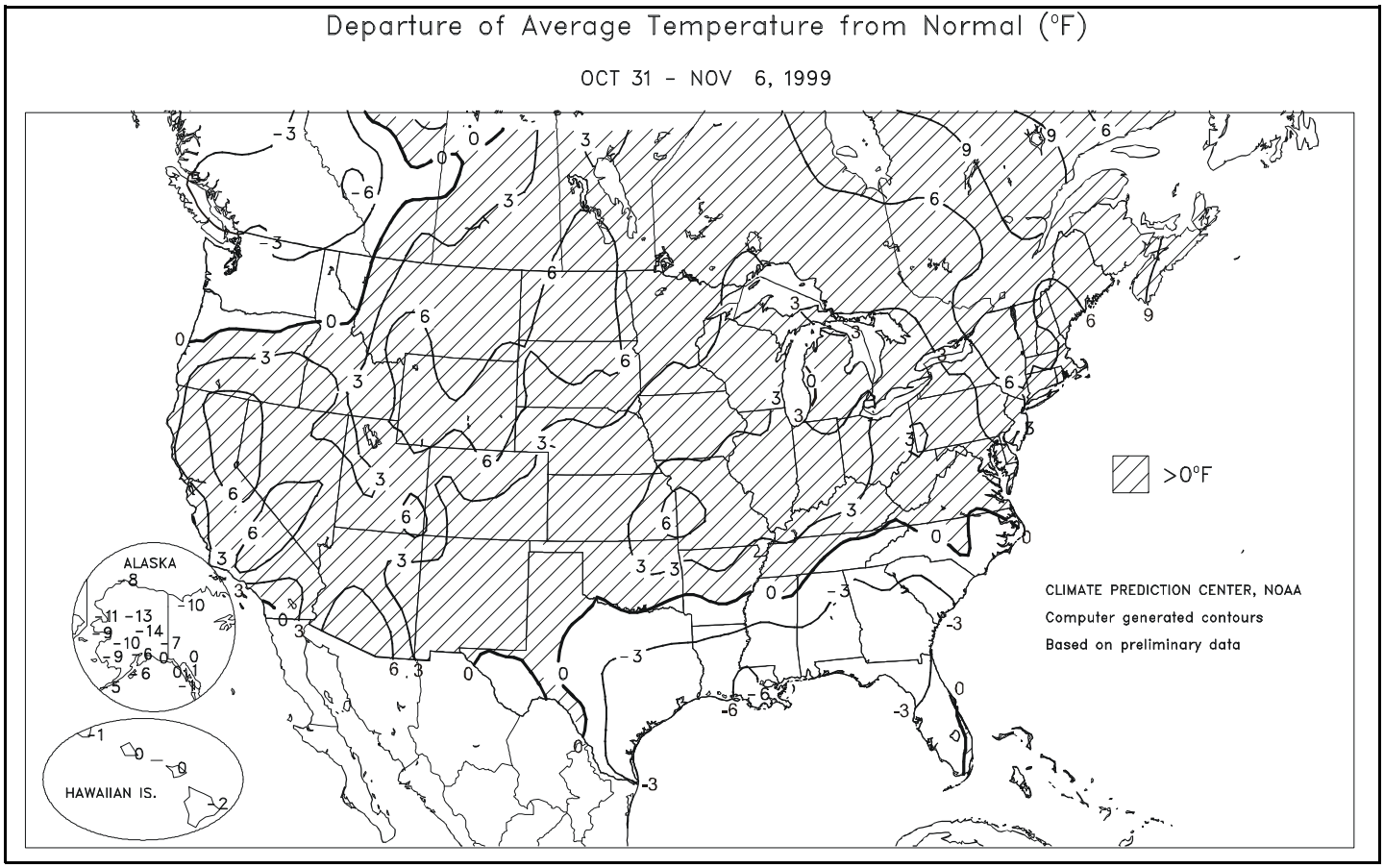
Volume 86, No. 45 **November 9, 1999**

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

October 31 - November 6, 1999

Very warm, dry weather further reduced topsoil moisture for winter wheat establishment on the **Plains**, especially from **Nebraska** southward to **Texas' Northern Panhandle**. Weekly temperatures averaged up to 8°F above normal from the **northern Plains** into the **Northeast**, aiding final summer crop harvesting operations. Similarly, temperatures ranged from 2 to 10°F above normal in the **Southwest**, promoting cotton harvesting and winter wheat planting. In contrast, very cool weather (as much as 6°F below normal) and near- to below-freezing temperatures burned back pastures and emerging winter grains from **eastern Texas** to the **southern Atlantic Coast**.

(Continued on page 3)

Contents

Weather Data for Selected Locations in the Delta

Weather Data for the Week Ending November 6, 1999

Data provided by the Mississippi State Delta Research and Extension Center (DREC) and the Southern Regional Climate Center (SRCC).

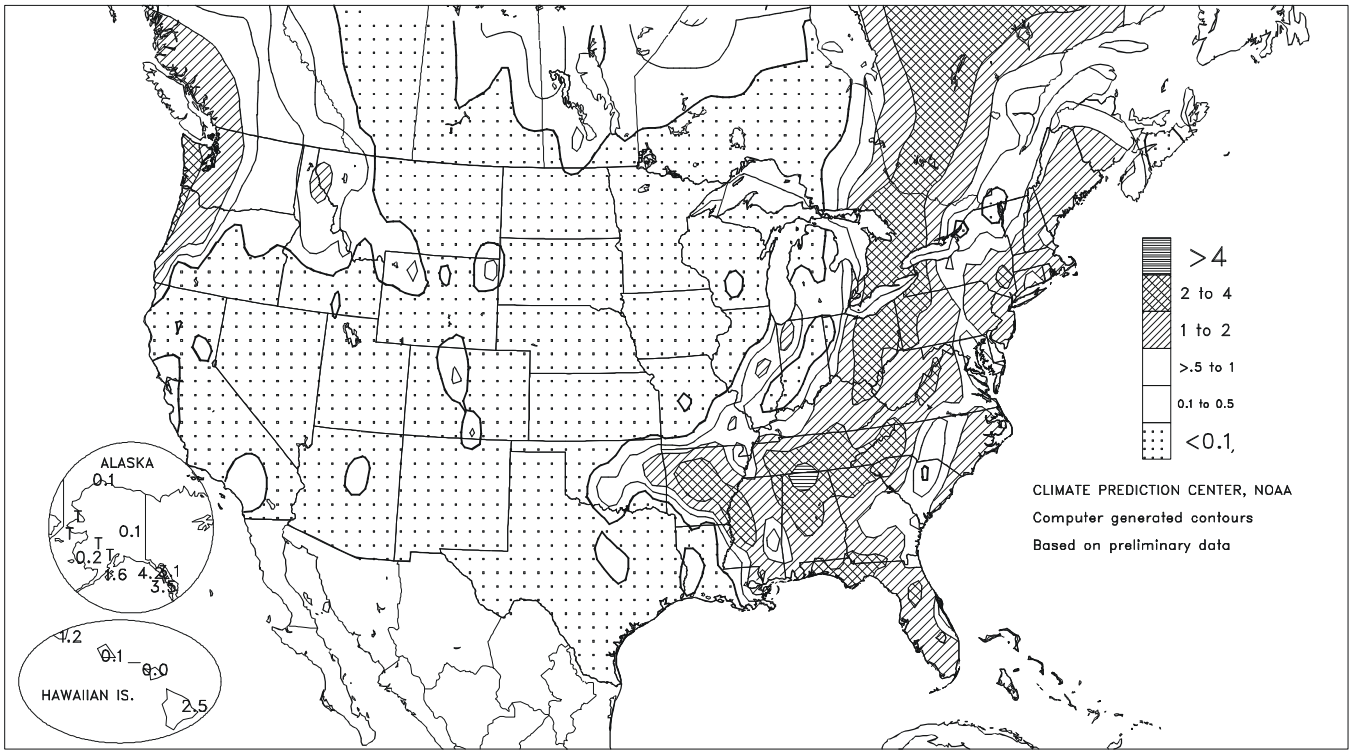
STATES AND STATIONS		TEMPERATURE EF						PRECIPITATION							4-INCH SOIL TEMP, °F		NUMBER OF DAYS			
																	TEMP. EF		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., 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
MS	BATESVILLE [x]	68	44	79	29	56	1	0.82	-0.21	0.82	4.00	52	--	--	--	--	0	1	1	1
	BELZONI [x]	67	45	76	31	56	-2	2.94	1.99	2.90	--	--	--	--	--	--	0	1	2	1
	CLARKSDALE [x]	69	45	79	35	57	1	0.72	-0.22	0.72	8.64	134	--	--	--	--	0	0	1	1
	CLEVELAND [x]	69	47	84	36	58	2	2.80	1.89	2.70	4.34	79	--	--	--	--	0	0	2	1
	GREENVILLE [x]	69	47	84	38	58	0	1.91	0.99	1.91	--	--	--	--	--	--	0	0	1	1
	GREENWOOD [x]	69	43	75	32	56	-2	0.58	-0.33	0.56	3.95	54	--	--	--	--	0	1	2	1
	INDIANOLA 1S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	INVERNESS 5E	68	46	76	35	57	--	2.32	--	2.24	6.10	--	40.71	--	66	57	0	0	2	1
	LYON	68	44	79	34	56	--	1.81	--	1.28	6.17	--	--	--	--	--	0	0	2	2
	MOORHEAD [x]	69	46	77	36	58	-1	2.26	1.37	2.26	8.42	118	--	--	--	--	0	0	1	1
	ONWARD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ROLLING FORK [x]	70	46	84	31	58	0	1.61	0.75	1.50	2.34	32	--	--	--	--	0	2	2	1
	SIDON	69	46	80	33	58	--	1.70	--	1.37	4.77	--	--	--	67	62	0	0	2	1
	TUNICA [x]	69	45	80	34	57	1	1.33	0.27	1.33	6.82	103	--	--	--	--	0	0	1	1
	VICKSBURG [x]	69	48	83	36	59	-1	0.59	-0.32	0.59	3.43	44	--	--	--	--	0	0	1	1
	YAZOO CITY [x]	68	46	83	34	57	-3	3.10	2.15	3.10	--	--	--	--	--	--	0	0	1	1
	STONEVILLE *	70	47	84	35	59	1	3.69	2.79	3.51	6.59	91	45.98	109	68	56	0	0	3	1

Compiled by USDA/OCE/WAOB's Stoneville Field Office.
*** Based on 1964-93 normals.**
[x] Based on 1961-90 normals.

Delta Weather and Crop Summary: Moisture reserves were quickly replenished early in the week as heavy rains swept across the Delta. Some areas, including Stoneville, had as much as 3.50 inches of rain in a 24-hour period, benefiting pastures and fall grasses. By midweek, several areas experienced their first frost since early spring, as morning temperatures neared or fell below the freezing mark. Conditions were unfavorable for fieldwork early in the week, but greatly improved toward week's end.

Total Precipitation (Inches)

OCT 31 - NOV 6, 1999



(Continued from front cover)
Early-week rainfall favored winter wheat establishment in the drought-affected **Ohio Valley**, although soil moisture remained limited from **Indiana westward**. Across the **Southeast**, early-week rainfall benefited fall-sown crops but slowed fieldwork. Beneficial showers diminished across the **Northwest**, but cool weather slowed winter wheat development in **Washington** and **northern Oregon**. Additional moisture is needed across the **Snake River Plain**.

A brief, midweek cool snap interrupted an otherwise very warm pattern across the **Central and Western States**. More than 30 daily-record highs were set or tied on October 31, followed by more than six dozen daily records and at least nine monthly record highs from November 4-6. An additional 60 daily records and more than a dozen monthly record highs were established across the **northern Plains** and the **West** on Sunday, November 7.

The final day of October featured highs above 80 °F as far north as **southeastern Montana**, where **Miles City** noted 82°F. A day later, very warm conditions persisted across **southern California**, where **Simi Valley** registered a daily-record high of 99°F. By Thursday, monthly record warmth appeared on the **northern Plains**, where **Rapid City** (79°F) tied their 105-year-old November standard. On Friday, several locations in **Wyoming**, including **Rawlins** (65, 70, and 69°F) and **Casper** (70, 72, and 72°F) tallied their first of three consecutive daily-record highs. Previous November records had been 64 °F (on November 5, 1975) in **Rawlins** and 71°F (on November 1, 1965) in **Casper**. In **Idaho** on November 6, former monthly records were eclipsed by 4°F in **Pocatello** (75°F) and **Boise** (78°F).

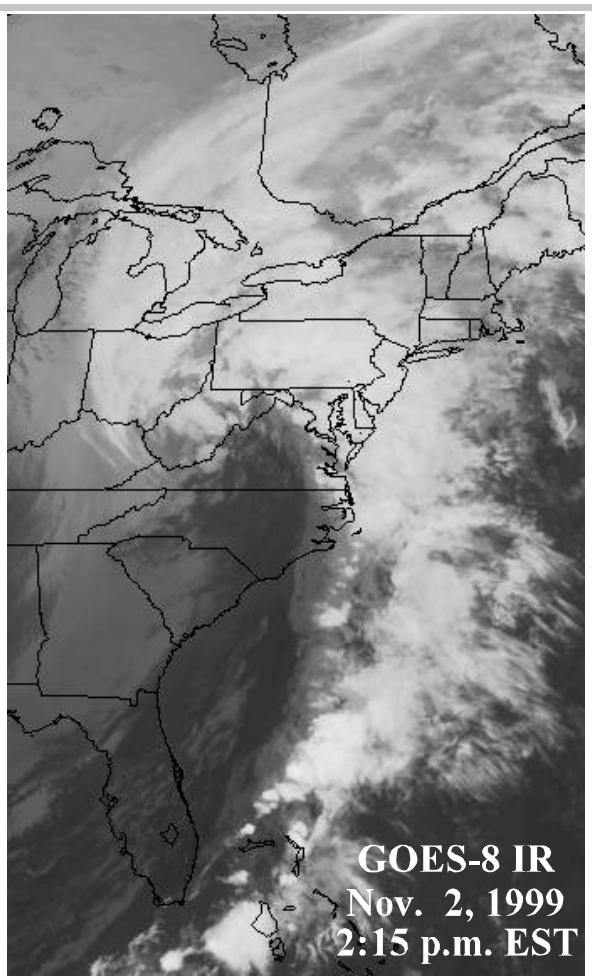
As the week began, an energetic storm system lifted northeastward from the **western Gulf Coast** region. Locally heavy rain arrived in the **Southeast** at the end of October, then spread northeastward thereafter, providing welcomed moisture to the **middle Ohio Valley** and the **Appalachians**. On October 31, **Little Rock, AR** (2.00 inches) and **Jackson, MS** (3.55 inches) collected daily-record totals. **Little Rock's** October rainfall, 4.04 inches (112 percent of normal), exceeded their July-September sum of 2.45 inches (23 percent). Despite **Jackson's** above-normal October total (5.74 inches, 176 percent of normal), their year-to-date total of 38.60 inches was 6.05 inches below normal. On Tuesday, daily-record totals were noted in locations such as **Pittsburgh, PA** (1.72 inches) and **Lexington, KY** (1.09 inches).

Cool weather blanketed the **South** in the storm's wake, resulting in sub-freezing temperatures as far south as **Houston, TX** (30°F on Wednesday) and **Cross City, FL** (30°F on Thursday). By week's end, however, much warmer air overspread the region, aiding the development of pastures and fall-sown crops after the widespread frosts and freezes. The cold weather did not adversely affect **southern Louisiana's** sugarcane, as only scattered frost was reported on November 3-4. Meanwhile, very cold conditions persisted for a third consecutive week in **Alaska**, where temperatures averaged as much as 14°F below normal in interior sections. In the **Aleutians**, **Cold Bay** collected a monthly record low of 6 °F on October 31.

Record-High November Temperatures (°F), Nov. 4-7, 1999

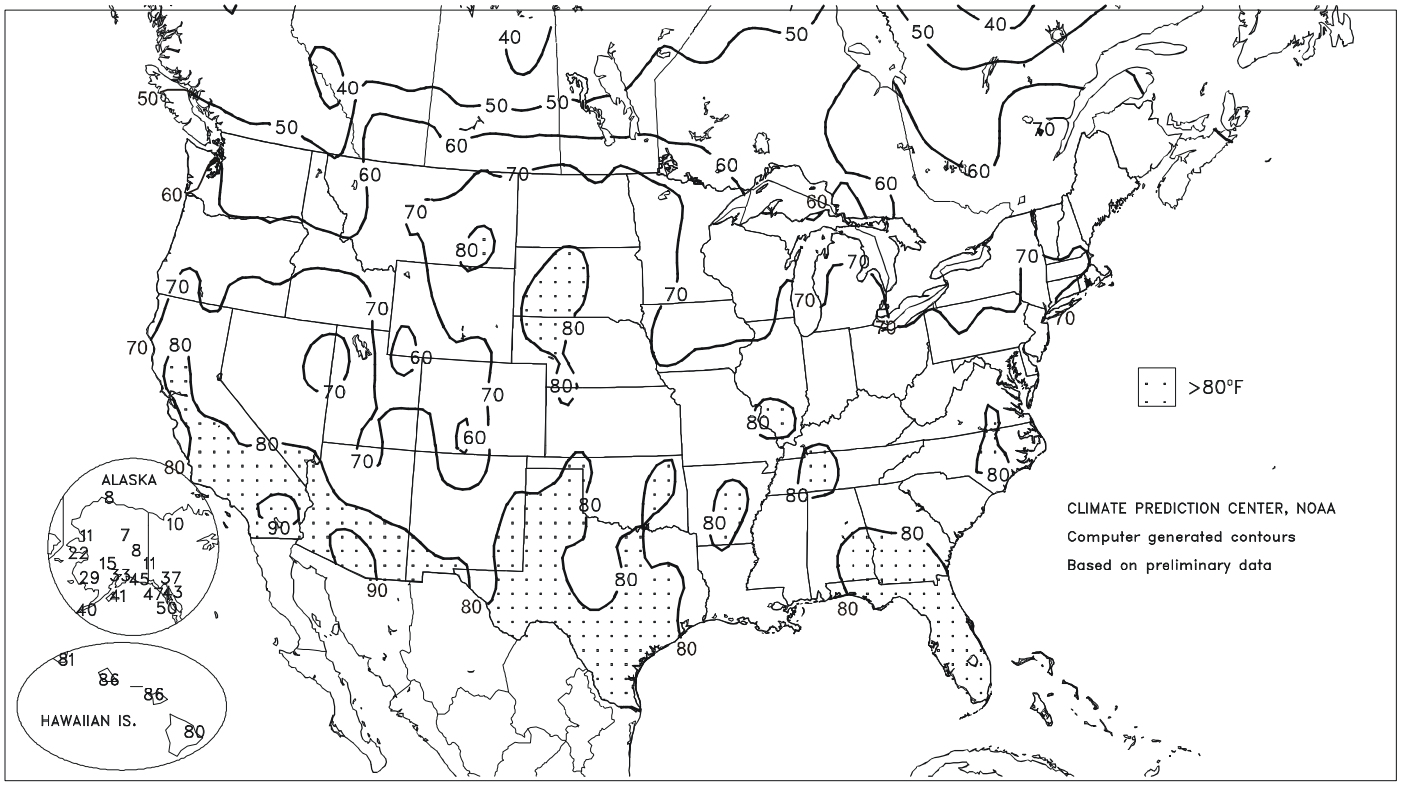
Location	High/Date	Previous Record/Date*
Rapid City, SD	79 on Nov. 4	79 on Nov. 14, 1894
Rawlins, WY	65 on Nov. 5	64 on Nov. 5, 1975
Boise, ID	78 on Nov. 6	74 on Nov. 1, 1988
Worland, WY	77 on Nov. 6	75 on Nov. 1, 1988
S. L. City, UT	75 on Nov. 6	75 on Nov. 12, 1967
Gillette, WY	75 on Nov. 6	74 on Nov. 1, 1965
Pocatello, ID	75 on Nov. 6	71 on Nov. 1, 1965
Casper, WY	72 on Nov. 6	71 on Nov. 1, 1965
Rawlins, WY	70 on Nov. 6	65 on Nov. 5, 1999
Valentine, NE	86 on Nov. 7	82 on Nov. 2, 1965
Winner, SD	85 on Nov. 7	84 on Nov. 14, 1953
Rapid City, SD	83 on Nov. 7	79 on Nov. 4, 1999
Wheatland, WY	81 on Nov. 7	79 on Nov. 11, 1945
Alliance, NE	80 on Nov. 7	80 on Nov. 14, 1953
Dickinson, ND	80 on Nov. 7	79 on Nov. 2, 1965
Bismarck, ND	79 on Nov. 7	75 on Nov. 2, 1978
Minot, ND	79 on Nov. 7	74 on Nov. 5, 1975
Billings, MT	77 on Nov. 7	77 on Nov. 4, 1983
Jamestown, ND	77 on Nov. 7	77 on Nov. 2, 1978
Gillette, WY	76 on Nov. 7	75 on Nov. 6, 1999
Williston, ND	76 on Nov. 7	73 on Nov. 3, 1981
Casper, WY	72 on Nov. 7	72 on Nov. 6, 1999

* In many cases, previous records were also noted on earlier dates.



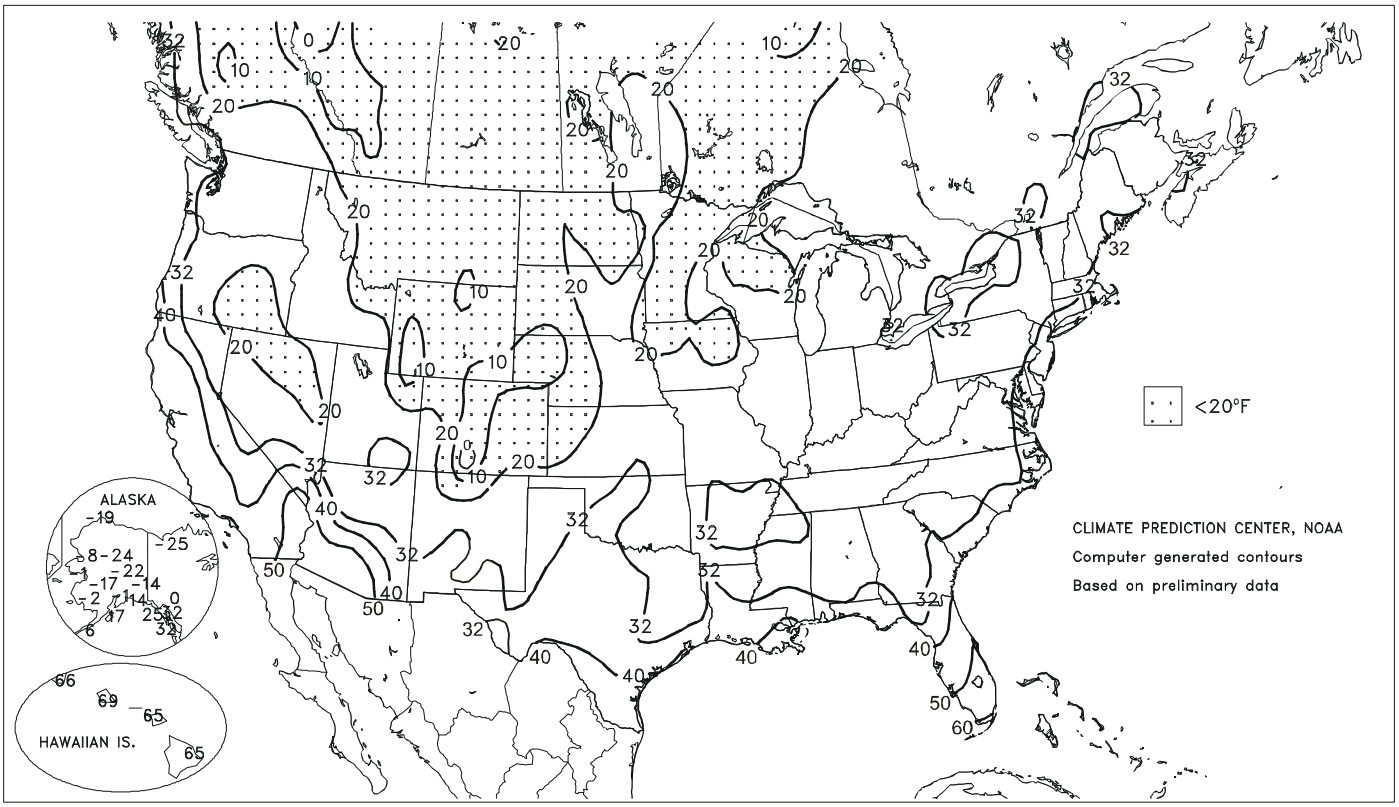
Extreme Maximum Temperature (°F)

OCT 31 - NOV 6, 1999



Extreme Minimum Temperature (°F)

OCT 31 - NOV 6, 1999



National Weather Data for Selected Cities

Weather Data for the Week Ending November 6, 1999

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

STATES AND STATIONS		TEMPERATURE EF						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. EF		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	66	44	75	31	55	-2	2.23	1.38	2.22	7.02	94	45.07	98	87	35	0	1	2	1
	HUNTSVILLE	67	42	80	30	54	-1	2.77	1.83	2.72	4.93	60	40.92	87	94	44	0	2	2	1
	MOBILE	72	46	79	34	59	-5	1.30	0.52	0.65	9.81	103	45.24	82	94	42	0	0	3	2
	MONTGOMERY	69	42	83	32	56	-5	1.53	0.78	1.51	6.19	86	37.89	85	92	37	0	1	2	1
AK	ANCHORAGE	25	14	33	-1	19	-6	0.01	-0.31	0.01	5.75	116	15.46	111	90	57	0	7	1	0
	BARROW	1	-10	8	-19	-4	-8	0.05	-0.03	0.04	0.64	58	3.47	86	76	66	0	7	2	0
	FAIRBANKS	4	-12	8	-22	-4	-14	0.08	-0.11	0.08	2.81	143	9.20	98	86	74	0	7	1	0
	JUNEAU	40	34	43	32	37	1	3.10	1.70	2.60	25.29	161	64.97	141	97	77	0	1	5	1
	KODIAK	35	26	41	17	31	-6	1.64	0.19	0.72	21.52	140	61.54	110	85	60	0	5	4	2
	NOME	18	5	22	-1	12	-9	0.04	-0.22	0.04	4.11	102	14.09	106	88	60	0	7	1	0
AZ	FLAGSTAFF	67	22	70	20	45	4	0.00	-0.41	0.00	4.55	114	16.11	86	66	13	0	7	0	0
	PHOENIX	89	59	92	55	74	7	0.00	-0.14	0.00	1.31	80	6.55	106	38	12	2	0	0	0
	TUCSON	89	53	93	51	71	8	0.00	-0.17	0.00	0.97	34	9.83	94	25	10	2	0	0	0
	YUMA	88	60	90	58	74	5	0.00	-0.06	0.00	0.02	3	4.35	172	41	23	3	0	0	0
AR	FORT SMITH	71	45	80	28	58	2	1.93	1.00	1.91	7.48	97	37.74	109	93	44	0	1	3	1
	LITTLE ROCK	70	45	79	32	58	1	1.16	0.07	1.16	5.13	59	33.63	80	92	49	0	1	1	1
CA	BAKERSFIELD	77	49	82	48	63	2	0.00	-0.13	0.00	0.08	14	5.50	122	67	32	0	0	0	0
	EUREKA	69	26	72	21	47	7	0.01	-0.51	0.01	1.61	43	29.36	116	42	11	0	7	1	0
	FRESNO	79	48	82	46	63	5	0.00	-0.26	0.00	0.00	0	5.98	75	88	35	0	0	0	0
	LOS ANGELES	71	58	88	54	64	0	0.01	-0.30	0.01	0.01	1	7.19	81	81	50	0	0	1	0
	REDDING	76	46	82	42	61	5	0.00	-0.99	0.00	1.02	25	18.20	78	87	37	0	0	0	0
	SACRAMENTO	76	47	79	44	61	4	0.02	-0.51	0.01	0.15	8	10.06	79	100	46	0	0	2	0
	SAN DIEGO	70	57	84	53	63	-1	0.00	-0.25	0.00	0.02	2	5.10	72	79	53	0	0	0	0
	SAN FRANCISCO	68	51	78	48	60	2	0.01	-0.54	0.01	0.76	40	17.45	123	92	55	0	0	1	0
CO	ALAMOSA	60	12	64	9	36	0	0.00	-0.11	0.00	1.33	79	7.64	113	83	15	0	7	0	0
	CO SPRINGS	63	30	72	15	47	4	0.00	-0.13	0.00	1.62	71	25.17	163	53	17	0	3	0	0
	DENVER	68	29	77	15	49	5	0.00	-0.22	0.00	1.49	62	19.97	142	51	11	0	6	0	0
	GRAND JUNCTION	65	30	69	28	48	2	0.00	-0.19	0.00	1.18	60	7.81	104	50	16	0	6	0	0
	PUEBLO	68	23	82	16	46	0	0.00	-0.11	0.00	0.93	60	13.84	133	73	14	0	7	0	0
CT	BRIDGEPORT	62	45	67	36	54	4	1.04	0.20	1.04	11.16	162	36.55	104	86	53	0	0	1	1
	HARTFORD	65	40	74	29	53	6	1.42	0.52	1.42	16.18	199	39.58	107	86	38	0	1	1	1
DC	WASHINGTON	67	44	74	34	55	1	0.26	-0.45	0.26	12.70	182	36.29	110	84	47	0	0	1	0
DE	WILMINGTON	64	44	71	32	54	4	0.69	-0.02	0.68	16.80	242	42.98	124	88	48	0	1	2	1
FL	DAYTONA BEACH	76	59	82	47	67	-2	1.59	0.85	1.02	16.48	148	43.25	100	85	51	0	0	2	2
	JACKSONVILLE	73	50	81	34	62	-3	0.34	-0.14	0.23	16.57	159	40.37	86	95	49	0	0	3	0
	KEY WEST	80	71	84	65	75	-2	0.99	0.20	0.55	20.71	189	46.64	132	86	68	0	0	3	1
	MIAMI	81	70	85	59	75	0	0.86	0.01	0.67	22.40	160	60.83	117	87	60	0	0	3	1
	ORLANDO	78	59	85	47	68	-3	1.52	1.02	0.77	16.32	184	48.54	110	90	50	0	0	2	2
	PENSACOLA	71	49	77	38	60	-4	1.10	0.27	1.08	4.65	45	39.76	72	97	42	0	0	2	1
	TALLAHASSEE	73	46	87	32	60	-4	2.18	1.44	2.18	9.62	105	47.12	82	98	43	0	1	1	1
	TAMPA	78	59	87	47	69	-2	1.17	0.80	1.14	10.08	121	32.79	81	88	50	0	0	2	1
	WEST PALM BEACH	80	68	84	56	74	-1	0.00	-1.29	0.00	20.62	127	55.27	101	83	56	0	0	0	0
GA	ATHENS	68	42	77	30	55	-2	0.75	-0.06	0.43	7.82	107	37.00	87	94	43	0	2	2	0
	ATLANTA	66	43	76	32	55	-2	1.70	0.89	1.69	8.30	116	35.07	81	84	42	0	1	2	1
	AUGUSTA	70	40	79	29	55	-3	0.56	-0.01	0.48	8.81	139	35.68	91	92	39	0	4	3	0
	COLUMBUS	69	44	82	33	57	-4	1.05	0.40	1.05	4.70	78	24.00	56	92	34	0	0	1	1
	MACON	69	42	81	30	56	-4	0.74	0.22	0.44	6.98	129	33.07	87	96	43	0	2	4	0
	SAVANNAH	72	46	79	32	59	-3	0.18	-0.28	0.09	8.64	119	47.95	108	94	43	0	1	3	0
HI	HILO	79	68	80	65	73	-2	2.52	-0.57	1.16	11.43	55	96.63	92	95	72	0	0	7	2
	HONOLULU	84	72	86	69	78	0	0.06	-0.57	0.04	2.28	63	9.37	59	86	59	0	0	3	0
	KAHULUI	84	69	86	65	77	0	0.00	-0.48	0.00	0.26	13	6.86	44	85	52	0	0	0	0
	LIHUE	80	71	81	66	76	-1	1.17	-0.06	1.04	8.02	102	27.68	83	88	70	0	0	5	1
ID	BOISE	61	36	78	27	48	3	0.01	-0.28	0.01	0.12	7	6.71	71	71	29	0	2	1	0
	LEWISTON	52	35	58	30	43	-2	0.12	-0.12	0.11	1.35	70	8.08	78	74	41	0	2	2	0
	POCATELLO	64	27	75	22	45	4	0.00	-0.24	0.00	0.41	21	9.91	99	78	20	0	6	0	0
IL	CHICAGO/O'HARE	60	38	73	28	49	3	0.02	-0.61	0.01	4.35	64	35.25	114	74	32	0	2	2	0
	MOLINE	62	34	72	25	48	2	0.00	-0.60	0.00	5.27	71	31.05	89	78	29	0	4	0	0
	PEORIA	63	39	73	26	51	4	0.00	-0.60	0.00	2.89	41	27.69	87	72	33	0	3	0	0
	ROCKFORD	60	32	70	24	46	2	0.00	-0.63	0.00	6.25	86	35.27	109	87	31	0	4	0	0
	SPRINGFIELD	67	40	77	23	53	5	0.01	-0.56	0.01	4.22	66	26.60	87	74	34	0	2	1	0
IN	EVANSVILLE	68	41	78	27	55	4	0.02	-0.78	0.02	3.21	49	33.98	93	78	32	0	2	1	0
	FORT WAYNE	62	38	76	26	50	3	0.06	-0.55	0.05	3.41	60	25.15	85	91	49	0	2	2	0
	INDIANAPOLIS	66	42	79	28	54	6	0.07	-0.62	0.05	2.64	43	29.18	86	90	45	0	2	2	0
	SOUTH BEND	60	38	76	29	49	3	0.66	-0.08	0.44	3.28	45	27.14	82	85	41	0	3	3	0
IA	BURLINGTON	67	40	78	26	53	7	0.00	-0.58	0.00	6.13	81	33.59	104	65	26	0	2	0	0
	CEDAR RAPIDS	59	29	67	18	44	0	0.00	-0.49	0.00	2.62	40	29.28	96	81	27	0	5	0	0
	DES MOINES	61	35	70	24	48	2	0.00	-0.48	0.00	2.48	38	26.82	88	72	26	0	3	0	0
	DUBUQUE	57	31	66	20	44	2	0.00	-0.62	0.00	3.03	38	33.15	97	76	29	0	4	0	0
	SIOUX CITY	61	28	71	20	44	1	0.00	-0.31	0.00	0.74	15	28.17	116	64	23	0	6	0	0
	WATERLOO	59	26	69	15	43	0	0.00	-0.48	0.00	1.82	28	40.28	130	80	24	0	6	0	0
KS	CONCORDIA	65	35	75	26	50	2	0.00	-0.32	0.00	1.16	22	23.89	88	64	22	0	1	0	0
	DODGE CITY	67	31	78	24	49	0	0.00	-0.22	0.00	2.73	81	20.87	103	66	16	0	4	0	0
	GOODLAND	65	29	79	15	47	3	0.00	-0.18	0.00	0.88	33	20.09	117	54	14	0	5	0	0
	TOPEKA	68	41	75	29	54	6	0.01	-0.53	0.01	5.31	72	31.33	97	83	33	0	2	1	0

Based on 1961-90 normals

Weather Data for the Week Ending November 6, 1999

STATES AND STATIONS		TEMPERATURE EF						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. EF		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	67	41	73	30	54	4	0.00	-0.41	0.00	10.85	179	40.16	149	79	30	0	3	0	0
KY	JACKSON	66	43	79	29	55	3	1.16	0.28	0.80	5.37	70	35.97	86	79	40	0	2	2	1
	LEXINGTON	66	42	78	27	54	3	1.14	0.45	0.97	4.16	65	28.77	76	90	50	0	2	2	1
	LOUISVILLE	69	45	78	31	57	5	0.61	-0.16	0.45	4.03	62	34.49	91	76	39	0	1	2	0
	PADUCAH	68	44	80	30	56	4	0.33	-0.54	0.33	4.92	66	36.50	89	80	38	0	1	1	0
LA	BATON ROUGE	70	43	76	35	57	-7	0.03	-0.84	0.03	9.88	109	41.13	79	98	42	0	0	1	0
	LAKE CHARLES	73	45	79	32	59	-5	0.48	-0.43	0.47	3.26	31	31.97	69	97	36	0	1	2	0
	NEW ORLEANS	71	50	78	40	61	-4	0.56	-0.27	0.56	8.33	90	42.34	81	91	44	0	0	1	1
	SHREVEPORT	71	47	79	33	59	-2	0.36	-0.64	0.35	8.12	105	50.68	132	93	41	0	0	2	0
ME	CARIBOU	52	34	62	29	43	6	0.95	0.15	0.70	12.79	177	33.72	111	89	56	0	2	3	1
	PORTLAND	59	39	66	32	49	6	0.75	-0.38	0.68	13.00	163	37.02	104	83	43	0	1	2	1
MD	BALTIMORE	65	41	73	31	53	2	0.57	-0.17	0.57	14.55	207	39.63	114	87	46	0	2	1	1
MA	BOSTON	63	46	73	39	54	5	0.84	-0.07	0.68	15.00	209	35.20	103	76	40	0	0	2	1
	WORCESTER	60	41	69	34	51	7	1.22	0.18	1.01	13.62	148	36.43	91	82	39	0	0	2	1
MI	ALPENA	56	33	72	30	44	3	0.24	-0.25	0.21	4.19	74	18.47	74	80	42	0	4	3	0
	GRAND RAPIDS	56	34	74	25	45	2	0.31	-0.41	0.31	4.54	59	30.28	99	86	45	0	3	1	0
	HOUGHTON LAKE	52	31	68	23	42	1	0.17	-0.34	0.17	5.12	85	25.96	106	89	46	0	5	1	0
	LANSING	57	34	74	26	45	2	0.50	-0.06	0.45	3.75	61	26.35	101	88	52	0	3	3	0
	MARQUETTE	--	--	--	--	--	--	0.11	-0.59	0.08	6.67	83	33.92	112	--	--	-	-	-	-
	MUSKEGON	53	34	65	24	44	-1	0.08	-0.61	0.06	3.47	48	26.41	98	91	51	0	3	2	0
MN	DULUTH	49	29	66	19	39	4	0.00	-0.47	0.00	8.17	121	35.57	130	75	35	0	5	0	0
	INT'L FALLS	50	24	71	18	37	4	0.00	-0.32	0.00	6.56	121	29.19	129	85	35	0	7	0	0
	MINNEAPOLIS	54	33	68	27	44	4	0.00	-0.42	0.00	3.65	69	29.53	113	72	28	0	4	0	0
	ROCHESTER	53	28	64	20	40	1	0.01	-0.42	0.01	1.66	27	33.79	123	82	35	0	5	1	0
	ST. CLOUD	54	24	68	17	39	2	0.00	-0.37	0.00	3.97	70	25.72	100	83	28	0	6	0	0
MS	JACKSON	68	42	75	30	55	-4	3.69	2.74	3.54	8.37	110	38.86	86	98	45	0	1	3	1
	MERIDIAN	70	39	76	29	54	-4	0.02	-0.83	0.02	6.68	91	33.60	72	96	33	0	2	1	0
	TUPELO	71	45	81	33	58	1	0.86	-0.09	0.82	2.58	33	45.17	99	89	39	0	0	2	1
MO	COLUMBIA	69	41	79	24	55	5	0.22	-0.49	0.22	2.96	38	24.12	70	81	45	0	1	1	0
	KANSAS CITY	67	42	74	30	55	5	0.00	-0.54	0.00	5.99	70	36.48	105	77	33	0	1	0	0
	SAINT LOUIS	70	45	80	31	57	6	0.02	-0.69	0.02	3.15	49	31.76	100	79	41	0	1	1	0
	SPRINGFIELD	69	43	80	26	56	5	0.01	-0.84	0.01	3.01	34	32.73	89	84	38	0	1	1	0
MT	BILLINGS	61	33	76	23	47	6	0.04	-0.18	0.03	2.85	106	12.14	89	58	20	0	2	2	0
	BUTTE	57	24	68	11	41	7	0.00	-0.13	0.00	0.58	28	11.24	100	78	22	0	6	0	0
	GLASGOW	56	25	79	18	41	5	0.00	-0.08	0.00	1.47	87	13.91	134	75	27	0	6	0	0
	GREAT FALLS	59	29	68	16	44	4	0.00	-0.14	0.00	2.50	116	12.62	91	63	23	0	4	0	0
	KALISPELL	46	24	54	17	35	-1	0.51	0.27	0.19	2.26	96	11.88	87	95	54	0	5	5	0
	MILES CITY	62	29	82	17	45	6	0.00	-0.14	0.00	1.22	53	12.24	94	63	20	0	4	0	0
	MISSOULA	48	25	55	21	36	-1	0.27	0.10	0.11	2.11	105	10.69	92	93	47	0	7	6	0
NE	GRAND ISLAND	64	27	74	21	46	2	0.00	-0.26	0.00	0.61	14	25.20	108	61	17	0	6	0	0
	LINCOLN	64	29	72	19	47	1	0.00	-0.35	0.00	1.25	21	25.91	98	71	22	0	6	0	0
	NORFOLK	63	27	73	20	45	3	0.00	-0.28	0.00	1.83	43	24.55	104	61	18	0	6	0	0
	NORTH PLATTE	65	20	79	10	43	1	0.00	-0.17	0.00	1.42	52	19.19	105	80	15	0	7	0	0
	OMAHA	63	32	69	28	48	2	0.00	-0.40	0.00	1.67	26	30.72	111	76	31	0	4	0	0
	SCOTTSBLUFF	68	21	79	5	45	3	0.00	-0.17	0.00	2.45	120	16.43	115	64	13	0	7	0	0
	VALENTINE	66	22	79	9	44	4	0.00	-0.17	0.00	3.44	133	19.25	111	68	17	0	7	0	0
NV	ELY	68	24	71	17	46	7	0.00	0.17	0.00	0.55	27	6.52	73	49	12	0	7	0	0
	LAS VEGAS	78	50	80	48	64	4	0.00	-0.08	0.00	0.35	63	3.78	113	32	18	0	0	0	0
	RENO	72	33	75	31	52	8	0.00	-0.16	0.00	0.49	56	4.23	73	80	19	0	4	0	0
	WINNEMUCCA	70	22	73	18	46	4	0.00	-0.19	0.00	0.36	31	5.11	77	71	21	0	7	0	0
NH	CONCORD	62	35	70	25	49	7	0.89	0.05	0.48	12.51	185	37.03	122	88	37	0	3	2	0
NJ	NEWARK	65	45	74	36	55	4	0.99	0.14	0.99	13.27	178	40.03	107	83	43	0	0	1	1
NM	ALBUQUERQUE	67	37	73	35	52	3	0.00	-0.13	0.00	0.80	40	8.08	101	51	20	0	0	0	0
NY	ALBANY	61	40	69	30	51	6	0.43	-0.30	0.43	13.91	216	35.67	116	81	42	0	2	1	0
	BINGHAMTON	56	38	65	31	47	4	0.88	0.15	0.83	8.98	131	29.40	94	86	50	0	2	4	1
	BUFFALO	56	38	66	34	47	2	1.67	0.84	1.65	8.55	117	30.63	96	85	49	0	0	2	1
	ROCHESTER	59	39	70	36	49	4	0.65	0.01	0.65	6.18	103	28.96	108	85	46	0	0	1	1
	SYRACUSE	60	40	67	34	50	5	0.35	-0.48	0.31	8.48	109	27.02	82	87	43	0	0	2	0
NC	ASHEVILLE	64	35	73	26	49	-1	1.20	0.38	0.68	6.71	82	35.95	87	95	45	0	3	2	2
	CHARLOTTE	68	39	76	25	53	-3	1.05	0.31	0.59	10.78	144	32.86	89	94	39	0	3	2	1
	GREENSBORO	68	39	77	27	53	0	0.28	-0.44	0.21	11.21	147	39.03	106	88	37	0	3	2	0
	HATTERAS	67	54	77	41	61	0	0.70	-0.48	0.67	11.53	102	47.73	100	86	53	0	0	3	1
	RALEIGH	70	40	79	27	55	0	0.47	-0.20	0.43	24.72	374	47.70	133	93	36	0	3	2	0
	WILMINGTON	72	46	81	35	59	-1	1.64	1.00	1.54	28.86	348	68.39	142	91	37	0	0	2	1
ND	BISMARCK	60	26	77	20	43	7	0.00	-0.14	0.00	1.74	69	26.24	180	77	23	0	6	0	0
	DICKINSON	58	28	74	20	43	6	0.00	-0.14	0.00	2.90	105	16.46	107	72	24	0	6	0	0
	FARGO	56	26	74	19	41	5	0.00	-0.24	0.00	7.54	195	22.74	125	68	29	0	6	0	0
	GRAND FORKS	56	21	77	14	39	4	0.00	-0.19	0.00	2.67	72	20.18	117	78	28	0	7	0	0
	JAMESTOWN	58	27	77	18	43	7	0.00	-0.14	0.00	2.99	105	22.26	139	77	25	0	6	0	0
	WILLISTON	55	22	75	11	39	4	0.00	-0.11	0.00	1.75	79	15.10	119	75	24	0	6	0	0
OH	AKRON-CANTON	60	38	72	26	49	2	2.58	1.95	2.42	8.54	137	33.06	105	91	57	0	2	3	1
	CINCINNATI	66	40	77	28	53	4	0.88	0.11	0.86	4.22	66	28.38	80	91	45	0	2	2	1
	CLEVELAND	60	40	73	30	50	3	2.78	2.11	2.43	7.76	118	28.48	92	84	50	0	2	4	1
	COLUMBUS	64	39	76	27	51	4	1.45	0.78	1.43	4.36	76	24.51	75	89	44	0	2	2	1
	DAYTON	65	40	77	30	53	5	1.12	0.45	1.09	3.23	58	26.78	86	83	40	0	2	3	1
	MANSFIELD	59	38	73	24	48	2	1.65	0.93	1.59	5.71	90	30.93	92	87	52	0	3	2	1

Based on 1961-90 normals

Weather Data for the Week Ending November 6, 1999

STATES AND STATIONS		TEMPERATURE EF						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																	TEMP. EF		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	61	37	75	27	49	4	0.49	-0.08	0.46	3.89	71	25.44	92	86	44	0	2	3	0
	YOUNGSTOWN	58	37	73	28	48	2	1.54	0.87	1.30	8.38	125	37.29	117	84	45	0	3	2	1
OK	OKLAHOMA CITY	69	44	79	32	57	2	0.09	-0.48	0.09	7.10	94	35.52	117	88	45	0	1	1	0
	TULSA	70	48	80	33	59	4	0.24	-0.55	0.18	11.50	127	41.89	117	79	38	0	0	2	0
OR	ASTORIA	61	42	69	37	51	2	1.93	-0.08	0.70	5.32	51	60.59	127	91	54	0	0	6	3
	BURNS	57	27	70	16	42	4	0.14	-0.12	0.12	0.51	33	6.46	83	88	34	0	4	2	0
	EUGENE	59	37	68	29	48	-1	1.29	-0.27	1.14	3.78	59	32.07	95	98	57	0	1	5	1
	MEDFORD	64	40	77	30	52	4	0.09	-0.52	0.07	1.74	60	13.72	107	97	44	0	2	2	0
	PENDLETON	50	32	55	29	41	-5	0.44	0.13	0.20	1.88	109	7.49	82	91	55	0	5	5	0
	PORTLAND	56	40	60	36	48	-1	1.31	0.30	0.85	3.72	70	29.67	115	92	45	0	0	5	1
	SALEM	58	38	64	34	48	0	1.30	0.11	0.94	3.68	66	35.26	130	96	49	0	0	4	1
PA	ALLENTOWN	63	39	71	27	51	4	1.07	0.24	1.07	15.16	199	34.29	93	86	40	0	2	1	1
	ERIE	59	40	73	33	50	2	2.81	1.90	2.47	10.84	121	33.31	96	90	54	0	0	3	1
	MIDDLETOWN	66	40	78	29	53	5	0.38	-0.39	0.38	12.14	171	35.18	102	85	40	0	1	1	0
	PHILADELPHIA	65	46	72	39	56	5	0.91	0.21	0.91	17.53	264	46.33	131	96	56	0	0	1	1
	PITTSBURGH	62	39	75	29	51	4	1.82	1.21	1.73	5.35	91	32.50	103	81	42	0	2	2	1
	WILKES-BARRE	61	40	70	33	50	5	0.85	0.15	0.85	12.13	181	32.79	105	81	39	0	0	1	1
	WILLIAMSPORT	62	36	70	27	49	3	0.46	-0.40	0.46	15.02	202	39.94	115	87	43	0	2	1	0
RI	PROVIDENCE	63	42	70	36	53	4	2.17	1.20	1.61	13.67	171	39.46	105	81	43	0	0	2	2
SC	BEAUFORT	69	48	73	36	58	-4	0.44	-0.07	0.31	9.50	119	42.48	92	94	49	0	0	2	0
	CHARLESTON	71	46	80	34	59	-3	1.56	1.00	0.73	15.60	192	38.26	83	94	45	0	0	3	2
	COLUMBIA	70	42	78	30	56	-2	0.28	-0.38	0.20	5.94	82	28.31	64	94	41	0	2	2	0
	GREENVILLE	68	42	77	31	55	0	0.99	0.14	0.50	9.75	112	31.77	72	90	41	0	1	3	1
SD	ABERDEEN	60	26	74	17	43	5	0.00	-0.18	0.00	4.42	141	22.19	126	73	26	0	7	0	0
	HURON	63	28	76	22	46	6	0.00	-0.23	0.00	2.79	82	16.84	88	71	23	0	6	0	0
	RAPID CITY	66	27	81	12	46	6	0.00	-0.17	0.00	1.11	45	18.00	114	55	14	0	5	0	0
	SIOUX FALLS	61	25	72	17	43	3	0.00	-0.30	0.00	1.21	24	21.93	98	73	21	0	7	0	0
TN	BRISTOL	65	33	78	23	49	-2	0.57	-0.06	0.55	3.83	60	30.00	86	92	36	0	4	2	1
	CHATTANOOGA	69	40	81	29	55	0	2.68	1.75	1.64	7.09	87	44.15	99	96	38	0	2	2	2
	KNOXVILLE	66	37	79	28	52	-1	1.12	0.36	0.98	4.78	73	46.70	118	95	41	0	3	2	1
	MEMPHIS	70	48	78	32	59	2	0.99	0.01	0.91	3.63	49	39.42	94	83	39	0	1	2	1
	NASHVILLE	69	41	82	29	55	1	1.73	0.92	1.03	5.74	85	37.69	96	82	35	0	1	2	2
TX	ABILENE	69	48	79	36	59	-1	0.13	-0.30	0.12	3.27	54	16.47	74	81	35	0	0	2	0
	AMARILLO	70	36	83	26	53	2	0.00	-0.22	0.00	2.92	82	26.11	140	63	18	0	1	0	0
	AUSTIN	75	43	83	29	59	-6	0.01	-0.64	0.01	2.04	28	25.02	89	96	37	0	1	1	0
	BEAUMONT	72	46	78	33	59	-5	0.11	-0.95	0.11	7.04	61	31.24	64	97	40	0	0	1	0
	BROWNSVILLE	83	55	90	44	69	-3	0.00	-0.41	0.00	4.68	51	20.11	83	86	32	1	0	0	0
	CORPUS CHRISTI	81	53	85	46	67	-2	0.01	-0.45	0.01	5.70	64	28.63	103	89	35	0	0	1	0
	DEL RIO	79	50	87	41	65	0	0.00	-0.31	0.00	0.39	7	15.30	90	72	30	0	0	0	0
	EL PASO	74	41	81	36	57	0	0.00	-0.11	0.00	2.50	98	7.56	95	55	21	0	0	0	0
	FORT WORTH	72	49	81	33	61	0	0.02	-0.63	0.02	4.56	61	20.76	69	88	35	0	0	1	0
	GALVESTON	73	59	78	50	66	-2	0.00	-0.69	0.00	6.95	74	26.12	73	83	49	0	0	0	0
	HOUSTON	74	46	81	30	60	-5	0.00	-0.92	0.00	1.93	19	24.47	62	96	39	0	1	0	0
	LUBBOCK	72	38	80	32	55	0	0.00	-0.26	0.00	3.88	83	19.17	109	66	22	0	1	0	0
	MIDLAND	74	43	81	35	58	1	0.00	-0.23	0.00	1.23	27	7.63	55	61	20	0	0	0	0
	SAN ANGELO	73	45	80	35	59	-1	0.00	-0.35	0.00	1.70	28	13.45	71	81	28	0	0	0	0
	SAN ANTONIO	76	48	84	36	62	-3	0.00	-0.69	0.00	1.35	19	15.99	58	87	31	0	0	0	0
	VICTORIA	79	48	84	35	63	-3	0.00	-0.63	0.00	4.93	51	25.77	77	93	34	0	0	0	0
	WACO	71	49	82	32	60	-3	0.08	-0.57	0.06	2.44	33	17.43	62	88	44	0	1	2	0
	WICHITA FALLS	70	45	80	34	58	1	0.55	0.11	0.55	5.26	76	28.83	109	90	48	0	0	1	1
UT	SALT LAKE CITY	66	36	75	30	51	5	0.00	-0.30	0.00	0.47	16	10.92	79	71	20	0	2	0	0
VT	BURLINGTON	60	38	69	29	49	7	0.37	-0.36	0.20	13.80	203	30.07	102	79	38	0	2	3	0
VA	LYNCHBURG	68	36	77	24	52	0	0.83	0.06	0.83	14.25	188	35.85	102	92	40	0	3	1	1
	NORFOLK	69	46	76	34	57	1	0.68	0.02	0.67	21.95	288	52.86	135	91	48	0	0	2	1
	RICHMOND	69	41	78	28	55	1	0.68	-0.08	0.68	19.53	260	46.24	124	91	43	0	3	1	1
	ROANOKE	67	41	78	32	54	3	1.32	0.52	1.30	9.89	123	32.15	90	84	42	0	1	2	1
	WASH/DULLES	67	38	77	27	53	3	0.82	0.06	0.82	12.70	177	40.06	117	87	41	0	2	1	1
WA	OLYMPIA	54	31	65	27	43	-2	1.01	-0.59	0.39	4.59	58	46.33	129	95	51	0	6	6	0
	QUILLAYUTE	52	36	54	30	44	-3	3.48	0.34	2.04	19.80	109	93.60	120	96	71	0	4	5	2
	SEATTLE-TACOMA	54	39	61	34	47	-2	1.03	-0.13	0.48	3.18	52	28.49	108	96	56	0	0	4	0
	SPOKANE	49	30	52	23	39	0	0.47	0.07	0.35	1.34	65	10.97	89	84	45	0	5	3	0
	YAKIMA	53	28	58	23	40	-3	0.11	-0.07	0.08	0.51	51	5.55	97	81	37	0	6	2	0
WV	BECKLEY	59	37	72	24	48	1	0.54	-0.13	0.53	7.19	106	32.39	92	82	43	0	3	2	1
	CHARLESTON	65	37	80	25	51	1	1.13	0.35	1.07	6.37	94	31.22	86	93	43	0	3	3	1
	ELKINS	59	30	74	18	44	-1	0.11	-0.63	0.06	7.26	97	31.40	81	95	45	0	4	2	0
	HUNTINGTON	65	40	79	31	53	2	1.63	0.91	1.37	6.37	100	29.55	83	87	43	0	2	2	1
WI	EAU CLAIRE	55	27	69	19	41	2	0.00	-0.42	0.00	1.99	30	27.80	95	82	28	0	5	0	0
	GREEN BAY	56	26	70	17	41	1	0.01	-0.50	0.01	1.91	31	21.56	84	77	30	0	5	1	0
	LA CROSSE	57	32	69	23	45	2	0.00	-0.43	0.00	3.82	60	24.76	89	81	30	0	4	0	0
	MADISON	57	30	68	21	44	2	0.00	-0.49	0.00	2.43	41	29.97	110	78	29	0	5	0	0
	MILWAUKEE	59	37	74	26	48	4	0.01	-0.56	0.01	5.11	81	35.89	125	67	29	0	3	1	0
WY	CASPER	63	29	72	15	46	8	0.00	-0.19	0.00	1.53	74	8.48	76	49	14	0	4	0	0
	CHEYENNE	63	28	71	11	46	6	0.00	-0.14	0.00	2.38	112	15.81	117	59	20	0	4	0	0
	LANDER	60	28	70	16	44	7	0.00	-0.22	0.00	2.66	110	13.72	116	65	20	0	5	0	0
	SHERIDAN	65	22	80	5	44	5	0.00	-0.22	0.00	3.46	126	12.48	95	71	16	0	6	0	0

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

October Weather and Crop Summary

Weather

Dry weather reduced soil moisture on the Plains, causing spotty winter wheat emergence in a few areas and hampering establishment. Meanwhile in the interior Northwest, a late-month storm system provided much-needed moisture for dryland winter wheat and eased the 8-month drought. The same storm then dampened northern Montana and the southeastern Plains (from northeastern Texas northward into southeastern Kansas), boosting topsoil moisture and aiding wheat, before reaching the Delta at month's end. In the Ohio Valley, widespread early-month rainfall eased the 15-month drought and promoted winter wheat emergence, although drier weather returned after mid-October. Occasional showers improved soil moisture in the Southeast. At mid-month, Hurricane Irene crossed southeastern Florida, producing widespread flooding and strong winds that adversely affected vegetables. Although Irene remained offshore thereafter, heavy rain in the eastern Mid-Atlantic region disrupted flood-recovery efforts, 1 month after Floyd's strike. Despite frequent temperature fluctuations, monthly temperatures averaged within 3 °F of normal nationwide, except 3 to 5 °F below normal in northern New England and 3 to 5 °F above normal in parts of the Southwest. The generally mild, often dry weather promoted rapid summer crop harvesting nearly nationwide, especially in the Plains and Midwest.

The month ominously began across the northern Plains and upper Midwest, as snow, wind, and cold swirled across the region. During the first 5 days of the month, more than six dozen daily-record lows were established in the Plains and Northwest. In South Dakota, early-month snowfall totaled 2.7 inches in Sioux Falls, their earliest 1-inch accumulation, and 4.8 inches in Huron. With a low of 15°F on October 2, Huron experienced their coldest day on record so early in the autumn. LaCrosse, WI (0.3 inch on October 1) reported their earliest measurable snowfall, which had been on October 13, 1959. In North Dakota, Williston notched a daily-record low of 13 °F on October 3, their lowest temperature of the month. The cold, snowy conditions were short-lived, however, as dry and occasionally very warm weather prevailed thereafter. By October 12, highs on the Plains soared above 90°F as far north as Goodland, KS (91°F). Temperatures again plunged across the Western and Central States at mid-month, resulting in at least four dozen daily-record lows from October 16-18. On the 17th, lows dipped to 6 °F in Laramie, WY and 11 °F in Alliance, NE. A week later, another cold outbreak focused on the Central and Southeastern States, setting about 30 daily records on October 24-25. On the latter date, lows included 26°F in Evansville, IN and 32 °F in Tallahassee, FL. Finally, a late-month warm spell displaced the cool air in the Midwest and Southeast and produced about six dozen daily-record highs across the Nation. Williston's highest temperature of the month, 77 °F, was recorded on the 24th. On October 27, Sioux City, IA collected a daily-record high of 86 °F–their latest occurrence of a maximum temperature above 85 °F–just 3 days after a daily-record low of 18°F. The final day of October featured highs above 80 °F as far north as southeastern Montana, where Miles City noted 82 °F.

Monthly rainfall totaled only 0.02 inch (1 percent of normal) in Concordia, KS, their lowest October total on record. Coming off their wettest September on record, Wichita, KS received only 0.16 inch (7 percent of normal), all of which fell on October 29-30. Wichita's rain ended a 30-day spell without measurable precipitation, their longest such streak since a 37-day dry spell in September-October 1991. In Valentine, NE, all of the month's measurable precipitation (0.05 inch on October 29) also fell during the late-month storm. More significant precipitation fell toward month's end in parts of Montana and across the southeastern Plains. Monthly precipitation totaled 0.67 inch (86 percent of normal) in Great Falls, MT, of which 0.49 inch (3.3 inches of snow) fell in a 24-hour period on October 26-27. In Oklahoma, all of the month's measurable rain (1.75 inches) soaked Tulsa on October 30-31. Earlier in the month, snow briefly overspread the central and southern High Plains. On the 17th, Lubbock, TX recorded a low of 32°F, accompanied by 0.6 inch of snow. Although Lubbock had received a trace of snow as early as October 12, 1986, their previous earliest measurable snowfall had occurred on October 28, 1976. Farther north, October 16-17 snowfall in southeastern Colorado reached 7.0 inches in Walsenburg and 2.0 inches in Pueblo.

Record-Low October Precipitation (Inches)

Location	Total	Normal	Previous Record/Year
Concordia, KS	0.02	1.99	0.04 in 1988
Bryce Canyon, UT	0.00	1.20	0.00 in 1995*
Escalante, UT	0.00	0.98	0.00 in 1995*
Zion Nat' l Pk., UT	0.00	0.92	0.00 in 1995*
Green River, UT	0.00	0.89	0.00 in 1964*
Capitol Reef, UT	0.00	0.70	0.00 in 1995*
Hanksville, UT	0.00	0.68	0.00 in 1995*
Phoenix, AZ	0.00	0.65	0.00 in 1995*
San Diego, CA	0.00	0.37	0.00 in 1995*

* No precipitation also fell during October in earlier years.

Driest October (Inches) in Selected Locations Since...

Location	Total	Normal	Driest October Since...
Blanding, UT	trace	1.36	0.00 in 1995
Delta, UT trace	0.84	0.00 in 1995	
Salt Lake City, UT	0.02	1.44	0.01 in 1988
Farmington, UT	trace	1.88	0.00 in 1978
Omaha, NE	0.04	2.28	0.01 in 1975
Monticello, UT	trace	1.62	0.00 in 1964
Rapid City, SD	0.09	1.10	trace in 1960
Ely, NV	trace	0.89	trace in 1959
Dugway, UT	trace	0.78	0.00 in 1959
Flagstaff, AZ	trace	1.61	0.00 in 1917

Dryness was also prevalent across the Southwest, but warmth was more consistent than elsewhere. More than 50 daily-record highs were set or tied in southern California, primarily from October 8-10, 20-22, and 30-31. Vista, CA posted consecutive daily records (96 and 100 °F) on October 8-9. On the 11th in southern Arizona, Organ Pipe Cactus National Monument recorded 104°F, while Phoenix logged 101 °F. Phoenix's monthly temperature averaged 79.3°F, 4.8°F above normal. In the Los Angeles Basin, high temperatures averaged 82.0 °F at UCLA, breaking an October record set in 1958. After observing only 16 days of 80 °F warmth from June-September, UCLA broke their October record (16 days in 1939) with 18 such days this month. Bakersfield, CA, 1.3 °F above normal during October, experienced a second consecutive month of above-normal temperatures for the first time since December 1996 and January 1997.

Numerous locations in the Southwest–including southern California, Arizona, Nevada, Utah, southwestern Colorado, and western New Mexico–received no precipitation during October. This type of dryness pattern was most recently observed during October in 1995, at the onset of a La Niña-induced drought that persisted through the spring of 1996. Due to the dry, occasionally windy conditions, wildfires flared across California. However, California's year-to-date burned acreage, a little over 725,000 acres, accounted for only about 14 percent of the Nation's January-October total (more than 5.1 million acres). More significant wildfires earlier this year burned nearly 2 million acres in the Great Basin and more than 1 million acres in Alaska.

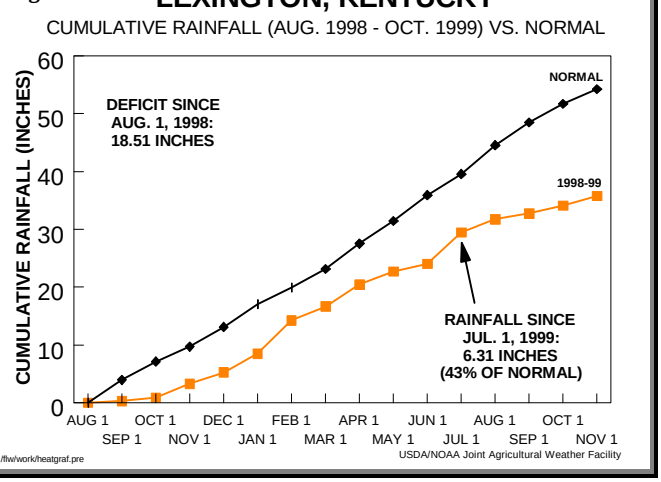
Occasional showers provided limited relief from the 15-month drought in the Ohio Valley, and boosted topsoil moisture across parts of the South. However, most of the rain fell on October 8-9, allowing topsoil moisture to diminish again toward month's end. In Kentucky, Lexington's monthly rainfall totaled 1.64 inches (64 percent of normal), 1.56 inches of which fell on October 9. Similarly, monthly totals reached 1.82 inches (69 percent of normal) in Indianapolis, IN and 2.80 inches (98 percent) in Paducah, KY, with October 8-9 rainfall accounting for 1.15 and 2.63 inches, respectively. Lexington's 15-month precipitation deficit (since August 1, 1998) grew to 18.51 inches, and their July-October total, 6.31 inches, was their lowest during that 4-month period since only 5.57 inches fell in 1930 (fig. 1).

Farther south, Tupelo, MS–coming off a record-dry September (0.05 inch)–had 0.97 inch on October 8, but only 1.67 inches (49 percent of normal) for the month. Locally heavy rain returned to portions of the South on October 31, when Little Rock, AR (2.00 inches) and Jackson, MS (3.55 inches) tallied daily-record totals. Little Rock' s October rainfall, 4.04 inches (112 percent of normal), exceeded their July-September sum of 2.45 inches (23 percent). Despite Jackson' s above-normal October total (5.74 inches, 176 percent of normal), their year-to-date total of 38.60 inches was 6.05 inches below normal. Farther west, significant rainfall shortages continued to affect southeastern Texas, where Houston' s year-to-date deficit grew to 14.48 inches. Houston' s October rainfall was 0.56 inch (13 percent of normal), leaving their January-October total at 24.35 inches (63 percent).

A powerful low-pressure system–the first strong eastern Pacific storm of the season–arrived in the Northwest on October 27-28, providing drought relief and moisture for winter wheat emergence and development. Showers preceded the primary storm system on October 26-27, primarily from northeastern Oregon to western Montana. In Idaho, Pocatello' s 53-day spell without measurable precipitation (September 5 - October 27)–their fourth-longest such streak on record–ended with a 0.39-inch rainfall on the 28 th. The storm helped to boost October rainfall to above normal in locations such as Pendleton, OR (1.51 inches, or 166 percent of normal) and Lewiston, ID (1.23 inches, or 137 percent). Storm-total rainfall exceeded 3 inches as far south as Blue Canyon, CA, in the Sierra Nevada foothills. Sacramento, CA netted 0.13 inch, ending their 144-day dry spell (June 5 - October 26). Significant moisture largely bypassed some key agricultural areas, however, including the Snake River Plain. October 28 rainfall totaled 0.11 inch in Boise, ID, accounting for their entire monthly sum. Earlier in the month in eastern Washington, Spokane' s 37-day streak (September 1 - October 7) without measurable precipitation–their longest since 1994–ended as light rain (0.06 inch) overspread the region. Much more significant rain (0.82 inch) dampened Spokane during the final week of October.

After traversing western Cuba, Hurricane Irene produced hurricane-force wind gusts while crossing southeastern Florida on the afternoon of October 15. The minimal hurricane (75 to 85 mph sustained winds) then emerged the following morning over the Atlantic Ocean near Fort Pierce, FL, before moving northward toward the Carolinas. Irene closed to within about 60 miles of Edisto Island, SC by midday on October 17, then veered toward the northeast, remaining approximately 60 miles offshore while roughly tracking parallel to the coastal Carolinas. Storm-total rainfall exceeded 10 inches in parts of southeastern Florida, including 17.45 inches in Boynton Beach, 14.57 inches (and a wind gust to 85 mph) in Homestead, 13.38 inches (and a wind gust to 58 mph) in Ft. Lauderdale, and 10.99 inches (and a wind gust to 70 mph) in Miami. Irene' s influence propelled monthly rainfall to 20.14 inches (315 percent of normal) in Ft. Lauderdale, 18.15 inches (219 percent) in Hollywood, 15.56 inches (236 percent) in West Palm

Figure 1



Beach, and 14.56 inches (258 percent) in Miami. Ft. Lauderdale' s total missed their October record, 21.55 inches in 1947, by less than 2 inches. Although Irene' s wind and rain struck key vegetable-producing areas of southeastern Florida, the majority of the State' s citrus crop was largely unaffected by the hurricane. No hurricane-force wind gusts were reported north of St. Augustine Beach, FL (77 mph on the evening of October 16).

Farther north, Irene produced generally 4 to 7 inches of rain across recently flooded areas of eastern North Carolina and southeastern Virginia. Heaviest rainfall (up to 12 inches) was observed in the vicinity of Norfolk, VA. On October 18, the interaction of Hurricane Irene and a cold front brought heavy rain and high winds to eastern Massachusetts, where Nantucket netted 5.37 inches of rain and clocked a peak wind gust of 60 mph. A few days later, on October 21, former Hurricane Jose passed within about 50 miles of northeastern Puerto Rico. Most of the tropical storm' s wind and rain remained offshore, although totals locally topped 4 inches. Peak wind gusts included 30 mph in San Juan and 37 mph in Ceiba (Roosevelt Roads). The U.S. Virgin Islands took a more direct hit, as winds gusted to 52 mph on St. Thomas (King Airport) and 68 mph on St. John.

Even away from Irene' s influence, widespread rain fell across the Southeast. Except in the areas flooded by Hurricane Floyd, the rain was generally welcomed, as only unharvested cotton may have been adversely affected. In Greenville-Spartanburg, SC, totals of 1.92 inches on the 4 th and 3.01 inches on the 10 th lifted their monthly total to 5.86 inches (149 percent of normal) and cut their 16-month (July 1998 - October 1999) precipitation deficit to 17.91 inches.

Winter arrived early across Alaska, as stormy weather overspread southern areas and bitterly cold air moved into the interior. In Juneau, measurable rain fell on every day during October for the first time on record, totaling 12.19 inches (155 percent of normal). From August 13 to October 31, an 80-day period, Juneau netted at least a trace of rain on all but 2 days. Farther west, Cold Bay (2.8°F below normal during October) reported their tenth consecutive month with below-normal temperatures and an October-record low of 6°F on the 31st. Fairbanks registered their lowest temperature of the month (-13°F) on October 31, concluding a month during which temperatures averaged 5.1°F below normal and above-normal temperatures prevailed on only 7 days. Meanwhile in Hawaii, locally heavy showers across the western islands eased long-term dryness. On Oahu, Honolulu' s October rainfall (2.01 inches, or 88 percent of normal) was only slightly below normal. Since October 1997, Honolulu' s monthly rainfall has been below normal every month except May 1999, when 2.14 inches fell. In leeward (west-facing) portions of the eastern islands, however, only light showers provided little relief from the 2-year drought.

Fieldwork

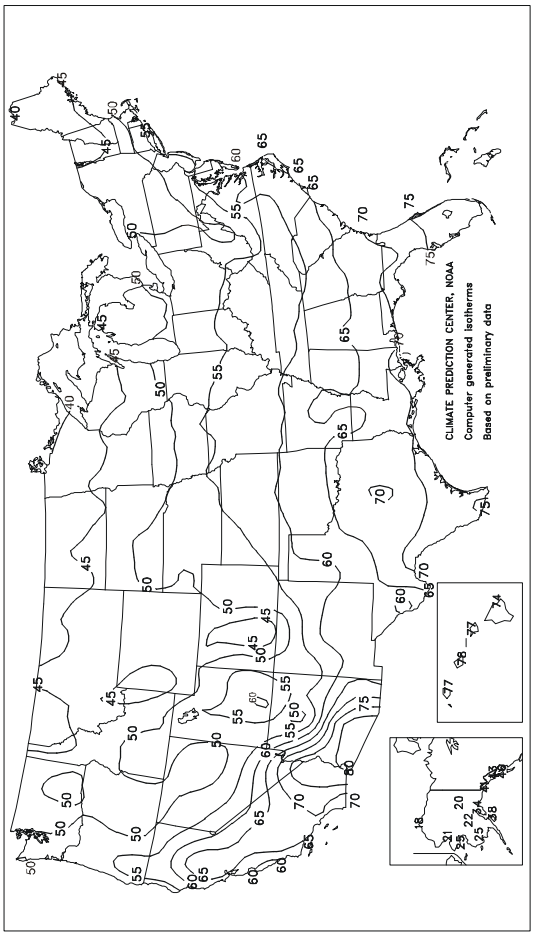
Crops quickly ripened, as above-normal temperatures prevailed across most of the country near mid-month and again late in the month. Below-normal precipitation promoted rapid harvest in the Corn Belt, Great Plains, lower Mississippi Valley, and Southwest. In the Atlantic Coastal Plains, periods of heavy precipitation hampered harvest efforts. Moisture shortages delayed winter wheat planting in the Pacific Northwest and hindered emergence and growth in parts of the Corn Belt and Great Plains.

Ninety-four percent of the corn crop was mature by October 3, more than a week ahead of the 5-year average. Fields quickly ripened in the Great Plains and northern Corn Belt early in the month, especially in Colorado where development lagged behind normal. In most other areas of the Corn Belt, nearly all of the corn acreage was mature on October 3. By the end of the month, 89 percent of the corn was harvested, more than 1 week ahead of normal due to nearly ideal harvest weather. Harvest proceeded far ahead of normal in the eastern Corn Belt and advanced well ahead of normal in the western Corn Belt. Slow crop development hindered harvest progress in Colorado and Pennsylvania until late in the month, when harvest pace accelerated.

(Continued on back cover)

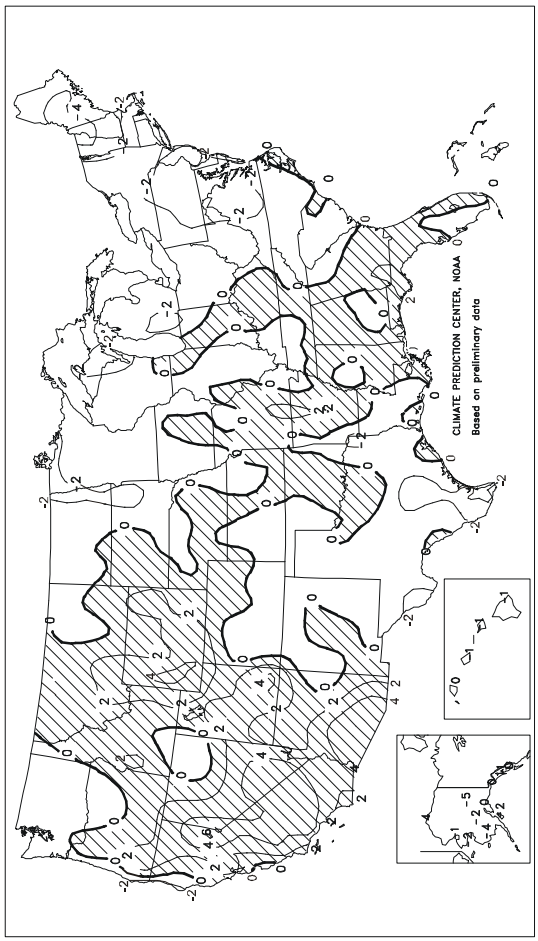
Average Temperature (°F)

OCT 1999



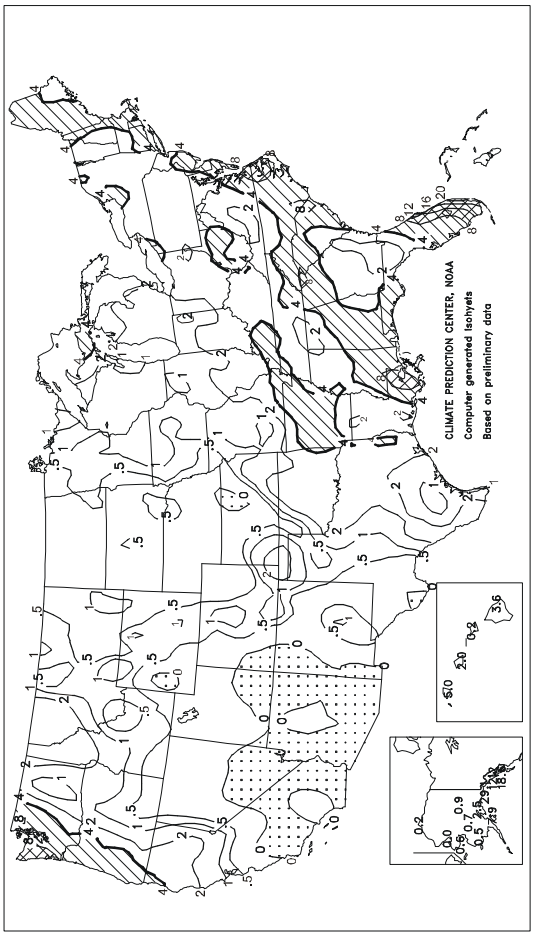
Departure of Average Temperature from Normal (°F)

OCT 1999



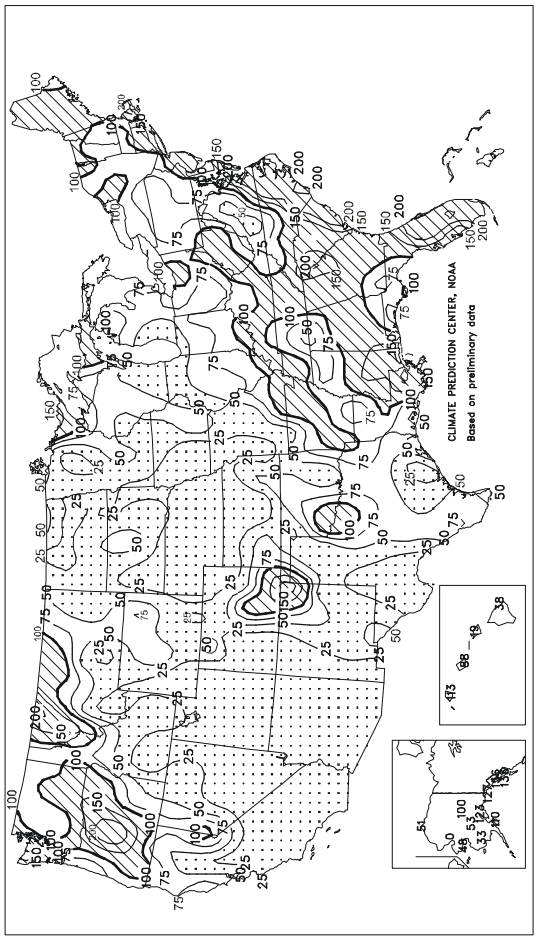
Total Precipitation (Inches)

OCT 1999



Percent Of Normal Precipitation

OCT 1999



TEMPERATURE AND PRECIPITATION SUMMARY
October 1999

STATES AND STATIONS		TEMP, °F		PRECIP.		STATES AND STATIONS		TEMP, °F		PRECIP.		STATES AND STATIONS		TEMP, °F		PRECIP.	
		AVERAGE	DEPARTURE	TOTAL	DEPARTURE			AVERAGE	DEPARTURE	TOTAL	DEPARTURE			AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL	BIRMINGHAM	64	2	4.14	1.33	ME	CARIBOU	40	-3	3.48	0.39		WILKES-BARRE	49	-2	2.37	-0.44
	HUNTSVILLE	62	1	1.24	-2.01		PORTLAND	46	-2	3.89	-0.01		WILLIAMSPORT	50	-2	1.96	-1.33
	MOBILE	69	0	4.75	1.81	MD	BALTIMORE	54	-3	2.48	-0.49	RI	PROVIDENCE	52	-1	4.50	0.81
	MONTGOMERY	65	0	3.27	0.81	MA	BOSTON	53	-2	4.30	1.00	SC	BEAUFORT	67	-1	4.98	2.39
AK	ANCHORAGE	34	0	2.50	0.47		WORCESTER	49	-1	3.57	-0.74		CHARLESTON	66	0	6.20	3.30
	BARROW	18	4	0.23	-0.21	MI	ALPENA	46	-1	1.49	-0.60		COLUMBIA	63	-1	2.08	-0.96
	FAIRBANKS	20	-5	0.90	0.05		GRAND RAPIDS	49	0	1.01	-1.80		GREENVILLE	61	0	5.86	1.88
	JUNEAU	43	1	12.19	4.35		HOUGHTON LAKE	45	-2	1.76	-0.41	SD	ABERDEEN	45	-2	0.15	-0.97
	KODIAK	38	-2	7.90	0.72		LANSING	48	-1	1.22	-0.88		HURON	48	-1	0.70	-0.77
	NOME	25	-3	0.65	-0.70		MARQUETTE	42	-2	3.47	-0.14		RAPID CITY	50	1	0.09	-1.01
AZ	FLAGSTAFF	48	1	0.00	-1.61		MUSKEGON	49	-1	0.82	-1.98		SIOUX FALLS	48	0	0.37	-1.41
	PHOENIX	79	5	0.00	-0.65	MN	DULUTH	42	-1	2.37	-0.11	TN	BRISTOL	55	-1	2.17	-0.44
	TUCSON	75	4	0.00	-1.06		INT'L FALLS	40	-2	0.67	-1.30		CHATTANOOGA	62	2	3.79	0.57
	YUMA	81	5	0.00	-0.24		MINNEAPOLIS	50	1	0.92	-1.27		KNOXVILLE	58	0	2.84	0.00
AR	FORT SMITH	63	1	3.42	-0.26		ROCHESTER	47	-1	0.92	-1.40		MEMPHIS	64	1	1.53	-1.49
	LITTLE ROCK	65	1	4.04	0.30		ST. CLOUD	46	0	1.36	-0.84		NASHVILLE	60	-1	2.04	-0.57
CA	BAKERSFIELD	69	2	0.00	-0.30	MS	JACKSON	65	0	5.74	2.49	TX	ABILENE	66	0	1.66	-0.85
	EUREKA	52	-3	1.60	-1.15		MERIDIAN	64	0	4.30	1.24		AMARILLO	58	-1	0.38	-0.99
	FRESNO	69	4	0.00	-0.53		TUPELO	64	1	1.67	-1.76		AUSTIN	68	-3	1.57	-1.87
	LOS ANGELES	68	1	0.00	-0.35	MO	COLUMBIA	57	0	1.31	-1.92		BEAUMONT	69	0	3.79	-0.50
	REDDING	65	1	1.02	-1.22		KANSAS CITY	57	1	0.67	-2.62		BROWNSVILLE	74	-1	0.69	-2.10
	SACRAMENTO	65	1	0.13	-0.95		SAINT LOUIS	59	0	2.04	-0.64		CORPUS CHRISTI	72	-2	1.81	-1.21
	SAN DIEGO	69	1	0.00	-0.37		SPRINGFIELD	59	1	1.20	-2.37		DEL RIO	71	1	0.39	-1.85
	SAN FRANCISCO	62	1	0.50	-0.72	MT	BILLINGS	50	1	0.12	-1.02		EL PASO	64	0	0.56	-0.20
CO	ALAMOSA	43	0	0.24	-0.46		BUTTE	44	3	0.13	-0.56		FORT WORTH	69	2	2.26	-1.26
	CO SPRINGS	51	1	1.10	0.26		GLASGOW	46	0	0.41	-0.20		GALVESTON	73	0	3.00	0.19
	DENVER	53	2	0.31	-0.68		GREAT FALLS	47	0	0.67	-0.11		HOUSTON	69	-1	0.56	-3.71
	GRAND JUNCTION	55	0	0.17	-0.80		KALISPELL	43	1	1.61	0.73		LUBBOCK	60	-1	0.61	-1.25
	PUEBLO	53	-1	0.62	0.06		MILES CITY	49	1	0.23	-0.68		MIDLAND	64	0	0.28	-1.46
CT	BRIDGEPORT	54	-2	3.23	0.13		MISSOULA	45	0	1.46	0.70		SAN ANGELO	66	0	0.94	-1.47
	HARTFORD	51	-1	3.54	-0.03	NE	GRAND ISLAND	53	1	0.05	-1.30		SAN ANTONIO	70	-1	1.29	-1.88
DC	WASHINGTON	57	-3	2.16	-0.89		LINCOLN	53	0	0.03	-2.09		VICTORIA	71	-1	1.15	-2.31
DE	WILMINGTON	54	-2	3.44	0.57		NORFOLK	51	0	0.20	-1.40		WACO	69	0	1.93	-1.38
FL	DAYTONA BEACH	74	1	7.84	3.71		NORTH PLATTE	50	0	0.22	-0.75		WICHITA FALLS	65	1	3.50	0.76
	JACKSONVILLE	71	1	3.24	0.33		OMAHA	53	0	0.03	-2.25	UT	SALT LAKE CITY	55	1	0.02	-1.44
	KEY WEST	80	0	12.55	8.13		SCOTTSBLUFF	49	1	0.06	-0.75	VT	BURLINGTON	46	-2	3.18	0.31
	MIAMI	79	1	14.56	8.92		VALENTINE	49	0	0.05	-0.86	VA	LYNCHBURG	54	-3	1.37	-2.34
	ORLANDO	75	0	8.40	5.98	NV	ELY	49	3	0.00	-0.88		NORFOLK	61	0	8.12	4.97
	PENSACOLA	70	1	2.81	-1.39		LAS VEGAS	72	4	0.00	-0.20		RICHMOND	57	-2	2.25	-1.28
	TALLAHASSEE	71	2	1.62	-1.31		RENO	56	5	0.42	0.04		ROANOKE	56	-1	1.19	-2.66
	TAMPA	76	1	2.86	0.85		WINNEMUCCA	50	1	0.24	-0.37		WASH/DULLES	53	-2	2.56	-0.61
	WEST PALM	78	1	15.56	8.97	NH	CONCORD	46	-2	2.49	-0.73	WA	OLYMPIA	49	0	3.85	-0.46
GA	ATHENS	63	0	3.78	0.50	NJ	NEWARK	55	-2	2.90	-0.14		QUILLAYUTE	48	-2	14.53	4.01
	ATLANTA	62	0	2.41	-0.64	NM	ALBUQUERQUE	58	2	0.26	-0.63		SEATTLE-TACOMA	52	0	2.26	-0.97
	AUGUSTA	63	-1	2.84	0.00	NY	ALBANY	49	-2	2.42	-0.43		SPOKANE	47	0	0.89	-0.10
	COLUMBUS	67	0	2.49	0.28		BINGHAMTON	47	-2	1.15	-1.73		YAKIMA	48	-2	0.40	-0.07
	MACON	65	0	2.91	0.73		BUFFALO	50	-1	2.95	-0.16		BECKLEY	52	-1	2.16	-0.72
	SAVANNAH	68	0	1.96	-0.43		ROCHESTER	51	0	2.12	-0.34	WV	CHARLESTON	55	-1	3.43	0.54
HI	HILO	74	-2	3.61	-5.99		SYRACUSE	49	-1	2.77	-0.46		ELKINS	48	-2	4.35	1.26
	HONOLULU	78	-1	2.01	-0.27	NC	ASHEVILLE	56	0	3.31	-0.26		HUNTINGTON	55	-1	3.80	0.97
	KAHULUI	77	-1	0.23	-1.00		CHARLOTTE	59	-3	5.47	2.11		EAU CLAIRE	47	0	0.95	-1.48
	LIHUE	77	0	4.96	0.55		GREENSBORO	57	-1	2.32	-1.18	WI	GREEN BAY	46	-2	0.67	-1.56
ID	BOISE	55	3	0.11	-0.63		HATTERAS	66	1	4.99	-0.02		LA CROSSE	50	0	1.43	-0.77
	LEWISTON	52	0	1.23	0.32		RALEIGH	58	-2	2.46	-0.38		MADISON	49	0	0.88	-1.29
	POCATELLO	49	1	0.39	-0.52		WILMINGTON	65	0	3.81	1.12		MILWAUKEE	52	2	0.94	-1.49
IL	CHICAGO/O'HARE	53	0	1.07	-1.36	ND	BISMARCK	45	0	0.43	-0.47	WY	CASPER	48	1	0.25	-0.71
	MOLINE	53	0	0.86	-2.07		DICKINSON	45	-1	0.28	-0.68		CHEYENNE	47	1	0.27	-0.47
	PEORIA	54	0	1.35	-1.31		FARGO	44	-1	1.04	-0.61		LANDER	48	1	0.65	-0.49
	ROCKFORD	51	-1	0.96	-1.93		GRAND FORKS	42	-3	0.12	-1.17		SHERIDAN	48	1	0.78	-0.41
	SPRINGFIELD	55	-1	1.79	-0.81		JAMESTOWN	44	-2	0.32	-0.64						
IN	EVANSVILLE	57	-1	2.80	-0.06		WILLISTON	44	-1	0.18	-0.59						
	FORT WAYNE	52	-1	2.31	-0.17	OH	AKRON-CANTON	51	-1	2.33	-0.02						
	INDIANAPOLIS	55	0	1.82	-0.81		CINCINNATI	55	0	2.49	-0.36						
	SOUTH BEND	53	0	1.37	-1.72		CLEVELAND	52	0	3.06	0.53						
IA	BURLINGTON	58	3	1.18	-1.76		COLUMBUS	55	2	1.00	-1.16						
	CEDAR RAPIDS	50	-1	1.26	-1.04		DAYTON	54	0	1.06	-1.41						
	DES MOINES	54	0	0.15	-2.46		MANSFIELD	51	-1	2.43	0.10						
	DUBUQUE	50	0	1.33	-1.41		TOLEDO	51	0	1.92	-0.19						
	SIOUX CITY	51	-1	0.22	-1.72		YOUNGSTOWN	50	-1	2.56	-0.06						
	WATERLOO	51	0	0.70	-1.87	OK	OKLAHOMA CITY	63	1	2.22	-1.01						
KS	CONCORDIA	56	0	0.02	-1.97		TULSA	62	0	1.75	-1.91						
	DODGE CITY	56	-1	0.68	-0.60	OR	ASTORIA	53	0	3.64	-2.08						
	GOODLAND	53	1	0.04	-0.86		BURNS	46	1	0.37	-0.36						
	TOPEKA	57	1	0.87	-2.20		EUGENE	53	-1	2.60	-0.81						
	WICHITA	59	1	0.16	-2.06		MEDFORD	57	2	1.72	0.24						
KY	JACKSON	58	0	3.08	-0.12		PENDLETON	51	-1	1.51	0.66						
	LEXINGTON	57	0	1.63	-0.94		PORTLAND	55	1	2.46	-0.21						
	LOUISVILLE	59	1	2.89	0.19		SALEM	54	1	2.45	-0.54						
	PADUCAH	59	0	3.93	0.91	PA	ALLENTOWN	51	-2	3.59	0.62						
LA	BATON ROUGE	67	-1	5.80	2.32		ERIE	53	-1	2.94	-0.82						
	LAKE CHARLES	69	0	1.28	-2.66		MIDDLETOWN	54	-1	2.65	-0.28						
	NEW ORLEANS	71	2	5.46	2.41		PHILADELPHIA	56	0	3.55	0.93						
	SHREVEPORT	65	-1	3.21	-0.52		PITTSBURGH	52	0	1.55	-0.81						

Based on 1961-90 normals.

National Agricultural Summary

November 1 - 7, 1999

HIGHLIGHTS

Dry weather prevailed over most of the Nation, providing excellent conditions for harvesting row crops, seeding winter grains, and completing fall tillage and fertilizer applications. Row crop harvesting was virtually complete in Missouri, the earliest completed since 1987. Increasing moisture shortages hindered winter wheat germination and growth in the Corn Belt, Great Plains, and Pacific Northwest, although above-normal temperatures stimulated growth where adequate moisture was available. Heavy rainfall recharged soil moisture levels in parts of the lower Mississippi Valley, southern Appalachians and Piedmont, and upper Ohio Valley. The harvest pace accelerated in the Atlantic Coastal Plains, where favorably dry weather prevailed throughout the week.

Winter Wheat: Planting progressed to 92 percent complete, equal to last year's pace, but slightly behind the 5-year average. Dry weather aided rapid planting progress in Arkansas, Missouri, and Oregon. In Texas, planting slowly progressed, as many growers delayed planting due to severe moisture shortages. The planting pace was also slow in North Carolina, where sowing was delayed due to the late harvest season. Seventy-nine percent of the acreage was emerged, slightly behind last year's 82 percent and the 5-year average of 83 percent. Increasing moisture shortages delayed germination and hindered plant growth in many areas of the Great Plains, eastern Corn Belt, and interior areas of the Pacific Northwest. Where moisture was adequate, temperatures averaging well above normal stimulated seed germination and plant development. Soft red winter wheat rapidly emerged in the eastern Corn Belt, advancing more than 10 percentage points in Illinois, Indiana, Michigan, Missouri, and Ohio. Recent scattered rainfall aided germination in the Pacific Northwest and lower Mississippi Valley, but emergence remained far behind the 5-year average in Oregon. Emergence was also well behind normal in Texas due to moisture shortages.

Corn: The Nation's corn harvest advanced to 95 percent complete, 6 percentage points ahead of last year and nearly 2 weeks ahead of the 5-year average. Harvest slowed in the Corn Belt, as progress neared completion in most areas. Dry weather aided rapid progress in the Great Plains, Great Lakes region, and mid-Atlantic Coast, advancing nearly 20 percentage points in Colorado and South Dakota, and more than 10 percentage points in Michigan and South Dakota. The end of the harvest season approached far ahead of normal in the eastern Corn Belt, and well ahead of normal in the western Corn Belt. Harvest progress was more than 30 percentage points ahead of normal in Michigan, and more than 20 percentage points ahead of normal in Indiana, Ohio, and Wisconsin.

Soybeans: Ninety-five percent of the soybean crop was harvested, compared with 93 percent last year, and the 91-percent average for this date. The harvest pace slowed dramatically in the Corn Belt, where most of the acreage was harvested. Harvest activity remained brisk in the Mississippi Delta, where warm weather quickly ripened double-cropped and other late-planted fields. Progress was well ahead of normal in the Ohio, Tennessee, and Mississippi River Valleys. In the Atlantic Coastal Plains, harvest gradually gained momentum, advancing more than 10 percentage points in Georgia.

Cotton: The cotton harvest was 72 percent complete, behind last year's 76-percent pace, but slightly ahead of the 70-percent average for this date. Picking was active in the southern Great Plains, Southwest, and Atlantic Coastal Plains, but remained far behind normal in North Carolina and well behind normal in New Mexico and Arizona. Progress was more than 30 percentage points ahead of normal in Oklahoma and 15 percentage points ahead of normal in California. In Arkansas, Missouri, and Tennessee, picking rapidly neared completion.

Other Crops: The sorghum crop was 93 percent harvested, ahead of last year's 88-percent pace and the normal progress of 87 percent. Harvest steadily progressed in the Great Plains, well ahead of normal in Colorado and Oklahoma, but slightly behind normal in South Dakota. The peanut harvest advanced to 86 percent complete, slightly behind last year, but equal to the average for this date. Harvest was active in the Atlantic Coastal Plains, but lagged well behind normal in North and South Carolina. Digging also rapidly advanced in Texas.

Crop Progress and Condition

Week Ending November 7, 1999

Winter Wheat Percent Planted

	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
AR	77	60	76	70
CA	25	18	29	21
CO	100	100	100	100
GA	16	10	15	16
ID	97	95	98	98
IL	98	94	96	97
IN	99	94	96	97
KS	99	98	97	98
MI	100	96	99	99
MO	91	81	74	85
MT	99	98	100	99
NE	100	100	100	100
NC	35	30	54	51
OH	100	97	100	98
OK	95	93	92	96
OR	85	71	91	91
SD	100	99	100	100
TX	82	77	87	89
WA	98	95	100	98
19 Sts	92	89	92	93

These 19 States planted 91% of last year's winter wheat acreage.

Soybeans Percent Harvested

	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
AL	75	66	83	62
AR	86	76	87	77
GA	40	29	50	36
IL	99	98	95	96
IN	100	98	97	96
IA	100	100	99	99
KS	96	91	88	89
KY	90	87	93	74
LA	100	98	100	94
MI	97	94	97	93
MN	99	98	98	98
MS	97	94	98	88
MO	96	89	86	85
NE	100	99	95	97
NC	30	22	38	25
OH	98	95	99	95
SC	24	16	37	23
SD	98	97	95	96
TN	87	75	88	62
19 Sts	95	93	93	91

These 19 States harvested 93% of last year's soybean acreage.

Cotton Percent Harvested

	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
AL	83	77	89	75
AZ	53	42	62	68
AR	98	94	94	88
CA	80	60	32	65
GA	64	57	64	62
LA	100	99	99	97
MS	99	97	99	93
MO	98	96	85	84
NM	35	20	33	50
NC	35	24	84	64
OK	78	64	76	46
SC	61	51	81	64
TN	98	96	95	83
TX	56	46	70	57
14 Sts	72	64	76	70

These 14 States harvested 98% of last year's cotton acreage.

Winter Wheat Percent Emerged

	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
AR	47	31	48	49
CA	6	4	8	7
CO	98	96	96	97
GA	9	6	8	9
ID	77	61	84	79
IL	85	71	82	86
IN	88	75	86	85
KS	91	87	89	92
MI	92	80	91	91
MO	66	48	53	67
MT	86	80	87	85
NE	100	98	100	100
NC	23	17	33	30
OH	94	84	97	87
OK	77	69	76	81
OR	36	26	78	71
SD	94	93	100	98
TX	61	55	73	78
WA	91	87	99	90
19 Sts	79	73	82	83

These 19 States planted 91% of last year's winter wheat acreage.

Corn Percent Harvested

	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
CO	85	66	77	82
GA	100	100	100	99
IL	98	94	91	89
IN	99	94	91	78
IA	98	95	91	87
KS	99	94	97	96
KY	100	99	97	93
MI	88	76	81	56
MN	96	91	95	89
MO	96	91	87	85
NE	94	87	86	83
NC	94	90	100	98
OH	90	81	83	66
PA	69	55	69	62
SD	86	68	76	77
TX	99	98	100	99
WI	90	84	84	68
17 Sts	95	89	89	83

These 17 States harvested 92% of last year's corn acreage.

Sorghum Percent Harvested

	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
AR	100	100	100	100
CO	76	63	60	62
IL	98	94	86	83
KS	95	88	93	89
LA	100	100	100	100
MS	100	100	100	100
MO	96	89	88	85
NE	93	87	89	88
NM	49	44	44	48
OK	83	72	81	59
SD	82	69	86	86
TX	94	92	84	89
12 Sts	93	88	88	87

These 12 States harvested 99% of last year's sorghum acreage.

Crop Progress and Condition

Week Ending November 7, 1999

Peanuts Percent Harvested

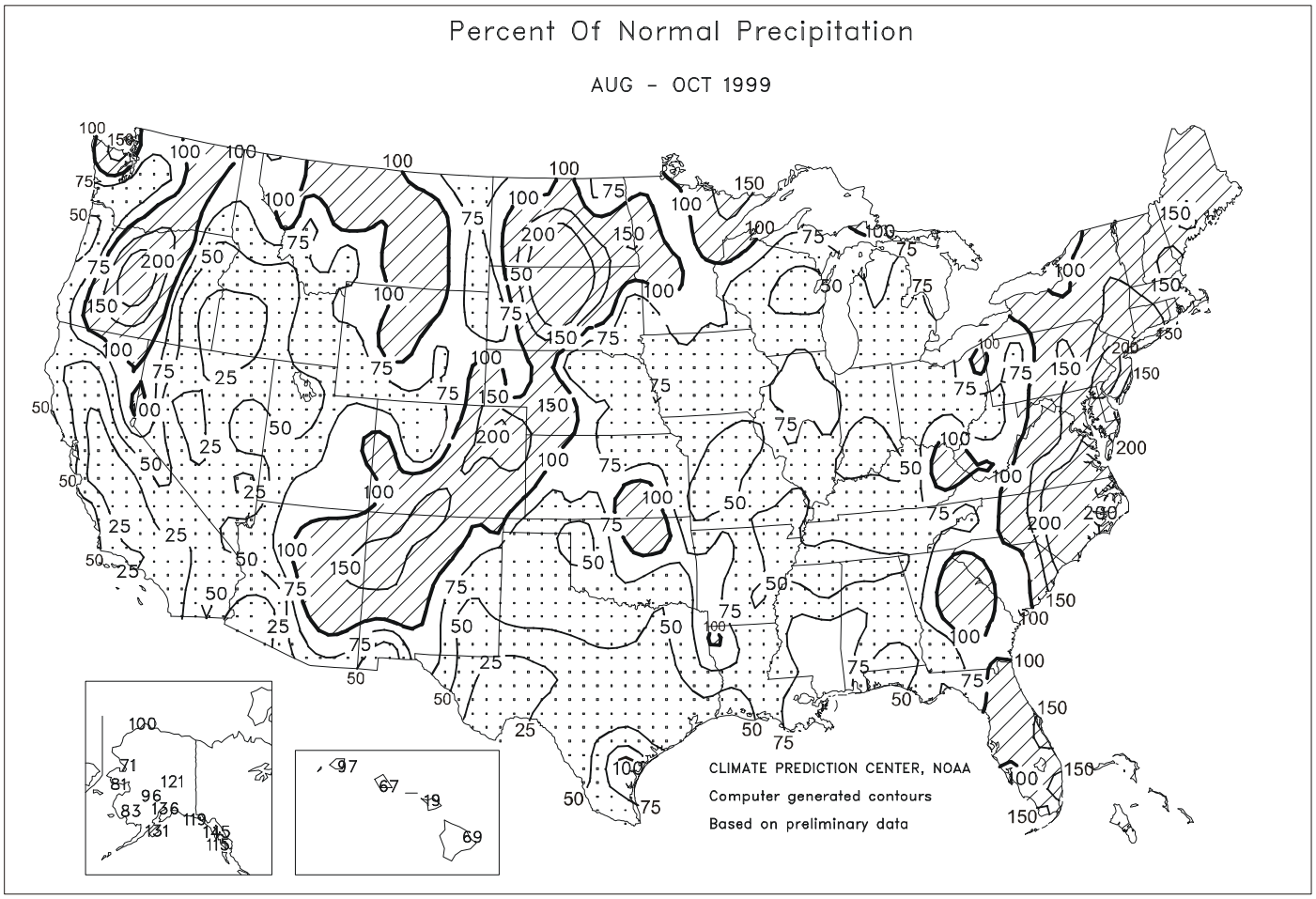
	Nov 7 1999	Prev Week	Prev Year	5-Yr Avg
AL	99	96	91	96
FL	99	97	97	59
GA	96	92	93	97
NC	64	50	89	89
OK	89	82	77	83
SC	78	62	95	92
TX	67	51	70	66
VA	97	95	99	99
8 Sts	86	79	87	86

These 8 States harvested 99% of last year's peanut acreage.

Winter Wheat Crop Condition by Percent

	VP	P	F	G	EX
AR	0	2	21	59	18
CA	0	0	30	50	20
CO	0	1	10	51	38
GA	0	3	44	51	2
ID	0	5	45	48	2
IL	1	8	44	42	5
IN	6	8	30	49	7
KS	3	9	35	48	5
MI	0	3	29	47	21
MO	2	11	60	26	1
MT	2	13	30	52	3
NE	7	9	28	49	7
NC	0	9	31	50	10
OH	0	2	23	58	17
OK	6	15	34	43	2
OR	0	50	40	10	0
SD	0	3	17	68	12
TX	13	30	39	15	3
WA	0	9	60	31	0
19 Sts	4	12	34	43	7
Prev Wk	4	11	35	43	7
Prev Yr	1	6	27	55	11

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



State Agricultural Summaries

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

ALABAMA: Days suitable for fieldwork 4.8. Topsoil 2% very short, 29% short, 68% adequate, 1% surplus. Soybeans 75% harvested, 83% 1998, 62% avg. Wheat 36% planted, 40% 1998, 47% avg. Pasture feed 12% very poor, 26% poor, 39% fair, 21% good, 2% excellent. Livestock 2% very poor, 9% poor, 50% fair, 33% good, 6% excellent.

ALASKA: NO DATA AVAILABLE UNTIL 2000.

ARIZONA: Cotton harvest continues throughout most of Areas with the continued dry weather but remains about 1 week behind 1998, 2 weeks behind the 5-year avg. As of November 7, cotton harvested was reported as being 53% complete compared to 62% 1998, 68% for the 5-year avg. Cotton condition is reported as 5% poor, 37% fair, 41% good, 17% excellent. Alfalfa harvest activity was reported as 43% not being harvested, 8% light, 22% moderate, 27% active. Alfalfa 7% poor, 28% fair, 54% good, 11% excellent. Range, pasture feed was reported as 1% poor, 15% fair, 58% good, 26% excellent. Central Areas producers shipped cabbage, cantaloupes, cilantro, green onions, honeydew, kale, mixed greens last week. Eastern Areas producers shipped apples, chile peppers, hot house tomatoes, head lettuce. Producers in western Areas shipped cantaloupes, honeydews, orange flesh melons. Central Areas citrus producers harvested lemons, western citrus producers harvested grapefruit, lemons last week.

ARKANSAS: Days suitable for fieldwork 6. Topsoil 11% very short, 31% short, 56% adequate, 2% surplus. A cold front early in the week brought much needed rain to most of the state, about of sub-freezing temperatures. Even with the sub-freezing temperatures the average temperatures for the week were well above normal. Livestock were reported in fair condition. Many farmers were feeding supplemental hay early this year because of the summer drought conditions. The main farm activities were: Harvesting cotton (some second pickings),soybeans, planting wheat. Other activities included: Liming, fertilizing pastures, harvesting hay, bush hogging, land leveling, overseeding small grains, preparing fall pastures, spraying fields for insects, weeds, preparing land for planting of annual forages such as rye and ryegrass, treating cropland, pastures for armyworms, fields were being subsoiled, plowed, shredding cotton stalks, cleaning poultry houses, Brucellosis vaccinations, fall calving, pregnancy checking spring bred cows, selling cull cows, weaning calves. Corn 100% harvest; Cotton 98% harvested; Soybeans 97% shedding, 86% harvested, 11% very poor, 18% poor, 29% fair, 31% good, 11% excellent; Sorghum 100% mature, 100% harvested; Wheat 77% planted, 47% emerged, 0% very poor, 2% poor, 21% fair, 59% good, 18% excellent; Alfalfa 14% very poor, 31% poor, 43% fair, 12% good, 0% excellent; Other Hay 15% very poor, 35% poor, 33% fair, 17% good, 0% excellent; Range, pastures feed 16% very poor, 38% poor, 37% fair, 9% good, 0% excellent.

CALIFORNIA: Field activities progressed normally under favorable conditions in most areas. Seeding of small grains, winter forages, new alfalfa gained momentum in central, southern counties. Dryland wheat, barley growers were waiting for fall rains prior to planting. Rice harvest was still underway in the San Joaquin Valley, in a few scattered Sacramento Valley fields. Cotton harvest was in full swing in the San Joaquin, Sacramento, desert valleys. Some second picking was being done in pima cotton fields. Defoliation was virtually complete on all varieties. Harvested cotton fields were immediately shredded, disced for pink bollworm control. Corn for grain, silage, blackeye beans, sugarbeets were harvested. Alfalfa, winter forage fields were treated for weeds. Grain sorghum was drying down, nearly ready for harvest in the southern San Joaquin Valley. Vineseed harvest should be complete in the Sacramento Valley by the end of next week. Alfalfa, sudangrass were cut for hay or greenchopped. The almond harvest was winding down. The walnut and pistachio harvests continued. To increase yields, some growers were second-shaking pistachio, walnut trees. Pecan harvest in Tulare County was expected to begin soon. Grapes destined for wineries were still being harvested, mainly in the coastal areas. Pruning, tree removal, planting of cover crops, other such work was active in the harvested stone fruit orchards. Growers were fumigating ground being prepared for new plantings of peach, prune, walnut, almond trees. The kiwifruit harvest was in full swing; some fruit was exhibiting problems related to late frost during the early growing stage. Pomegranate harvest was active in the San Joaquin Valley. Persimmon picking was active; yields of the Fuyu variety were light. Quince harvesting continued in Tulare, Fresno counties. Grapefruit, lemons were picked in southern areas. Picking of early variety new crop navel oranges was getting underway. Only a few strawberry growers were still selling fruit at roadside stands, as the late freezer strawberry harvest was underway. Harvest of fresh market tomatoes continued. As the fall lettuce harvest continued, growers began to plant the spring crop. Fresno County growers were preparing ground for 1998, garlic and onion crop. Other winter vegetables continued to develop nicely, with some broccoli heading out. Limited packing began in the earliest fields. Picking of string cucumbers was going steady. Sweet corn harvest was nearly over in many fields. Taro root harvest began, there were a few sweet potatoes at local markets. Greenhouse operations were preparing for the winter season. Sweet pea harvest continued on a twice-a-week schedule in Tulare County. The eggplant harvest was nearly complete. Several other crops were harvested, such as chili peppers, green beans, cabbage, cauliflower, cilantro, radishes, mint, parsley, okra, pumpkins, squash, turnips. Winter foothill pastures were in poor to very poor condition in most of central, northern areas. The exception was in the extreme northwestern area where rain improved conditions. Rain late in the period in other central, northern areas was expected to significantly improve pasture feed. Supplemental feeding of cattle was necessary many areas. Many sheep were grazing on alfalfa fields in central areas. Calving, lambing continued, but were winding down in some areas. Cattle, sheep were in good condition.

COLORADO: Days suitable for fieldwork 6.8. Topsoil 5% very short, 28% short, 64% adequate, 3% surplus. Subsoil moisture 4% very short, 22% short, 72% adequate, 2% surplus. Unusually warm, dry for entire week, permitting harvest of late season crops to progress rapidly. Sugar beets 79% harvested, 85% 1998, 90% avg. Pasture, range feed 2% very poor, 8% poor, 25% fair, 57% good, 8% excellent.

DELAWARE: Days suitable for fieldwork 5.4. Topsoil 2% short, 85% adequate, 13% surplus. Subsoil moisture 5% short, 88% adequate, 7% surplus. Field corn 96% harvested for grain, 96% 1998, 90% avg. Soybeans 97% shedding leaves, 94% 1998, 97% avg.; 44% harvested, 67% 1998, 52% avg. Sorghum 81% harvested, 67% 1998, 60% avg. Alfalfa hay 95% 4th cutting, 100% 1998, 97% avg.; 38% 5th cutting, 49% 1998, 54% avg. Hay 22% short, 78% adequate. Pasture 3% poor, 14% fair, 75% good, 8% excellent. Barley 100% good; 89% seeded, 96% 1998, 95% avg. Wheat 4% fair, 94% good, 2% excellent; 64% seeded, 75% 1998, 68% avg. Activities: Small grains seeding continued, corn harvest coming to a close.

FLORIDA: Temperatures remained cool during October 31 through November 6, averaging from one to four^0 below normal for week. Some northern areas recorded lows 30s. Lows range 30s in the North to 50s in the South. Most highs averaged in 80s. Rainfall at major stations varied from no rain in West Palm Beach to over two inches in Tallahassee. Moisture southern Peninsula adequate to surplus. Topsoil moisture throughout rest of state mostly short to adequate with some areas very short or surplus. First frost in Panhandle,north areas on November 4. No major frost damage. Soybean harvest winding down. Sugarcane grinding active. Haying winding down. Forage growth improving with increased moisture. Cotton harvest active. Ninety-nine percent peanuts harvested. Cooler temperatures continued to help plant blooming, fruit setting, sizing of older fruit. Development of most crops generally slow to normal for week. Vegetables marketed during week include tomatoes, peppers, cucumbers, pickles,

squash, sweet corn, okra, eggplant, watermelons. Cool temperatures, very little rain citrus area. Some irrigation by week' s end. Almost no new growth. Packing houses shipping Navels, Ambersweet, Hamlin oranges, white colored grapefruit, early tangerines, K-Early citrus fruit, a few tangelos. Caretakers cutting cover crops, spraying. Dead tree removal continues along with some resetting. Pasture feed 5% very poor, 5% poor, 45% fair, 45% good. Condition of cattle 35% fair, 65% good. Panhandle, north recent rains improved planting condition of small grains for winter forage. Stock pond levels still low after recent rains. Frost hurt warm season pastures. Central: grass growth much slower due to seasonally cool weather. West-Central: pasture growth slowed due to cool weather. Cows, calves condition fair to good. Southeast; heavy rain left many pastures with standing water. Statewide, cattle, calf condition fair to good.

GEORGIA: Days suitable for fieldwork 5.6. Soil moisture 5% very short, 28% short, 63% adequate, 4% surplus. Cotton 98% bolls open, 95% 1998, 96% avg. Peanuts 99% dug, 99% 1998, 100% avg. Rye 72% planted, 76% 1998, 78% avg. Sorghum 84% harvested for grain, 92% 1998, 85% avg. Soybeans 25% very poor, 29% poor, 32% fair, 13% good, 1% excellent; 97% dropping leaves, 99% 1998, 99% avg. Other small grains 59% planted, 60% 1998, 61% avg. Onions 3% transplanted, 7% 1998, 7% avg. Pecans 6% very poor, 15% poor, 29% fair, 41% good, 9% excellent; 30% harvested, 37% 1998, 36% avg. A frost last week hit many areas of the state. The frost slowed some harvesting, planting progress. Rains on Monday, Tuesday helped soil moisture conditions. Soil moisture improved from the previous week. The soybean condition changed slightly from the previous week. Soybean leaf drop neared completion slightly behind 1998. The soybean harvest remained ahead of the five year average pace. Sorghum harvest continued behind 1998. Cotton bolls opening was almost complete last week. The cotton harvest was at 1998. There was concern of damage to peanuts dug before the frost if they had high moisture content. Peanut digging wound down last week with combining ahead of 1998. Winter wheat planting, emerging were slightly ahead of 1998. Condition improved from the previous week. The rains helped small grains planting to progress in some areas. Rye planting remained behind the five year average pace. Other small grains planting was slightly behind 1998. Pasture over seeding continued last week. Vegetable picking was slowed by the frost last week. The pecan harvest continued behind the five year average pace. Pecan condition improved from the previous week. Other activities included: Working cattle, winterizing machinery.

HAWAII: Weather conditions were fair for agriculture. Crop progress in coastal areas were slowed by broken to cloudy skies, light to moderate showers. Major vegetable-growing regions at the higher elevations experienced drier, more favorable weather. Banana harvesting will remain active, although slowing down in some areas. Papaya harvesting also active. Orchards were in mostly fair condition. Head cabbage harvesting will be steady, overall quality was good. Ginger root progressing well, main harvest about a month away.

IDAHO: Days suitable for fieldwork 6.7. Topsoil 9% very short, 58% short, 33% adequate. Northern areas received timely moisture boosting winter wheat emergence. Southern areas continue to be dry delaying winter wheat emergence, fall tillage. Corn harvested 45% for grain, 50% 1998, 54% avg. Sugarbeets 96% harvested,93% 1998, 91% avg. Winter wheat 97% planted, 98% 1998, 98% avg.; 77% emerged ,84% 1998, 79% avg. Activities: Fall ground preparation, wrapping up fall harvest, planting winter wheat, marketing yearling cattle.

ILLINOIS: Days suitable for fieldwork 6.8. Topsoil 31% very short, 50% short, 19% adequate. Continued lack of rain last week has some farmers concerned for the winter wheat crop. Application of anhydrous ammonia continues in full force, however, the warm, dry weather has increased concern of evaporation. Sorghum harvest continues well ahead of normal. Other activities for last week included: Hauling grain, wrapping up fall tillage, caring for livestock.

INDIANA: Days suitable for fieldwork 6.3. Topsoil 22% very short, 49% short, 29% adequate, 0% surplus. Subsoil 39% very short, 46% short, 15% adequate, 0% surplus. Winter wheat seeding is nearing completion. Winter wheat 6% very poor, 8% poor, 30% fair, 49% good, 7% excellent. Corn harvest 99% complete, on par with the record pace established in 1991. Soybean harvest virtually complete, except for double crop soybean fields. Activities: Applying fertilizer, spreading lime, seeding winter wheat, tillage of soils, chopping stalks, equipment cleaning, repair, hauling grain, feeding hay, caring for livestock.

IOWA: Days suitable for fieldwork 6.8. Topsoil very short 55%; short 38%, adequate 7%. Subsoil moisture very short 48%; short 41%, adequate 11%. Corn harvest virtually complete; fall field work in progress. Some farmers holding up on fall work as a result of dry, compacted soil conditions. Concern about lack of moisture continues. In south western district some wells going dry; other producers starting to haul water for livestock. Rain is needed before winter sets in. Corn 98% harvested, 91% 1998, 87% avg. Winter wheat 94% planted, 93% 1998, 96% avg. Fall 50% tillage, 36% 1998, 31% avg.; fall fertilizer 38% applied, 30% 1998, 27% avg. Grain movement 22% none, 38% light, 33% moderate, 7% heavy. Off-farm grain storage availability: 38% short, 61% adequate, 1% surplus; on-farm storage 39% short, 60% adequate, 1% surplus. Feedlots continue to be very dry, dusty, resulting in some respiratory problems among livestock. Use of stubble fields for grazing 26% none, 30% limited, 34% moderate, 10% extensive.

KANSAS: Days suitable for fieldwork 6.5. Topsoil 18% very short, 54% short, 28% adequate. Subsoil moisture 7% very short, 41% short, 52% adequate. Wheat seeding is virtually complete across the State. Most of the acreage that remains to be seeded is in the south central, eastern districts. Wheat 6% pastured, 2% 1998, 5% avg. With the dry weather that continues to dominate most of the State, there is growing concern about the availability of wheat for grazing this fall. Sunflowers 97% harvested, 94% 1998. Hay, forage supplies 4% short, 80% adequate, 16% surplus. Stock water supplies remain at mostly adequate to surplus, but with the dry weather conditions, water levels in stock ponds are declining. Major livestock activities last week included: Moving cattle to row crop stubble or wheat pasture, weaning, marketing spring calves, working fall calves.

KENTUCKY: Day suitable for fieldwork 5.0. Topsoil 22% very short, 49% short, 29% adequate. Subsoil moisture 46% very short, 42% short, 12% adequate. For the week, temperatures averaged 54^0, 3^0 above normal, 3^0 warmer than previous week. Rainfall Statewide was 0.9 inches, near normal. Corn harvest is complete. Soybean harvest is nearing completion. Condition of stripped tobacco was 4% very poor, 17% poor, 39% fair, 37% good, 3% excellent. Burley stripped 33%, 31% 1998, 30% avg. Winter wheat 90% seeded, 92% 1998, 88% avg.. Pasture feed 14% very poor, 32% poor, 40% fair, 14% good. Farmers continue feeding hay to livestock.

LOUISIANA: Days suitable for fieldwork 6.2. Soil moisture 18% very short, 37% short, 42% adequate, 3% surplus. Hay 100% final cutting, 96% 1998, 99% avg. Pecans 1% very poor, 11% poor, 45% fair, 40% good, 3% excellent; 43% harvested, 44% 1998, 31% avg. Sugarcane 3% poor, 16% fair, 53% good, 28% excellent; 38% harvested, 31% 1998, 34% avg. Sugarcane harvest continued. Sweet potatoes 94% harvested, 93% 1998, 88% avg. Sweet potato harvest continued. Wheat 84% planted, 68% 1998, 49% avg.; 45% emerged, 45% 1998, 30% avg. Wheat planting made excellent progress. Livestock 2% very poor, 9% poor, 42% fair, 41% good, 6% excellent. Vegetables 4% very poor, 17% poor, 39% fair, 35% good, 5% excellent. Pastures 12% very poor, 25% poor, 39% fair, 21% good, 3% excellent.

MARYLAND: Days suitable for fieldwork 5.5. Topsoil 4% short, 82% adequate, 14% surplus. Subsoil moisture 12% very short, 8% short, 70% adequate, 10% surplus.Corn 92% harvested for grain, 91% 1998, 87% avg. Soybeans 61% harvested, 73% 1998, 63% avg. Sorghum 83% harvested, 83% 1998, 67% avg. Tobacco 20% stripped, 20% 1998, 16% avg. Clover, other hays 91% 4^{th} cutting, 95% 1998, 88% avg. Alfalfa 71% 5^{th} cutting, 59% 1998, 65% avg. Wheat 1% poor, 8% fair, 88% good, 3% excellent; 71% seeded, 84% 1998, 77% avg. Barley 3% very poor, 16% fair, 76% good, 5% excellent; 94% seeded, 99% 1998, 95% avg. Rye 13% fair, 79% good, 8% excellent; 88% seeded, 91% 1998, 84% avg. Pasture feed 1% very poor, 2% poor, 21% fair, 66% good, 10% excellent. Hay 12% very short,

50% short, 37% adequate, 1% surplus. Activities: Continued small grain seeding, corn, soybean harvesting. Apple harvest virtually complete.

MICHIGAN: Days suitable for fieldwork 6.0. Topsoil 9% very short, 30% short, 60% adequate, 1% surplus; subsoil 20% very short, 46% short, 34% adequate, 0% surplus. Pasture 9% very poor, 19% poor, 38% fair, 31% good, 3% excellent. Hay 4th 95%, 90% 1998, 93% avg. Scattered rains came early this week giving farmers needed moisture, but rest of week dry. Temperatures also varied through week but averaged out to around normal. Farmers had another good week of harvest weather, winding down harvest season. Corn harvest moving along smoothly but some farmers slowing down due to lack of storage space at their local elevators. Soybean harvest completed in most areas of State with only a few fields still remaining. Little fourth cutting of hay this year since little regrowth occurred after third cutting. Sugarbeet harvest wrapping up as all fields should be finished this coming week. Winter wheat planting completed as farmers wait for rains to help wheat stands become established.

MINNESOTA: Days suitable for fieldwork 6.5. Topsoil 18% very short, 34% short, 43% adequate, 5% surplus. Subsoil 12% very short, 32% short, 44% adequate, 12% surplus. Soybeans 89% stubble worked, 81% 1998, 75% avg. Corn 15% moisture content, 17% 1998, 19% avg.; 79% stubble worked, 68% 1998, 58% avg. Sunflowers 89% harvested, 83% 1998, 93% avg. Continued dry weather allowed the majority of fieldwork to be completed. Virtually no precipitation was recorded at stations across the state. Many farmers are still hoping for an inch or two of rain before the ground freezes to help boost next year' s crops.

MISSISSIPPI: Days suitable for fieldwork 5.3. Soil moisture, 12% very short, 34% short, 49% adequate, 5% surplus. Cotton 99% harvested, 99% 1998, 93% avg. Soybeans 97% harvested, 98% 1998, 88% avg. Sweet potatoes 96% harvested, 94% 1998, 92% avg. Wheat 86% planted, 86% 1998, 78% avg.; 61% emerged, 50% 1998, 58% avg.; 1% very poor, 3% poor, 32% fair, 58% good, 6% excellent. Cattle, 1% very poor, 10% poor, 38% fair, 46% good, 5% excellent. Pasture 9% very poor, 27% poor, 38% fair, 24% good, 2% excellent. Cotton, soybean harvests are approaching completion in most parts of the state.

MISSOURI: Days suitable for fieldwork 6.5.Topsoil continued to decline to 53% very short, 38% short, 9% adequate. The northwest, central, southwest districts had top soil moisture ratings of 96% or higher in very short to short. Row crop harvesting was virtually complete throughout the State. This year' s harvest is the earliest completed since 1987.Ninety-six percent of the corn was harvested, about two weeks ahead of the same date 1998, of the 5-year average of 86%. Corn harvesting was nearing completion throughout the State with the northeast being least advanced with only 91% harvested. The soybean harvest is 96% complete, two weeks ahead of 1998, 19 days ahead of the 5-year average of 86%. Harvesting progress is virtually complete in all the major soybean districts. Harvesting of the grain sorghum crop is 96% complete, 16 days ahead of 1998, 88% and 17 days ahead of the 5-year average. Progress ranges from 86% in the central district to virtually complete in the northwest district and the southern third of the State. Fall seeding of winter wheat was 91% complete, about 2 weeks ahead of 1998, two weeks ahead of the 5-year average of 85%. Sixty-six percent of the intended crop has emerged, a week ahead of 1998, but normal for this date. Condition of the emerged crop was 2% very poor, 11% poor, 60% fair, 26% good, 1% excellent. Forty-five percent of the ground intended for spring crops (excluding no-till) has been worked at least once. With the unseasonably warm weather, tillage was about three weeks ahead of 1998, the 5-year average of 30%. Pasture, range feed 49% very poor, 29% poor, 18% fair, 4% good. Precipitation for week ending November 7, 1999 avg. 0.14 inch.

MONTANA: Topsoil moisture 18% very short, 47% short, 35% adequate, 0% surplus. Subsoil moisture 20% very short, 48% short, 32% adequate, 0% surplus. Sugar 100% beets harvested, 93% 1998, 98% avg. Sugar beet harvest progressed smoothly with no problems. Yields are reported to be above normal with good sugar content. Potatoes 98% harvested, 98% 1998, 99% avg. Other farming activities: Fencing, shipping cattle to market, getting equipment ready for winter.

NEBRASKA: Days suitable for fieldwork 7.0. Topsoil 42% very short, 43% short, 15% adequate . Subsoil moisture 31% very short, 36% short, 33% adequate. Temperatures across areas averaged 1 to 5^0 above normals for the week. Only a few traces of precipitation were reported across the State. Corn 94% harvest reached, ahead of 86% 1998, 83% avg. Corn was being stored in alternative sites due to a shortage of space in some local elevators. Sorghum 93% harvest complete, just ahead of 89% 1998, 88% avg. Wheat conditions 7% very poor, 9% poor, 28% fair, 49%good, 7% excellent. Pasture, range 13% very poor, 16% poor, 33% fair, 36% good, 2% excellent. Cattle were being moved off pastures, range to crop stubble fields feed utilized piling the grain on the ground, or in old trench silos. Feedlot placements were heavy. Preconditioning of calves was also occurring. Activities included: Moving, marketing grain, fall tilling, preparing for the winter, building fences, weaning calves.

NEVADA: DATA NOT AVAILABLE

NEW ENGLAND: Days suitable for fieldwork 6.2. Topsoil 4% short, 83% adequate, 13% surplus. Subsoil 6% short, 80% adequate, 14% surplus. Pasture feed 9% very poor, 9% poor, 47% fair, 33% good, 2% excellent. Maine potatoes 100% harvested, 100% 1998, 100% avg.; condition excellent to good. Rhode Island potatoes 95% harvested, 100% 1998, 100% avg.; condition fair to poor. Field corn 99% harvested, 100% 1998, 99% avg.; condition good to fair. Second cut hay 99% harvested, 100% 1998, 100% avg.; condition good to fair. Third cut hay 95% harvested, 95% 1998, 99% avg.; condition fair. Apples 95% harvested, 100% 1998, 99% avg .; size average to below average, condition good. Cranberries 99% harvested, 100% 1998, 100% avg.; size average, condition good to excellent. Major farm activities included: Chopping hay, corn; harvesting corn for grain; digging potatoes; picking apples; harvesting cranberries; spreading manure lime; plowing, cleaning fields; picking rocks; preparing equipment for winter storage.

NEW JERSEY: Days suitable for fieldwork 5. Temperatures averaged 47^0 North, 50^0 Central, 53^0 South. Extremes were 73^0 at Downstown on the 2nd and 25 degrees at several locations on the 8th. Weekly rainfall averaged 1.13 inches North, 0.48 inches Central, 0.89 inches South. The heaviest 24 hour total was 1.45 inches at Charlotteburg on the 2nd to the 3rd. Adequate irrigation water supply, topsoil moisture was reported in most areas. Some areas reported a surplus of topsoil moisture after the mid-week rains. Planting of cover crops is still underway. The condition of the remaining grain corn, soybean fields is between fair, poor. Harvest of fall cabbage, lettuce, spinach, other minor fall vegetables is in full swing. The condition of most fall vegetables is between good, fair. Harvest of sweet potatoes, pumpkins is also very active. Harvest of apples has started to decrease. Harvest of cranberries is near completion.

NEW MEXICO: Days suitable for fieldwork 6.9. Topsoil moisture continued to decline across the state from the warm, dry fall. All stations reported mild, dry conditions for the week despite an early week surge of cool air. Weekly average temperatures ranged well above normal across the northern districts, plus the west central highlands, southwest deserts. Only the central valleys, far northeast recorded temperatures near normal. No measurable precipitation was reported for the week. Main farm activities: Harvesting sorghum, red chile, cotton. Corn for grain harvest was virtually over for the year. A hard freeze is still needed for cotton, sorghum harvest to pick up. Peanut harvest continued with excellent yields reported. Sorghum was in mostly good condition, while wheat conditions remained in mostly fair to good condition. Ranchers were busy with marketing calves, culling cows, maintenance activities. Pasture, Range feed 5% very poor, 7% poor, 43% fair, 40% good, 5% excellent. Cattle, sheep were in fair to good condition, with good weight gains reported. Some supplemental feeding has started in the colder locations.

NEW YORK: Days suitable 6.0. Soil moisture 95% adequate, 5% surplus. Pasture feed 40% fair, 60% good. Grain corn, soybean harvest progressed rapidly. Apple harvest finished. Growers grading, packing apples, making cider, cleaning orchards. Onion, potatoes being graded, packed. Wine making in full swing. Some producers took time off as deer hunting season was open.

NORTH CAROLINA: Days suitable for fieldwork 4.6 compared to 5.7 last week. After last week' s dry weather most of the areas received precipitation this week accompanied by seasonably cool weather. Fieldwork continues to be limited by the rainfall in the Piedmont, Coastal areas. However, the Mountain Region received heavier rainfall, welcomed the moisture. Small grains in the field should respond to the soil moisture. Across the State, soil moisture 7% short, 57% adequate, 36% surplus. The harvest of corn is drawing to a close. Progress was made in cotton, peanuts, soybean, sweetpotato harvest; however, all but soybeans are lagging behind the five-year average. Small grain farmers were able to make some seeding progress, but wheat, rye are well behind their respective planting averages. Other activities during the week included: Harvesting sorghum, shearing, marketing Christmas trees, marketing tobacco, harvesting vegetable crops, field equipment service, repairs.

NORTH DAKOTA: Days suitable for fieldwork 7. Topsoil 8% very short, 30% short, 58% adequate, 4% surplus. Subsoil 1% very short, 24% short, 71% adequate, 4% surplus. Another week of exceptional weather allowed producers to nearly complete the row crop harvest. Continued dry weather has increased the danger of prairie fires which have been reported across the state. High winds lodged corn in the southeast district resulting in yield loss. Corn for grain 93% harvested, 87% 1998, 86% avg. Soybeans 100% harvested, 98% 1998, 97% avg. Sunflowers 89% harvested, 87% 1998, 89% avg. Ranchers remained busy weaning calves, moving hay for winter feeding. Stock water supplies rated 0% very short, 2% short, 96% adequate, 2% surplus.

OHIO: Days suitable for fieldwork 4.9. Topsoil 10% very short, 32% short, 55% adequate, 3% surplus. Soybeans 98% harvested, 97% 1998, 95% avg. Corn 90% harvested for grain, 83% 1998, 67% avg. Winter wheat 100% planted, 100% 1998, 98% avg. Winter wheat 94% emerged, 96% 1998, 87% avg. Fall, winter apples 98% harvested, 99% 1998, 94% avg. Tobacco 30% stripped, 22% 1998. Winter wheat 0% very poor, 2% poor, 23% fair, 58% good, 17% excellent. Activities for the week include: Harvesting fall tillage; hauling grain; cleaning equipment; leveling land; spreading fertilizer, lime, manure; digging nursery stock; harvesting late hay; inspecting Christmas trees; fencing corn fields for cattle grazing; requesting grain loans, LDP' s;cutting firewood; pressing cider; emptying water storage tanks; drilling wells; cleaning out livestock ponds. Reported weed pressure includes Canadian thistle, foxtail, Johnson grass, lambsquarter. Reported diseases include gray leaf spot on corn, fly speck on apples. Fruit, vegetable producers are finishing up the cabbage, cauliflower, broccoli, turnip, apple harvest. Frost has killed some of the fruit, vegetable crops. Pasture, grass conditions have improved with recent rains. Reporters comment on greener pastures but slow regrowth. Almost all livestock producers are feeding hay; fall lambing has started, weaning of calves continues.

OKLAHOMA: Days suitable for fieldwork 5.2. Topsoil 12% very short, 39% short, 48% adequate, 1% surplus. Subsoil moisture 18% very short, 43% short, 39% adequate. Light freeze across most of state should accelerate harvest of row crops. Oats 12% very poor, 10% poor, 38% fair, 39% good, 1% excellent; 82% planted, 86% 1998, 76% avg.; 40% up-to-stand, 60% 1998, 49% avg. Soybeans 71% harvested, 73% 1998, 70% avg. Peanuts 75% combined, 63% 1998, 71% avg. Alfalfa Hay 3% very poor, 9% poor, 37% fair, 49% good, 2% excellent; 90% 4th cutting, 89% 1998, 97% avg.; 34% 5th cutting, 32% 1998, 67% avg. Livestock 4% poor, 28% fair, 65% good, 3% excellent. Pasture, range 10% very poor, 19% poor, 40% fair, 29% good, 2% excellent. Feeder steer prices $2.00 to $2.50 higher than last week.

OREGON: Activities: Winter wheat planting nearing end. Still some fertilizing of grass seed fields as weather permits. Winter barley planting almost finished. Christmas tree harvest starting. Finishing up planting of Easter lilies. Harvest of late vegetables starting to end. Squash, broccoli, cauliflower harvests continued. Tree fruit harvest winding down statewide. Hazelnut harvest nearing completion. South coast cranberry harvest almost completed. Grape harvest continued. Livestock continued to be fed. Movement off rangeland nearly completed. Beginning to cleanup the barns, mend fences.

PENNSYLVANIA: Days suitable for fieldwork 5.0. Soil moisture 4% very short, 9% short, 78% adequate, 9% surplus. Corn 96% mature, 100% 1998, 98% avg. Corn 69% harvested, 69% 1998, 62% avg. Corn crop 19% very poor, 32% poor, 28% fair, 18% good, 3% excellent. Soybeans 63% harvested, 68% 1998, 66% avg. Fall 86% plowing, 82% 1998, 84% avg. Wheat 94% planted, 94% 1998, 92% avg. Wheat 80% emerged, 73% 1998. Barley 99% planted, 100% 1998, 98% avg. Barley 93% emerged, 90% 1998. Alfalfa 4th 95% cutting 94% 1998, 86% avg. Apple 89% harvest, 94% 1998, 94% avg. Activities include: Harvesting corn, soybeans, apples, cool weather vegetables, potatoes, corn silage; planting barley, wheat, cover crops; machinery maintenance; fixing fences; filling silos; hauling, pumping, spreading manure; spreading lime; caring for livestock; cutting hay; plowing for the fall; repairing buildings.

SOUTH CAROLINA: Days suitable for fieldwork 6.0. Soil moisture 2% very short, 22% short, 70% adequate, 6% surplus. Apples 99% harvested, 100% 1998, 97% avg. Livestock Condition 4% poor, 29% fair, 54% good, 13% excellent. Pasture feed 2% very poor, 13% poor, 43% fair, 36% good, 6% excellent. Sorghum 100% matured, 100% 1998, 80% harvested, 94% 1998, 84% avg. Sweet Potatoes 89% harvested, 98% 1998, 75% avg. Winter Grazings 85% planted, 83% 1998, 80% avg.; 73% emerged, 65% 1998, 65% avg.; 2% poor, 35% fair, 56% good, 7% excellent. Winter Wheat 28% planted, 34% 1998, 28% avg.; 17% emerged, 24% 1998, 17% avg.; 47% fair, 47% good, 6% excellent. Barley 70% planted, 93% 1998, 73% avg.; 52% emerged, 62% 1998, 57% avg.; 20% fair, 36% good, 44% excellent. Oats 69% planted, 73% 1998, 69% avg.; 46% emerged, 54% 1998, 53% avg.; 33% fair, 51% good, 16% excellent. Rye 73% planted, 70% 1998, 65% avg.; 58% emerged, 53% 1998, 51% avg.; 34% fair, 56% good, 10% excellent. Pecans 30% harvested, 47% 1998, 36% avg.; 8% poor, 82% fair, 10% good.

SOUTH DAKOTA: Days suitable for fieldwork, 6.6. Topsoil 18% very short, 36% short, 41% adequate, 5% surplus. Subsoil moisture 11% very short, 29% short, 53% adequate, 7% surplus. Sunflower 89% harvested, 89% 1998, 91% avg. Sorghum 82% harvested, 86% 1998, 86% avg. Sorghum 93% harvested for silage, 100% 1998, 100% avg. Winter wheat 3% poor, 17% fair, 68% good, 12% excellent. Winter rye 1% poor, 20% fair, 70% good, 9% excellent; 98% emerged, 100% 1998, 100% avg. Range, pasture 2% very poor, 7% poor, 27% fair, 53% good, 11% excellent. Stock water supplies 3% very short, 11% short, 78% adequate, 8% surplus. Cattle is 1% poor, 8% fair, 66% good, 25% excellent. Sheep 6% fair, 73% good, 21% excellent. Below average precipitation, above average temperatures during October have helped row crops harvest, however dust is starting to impact cattle. Wind damage to unharvested row crops occurred early in the week.

TENNESSEE: Days suitable for fieldwork 5.0. Topsoil 15% very short, 23% short, 57% adequate, 5% surplus. Subsoil moisture 22% very short, 30% short, 46% adequate, 2% surplus. Burley 54% stripped, 57% 1998, 52% avg. Winter wheat 72% seeded, 78% 1998, 73% avg.; 40% emerged. Cattle 9% very poor, 15% poor, 38% fair, 33% good, 5% surplus. Hay stocks 12% very short, 37% short, 47% adequate, 4% surplus. A strong cold front moved into the State early last week bringing much needed rainfall to most areas. The rain helped replenish soil moisture, as well as benefitting both winter wheat, pasture land. Some counties are finding a small number of aphids in wheat fields, but most farmers have not yet had to spray. With the recent rainfall, warm temperatures, pastures throughout the State continue to improve. Farmers reported that grass has responded well, greened up, but is still very short in length.

TEXAS: Harvest continued under mostly unseasonably warm, open conditions, though the first freeze occurred across the Plains, Edwards Plateau, North Central Areas. Many areas received light to moderate showers associated with the same weather front but these did little to alleviate generally dry conditions. Land preparation remained slow in most areas. Livestock forage conditions continued to decline, supplemental feeding expanded. Livestock condition continued to decline as a result of the cool nights, warm days, continued dry forage conditions. Herd reduction continued to increase in many areas as stock ponds remained dry, forage

production ended. Apple harvest remained mostly complete in the Trans Pecos area while carrot, turnip harvest continued on the Plains. Pumpkin harvest was completed, guar harvest was underway.

Crops: Small Grains: Seeding of wheat, oats continued slow in most areas. Seedling death continued to increase in many emerged fields as a result of little moisture, while germination has not occurred in many other locations. Recent scattered showers produced little to no improvement in many areas while some heavier showers improved growth in a few locations. Statewide wheat condition was rated at 48% of normal compared with 68% 1998. Oats 66% Published, 82% 1998, 76% Avg. Corn Harvest was complete on the High Plains. Cotton Harvest continued under generally dry, open conditions. On the High Plains spraying to aid in harvest was discontinued as the first freeze occurred. Harvest was mostly complete in the Blacklands, Central Areas. Cotton stalk destruction continued active. Statewide cotton 57% of normal compared with 50% 1998. Bolls 98% Opening Published, 98% 1998, 96% Avg. Peanuts Harvest remained active on the Plains but was mostly complete in Central, South Areas. Some watering continued to aid in digging in a few locations. Statewide peanut at 75% of normal compared with 56% 1998. Rice Harvest of the second crop was mostly complete. Sorghum Harvest continued active on the High Plains. Elevator capacity problems continued in a few locations. Some growers continued to hold off on sorghum harvest while cotton was completed. The recent freeze will aid in the drying down of the remaining fields. Mature 99% Published, 99% 1998, 100% Avg. Soybeans Harvest was mostly complete on the High Plains, yields remained favorable. Published 95%, 95% 1998, 90% Avg.

Commercial Vegetables, Fruit and Pecans: Rio Grande Valley, harvest continued for bell peppers, various varieties of greens, fall melons. Onions were progressing well while spinach planting neared completion. Citrus continued to ripen well, harvest of early orchards remained active. Quality was good, yields were avg. Preparation for later planting of vegetables was underway. Planting, harvesting of sugar cane continued. San Antonio-Winter Garden, cabbage, onion planting was mostly complete, preparation for later fall vegetables continued. Tangerine harvest began, some cantaloupes were planted mainly in areas along the Rio Grande River. East Areas, planting of fall crops, gardens continued slow. Planting of many fall gardens was discontinued as the dry conditions prevailed. Sweet potato harvest was mostly complete while yields were below average in some locations. Pine tree harvest continued. High Plains, pumpkin harvest was completed, bean harvest was mostly complete. Generally good yields were reported for both crops. Carrot, turnip harvest escalated. The pecan crop continued to mature, harvest activities increased as shuck split, maturity increased as a result of the recent cooler temperatures. Quality remained variable.

Range and Livestock: Livestock conditions remained poor in most areas. Heard reduction continued to increase, supplemental feeding increased in many areas as forage conditions continued to decline. Livestock ponds remained dry in many locations, sickness, mainly pneumonia, continued as a result of the dry, dusty conditions. Some ranchers were considering liquidation, some dairy animals were sold as a result of the below average rainfall. The market remained steady to slightly weakened. Fall grazing from wheat, oats was minimal as poor stands, seedling death continued. Hay supplies remained below average, were decreasing in some areas. Native Deer herds remained in poor condition in some locations.

UTAH: Days suitable for fieldwork 7. Corn 77% harvested for grain, 62% 1998, 75% avg. Weather throughout the state has been unseasonably warm, dry.

VIRGINIA: Days suitable for fieldwork 5.3. Topsoil 6% very short, 13% short, 70% adequate, 11% surplus. Subsoil moisture 14% very short, 21% short, 55% adequate, 10% surplus. Beef Cattle Forage Obtained from Pastures 75%. Milk Cow Forage Obtained from Pastures 16%. Sheep Forage Obtained from Pastures 77%. Pastures 5% very poor, 17% poor, 35% fair, 36% good, 7% excellent. Livestock 0% very poor, 5% poor, 27% fair, 60% good, 8% excellent. Small Grain, Winter Grazing Crops 0% very poor, 3% poor, 21% fair, 63% good, 13% excellent. Corn for Grain 90% harvested, 95% 1998, 88% avg. Soybeans 34% harvested, 61% 1998, 41% avg.; 5% very poor, 12% poor, 32% fair, 39% good, 12% excellent. Winter Wheat 48% seeded, 58% 1998, 54% avg. Barley 90% seeded, 83% 1998, 87% avg. Peanuts 97% dug, 99% 1998, 99% avg.; 91% combined, 95% 1998, 96% avg. Cotton 40% harvested, 89% 1998, 59% avg. Apples, Winter 90% harvested, 92% 1998, 94% avg. Daytime temperatures were several degrees above normal across the Commonwealth during the past week. However, nighttime temperatures were cold enough to cause the first hard frost in many localities. Scattered showers allowed soil moisture to remain at mostly adequate to surplus levels. While pastures remain in mostly fair or better condition, extremely cold overnight temperatures limited new growth. Some beef producers began to provide hay, other supplemental feed. The majority of livestock, however, are getting their forage requirements from grazing pasture acreage. Ninety percent of corn for grain has been harvested. Progress was slowed this past week by scattered showers. The condition of Areas soybean acreage remained virtually unchanged this past week. Producers have harvested 34% of the soybean. Good yields have been reported. Seeding of small grain acreage was slow this past week due to rain, wet field conditions. Ninety percent of Areas barley acreage has been seeded while only 48% of the wheat has been seeded. Good soil moisture, relatively warm daytime temperatures have allowed good emergence of previously seeded acres. Peanut harvest is nearly complete. Ninety-seven percent of Areas crop has been dug. Ninety-one percent has been combined to date. Harvest progress remains behind previous year as well as the five-year avg. Cold overnight temperatures remain a concern for peanut producers who have unharvested acres. Cotton producers remain well behind normal harvest schedule. Most cotton acreage has been defoliated but remains unharvested. While the crop is ready to be picked, producers must wait until fields are dry enough to support heavy equipment. Only 40% of Areas cotton acreage has been picked. Harvest of winter apples is 90% complete, slightly behind the previous year, the five-year avg. Other activities during the past week included: Grading of tobacco, tending to livestock.

WASHINGTON: NO DATA AVAILABLE

WEST VIRGINIA:: Days suitable for fieldwork 5.0. Topsoil 10% very short, 50% short, 40% adequate. Last week' s rain, snowfall improved the State' s topsoil moisture supplies. Despite the precipitation, most areas are below normal precipitation levels. Hay 3rd 90% cut. Corn 80% harvested, 83% 1998, 76% 5-yr avg. Soybeans 5% very poor, 10% poor, 30% fair, 43% good, 12% excellent; 85% Harvested, 93% 1998, 68% 5-yr avg. Apples 95% harvested. Wheat 92% planted, 89% 1998, 86% 5-yr avg.; 40% emerged, 76% 1998. Cattle 8% poor, 45% fair, 45% good, 2% excellent. Sheep 1% poor, 70% fair, 25% good, 4% excellent.

WISCONSIN: Days suitable for fieldwork: 6.8. Soil Moisture 20% very short, 46% short, 34% adequate. Corn harvest neared completion for many Wisconsin farmers. However, some farmers were keeping corn in the field due to a lack of storage. Crop weather reporters have noted corn test weights have been good, the crop has dried down in the field enough to help keep drying costs at a minimum. Harvest of corn averaged 90% complete statewide. Above normal temperatures, low humidity, lack of significant rainfall aided harvest activities. Lack of rainfall has helped farmers speed through harvest with little interruption, but rainfall is now needed for winter wheat, fall alfalfa seedings. Reporters noted good wheat stands where the seed has germinated, but showers would be welcome. Fall tillage activities picked up the pace last week as areas crop harvests drew to a close. Fall tillage completed 58% 1999, 55% 1998, 46% avg. In some locations, tillage was more difficult due to the dry conditions. Fall manure hauling, baling of stalks for bedding took place last week. In Wood County, Cranberry growers finished harvest with good yields reported.

WYOMING: Days suitable for fieldwork 6.9. Topsoil 5% very short, 49% short, 46% adequate. Corn 82% harvested, 40% 1998, 64% avg. Sugarbeets 96% harvested, 92% 1998, 96% avg. Temperatures were above normal with no precipitation reported across the State.

International Weather and Crop Summary

October 31 - November 6, 1999

HIGHLIGHTS

FSU-WESTERN: Winter grains continued to ease into dormancy in northern Russia, while mild weather allowed further crop establishment in southern Russia and Ukraine. Topsoils remained unfavorably dry for winter wheat germination and establishment in south-central Ukraine.

EUROPE: Showers in western Europe benefited winter grain development, while predominately dry weather in eastern Europe helped fieldwork.

EASTERN ASIA: Rain provided some moisture for winter wheat in the North China Plain and slowed late double-crop rice harvesting in southern China.

SOUTHEAST ASIA: A tropical disturbance brought extensive flooding to the minor rice areas of central Vietnam. Elsewhere in Indochina and the Philippines, unseasonably heavy showers slowed rice harvesting.

SOUTH ASIA: Scattered showers lingered along India's eastern coast, but dry, warm weather favored mature summer crops elsewhere.

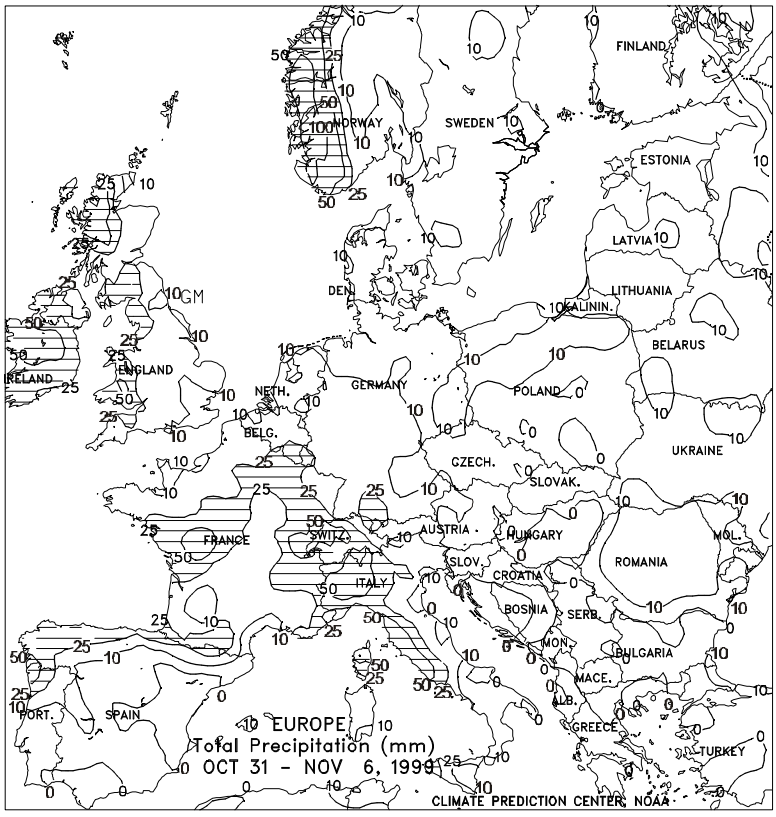
AUSTRALIA: Dry, mild weather dominated the southeast, hastening winter grain maturation.

SOUTH AMERICA: Widespread rain aided reproductive winter wheat and germinating summer crops in Argentina and southern Brazil. However, excessive rain caused some flooding in Cordoba, Argentina.

MEXICO: Seasonably dry weather aided corn maturation and harvesting in the Southern Plateau.

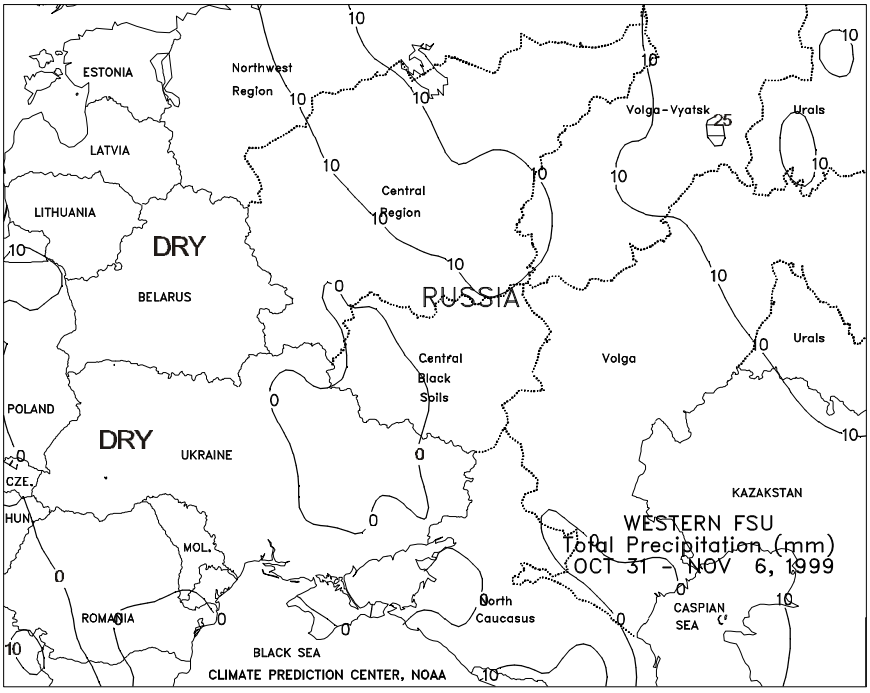
NORTHWESTERN AFRICA: Dry weather favored early winter grain planting in Morocco, while late-week showers boosted topsoil moisture for planting in Tunisia.

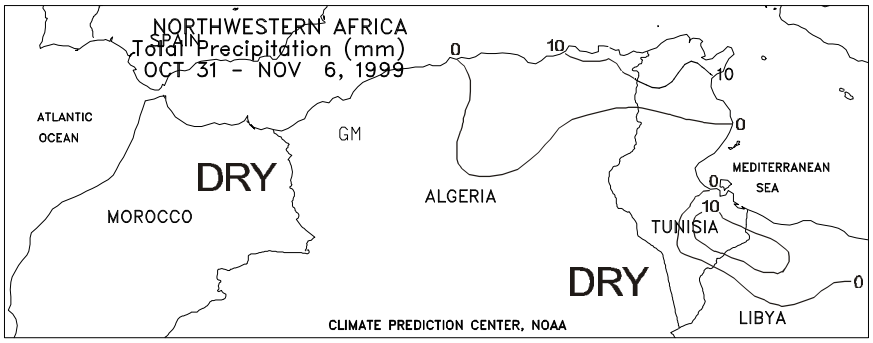
SOUTH AFRICA: Warm, dry weather dominated the corn belt, reducing moisture reserves for summer crop establishment.

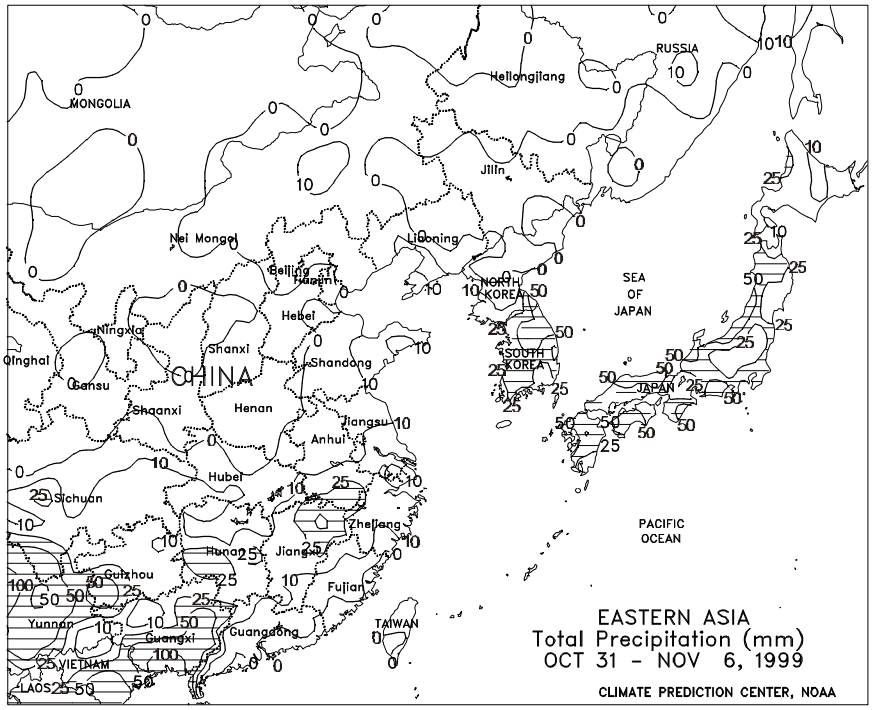


EUROPE

In eastern England, dry weather through Thursday favored sugar beet harvesting and winter wheat planting. Scattered light showers (12-20 mm) fell late in the week, helping germinating winter grains. In the Iberian peninsula, showers (15-30 mm) early in the week slowed corn harvesting in the northwest. Dry weather returned by Wednesday, however, allowing corn harvesting to resume in northern Portugal and western Spain. Elsewhere in the Iberian peninsula, dry weather throughout the week favored rice and cotton harvesting. Throughout the remainder of western Europe, midweek showers (15-40 mm) helped winter grain development in France, the Benelux countries, and western and southern Germany. Heavier showers (25-90 mm) fell across northern Italy, delaying corn and soybean harvesting. Nevertheless, most of the corn had been harvested in Italy and Germany prior to this week's rainfall. Farther east, scattered light showers (10-15 mm) in northern Poland and western Austria benefited developing winter grains. Elsewhere in eastern Europe, dry weather favored planting and harvesting activities. Unseasonably mild weather (temperatures generally 2-4 degrees C above normal) persisted throughout Europe, helping to advance winter grain development.







FSU-WESTERN

Unseasonably mild weather and light showers (5-16 mm) in northern Russia (Northwest Region, Central Region, Volga Vyastk, and upper Volga Valley) maintained favorable conditions for winter grains, which continued to ease into dormancy. Mostly dry weather helped late-season fieldwork for summer crop harvesting in southern Russia (North Caucasus and lower Volga Valley) and Ukraine. Unseasonably mild weather in these areas allowed further establishment of winter wheat, although soils in the south-central Ukraine remained unfavorably dry for uniform crop germination and early plant development. The time is approaching for normal crop establishment in the south-central Ukraine, since winter wheat typically enters dormancy by mid-November. Weekly temperatures averaged 1 to 3 degrees C above normal in Ukraine and southern Russian and 3 to 5 degrees C above normal in northern Russia. Extreme minimum temperatures fell below freezing (-1 to -8) in most areas during the week, furthering cold-hardening in winter grains. In cotton-producing areas of Central Asia, light showers (10-25 mm) in Uzbekistan and parts of Tajikistan caused some interruptions in cotton harvesting.

NORTHWESTERN AFRICA

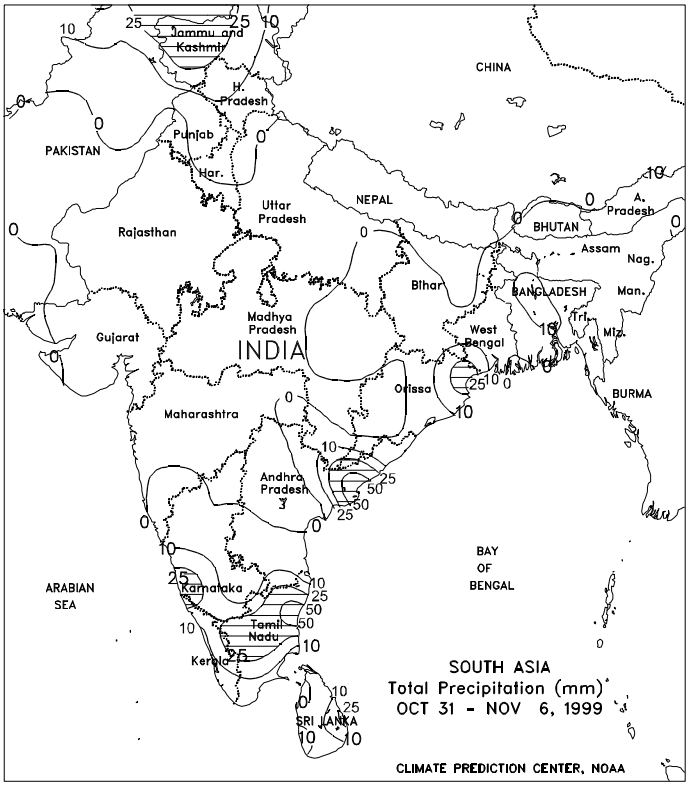
High pressure prevailed over the region, keeping most areas mild and dry. The dryness in Morocco favored early winter grain planting. Growers farther east in Algeria continue to wait for the onset of autumn rains before winter grain planting can begin. At week' s end, a weak cold front moved across Algeria and Tunisia from the north. The front produced significant precipitation (10-26 mm) in northern Tunisia, helping to condition topsoils for winter grain planting. Weekly temperatures averaged 3 to 6 degrees C above normal in Morocco and 2 to 4 degrees C above normal in Algeria and Tunisia.

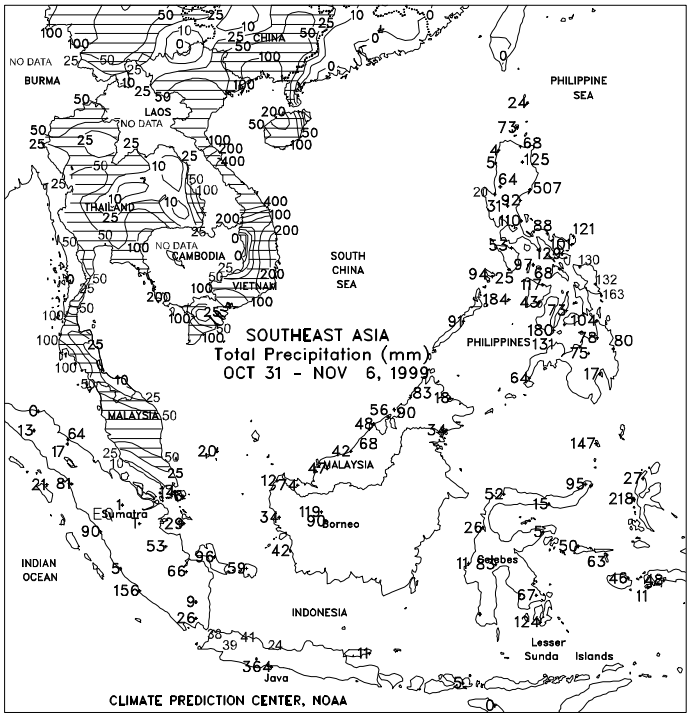
EASTERN ASIA

Light rain (3-15 mm) provided some moisture for germinating to vegetative winter wheat across the North China Plain. Soil moisture should be adequate for wheat establishment across the region. Seasonably dry, cold weather favored summer crop harvesting across Manchuria. Moderate rain (15-40 mm) covered most of the Yangtze Valley and southern China, slowing late double-crop rice maturation and harvesting, but increasing soil moisture for rapeseed planting. Temperatures averaged slightly above normal across northern China and near normal across central and southern China.

SOUTH ASIA

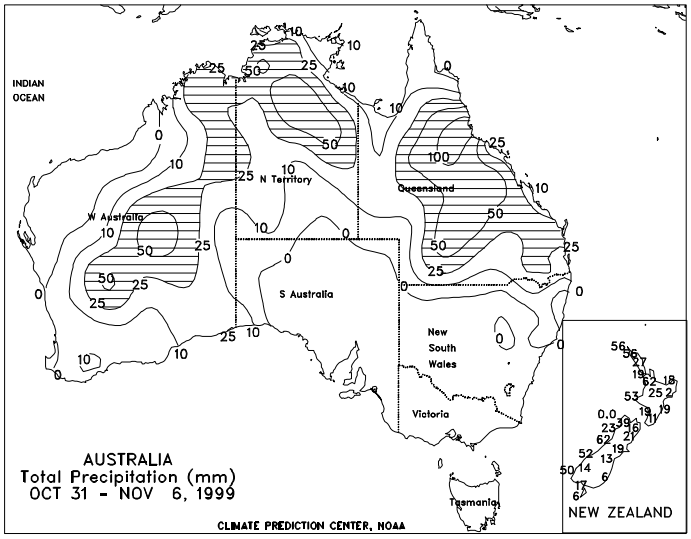
The remnants of last week's deadly cyclone tracked harmlessly southward along India's eastern coast, bringing scattered showers (10-25 mm, locally exceeding 50 mm) to coastal rice areas. Damage to unharvested rice in Orissa was still being assessed, as was the potential for increasing the acreage of dry-season rice in the affected areas to compensate for any shortfalls in local production. Elsewhere, dry, warmer-than-normal weather favored dry down of summer grains, oilseeds, and cotton. Unseasonable rain (10-25 mm or more) in northern sections of the Indus River Basin increased irrigation reserves for winter wheat. Winter grain and oilseed planting was underway across Pakistan and northern India, as was rabi (autumn-sown) grain, oilseed, and cotton plantings in southern and eastern India.





SOUTHEAST ASIA

A tropical disturbance brought torrential rain (500-1,000 mm or more) to central Vietnam (near the cities of Hue and Danang), causing extensive flooding and rice damage. However, this is a minor rice-producing area compared with the major producing areas of the north and south. Heavy showers (150-300 mm) also caused some flooding in south-central Vietnam. In the main rice-producing areas of northern and southern Vietnam, Thailand, and the Philippines, unseasonably heavy showers (25-125 mm) slowed rice harvesting. In Java, Indonesia, moderate to heavy showers (40-80 mm) increased moisture supplies for main-season rice transplanting. In peninsular Malaysia, seasonable showers (20-60 mm) maintained moisture supplies for oil palm.

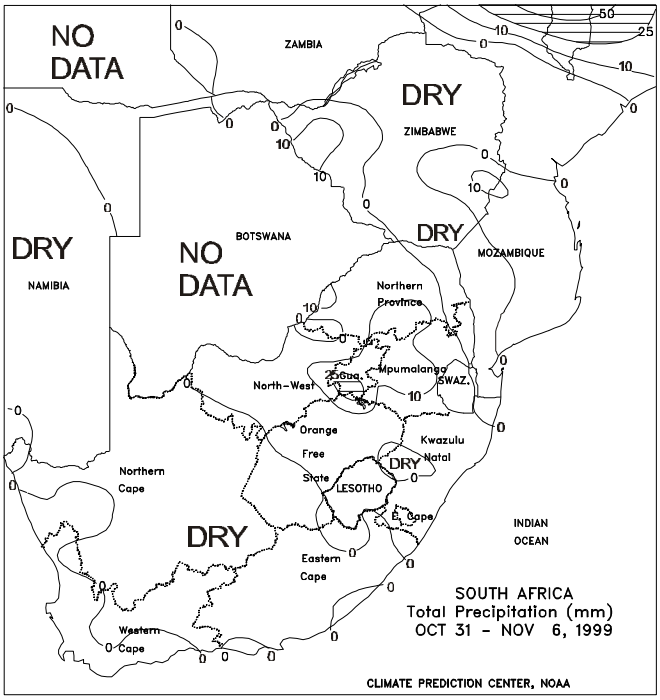


AUSTRALIA

Dry, albeit mild weather dominated the major crop-producing areas of South Australia, Victoria, and New South Wales. In northern and central New South Wales, the drier weather improved conditions for wheat and barley harvesting and helped to temper quality concerns. Farther south, additional moisture would have been welcomed for immature winter grains, especially in South Australia, although improvement at this stage of the growing season would likely have been localized. Highs in the southeast ranged from the lower to upper 20's degrees C, reducing the potential for heat-related stress. In Queensland, light to moderate showers (10-25 mm or more) raised concern for the quality of unharvested winter crops but boosted moisture reserves for cotton and sorghum. Shower activity also increased over coastal sugarcane areas as moisture spread southward from the tropics. The rain will benefit newly planted canes. Mostly dry weather continued in Western Australia, favoring late winter grain development and spurring harvests. In New Zealand, moderate to heavy showers (10-25 mm or more) brought some relief to primary pasture and crop lands. The heaviest rain (25-62 mm) fell in northern agricultural areas of North Island.

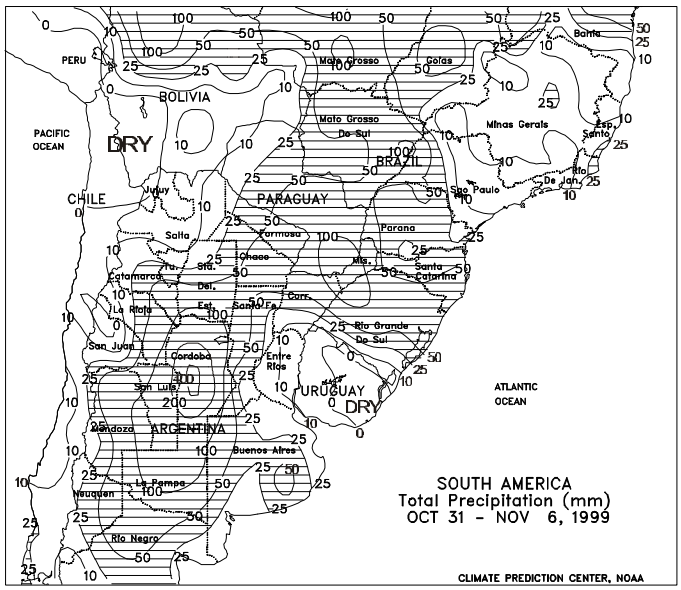
SOUTH AFRICA

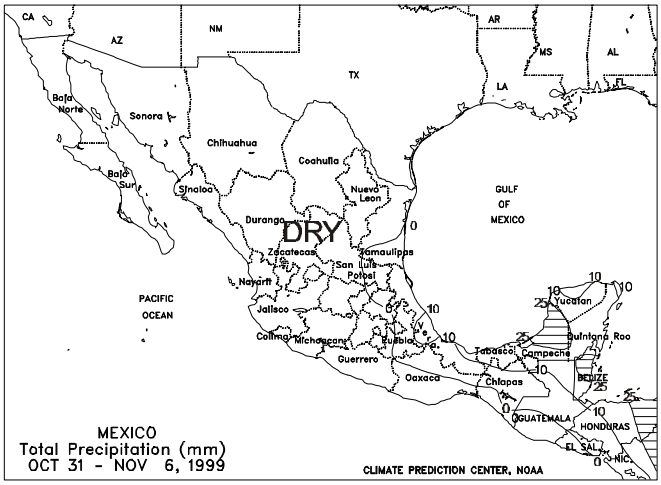
Dry, warm weather returned to much of the corn belt, reducing topsoil moisture reserves for summer crop germination. The exception was a section of the northeast stretching from North West to Mpumalanga that received 10 to 25 mm of rain. Temperatures ranged from the lower to middle 30's degrees C throughout the region, enhancing evaporative losses and hastening development of immature wheat. Elsewhere, dry weather returned to coastal sugarcane areas of KwaZulu-Natal, allowing excess moisture to recede following last week' sinundations. Dry, warmer-than-normal weather also continued in crop areas of Western Cape. Conditions there favored rapid wheat harvesting but irrigation demands have increased in orchards and vineyards.



SOUTH AMERICA

In central Argentina, widespread rain (20-40 mm) continued to benefit reproductive to filling winter wheat and germinating corn and sunflowerseed. Heavier showers (100-200 mm, with isolated amounts greater than 400 mm) covered Cordoba and northern La Pampa, causing local flooding and possible damage to mature winter wheat. Rain (50-90 mm) also improved soil moisture for cotton and soybean planting in northern Argentina and southern Paraguay. According to reports as of October 29, corn was 60 percent planted, compared with 51 percent last year, and sunflowerseed was 46 percent planted, compared with 22 percent last year. Temperatures averaged 1 to 2 degrees below normal across central Argentina. In southern Brazil, widespread showers (30-100 mm) extended across the major soybean-producing areas from Mato Grosso in the north to Rio Grande do Sul in the south. Unseasonably dry, warm weather (5-15 mm of rain; temperatures averaging 1-2 degrees C above normal) reduced soil moisture for coffee flowering in Sao Paulo and southwestern Minas Gerais. During the past 4 weeks, these regions have received only 25 to 40 percent of normal rainfall. According to reports as of November 5, Brazilian soybeans were 16 percent planted, compared with 18 percent last year.





MEXICO

Seasonably dry weather continued to aid corn maturation and harvesting in the Southern Plateau. Light rain (10-40 mm) fell across Veracruz and Tabasco. Temperatures averaged near normal across northwestern Mexico.

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(Continued from page 9)

Eighty-eight percent of the soybean acreage was dropping leaves by October 3, slightly ahead of the 5-year average. Soybeans ripened well ahead of normal along the Ohio and Mississippi River Valleys and slightly ahead of normal in the central and western Corn Belt. Crop development lagged slightly behind the 5-year average in the Great Plains. Ninety-three percent of the soybean crop was harvested by the end of the month, 7 percentage points ahead of the 5-year average. The harvest pace accelerated in most areas of the Corn Belt early in the month, with only brief rain delays in northern Missouri, eastern Iowa, northern Illinois, and scattered areas of Indiana and Michigan. Brief rain delays also interrupted harvest progress in the Mississippi Delta early in the month. Precipitation from Hurricane Irene limited harvest activity in the Atlantic Coastal Plains, but progress remained slightly ahead of the normal pace in North and South Carolina. Near the end of the month, harvest was active in the southern Corn Belt, Mississippi Delta, and Southeast, as hot weather quickly ripened double-cropped and late-planted soybeans.

Winter wheat seeding was 53 complete on October 3 and advanced to 89 percent complete by the end of the month. Sowing was aided by dry conditions in most areas of the Great Plains and eastern Corn Belt, but Oregon growers delayed planting due to dry soils. In the Corn Belt, growers planted soft red winter wheat as soon as row crops were harvested and fields were prepared. Muddy fields and the slow row crop harvest pace delayed planting in North Carolina. Twenty-six percent of the acreage was emerged by October 3, slightly ahead of the average. By October 31, 73 percent of the acreage was emerged, slightly behind normal. Dry soils hindered emergence in parts of the Corn Belt and Great Plains. Precipitation, some in the form of snow, provided much needed moisture for germinating seeds in Kansas, Colorado, and the eastern Corn Belt early in the month. By mid-month, stands were spotty and growth was uneven in some fields due to soil moisture shortages in some areas of the Corn Belt and Great Plains. Abundant sunshine promoted crop development where moisture was adequate, but below-normal temperatures limited growth for several days near mid-month.

Eighty-seven percent of the cotton acreage was at or beyond the boll opening stage on October 3, 1 week ahead of the 5-year average. Bolls were open on virtually all of the acreage in the Mississippi Delta by October 3. In the southern Great Plains, North Carolina, and California, warm daytime weather accelerated ripening. However, development continued to lag slightly behind normal in California, even though above-normal temperatures prevailed for most of the month. Harvest rapidly progressed in the lower Mississippi Valley, as rain delays were isolated and brief. In the southern Great Plains, picking gradually gained momentum early in the month, and rapidly progressed by mid-month. Rainy weather and muddy fields limited progress in the Atlantic Coastal Plains for most of the month.

Sorghum ripened at a normal pace, reaching 96 percent mature by October 24. Harvest progressed slightly ahead of the 5-year average throughout the month, advancing from 40 percent complete on October 3 to 88 percent on October 31. In the lower Mississippi Valley, most of the crop was harvested by October 3. As the month progressed, harvest accelerated in the central Great Plains and southern Corn Belt, well ahead of normal in Illinois, and slightly ahead of normal in Kansas, Colorado, and Nebraska. Slow ripening limited harvest progress in South Dakota, until after mid-month, when the harvest pace accelerated.

The peanut harvest progressed to 79 percent complete by the end of the month. Heavy rain periodically slowed harvest progress in the Atlantic Coastal Plains throughout the month. On October 31, digging was 30 percentage points behind normal in North Carolina. Progress was slightly faster in South Carolina. Harvest progress was at, or ahead of, the average in the eastern Gulf Coast and southern Great Plains peanut-producing areas.

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