	88	97	63	0	0	4	0
	BROWNSVILLE	80	63	84	55	72	5	0.01	-0.29	0.01	18.65	182	35.74	141	97	65	0	0	1	0
	CORPUS CHRISTI	77	59	82	51	68	5	0.02	-0.29	0.01	15.67	155	35.95	125	94	63	0	0	2	0
	DEL RIO	74	53	78	43	63	6	0.30	0.15	0.15	4.36	73	22.30	126	93	48	0	0	2	0
	EL PASO	67	39	72	32	53	4	0.00	-0.11	0.00	2.54	87	8.24	99	64	28	0	1	0	0
	FORT WORTH	69	50	76	37	59	7	0.06	-0.40	0.06	8.67	95	38.02	120	91	48	0	0	1	0
	GALVESTON	71	60	75	51	65	4	0.04	-0.80	0.02	20.81	173	56.04	145	96	72	0	0	2	0
	HOUSTON	73	51	77	39	62	4	0.63	-0.22	0.62	15.40	120	54.35	128	99	64	0	0	2	1
	LUBBOCK	65	34	76	27	50	4	0.01	-0.11	0.01	3.68	71	20.91	116	77	29	0	2	1	0
	MIDLAND	71	41	80	29	56	7	0.01	-0.10	0.01	2.91	58	15.78	109	86	24	0	1	1	0
	SAN ANGELO	72	44	77	34	58	6	0.24	0.05	0.24	3.01	44	21.87	111	93	38	0	0	1	0
	SAN ANTONIO	74	55	79	40	65	7	0.01	-0.51	0.01	7.70	84	30.37	103	93	52	0	0	1	0
	VICTORIA	75	53	80	45	64	4	0.16	-0.36	0.14	20.39	178	65.49	185	97	61	0	0	3	0
	WACO	71	51	81	32	61	7	0.72	0.22	0.72	5.13	55	33.56	112	94	54	0	1	1	1
	WICHITA FALLS	67	43	77	36	55	7	0.24	-0.06	0.24	3.83	47	19.67	71	88	44	0	0	1	0
UT	SALT LAKE CITY	54	32	61	29	43	7	0.52	0.22	0.31	4.43	111	16.48	111	93	51	0	4	2	0
VT	BURLINGTON	36	20	45	11	28	-4	0.58	-0.13	0.36	8.08	88	28.64	90	88	64	0	6	4	0
VA	LYNCHBURG	56	29	66	19	42	-2	0.01	-0.71	0.01	9.29	93	32.61	87	80	36	0	6	1	0
	NORFOLK	56	38	66	33	47	-2	0.00	-0.67	0.00	9.92	101	33.46	81	82	47	0	0	0	0
	RICHMOND	57	34	66	23	45	-1	0.00	-0.72	0.00	8.91	90	31.28	79	81	40	0	4	0	0
	ROANOKE	56	34	67	22	45	1	0.00	-0.70	0.00	7.09	68	32.85	86	67	33	0	3	0	0
	WASH/DULLES	52	34	58	20	43	1	0.03	-0.74	0.03	11.17	115	33.72	91	79	45	0	3	1	0
WA	HANFORD	51	37	58	28	45	--	0.18	-0.03	--	2.25	143	6.08	117	83	62	0	2	3	0
	OLYMPIA	52	38	55	31	45	4	2.34	0.31	0.63	19.04	133	59.52	141	100	80	0	2	6	3
	QUILLAYUTE	51	42	54	39	47	4	5.48	1.86	1.43	36.98	125	115.68	130	96	75	0	0	7	4
	SEATTLE-TACOMA	52	41	55	36	47	3	1.26	-0.20	0.46	13.97	130	42.76	138	91	68	0	0	5	0
	SPOKANE	44	32	50	27	38	7	0.81	0.24	0.44	4.80	128	16.64	119	97	72	0	3	4	0
	YAKIMA	46	28	53	22	37	2	0.15	-0.13	--	3.09	166	6.69	103	95	73	0	6	-	-
WV	BECKLEY	48	32	61	16	40	0	0.01	-0.71	0.01	4.33	48	34.56	92	82	47	0	4	1	0
	CHARLESTON	54	33	66	20	43	0	0.01	-0.84	0.01	5.01	52	38.46	99	82	50	0	4	1	0
	ELKINS	48	28	59	13	38	0	0.19	-0.61	0.11	9.00	89	39.02	95	86	52	0	5	5	0
	HUNTINGTON	55	35	66	20	45	2	0.00	-0.80	0.00	4.67	52	35.15	93	76	44	0	4	0	0
WI	EAU CLAIRE	38	20	47	2	29	3	0.00	-0.30	0.00	5.86	75	29.30	96	91	62	0	7	0	0
	GREEN BAY	41	22	53	8	31	2	0.03	-0.45	0.03	4.00	51	28.75	98	88	56	0	7	1	0
	MADISON	41	26	49	9	33	3	0.38	-0.11	0.32	3.85	51	27.39	95	92	65	0	5	2	0
	MILWAUKEE	42	29	51	14	35	2	0.46	-0.14	0.29	5.34	65	31.76	104	89	63	0	3	2	0
WY	CASPER	50	24	56	17	37	8	0.02	-0.15	0.02	2.28	86	11.42	97	81	40	0	7	1	0
	CHEYENNE	48	26	56	15	37	5	0.00	-0.11	0.00	3.43	136	19.38	139	67	32	0	7	0	0
	LANDER	45	20	55	12	32	6	0.08	-0.09	0.06	2.78	93	12.68	102	83	46	0	7	2	0
	SHERIDAN	48	19	63	12	34	6	0.03	-0.14	0.03	2.63	79	14.77	107	89	52	0	7	1	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

November 24 - 30, 1997

HIGHLIGHTS

Above-normal temperatures and early-week dry weather allowed harvest operations of the remaining fall crops to progress across the United States. However, late-week rains hampered harvest efforts of the last few fields in the Corn Belt and Southeast. Intermittent rain and wet soils along the Pacific Coast limited fieldwork activities. The warm weather and precipitation aided growth and development of emerged winter wheat in southern and eastern areas. However, farmers in the northern Plains were concerned about the lack of snow cover on wheat fields going into winter.

Corn: The corn acreage was 97 percent (%) harvested, ahead of 96% harvested at this time last year and the 5-year average of 93%. Above-normal temperatures and early-week dry weather allowed farmers to harvest fields in most major corn-producing States. However, late-week showers hampered harvest of a few remaining fields in the Corn Belt and Southeast. Lodging in unharvested fields was a concern in Indiana. Despite wet conditions and slow dry down of unharvested corn, Michigan growers harvested 10% of their State's acreage during the week. Producers in Pennsylvania and Wisconsin also made good progress early in the week.

Soybeans: The national soybean acreage was 98% harvested, compared with 96% in 1996 and the average of 97%. Harvest was active in South Carolina, where farmers harvested 20% of their State's crop during the week. Georgia farmers harvested soybeans between showers, but progress remained behind the normal pace. Cool weather across North Carolina slowed harvest activities. Harvest was finished or in its final stages in the other major soybean-producing States.

Cotton: Cotton harvest entered its final stages with 89% of the Nation's crop harvested, compared with 87% last year and the average of 88%. Harvest was most active in New Mexico and Oklahoma as farmers took advantage of early-week dry weather to harvest fields ahead of the normal pace. In Texas, growers made good harvest progress until late-week showers slowed activity. Many operators are finished harvesting for the year, and operations are beginning to wind down in the Trans-Pecos region. Rain caused fieldwork delays in southern Georgia, and cotton harvest was still over a week behind the normal pace. Between rains, some California growers continued second-picking harvest on late-maturing fields.

Sorghum: Sorghum harvest advanced to 97% complete, equal to harvest progress a year ago but ahead of the average of 95%. In Kansas, wet conditions and a lack of grain storage hindered completion of harvest. Favorable conditions allowed sorghum harvest to rapidly progress in Colorado. Portions of the crop that are unharvestable due to the late-October snowstorm were being grazed by livestock. Early-week good weather conditions allowed many producers in the Texas plains to complete harvest. Harvest activities were winding down by the end of the week in north-central areas of the State. Early-week dry weather in the Corn Belt allowed most farmers to finish sorghum harvest.

Winter wheat: Emergence of the 1998 winter wheat crop was 94% complete, behind 96% emerged in 1996 but ahead of the average 93%. Of the major winter wheat-producing States, only Arkansas, California, Georgia, and North Carolina had a large portion of their acreage yet to emerge. Planting was active in Arkansas, California, and North Carolina as weather and fall harvest allowed. In Georgia, winter wheat planting and emergence remained behind the normal pace due to continued rain and delayed fall crop harvest. Overall, condition of the winter wheat crop rated mostly good. Widespread moisture fell in the central Plains for the first time since the late-October snowstorm. Precipitation also benefited emerged fields in the Northwest, Corn Belt, and Southeast.

Crop Progress and Condition

Week Ending November 30, 1997

Winter Wheat Percent Emerged

	Nov 30 1997	Prev Week	Prev Year	5-Yr Avg
AR	77	74	77	85
CA	35	20	44	30
CO	100	100	100	100
GA	26	16	38	41
ID	95	92	96	97
IL	100	99	100	98
IN	99	97	98	99
KS	98	96	99	98
MI	100	99	100	99
MO	100	92	93	88
MT	94	93	93	94
NE	100	100	100	100
NC	77	65	72	68
OH	100	96	98	99
OK	93	92	98	92
OR	90	85	93	95
SD	100	100	100	99
TX	92	89	100	88
WA	100	99	99	97
ALL	94	92	96	93

These 19 States produced 92% of the 1996 winter wheat crop.

Soybeans Percent Harvested

	Nov 30 1997	Prev Week	Prev Year	5-Yr Avg
AL	92	85	87	86
AR	94	89	83	94
GA	68	53	84	77
IL	100	100	100	100
IN	100	100	100	100
IA	100	100	100	100
KS	99	99	94	97
KY	95	87	95	98
LA	100	99	100	99
MI	98	97	99	96
MN	99	99	99	99
MS	97	94	100	96
MO	99	95	93	96
NE	100	99	100	100
NC	65	57	71	65
OH	100	100	98	100
SC	60	40	70	58
SD	100	100	100	100
TN	89	79	76	89
ALL	98	96	96	97

These 19 States produced 94% of the 1996 soybean crop.

Corn Percent Harvested

	Nov 30 1997	Prev Week	Prev Year	5-Yr Avg
CO	100	98	100	96
GA	100	100	100	100
IL	99	98	97	95
IN	96	92	93	91
IA	100	99	97	95
KS	100	98	99	98
KY	98	97	98	98
MI	80	70	92	80
MN	99	98	98	96
MO	100	97	95	95
NE	98	96	97	94
NC	100	100	100	100
OH	86	82	84	88
PA	82	74	88	82
SD	99	99	94	91
TX	100	100	100	100
WI	94	85	89	87
ALL	97	95	96	93

These 17 States produced 90% of the 1996 corn crop.

Cotton Percent Harvested

	Nov 30 1997	Prev Week	Prev Year	5-Yr Avg
AL	90	86	93	92
AZ	91	88	81	92
AR	97	95	100	98
CA	98	97	94	97
GA	74	66	90	85
LA	100	100	100	100
MS	99	97	100	99
MO	98	94	94	97
NM	91	80	89	80
NC	80	76	89	85
OK	88	72	50	69
SC	85	78	95	88
TN	96	91	97	97
TX	84	79	74	77
ALL	89	85	87	88

These 14 States produced 99% of the 1996 cotton crop.

Sorghum Percent Harvested

	Nov 30 1997	Prev Week	Prev Year	5-Yr Avg
AR	100	100	100	100
CO	68	35	96	91
IL	100	97	95	97
KS	98	91	97	92
LA	100	100	100	100
MS	100	100	100	100
MO	99	96	95	96
NE	99	97	97	97
NM	100	98	94	92
OK	86	80	94	91
SD	98	98	100	98
TX	98	95	98	99
ALL	97	92	97	95

These 12 States produced 99% of the 1996 sorghum crop.

Winter Wheat Crop Condition by Percent

	VP	P	F	G	EX
AR	0	4	33	55	8
CA	0	0	35	40	25
CO	1	3	20	62	14
GA	0	0	38	58	4
ID	0	0	8	81	11
IL	0	1	25	66	8
IN	0	5	27	56	12
KS	0	2	21	67	10
MI	2	8	31	50	9
MO	0	4	25	62	9
MT	0	4	44	52	0
NE	0	7	26	60	7
NC	0	1	27	68	4
OH	0	4	35	49	12
OK	0	1	16	79	4
OR	0	0	15	83	2
SD	0	6	13	55	26
TX	1	10	40	46	3
WA	0	0	11	78	11
ALL	0	3	24	65	8
Prev Wk	0	4	23	62	11
Prev Yr	1	3	21	64	11

VP - Very Poor
P - Poor
F - Fair
G - Good
EX - Excellent

National crop conditions for selected States are weighted based on 1996 planted acres.

State Agricultural Summaries

These summaries, issued weekly through the summer growing season, provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop weather reports are also available on the Internet through the NASS Home Page on the World Wide Web at http://www.usda.gov/nass/ or from JAWF at http://www.usda.gov/oce/waob/jawf.

Note: The weekly State Agricultural Summaries will be discontinued for the winter after this issue. The December monthly summary will be published on January 6, 1998; the January summary on February 3; the February summary on March 3; and the March summary on March 31. The first weekly narrative for next season will be published on April 7, 1998.

ALABAMA: Days suitable for fieldwork 4.7. Topsoil moisture 72% adequate, 28% surplus. Livestock 1% very poor, 2% poor, 21% fair, 68% good, 8% excellent. Cold, wet week hindered cotton, soybean harvests in some areas.

ARIZONA: Small grains increased to 21% seeded, 14% the previous week. Small grains emerged increased to 6%, 5% the previous week. Alfalfa harvest activity 5% light, 18% moderate, 13% active, 64% unharvested. Alfalfa 20% fair, 46% good, 34% excellent. Alfalfa sheeping off 80% none, 6% light, 14% moderate. Central growers harvested bok choy, broccoli, cabbage, carrots, cilantro, dill, endive, escarole, green onions, leaf lettuce, kale, napa, mixed greens, parsley, radishes, spinach, swiss chard, turnips, honeydews. Western growers shipped bok choy, broccoli, cauliflower, endive, escarole, boston lettuce, iceberg lettuce, leaf lettuce, romaine lettuce, spinach, cantaloupe, honeydew. Pecan harvest continued in eastern area. Lemons, tangerines, grapefruit harvested in western areas. Growers in central area harvested tangerines, grapefruit, navel oranges.

ARKANSAS: Days suitable for fieldwork 5. Soil moisture 10% short, 63% adequate, 27% surplus. Main farming activities: Harvesting cotton, soybeans, planting wheat. Other farm activities included marketing spring calves, feeding cattle, planting, fertilizing winter forages, pastures. Alfalfa hay 21% poor, 59% fair, 20% good. Other hay 6% very poor, 25% poor, 41% fair, 24% good, 4% excellent.

CALIFORNIA: Progress of field activities again was hampered by intermittent rains, wet soils in most areas. Ground preparation for planting of small grains, winter forages, new alfalfa were ongoing where conditions permitted. Seeded fields of wheat, barley, oat hay, new alfalfa showed excellent growth, emergence. Some oat, alfalfa, clover fields were sprayed aerially for broadleaf weeds. Cotton harvest 2nd picking continued in some late-maturing fields, between rains. Plow down of harvested cotton fields for pink bollworm control was interrupted by the wet conditions. Corn silage was harvested in the central, southern San Joaquin Valley. Grain sorghum was maturing rapidly in the southern San Joaquin Valley, harvest had not yet begun. Sugar beets, seed alfalfa were planted in sandier soils. Some older seed alfalfa fields were mowed, baled. Alfalfa, sudan grass were cut for hay or green chopped. Pruning fruit, nut trees continued as weather permitted. Some old trees were being removed. Crops still being harvested were kiwifruit, persimmons. Picking of navel oranges, lemons, grapefruit, tangerines gained momentum. Good quality was reported. Central coast area, broccoli, cauliflower harvests picked up speed after midweek rains. Fall lettuce harvest was completed in most areas. In a few areas, growers were preparing ground for spring lettuce harvest. Fresno County garlic was being planted, as were red onion, broccoli, cabbage transplants. Vegetables harvested in Fresno County included carrots, broccoli, cabbage, fresh, processing garlic. Many growers applied pre-emergent herbicides in anticipation of the increased rains that El Nino may bring. Artichokes, brussels sprouts were harvested in the Salinas-Watsonville area, along the Santa Cruz-San Mateo Coast. Cantaloup, honeydew melons were harvested in the Imperial Valley. Other crops harvested were lima beans, green beans, onions, radishes, vineseed, eggplant, squash, okra. Condition of rangeland, native pastures throughout the State was improved by the recent rainfall, mild temperatures. New growth vegetation was developing well, but was still too fragile in most areas to sustain prolonged grazing. Supplemental feeding was ongoing. Livestock were in good condition. Sheep were moved in to graze off harvested hay fields. Calving, lambing continued in some areas. Predator problems were reported in the Sutter Buttes area.

COLORADO: Dry, seasonal weather, with an isolated snowstorm, occurring 27th in the south-central part of the State. Favorable conditions allowed farmers to continue harvesting sorghum in southeast area. Sorghum harvest has progressed rapidly in the past week, portions of the crop that are unharvestable are being grazed by livestock. Other major farm activities included the caring, feeding of livestock, attending producer meetings.

DELAWARE: Days suitable for fieldwork 4.2. Topsoil moisture 83% adequate, 17% surplus. Subsoil moisture 84% adequate, 16% surplus. Soybeans 70% harvested, 84% 1996, 90% avg. Wheat 8% fair, 89% good, 3% excellent; 85% planted, 94% 1996, 96% avg. Activities: New Castle, Kent harvesting of soybeans has mostly drawn to a conclusion, Sussex is behind. As a direct result, the same comment holds true for seeding of wheat. Nice weather for most of week allowed for harvesting, planting, except for some sprinkles on 30th.

FLORIDA: Topsoil moisture adequate in Panhandle. Northern, central Peninsula moisture adequate to surplus, scattered areas short moisture. Southern Peninsula moisture short to adequate. Sugarcane growth normal. Cotton picking active. Sugarcane harvest active. Farmers planting winter wheat for grain. Most growers slowed field activity for Thanksgiving Day observance, some rain interruptions. Tomato picking underway, Dade County. Vegetables marketed during week include snap beans, cabbage, sweet corn, cucumbers, eggplant, endive, escarole, lettuce, okra, parsley, peppers, radishes, squash, Chinese cabbage, strawberries, tomatoes, watermelons. Continued mild weather for citrus, with cool days, chilly nights. Scattered rains 29th, 30th, some irrigation. Harvest very active, both fresh, processing. Caretakers cutting cover crops, spraying, replanting. Cattle condition, quality of pastures deteriorated this past week. Pasture feed 5% poor, 70% fair, 25% good. Cattle 45% fair, 55% good.

GEORGIA: Days suitable for fieldwork 5. Soil moisture 1% short, 68% adequate, 31% surplus. Cotton 4% very poor, 17% poor, 55% fair, 23% good, 1% excellent. Rye 93% planted, 93% 1996, 93% avg. Sorghum 3% very poor, 11% poor, 69% fair, 16% good, 1% excellent; 89% harvested for grain, 88% 1996, 94% avg. Soybeans 15% very poor, 23% poor, 48% fair, 14% good. Wheat 45% planted, 63% 1996, 61% avg. Other small grains 85% planted, 86% 1996, 86% avg. Onions 17% poor, 35% fair, 48% good; 56% transplanted, 55% 1996, 51% avg. Pecans 3% very poor, 21% poor, 43% fair, 31% good, 2% excellent; 69% harvested, 75% 1996, 70% avg. Pasture feed 3% very

poor, 22% poor, 38% fair, 36% good, 1% excellent. Activities: Rain during the week caused delays in southern half of State. Harvest of row crops continued behind 5-year average. Cotton harvest still over a week behind normal. Condition for remaining cotton mostly fair to good, declining. Sorghum harvest a few days behind normal, ahead of last year. Soybean harvest made good progress. Wheat condition slipped, progress more than 2 weeks behind. Onions transplanting ahead of normal. Pecan conditions good. Pasture conditions held steady for the week. Other activities: Overseeding pastures, planting winter forages, cover, caring for livestock.

HAWAII: Gusty winds, moderate showers, cool weather fair for agriculture. Leaf shredding, some toppled trees in orchard crops. Most crops fair condition, some good. Sugarcane harvesting over for the year in most areas. Banana harvesting active, heavy for cavendish varieties. Papaya harvesting active on three major islands. Crop conditions mostly fair, some good. Head cabbage harvesting active, up slightly. Crop conditions mostly good. Dry onions fair condition. Recent yields hampered by showery weather. Ginger root harvest of semi-mature hand continue.

IDAHO: Days suitable for fieldwork 3.5. Corn harvested for grain 88%, 91% 1996, 91% avg. Hay, roughage supply 3% surplus, 63% adequate, 28% short, 6% very short. Activities: Harvesting corn for grain, plowing, repairing machinery, attending educational meetings, feeding, marketing livestock.

ILLINOIS: Days suitable for fieldwork 4.9. Topsoil moisture 1% very short, 23% short, 73% adequate, 3% surplus. Warmer-than-normal temperatures, Statewide precipitation last week aided the wheat crop development, hindered harvest of the few remaining acres of corn still standing. Low subsoil moisture levels continue to concern farmers as winter approaches, and many are hauling water for livestock due to dry wells. Farm activities included constructing conservation structures, chisel plowing, applying fertilizer, lime, anhydrous ammonia.

INDIANA: Days suitable for fieldwork 4.4. Topsoil moisture 0% very short, 21% short, 70% adequate, 9% surplus. Subsoil moisture 10% very short, 40% short, 47% adequate, 3% surplus. Corn harvest progressed slowly, as it nears completion. Lodging is a concern on remaining unharvested acres. Activities: Harvesting corn, tilling harvested soybean, corn acreage, applying fertilizer, lime, caring for livestock.

IOWA: Corn acreage harvested 100%, 100% 1996, 96% avg. Soybean acreage harvested 100%. Lack of precipitation early in week allowed many producers, especially in southern State to finish the harvest.

KANSAS: Days suitable for fieldwork 5.5. Topsoil moisture 9% short, 85% adequate, 6% surplus. Subsoil moisture 12% short, 86% adequate, 2% surplus. Wheat pastured 13%, 12% 1996, 10% avg. Sunflowers harvested 99%. Fall harvest is virtually complete. Across the State, only a small amount of sorghum, sunflowers are left to be harvested. Harvest remained unfinished only in the northwest district for corn, southeast district for soybeans. Wet conditions, a lack of storage continue to hinder the completion of harvest. Stock water supplies 4% short, 91% adequate, 5% surplus. Livestock producers were weaning calves, moving cattle off pastures to crop residue, wheat fields.

KENTUCKY: Warm, drier weather was followed by late-weekend rain. Crop harvests winding down. Some double-crop soybeans, primarily in the West, still standing. Humidity levels, weekend rain good for burley stripping. Burley market opened last week. State gross sales 59.1 million pounds averaging $190.44 per hundredweight. Strong demand, but 7.1% sales went to Burley Co-op pool due to buyers bidding lower prices for unsorted tobacco. Fall-seeded grains generally good condition. Pastures supplying limited late-season feed.

LOUISIANA: Days suitable for fieldwork 3.8. Soil moisture 2% short, 66% adequate, 32% surplus. Pecans 75% harvested, 73% 1996, 66% avg. Sugarcane 68% harvested, 61% 1996, 67% avg. Harvest was slow because of extremely muddy fields, increased mechanical breakdowns. Sugar recovery suffered due to higher mud, trash content. Tonnage improved as farmers moved into more plant cane. Sweet potatoes 99% harvested, 98% 1996, 97% avg. Wheat 4% poor, 24% fair, 72% good; 95% planted, 85% 1996, 86% avg.; 89% emerged, 68% 1996, 76% avg. Wheat planting was slowed due to wet fields, most growers were close to finishing. Livestock 1% very poor, 9% poor, 36% fair, 52% good, 2% excellent. Vegetables 3% very poor, 21% poor, 30% fair, 45% good, 1% excellent. Pasture feed 2% very poor, 16% poor, 44% fair, 37% good, 1% excellent.

MARYLAND: Corn harvesting reached completion statewide. Some soybean fields have yet to be harvested; most beans have been harvested due to the good weather. Wheat seeding should be wrapping up shortly for the State. Some precipitation received for parts of the State on November 29th, 30th.

MICHIGAN: Days suitable for fieldwork 5.0. Topsoil moisture 3% short, 72% adequate, 25% surplus. Subsoil moisture 1% very short, 11% short, 78% adequate, 10% surplus. Temperatures were higher than normal. Rain occurred across the State, increasing the already excess soil moisture. Dry down was slow for the unharvested field crops.

MINNESOTA: Cloudy, nighttime temperatures were mild, with daytime temperatures slightly above normal. Thin snow cover has largely melted in far southern areas where little precipitation was received. Where snow was thicker originally, the snow cover was persisting, even increasing in the northeast where some new snow fell. Livestock producers are busy with winter chores. Mild weather is easing pressure on feed, forage supplies for the moment. Long-distance transportation is still inadequate, keeping grain, oilseed movement out of elevators too slow relative to the amounts on hand.

MISSISSIPPI: Days suitable for fieldwork 3.6. Soil moisture 1% short, 57% adequate, 42% surplus. Soybeans 97% harvested, 100% 1996, 96% avg. Sweet potatoes 98% harvested, 100% 1996,; 100% avg. Pecans 57% harvested, 61% 1996, 67% avg.; 1% very poor, 9% poor, 10% fair, 78% good, 2% excellent. Wheat 95% planted, 100% 1996, 96% avg.; 89% emerged, 96% 1996, 90% avg.; 7% poor, 21% fair, 70% good, 2% excellent. Cattle 7% poor, 26% fair, 55% good, 12% excellent. Activities: Harvesting soybeans, planting wheat, feeding cattle. Rain continues to delay harvesting of crops across the State. However, it has not hurt the ryegrass crop.

MISSOURI: Topsoil moisture 1% very short, 12% short, 70% adequate, 17% surplus. Winter wheat 4% poor, 25% fair, 62% good, 9% excellent. Supply of hay, other roughage 8% short, 81% adequate, 11% surplus. Livestock 8% fair, 78% good, 14% excellent. Stock water 5% very short, 12% short, 81% adequate, 2% surplus. Farmers able to wrap up most fall harvesting, tillage work as above-normal temperatures, clear skies prevailed early last week. Substantial rain through the weekend helped restore soil moisture, Stock water supplies. Pasture feed 2% very poor, 11% poor, 35% fair, 51% good, 1% excellent.

MONTANA: Days suitable for fieldwork 4.4. Topsoil moisture 7% very short, 47% short, 44% adequate, 2% surplus. Subsoil moisture 8% very short, 53% short, 39% adequate. Winter wheat wind damage 0% heavy, 1% moderate, 67% light, 32% none. Concern about the lack of snow cover for winter wheat. Much snow received has melted. Winter

wheat protectiveness of snow cover 71% very poor, 20% poor, 8% fair, 1% good. Livestock good to excellent condition. Supplemental feeding continues, but because of lack of snow, supplemental feeding for sheep, lambs declined this week. Cattle, calves receiving supplemental feed 32%, sheep, lambs 38%. Livestock grazing 1% closed, 19% difficult, 80% open.

NEBRASKA: Days suitable for fieldwork 6.8. Subsoil moisture 1% very short, 18% short, 80% adequate, 1% surplus. Topsoil moisture 13% short, 85% adequate, 2% surplus. Fall harvest activities were near completion as the week came to a close. Rainfall on Friday and Saturday delayed fieldwork activities in central and eastern parts of the State. Corn 98% harvested, 97% 1996, 94% avg. Sorghum 99% harvested, 97% 1996, 97% avg. Winter wheat 7% poor, 26% fair, 60% good, 7% excellent. Producers weaning, moving cows to stalks fields; producers were monitoring their cattle due to the above-normal amounts of grain on the ground in some fields.

NEVADA: Grazing of dormant grass, hay fields common. Hay supplies good. Fall-seeded grains in good condition. Weaning of calf crop continued, as did movement of stock to winter ranges. Sheep, lambs grazing dormant hay fields. Main farm, ranch activities: moving cattle, marketing cattle, tending livestock.

NEW ENGLAND: Topsoil conditions favorably moist in most areas. Christmas tree farms open cut-your-own operations. Wholesalers send trees to retail outlets. Major farm activities: Spreading manure; caring for livestock.

NEW JERSEY: Days suitable for fieldwork 4. Topsoil moisture adequate to surplus. Harvesting of fall vegetables is complete except for certain areas of southern area where a light, declining harvest of leeks, cabbage, parsley, turnips. Harvesting of corn nearly complete, with the harvesting of soybeans in decline. Pasture feed fair to good.

NEW MEXICO: Days suitable for fieldwork 6.5. Topsoil moisture 1% very short, 33% short, 64% adequate, 2% surplus. Harvests of cotton, pecans, red chile continued as sorghum harvest concluded. Cotton harvest was 91% complete, 89% 1996, 80% avg.; 2% poor, 23% fair, 70% good, 5% excellent. Red chile was 88% picked, 78% 1996; 3% poor, 21% fair, 61% good, 15% excellent. With pecan harvest well behind schedule, producers in the south were beginning to shake trees last week; 8% complete, 37% 1996. Pecans 31% fair, 59% good, 10% excellent. Wheat crop 7% poor, 48% fair, 45% good. Cattle, sheep mostly fair to good condition. Range, pasture feed 1% very poor, 7% poor, 37% fair, 47% good, 8% excellent.

NEW YORK: Apple, potato, onion producers grading, packing crops. Cider making continued. Orchard cleanup active, slowed by snow. Other major activities: Tending livestock, machinery repair, maintenance, attending meetings.

NORTH CAROLINA: Days suitable for fieldwork 5.3. Soil moisture 7% short, 70% adequate, 23% surplus. Cool weather across the State slowed planting, harvesting activities. Harvest of cotton, soybeans, sorghum, sweet potatoes lags slightly behind last year. Activities included: Harvesting cotton, sorghum, soybeans, sweet potatoes, Christmas trees; planting small grains, cover crops; maintaining pastures; tending livestock; repairing equipment.

NORTH DAKOTA: Pleasant fall weather provided ideal conditions for harvesting, livestock grazing, completing miscellaneous fall chores. Grain marketing was reported difficult due to a shortage of rail transportation. Snow cover at is sufficient to protect only 12% of alfalfa. Corn, sunflower harvests are 99% complete. Cattle 2% poor, 22% fair, 69% good, 7% excellent; sheep 1% poor, 27% fair, 64% good, 8% excellent. Livestock receiving supplemental feed cattle 75%, sheep 80%. Hay, forage 15% short, 82% adequate, 3% surplus. Cattle sales 8% below normal, 88% normal, 4% above normal.

OHIO: Days suitable for fieldwork 3.0. Topsoil moisture 9% short, 80% adequate, 11% surplus. Corn harvested for grain 1 day ahead 1996. Winter wheat virtually complete. Activities: Corn drying; hauling, binning, selling corn, soybeans; chopping corn stalks; hauling, spreading manure; spreading lime, fertilizer; fall tillage for spring crops; equipment repair, maintenance, winter storage preparations; firewood cutting; ornamental tree digging.

OKLAHOMA: Days suitable for fieldwork 5.6. Topsoil moisture 13% short, 86% adequate, 1% surplus. Subsoil moisture 9% short, 90% adequate, 1% surplus. Soil moisture, above-normal temperatures aided small grain development, pasture growth. Wheat 22% grazed, 28% 1996, 22% avg. Oats 82% up to stand, 78% 1996, 75% avg.; 12% grazed, 15% 1996, 8% avg. Soybeans 80% harvested, 91% 1996, 89% avg. Peanuts 98% combined, 94% 1996. Livestock 3% poor, 20% fair, 75% good, 2% excellent. Feeder steer prices up nearly $3 per cwt.

OREGON: Activities: Harvest, fall fieldwork completed. Fall nursery digging, container movement continued. Greenhouses busy with winter plants, preparing for early spring flowers. Christmas tree bailing underway, sales on going. Domestic Christmas tree sale in full swing. Rain has slowed winter farm activities on the westside. South coast cranberry growers re-sanding, pruning, installing drain lines. Livestock condition good to excellent across State. Westside dairy cows still pasture grazing because mild weather. Winter farm, ranch activities underway.

PENNSYLVANIA: Days suitable for fieldwork 4.0. Fair week for fieldwork. Soil moisture 1% very short, 4% short, 80% adequate, 15% surplus. Corn harvest 82% complete, 88% 1996, 82% avg. Soybean harvest 93% complete, 92% 1996, 89% avg. Fall plowing 90% complete, 94% 1996, 97% avg. Activities: Harvesting corn, soybeans; some hay making; plowing fields; cleaning, repairing, storing machinery; hauling manure; caring for livestock.

SOUTH CAROLINA: Days suitable for fieldwork 5. Soil moisture 73% adequate, 27% surplus. Barley 100% planted, 99% 1996, 86% avg.; 99% emerged, 97% 1996, 80% avg.; 61% good, 39% excellent. Oats 94% planted, 97% 1996, 88% avg.; 89% emerged, 90% 1996, 80% avg.; 1% poor, 19% fair, 68% good, 12% excellent. Pecans 68% harvested, 74% 1996; 42% fair, 56% good, 2% excellent. Rye 96% planted, 88% 1996, 85% avg.; 89% emerged, 76% 1996, 75% avg.; 27% fair, 64% good, 9% excellent. Sorghum 99% harvested, 100% 1996, 90% avg.; 1% very poor, 13% poor, 45% fair, 41% good. Winter grazings 98% planted, 95% 1996, 93% avg.; 91% emerged, 89% 1996, 87% avg.; 2% poor, 27% fair, 65% good, 6% excellent. Winter wheat 61% planted, 70% 1996, 59% avg.; 40% emerged, 52% 1996, 42% avg.; 16% fair, 80% good, 4% excellent.

SOUTH DAKOTA: No precipitation was received, except for a trace in areas of the Black Hills. Farmers, finishing a few remaining corn, sorghum fields, are busy preparing hay supplies, situating livestock for the upcoming winter months.

TENNESSEE: Days suitable for fieldwork 4.0. Topsoil moisture 2% short, 85% adequate, 13% surplus. Subsoil moisture 4% short, 86% adequate, 10% surplus. Tobacco 72% burley stripped, 89% 1996, 88% avg. Winter wheat 9% fair, 72% good, 19% excellent; 95% seeded, 87% 1996, 94% avg. Critical field activities such as cotton, soybean harvesting, winter wheat seeding took place. Favorable weather

conditions allowed producers to catch up with the 5-year average on cotton, soybean harvests, winter wheat seeding. Burley tobacco stripping operations continued to remain 10 days behind schedule.

TEXAS: Mild weather conditions occurred in all areas most of week. Field operations moved ahead until cooler, wet conditions set in late week. The rainfall beneficial to small grains, winter pastures. However, it slowed fieldwork. Total accumulations amounted to a trace in some areas to several inches in other areas. Supplemental feeding operations remained active in all areas. Livestock conditions continued good in most areas. Crops: Small grains: Fields in High Plains continued to make good progress. However, warmer weather needed for later fields. Fields in Blacklands have progressed slowly due to prolonged cloudy, cool weather. Moisture will be beneficial. However, warmer weather needed to go along with moisture. Central stands good, also need more open, sunny weather. Cotton: Harvest made good progress in Plains until late-week showers slowed activity. Many operators now completed harvest for year. Harvest beginning to wind down in Trans-Pecos. Harvest also made good progress most of week in north- central area. Grain sorghum, good weather conditions held on long enough in plains for many producers to complete harvest activity. Harvest also made good progress north-central area, winding down by midweek. Peanut harvest north-central area moved ahead until late week, with many producers finished. Progress good south-central area fields, with good yields reported. Soybeans, most harvest activity completed in Plains by late week. Dry conditions persisted long enough for producers to complete harvest along Upper Coast. Sugar beets in few fields were all that were left for harvest by end of week in High Plains. Yields have been lower on later fields.

Commercial Vegetables: Rio Grande Valley, good growth, development reported on most fields under good moisture conditions. San Antonio- Winter Garden, spinach harvest got underway. Cabbage fields made good progress for week. East, harvest activity virtually completed by week's end. Pecans: Harvest increased considerably over past few weeks in many areas. Pecans continued plentiful. However, producers in some areas reporting poor filling.

Range and Livestock: Steady supplemental feeding activity continued during week in all areas. Recent freezing temperatures, frost have ended warm season grasses, additional rainfall needed for winter pastures, small grain pastures to continue progress.

UTAH: All major farm, ranch activities are complete going into the winter months. Harvest of crops is virtually complete, livestock are in good condition.

VIRGINIA: Days suitable for fieldwork 4.5. Topsoil moisture 1% short, 73% adequate, 26% surplus. Subsoil moisture 15% short, 70% adequate, 15% surplus. Corn 95% harvested, 98% 1996, 99% avg. Soybeans 76% harvested, 69% 1996, 77% avg. Cotton 86% harvested, 77% 1996, 86% avg. Barley 99% seeded, 100% 1996, 100% avg. Winter wheat 82% seeded, 88% 1996, 91% avg. Pasture feed 2% very poor, 14% poor, 41% fair, 38% good, 5% excellent. Small grains, grazing crops 6% poor, 30% fair, 52% good, 12% excellent. Livestock 2% poor, 25% fair, 62% good, 11% excellent. Forage from pasture, winter grazing crops for beef cattle, 51%; dairy cattle, 9%; sheep, 62%. Standing water, muddy fields in many localities caused additional harvesting, planting delays. Some producers are concerned with not getting all of their small grain acreage seeded as they near the deadline for the normal planting schedule. Some small grain producers have already applied fertilizer, with the intention of planting the remaining acreage despite high moisture levels, normal planting dates. Producers in drier localities were able to rapidly move with fall harvesting and small grain seeding. Cotton producers made great progress as they picked around wet areas in their fields. Some cattle producers are reducing their herds as they anticipate short hay supplies this winter. Other activities include peanut marketing, tobacco curing, stripping, marketing.

WASHINGTON: Days suitable for fieldwork 3.6. Topsoil moisture 62% adequate, 38% surplus. Subsoil moisture 10% short, 87% adequate, 3% surplus. East of the Cascade range, most fieldwork was completed for the winter. Winter wheat 100% emerged, 99% 1996, 97% avg. Corn for grain 90% harvested, 55% 1996, 79% avg. Grain corn harvest continued as weather allowed. Hay, other roughage supplies 3% short 69% adequate, 28% surplus. Range, pasture feed 13% poor, 29% fair, 58% good. Western areas wet, muddy pasture conditions with good growth, due to warmer-than-normal temperatures. East of the Cascades, conditions were also reported as wet, muddy. Supplemental feeding had begun. Benton County reported an end to fruit harvest. Christmas tree growers continued brisk sales, U-cut places were open. Turf grass operators continued mowing activities between rain showers. Herbicides were applied by flower bulb growers.

WEST VIRGINIA: Days suitable for fieldwork 3.8. Topsoil moisture 3% very short, 2% short, 80% adequate, 15% surplus. Corn 86% harvested grain, 76% 1996, 91% avg. Soybeans 92% harvested grain, 71% 1996, 91% avg. Winter wheat 1% poor, 8% fair, 61% good, 30% excellent; 100% planted, 98% 1996, 98% avg. Cattle 1% poor, 18% fair, 79% good, 2% excellent. Sheep 26% fair, 74% good. Activities: Harvesting corn, soybeans, finalizing wheat planting, pasture clipping, feeding livestock, general maintenance.

WISCONSIN: Soil moisture conditions remained primarily adequate. There were a few corn fields yet standing. Corn yields were very good this year. Farm activities included: Attending winter auctions, supplementing cattle fed on pastures, winterizing machinery, hauling manure from storage units, chopping stalks for feed or bedding, drying grain, ordering seed for next year's crop. Most dairy farmers have their milk cows in the barn for the winter season.

WYOMING: Topsoil moisture 1% very short, 13% short, 82% adequate, 4% surplus. Subsoil moisture 1% very short, 23% short, 76% adequate. Average depth of snow cover 0.7 in. Only far west areas of the State reported any snow cover. Winter wheat 16% fair, 71% good, 13% excellent. Winter wheat wind damage 62% none, 38% light. Winter wheat freeze damage 97% none, 3% light. Cattle, sheep in mostly good condition. Hay, roughage supplies 2% short, 95% adequate, 3% surplus. Producers were able to wrap up the corn for grain harvest toward the end of November. Producers were busy feeding livestock, pregnancy-testing cows, vaccinating, maintaining farm equipment, fixing fence, preparing for winter.

International Weather and Crop Summary

November 23 - 29, 1997

HIGHLIGHTS

FSU-WESTERN: Overwintering conditions favored dormant winter grains in Russia and Ukraine.

EUROPE: Frequent showers and mild weather continued to favor winter grain establishment in the west, except in Portugal and southern Spain, where heavy rains likely caused some additional flooding.

NORTHWESTERN AFRICA: Winter grain planting was well underway in Morocco, Algeria, and Tunisia.

EASTERN ASIA: Unseasonable rain benefited vegetative winter wheat across the North China Plain.

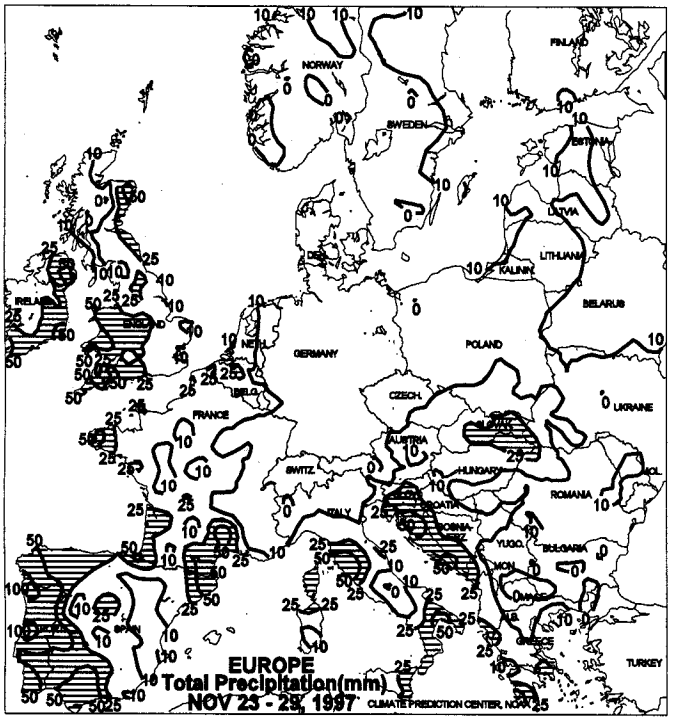
SOUTH AFRICA: Rain benefited emerging corn in the eastern corn belt as cool, dry weather maintained its grip on the west.

SOUTHEAST ASIA: Showers continued to ease drought across southern Indonesia, while continued below-normal rainfall caused drought to develop across the Philippines.

SOUTH AMERICA: Across the region, widespread showers increased topsoil moisture for germinating soybeans, but slowed early winter wheat harvesting in Argentina.

SOUTH ASIA: Unseasonable rain continued across much of central and northern India, hampering summer crop harvesting but benefiting winter grains and oilseeds.

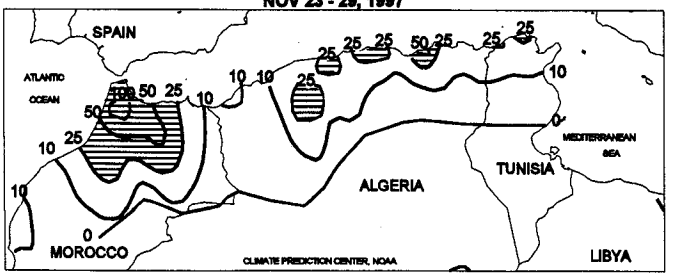
AUSTRALIA: Clear weather spurred summer crop development and aided winter grain harvests, but oppressive heat in the southeast likely stressed livestock.



EUROPE

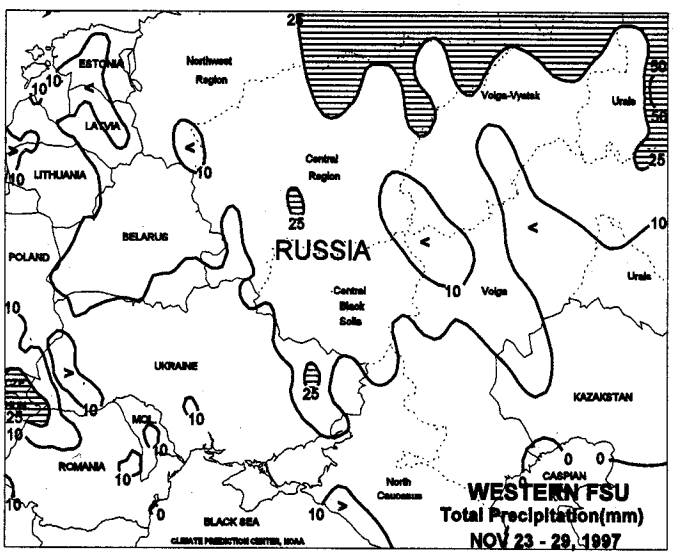
Frequent showers and unseasonably mild weather in England, France, and northern Spain continued to benefit winter crop establishment. Weekly temperatures averaged 2 to 4 degrees C above normal in these areas. Farther south, moderate to heavy rain (50-100 mm) continued in Portugal and spread eastward into extreme southern Spain, keeping soils saturated and likely causing additional flooding. In the north, unseasonably cold weather (weekly temperatures averaging 1 to 3 degrees C below normal) likely prompted winter grains in Germany to begin slipping into dormancy and kept winter grains dormant in Poland. In southeastern Europe, unseasonably mild weather favored dormant winter grains in Romania and allowed some further establishment in late-planted winter grains in Bulgaria and Yugoslavia.

NORTHWEST AFRICA Total Precipitation (mm)
NOV 23 - 29, 1997



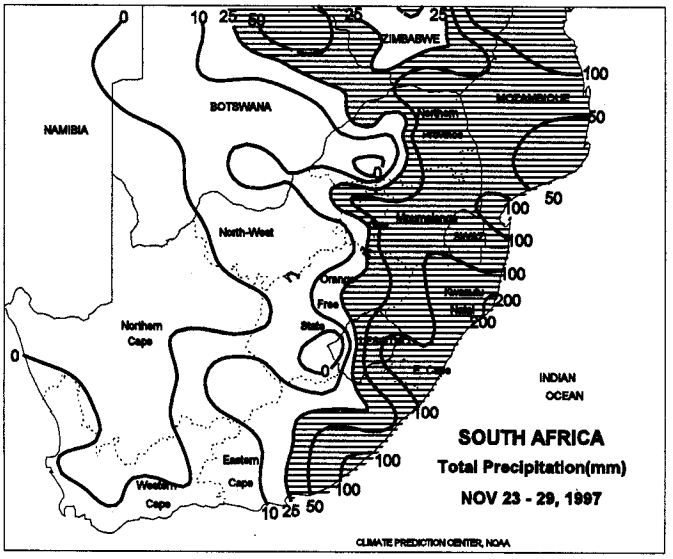
NORTHWESTERN AFRICA

Winter grain planting was likely well underway in most areas. Light to moderate showers (10-40 mm, with local amounts in excess of 50 mm) continued over northern Morocco, central and eastern Algeria, and Tunisia, maintaining sufficient topsoil moisture for winter grain emergence and establishment. Lesser amounts of rain (around 10 mm) continued to fall in southern Morocco, helping to condition topsoils for planting.



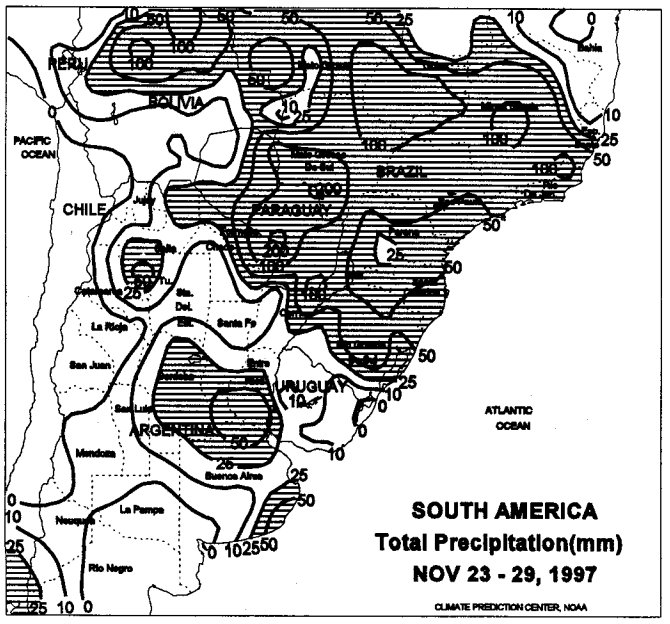
FSU-WESTERN

In Russia, light precipitation (10-25 mm) fell in northern winter grain areas. The moisture initially fell as a mixture of rain and snow that turned to all snow by week's end, increasing snow cover. Farther south, light scattered precipitation (less than 10 mm) fell mostly as rain in major winter wheat-producing areas in southern Russia. In Ukraine, light precipitation (less than 10 mm) fell in most winter grain areas, with greatest amounts of moisture (10-32 mm) confined to crop areas in the extreme west and east. The precipitation fell mostly as rain that turned to light snow by week's end. Elsewhere, light to moderate snow (2-20 mm liquid equivalent) blanketed winter grains in Belarus and the Baltics. Weekly temperatures averaged 1 to 3 degrees C below normal in the Baltics, Belarus, the extreme western Ukraine, and eastern winter grain areas in Russia (Volga Vyatsk and the upper Volga Valley) and 1 to 3 degrees C above normal in the remainder of Ukraine and Russia. Most winter grain areas in southern Russia and Ukraine were snow free. Extreme cold during the week (minimum temperatures less than -15 degrees C) was confined to northeastern winter rye areas in Russia, where adequate snow cover provided protection from potential winterkill.



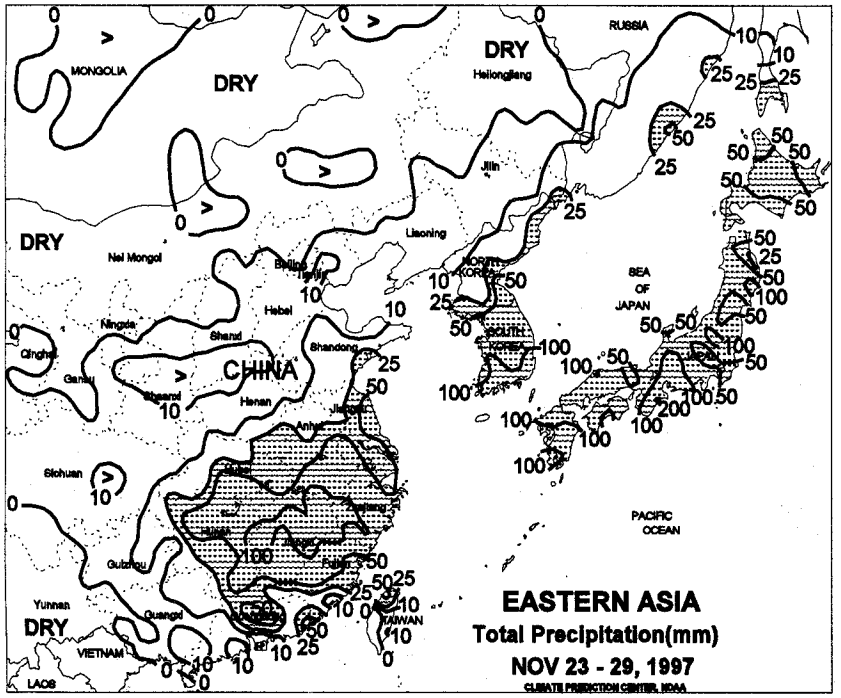
SOUTH AFRICA

Spring showers (10-50 mm or more) returned to eastern sections of the corn belt, favoring crop establishment. Heavier rain (25-50 mm or more, locally exceeding 100 mm) was recorded in coastal crop areas of Kwazulu-Natal and Eastern Cape, including the main sugarcane region, which may have experienced some flooding. In contrast, unseasonably cool, dry weather persisted over the western half of the corn belt. With about 1 month remaining in the planting season, sections of the west are in desperate need of moisture before sowing can take place. Temperatures averaged well below normal (2-5 degrees C) for the second week, curbing evaporative losses but also retarding crop development in areas where the crops were planted. In the southwest, a return to drier weather favored Western Cape winter wheat harvests.



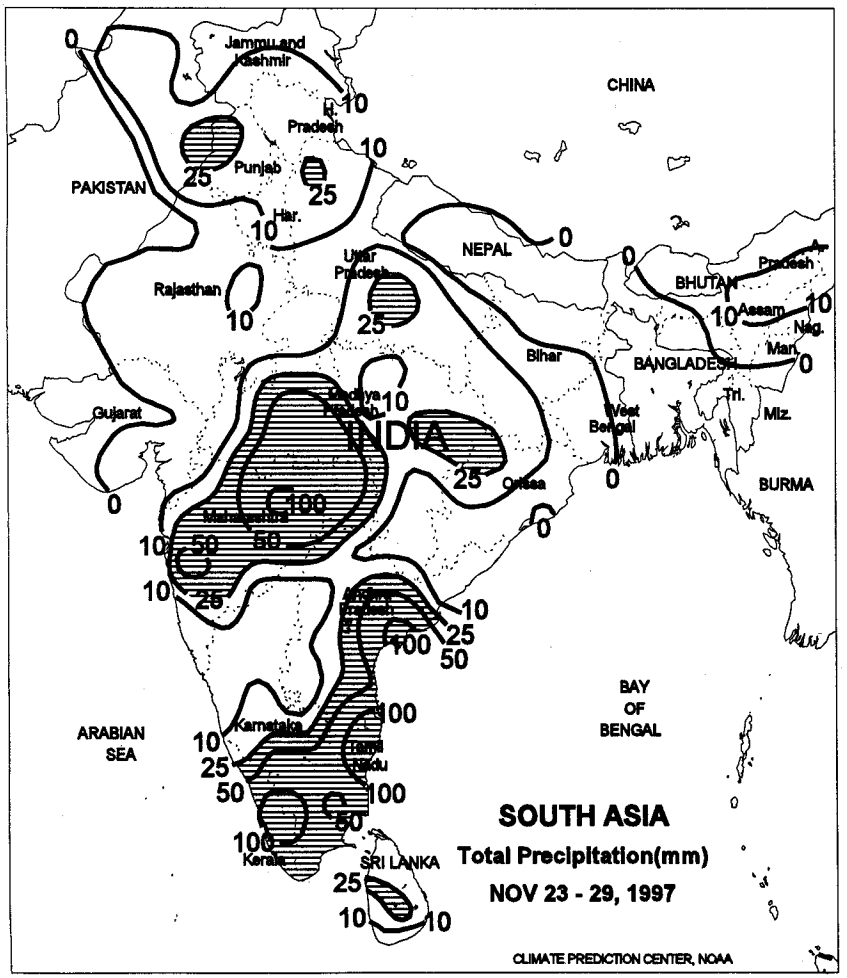
SOUTH AMERICA

Widespread showers (25-100 mm) covered the major soybean areas of southern Brazil, boosting soil moisture for germination. Heavy showers (in excess of 100 mm) slowed planting in extreme southern Mato Grosso do Sul and southern Goias. As of late November, Brazilian soybeans were 70 percent planted, slightly ahead of the 5-year average. In central Argentina, showers (30-80 mm) continued to replenish soil moisture supplies in southern Cordoba and Santa Fe. The wet weather, however, slowed early winter wheat harvesting. Showers aided filling winter wheat in Buenos Aires. Temperatures averaged 1 to 3 degrees C below normal across central Argentina and near to slightly above normal in southern Brazil.



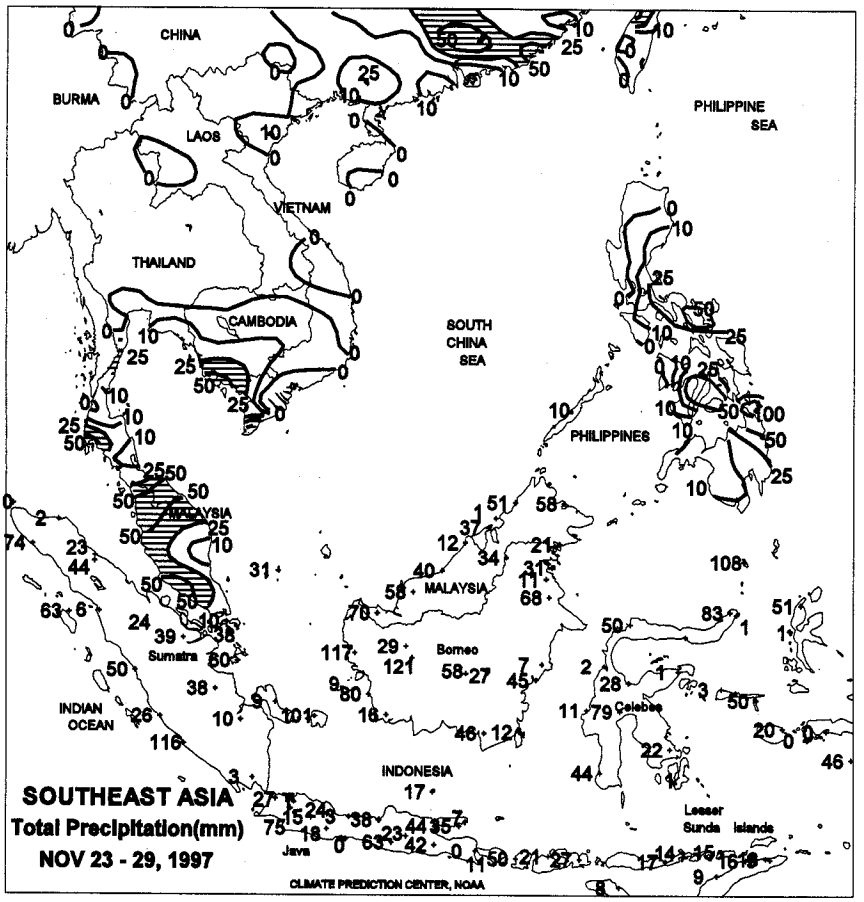
EASTERN ASIA

Unseasonable light to moderate rain (5-25 mm) aided vegetative winter wheat in the North China Plain. Temperatures averaged near normal across the North China Plain, allowing further winter wheat development. To the south, moderate rain (30-75 mm, with isolated amounts greater than 100 mm) covered the Yangtze Valley, boosting moisture reserves for winter grains and oilseeds.



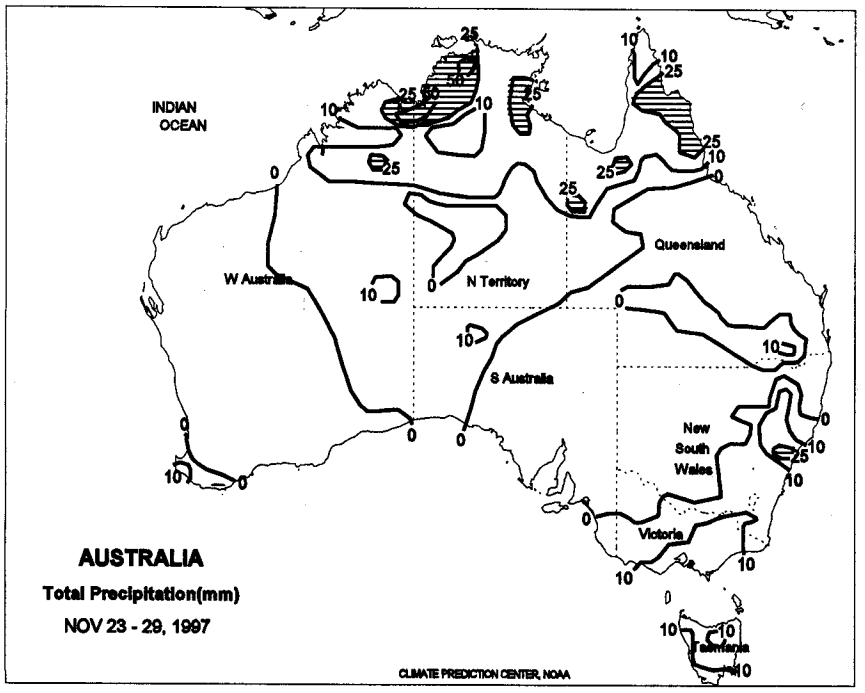
SOUTH ASIA

Unseasonable showers persisted across a broad section of the region, reaching into northeastern Pakistan. Amounts were highly variable, with most areas receiving less than 25 mm. One notable exception included important summer crop areas of western Madhya Pradesh and central Maharashtra, where rainfall totaled 43 to 75 mm. Heavy rain (50-100 mm or more) continued across India's south-coastal rice areas which, while heavier than usual, can be expected this time of year. This season's tendency for rainfall after the monsoon's withdrawal raised concern for summer crop quality, especially in prime cotton areas where late rainfall has historically resulted in a wide range of problems. However, the late moisture has been beneficial for winter grains and oilseeds across central and northern India and Pakistan. The moisture has also improved prospects for secondary, winter-grown crops in southern and eastern India, which include a significant amount of cotton and groundnuts.



SOUTHEAST ASIA

Showers (15-40 mm) continued to ease drought over Java and southern Sumatra but have not reached seasonable amounts. Typically in late November, rainfall averages 30 to 45 mm per week across the region. Hot, dry weather (temperatures 2-3 degrees C above normal) prevailed across the northern Philippines, reducing moisture supplies for second-season rice. Across the rest of the Philippines, rainfall (10-50 mm) continued to average below normal, causing drought to develop. Moderate showers (10-50 mm) benefited oil palm across peninsular Malaysia. Dry weather continued to favor rice harvesting in Thailand and Vietnam.



AUSTRALIA

Warm, dry weather dominated the primary agricultural areas. Following recent weeks of beneficial moisture, sunny skies in Queensland and northern New South Wales stimulated cotton and sorghum development. The only significant rain (21-157 mm) was recorded in the far northern sugarcane areas along the Queensland coast. Highs generally ranged in the mid- to upper-30's C over Queenland's main summer crop areas and the lower 40's C in New South Wales. Farther south, however, a severe heat wave (temperatures over 5 degrees C above normal, highs in the low- to mid-40's C) covered South Australia and southern New South Wales. Conditions aided winter grain drydown but stressed pastures and livestock. Temperatures were more seasonable in Western Australia, where winter grain harvesting was underway. In New Zealand, rainfall was generally light (10 mm or less) over the main pasture areas.

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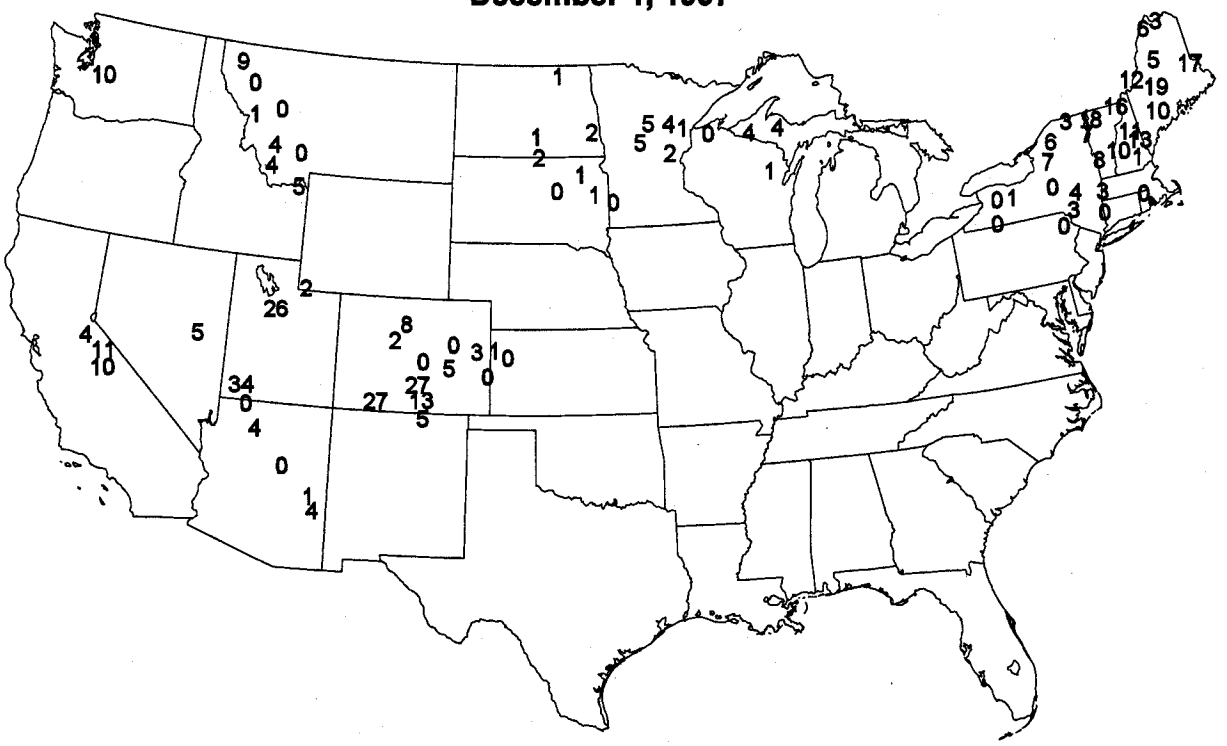
Snow Depth (Inches)
December 1, 1997



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

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