

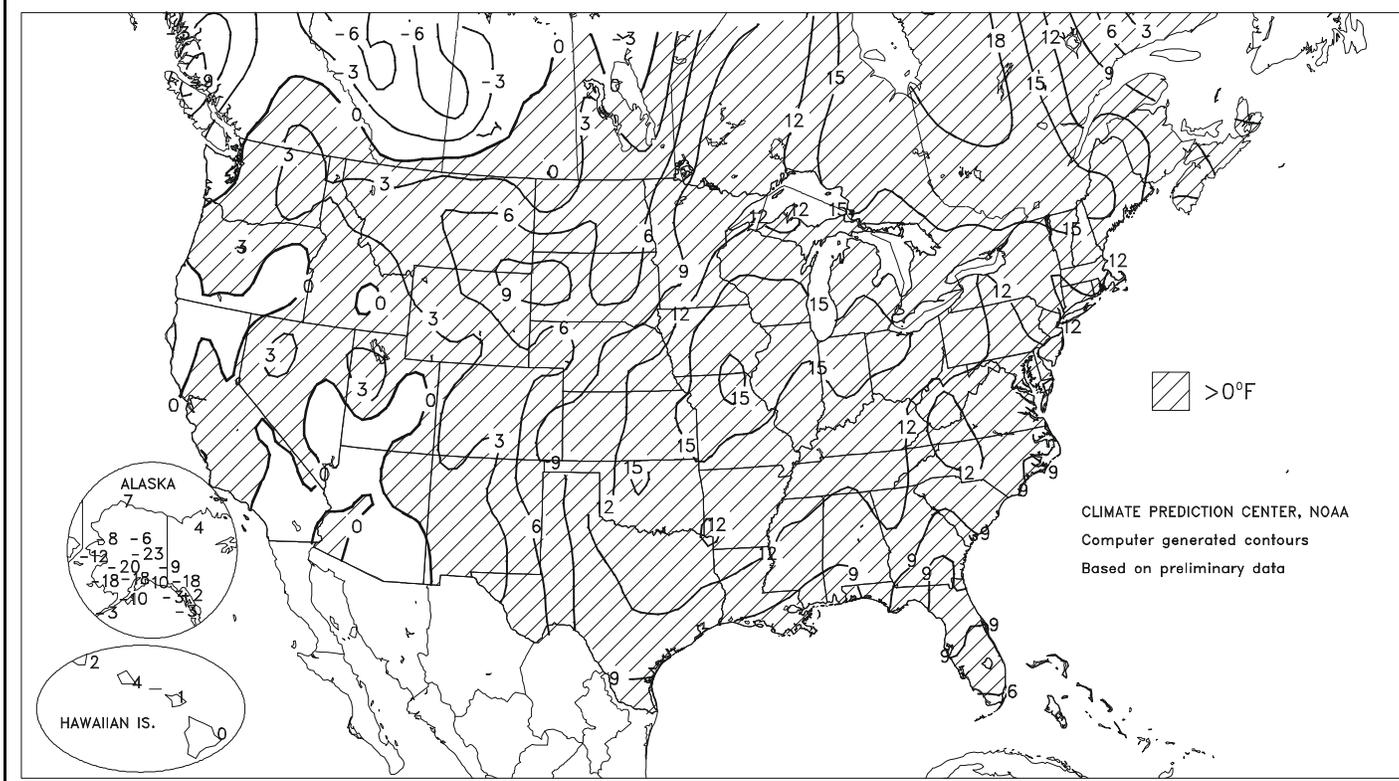
WEEKLY WEATHER AND CROP BULLETIN

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

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

Departure of Average Temperature from Normal (°F)

DEC 2 - 8, 2001



HIGHLIGHTS

December 2 - 8, 2001

Highlights provided by USDA/WAOB

Record warmth prevailed from the **Plains eastward**, elevating weekly temperatures as much as 18°F above normal in the **lower Great Lakes region** and resulting in more than a dozen monthly record highs on December 5-6 from the **Midwest into the Northeast**. At week's end, however, cooler air overspread the **Midwest and Northeast**, setting the stage for the first significant snowfall of the season in the latter region. Although the early-December warmth promoted some late-season winter wheat development from the **southern Plains to the Ohio Valley**, dryness continued to limit wheat growth in the **southern Atlantic States**. Meanwhile, dry weather *(Continued on page 3)*

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Weather Data for Selected Locations in the Delta and the Bootheel

Weather Data for the Week Ending December 8, 2001

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

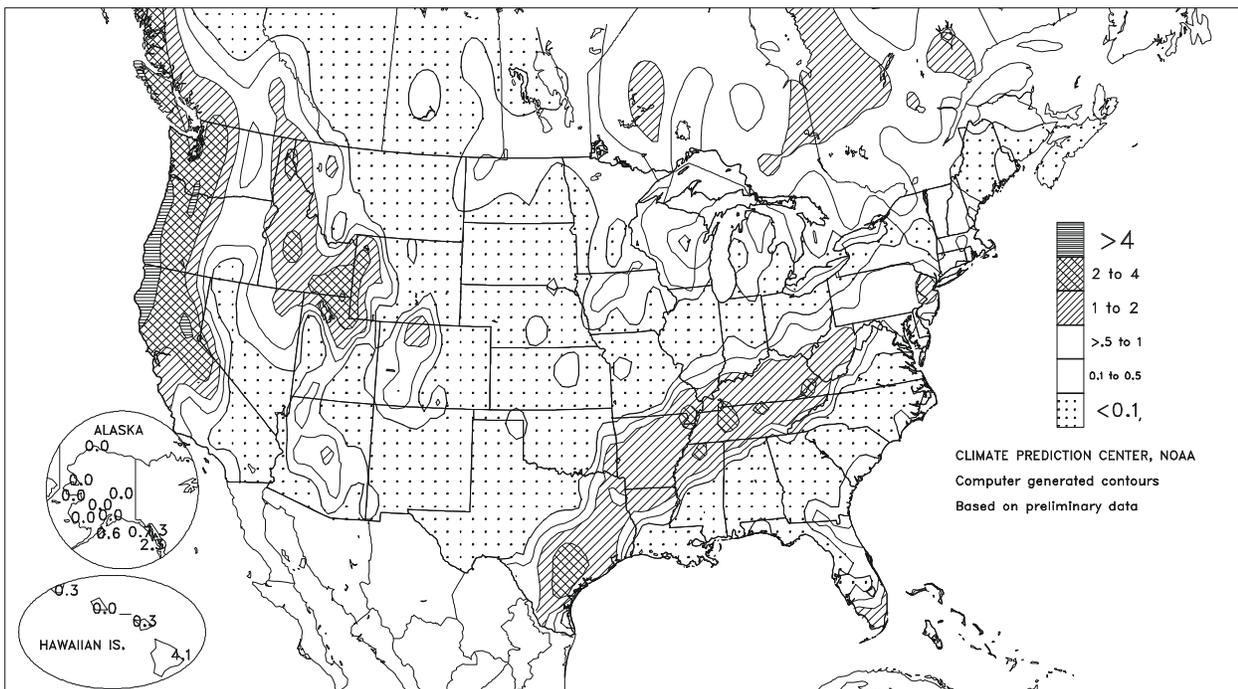
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								4-INCH SOIL TEMP. °F		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN. SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL IN. SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F				
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
MS BATESVILLE ^x	70	49	75	33	60	14	2.04	0.78	1.49	2.04	142	57.93	116	--	--	0	0	2	2	
MS CLARKSDALE ^x	67	48	74	37	58	11	2.10	0.91	1.32	2.10	154	--	--	--	--	0	0	2	2	
MS CLEVELAND ^x	68	51	72	39	60	12	0.94	-0.13	0.68	0.94	77	58.82	132	--	--	0	0	2	1	
MS GREENVILLE ^x	68	50	74	40	59	10	1.38	0.14	0.78	1.38	96	59.13	126	--	--	0	0	2	2	
MS GREENWOOD ^x	71	50	76	37	61	12	0.72	-0.44	0.43	0.72	54	56.93	122	--	--	0	0	2	0	
MS INDIANOLA 1S	69	51	73	41	60	--	0.87	--	0.49	0.87	--	60.31	--	61	55	0	0	2	0	
MS INVERNESS 5E	70	52	75	43	61	--	1.21	--	0.70	1.21	--	54.05	--	62	56	0	0	2	2	
MS LYON	--	--	--	--	--	--	1.62	--	1.17	1.62	--	66.70	--	--	--	--	--	--	--	
MS MOORHEAD ^x	70	53	77	44	62	13	0.66	-0.66	0.64	0.66	44	52.62	110	--	--	0	0	2	1	
MS ONWARD	71	52	77	42	62	--	0.44	--	0.44	0.44	--	49.72	--	60	56	0	0	1	0	
MS ROLLING FORK ^x	71	51	78	42	61	12	0.00	-1.28	0.00	0.00	0	43.95	92	--	--	0	0	0	0	
MS SCOTT	68	51	72	41	60	--	0.96	--	0.63	0.96	--	--	--	61	54	0	0	3	1	
MS SIDON	71	52	77	42	62	--	1.08	--	0.57	1.08	--	46.93	--	64	54	0	0	2	2	
MS TUNICA ^x	67	50	71	36	59	13	1.02	-0.24	1.02	1.02	71	50.58	108	--	--	0	0	1	1	
MS TUNICA 1W	67	49	72	37	58	--	0.93	--	0.73	0.93	--	49.41	--	59	53	0	0	3	1	
MS VANCE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MS VICKSBURG ^x	73	51	78	39	62	10	0.00	-1.26	0.00	0.00	0	67.03	134	--	--	0	0	0	0	
MS YAZOO CITY ^x	72	49	77	36	61	11	0.00	-1.40	0.00	0.00	0	55.91	111	--	--	0	0	0	0	
MO STONEVILLE*	68	50	74	40	59	12	1.60	0.21	0.85	1.60	100	63.23	131	63	54	0	0	2	2	
MO CARDWELL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MO CHARLESTON	62	45	69	36	54	16	1.41	0.18	0.78	1.41	104	36.78	80	56	48	0	0	2	2	
MO CLARKTON	62	45	70	34	54	12	1.86	0.65	1.00	1.86	145	40.58	94	--	--	0	0	3	2	
MO DELTA	60	43	66	32	51	11	0.86	-0.36	0.57	0.86	62	32.65	67	53	46	0	1	2	1	
MO GLENNONVILLE	62	46	69	35	55	13	1.43	0.22	0.88	1.43	112	35.86	83	56	50	0	0	3	2	
MO PORTAGEVILLE #1	63	48	72	38	56	13	1.77	0.53	1.16	1.77	129	40.98	86	57	49	0	0	3	2	
MO PORTAGEVILLE #2	65	48	71	38	56	13	1.83	0.59	1.23	1.83	134	37.10	78	57	50	0	0	3	2	
MO STEELE	64	47	72	38	56	13	1.18	-0.18	0.64	1.18	79	43.31	88	57	50	0	0	3	2	

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

Delta and Bootheel Weather and Crop Summary: The majority of last week was dry and unseasonably warm. A slow-moving weather system brought the return of wet weather by week's end. Some fields remained flooded due to late November's heavy rainfall, and wet conditions continued to hamper fieldwork.

Total Precipitation (Inches)

DEC 2 - 8, 2001



(Continued from front cover)

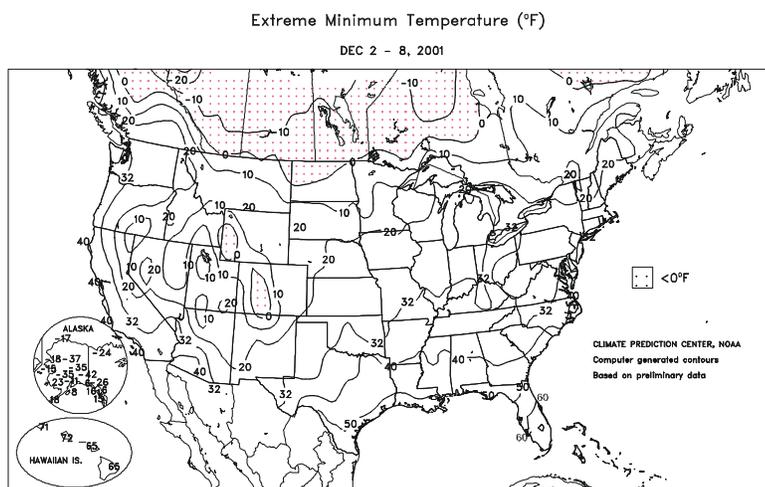
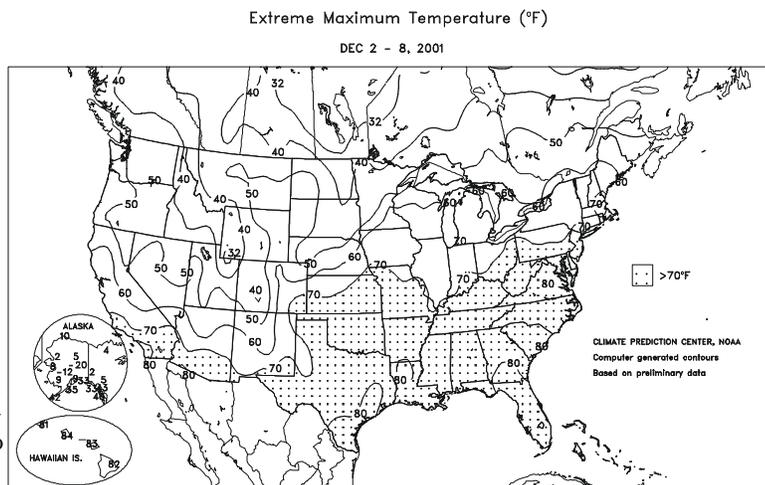
prevailed for much of the week in the previously soaked **lower Mississippi Valley** and adjacent areas, allowing water to drain from fields that were still flooded. However, widespread showers returned toward week's end, bringing renewed fieldwork delays and lowland flooding. In the **West**, heavy precipitation fell in many areas from **northern California and the Great Basin northward**, further easing long-term drought and boosting topsoil moisture reserves and high-elevation snow packs. Farther south, sporadic, generally light precipitation was observed in **southern California** and the **Southwest**.

Early in the week, a strong Pacific storm produced heavy precipitation as far east as the **western Great Basin**, where **Reno, NV**, netted a daily-record total (1.19 inches) on December 2. Reno's water year-to-date (October 1 - December 8) precipitation climbed to 2.16 inches, exceeding their record-low total of 2.13 inches observed from October 1, 2000, to September 30, 2001. In **northern California**, peak wind gusts on December 2 included 52 mph in **Sacramento** and 48 mph in **Red Bluff**. Meanwhile in the **Sierra Nevada**, high-elevation locations added approximately 6 inches of liquid to the snow pack during the first 8 days of December, according to the California Department of Water Resources. Some **Sierra Nevada** locations, including **Carson Pass**, received more than 5 feet of snow during the early-December storm. The average liquid equivalent of the **Sierra Nevada** snow pack, which contained only a trace of liquid on November 12, increased to 11 inches (150 percent of normal) on December 8.

Farther east, record warmth developed across the **central Plains** on Monday, expanding throughout the **eastern half of the country** from December 4-6. Some record warmth lingered in the **Southeast** through week's end. Nearly 200 daily-record highs were set or tied during the week, including well over a dozen December-record highs. The parade of record began in **Kansas** on December 3 with highs of 76°F in **Liberal** and **Ashland**. A day later, **Gilbert, AR**, noted 80°F. On December 5, when nearly 100 daily records were broken, monthly record highs included 70°F in **Flint, MI**, 68°F in **Milwaukee, WI**, and 67°F in **Rockford, IL**. Most of the previous December records had been set in 1962, 1982, or 1998. In a final flurry of monthly records on Thursday, all-time December highs included 72 °F in **Syracuse, NY**, and 71 °F in **Portland, ME**.

Through December 8, only six freezes were noted in **Indianapolis, IN**, their latest such observance since 1923, when their seventh freeze occurred on December 11. Farther west, **Rochester, MN**, set a pair of records: the latest autumn observance of the first high temperature below freezing (30°F on December 8) and first low temperature below 20°F (15°F on December 8). **Rochester's** former records were established on December 5, 1999, and December 5, 1962, respectively. Meanwhile, **Albany, NY**, notched a daily-record high of 68°F on Thursday, highlighting their first December 1-7 period on record with high temperatures at or above 50 °F. However, sharply colder air arrived in **Albany** on December 8-9, accompanied by a 7.4-inch snowfall. Elsewhere in the **Northeast**, storm-total snowfall reached 9.0 inches in **Worcester, MA**, and 8.0 inches in **Jaffrey, NH**. In contrast, only 0.1 inch fell in **Buffalo, NY**, leaving the snow-belt city awaiting its first 1-inch snowfall of the season. Similarly, **LaCrosse, WI**, received no measurable snowfall through December 8, breaking their record set in 1969, when the first accumulating snow fell on December 7.

Seasonal showers continued across **Hawaii**, bringing additional relief from long-term rainfall deficits. Precipitation was heaviest in windward locations on the **Big Island**, where **Glenwood** received 5.28 inches in 72 hours from December 2-5 and 4.33 inches in 48 hours from December 7-9. With 2.03 inches on Monday, **Hilo** measured daily-record total for December 3. On **Oahu**, the **Manoa Lyon Arboretum** netted 2.55 inches in 24 hours on December 5-6. Meanwhile, bitterly cold weather overspread much of **Alaska**, holding weekly temperatures more than 20°F below normal across the southern interior portion of the State. In **Anchorage**, low temperatures fell below 0°F on the first 8 days of the month, including a low of -11 °F on December 7, following 682 days without sub-zero readings. High



temperatures failed to climb above -20°F in **Fairbanks** during the week, and lows fell to -30°F or below from December 3-8. On December 5, lows dipped to -35°F in **Fairbanks** and **McGrath**.

Monthly Record Highs (°F), December 5-6, 2001

Location/Date	High	Former Record/Date
December 5		
South Bend, IN	70	70 on Dec. 2, 1982
Flint, MI	70	67 on Dec. 3, 1982
Grand Rapids, MI	69	67 on Dec. 2, 1982
Milwaukee, WI	68	64 on Dec. 3, 1998
Rockford, IL	67	66 on Dec. 4, 1998, & Dec. 28, 1984
Oshkosh, WI	65	63 on Dec. 2, 1962
Alpena, MI	65	65 on Dec. 25, 1982
Houghton Lake, MI	64	54 on Dec. 3, 1962
Green Bay, WI	64	62 on Dec. 3, 1998, & Dec. 1, 1970
Appleton, WI	64	61 on Dec. 3, 1998
Madison, WI	64	62 on Dec. 5, 1998, & earlier dates
Eau Claire, WI	64	63 on Dec. 1, 1998, & Dec. 2, 1982
Sault Ste. Marie, MI	62	60 on Dec. 3, 1982
Wausau, WI	61	61 on Dec. 2, 1982
December 6		
Syracuse, NY	72	70 on Dec. 7, 1998, & Dec. 10, 1966
Portland, ME	71	71 on Dec. 7, 1998
Massena, NY	68	65 on Dec. 7, 1998, & Dec. 3, 1982
Montpelier, VT	67	67 on Dec. 7, 1998
Mt. Washington, NH	47	45 on several dates

Compiled from National Weather Service record reports and Midwestern Regional Climate Center summaries. Data are preliminary and subject to change.

National Weather Data for Selected Cities

Weather Data for the Week Ending December 8, 2001

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

STATES AND STATIONS	TEMPERATURE EF						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. EF		PRECIP	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
AL BIRMINGHAM	71	46	74	38	59	11	0.00	-1.12	0.00	0.00	0	61.87	122	95	46	0	0	0	0
AL HUNTSVILLE	68	46	72	37	57	12	0.49	-0.82	0.40	0.49	33	57.79	109	91	63	0	0	2	0
AL MOBILE	75	50	78	45	63	8	0.03	-1.14	0.01	0.03	2	51.86	86	97	59	0	0	3	0
AL MONTGOMERY	74	45	78	41	60	8	0.01	-1.14	0.01	0.02	2	44.37	90	99	54	0	0	1	0
AK ANCHORAGE	7	-8	9	-11	-1	-18	0.00	-0.25	0.00	0.00	0	13.45	89	86	71	0	7	0	0
AK BARROW	3	-8	10	-17	-2	7	0.00	-0.03	0.00	0.01	33	4.99	114	88	83	0	7	0	0
AK FAIRBANKS	-23	-32	-20	-35	-27	-23	0.00	-0.19	0.00	0.00	0	8.26	81	71	69	0	7	0	0
AK JUNEAU	31	22	43	6	26	-3	1.30	0.31	0.96	1.30	115	56.00	110	87	75	0	6	6	1
AK KODIAK	28	15	35	8	22	-10	0.61	-0.83	0.50	0.61	37	69.12	111	76	53	0	7	4	1
AK NOME	4	-11	8	-15	-3	-12	0.00	-0.19	0.00	0.00	0	12.69	89	77	69	0	7	0	0
AZ FLAGSTAFF	43	19	49	6	31	0	0.37	-0.17	0.37	0.37	61	16.65	79	81	33	0	7	1	0
AZ PHOENIX	67	45	74	42	56	0	0.55	0.33	0.54	0.55	220	6.39	92	76	47	0	0	2	1
AZ TUCSON	67	36	77	30	51	-3	0.08	-0.14	0.08	0.08	32	7.31	65	72	37	0	2	1	0
AZ YUMA	69	48	74	42	59	1	0.01	-0.08	0.01	0.01	10	3.32	118	58	52	0	0	1	0
AR FORT SMITH	67	46	79	33	56	13	0.38	-0.41	0.21	0.38	42	35.34	91	94	64	0	0	3	0
AR LITTLE ROCK	68	48	76	37	58	12	0.94	-0.24	0.61	0.94	70	43.26	91	99	62	0	0	2	1
CA BAKERSFIELD	60	40	70	34	50	1	0.16	0.02	0.10	0.17	106	6.86	131	89	69	0	0	3	0
CA FRESNO	57	41	66	37	49	2	0.03	-0.27	0.03	0.15	43	10.21	107	92	74	0	0	1	0
CA LOS ANGELES	68	50	80	45	59	1	0.23	-0.13	0.23	0.23	56	18.55	172	67	42	0	0	1	0
CA REDDING	53	40	63	30	46	0	1.42	0.21	0.83	2.75	198	29.60	101	91	79	0	1	3	1
CA SACRAMENTO	57	44	61	33	50	3	1.29	0.75	1.02	1.98	325	16.97	109	97	65	0	0	4	1
CA SAN DIEGO	67	49	76	45	58	0	0.14	-0.22	0.11	0.14	34	8.22	94	78	54	0	0	2	0
CA SAN FRANCISCO	58	48	61	43	53	2	2.29	1.66	2.04	3.48	483	21.09	122	93	76	0	0	4	1
CA STOCKTON	56	43	63	34	50	3	0.69	0.23	0.58	1.07	206	11.49	93	92	80	0	0	5	1
CO ALAMOSA	41	5	49	-3	23	2	0.00	-0.11	0.00	0.00	0	9.74	134	87	51	0	7	0	0
CO CO SPRINGS	52	24	62	11	38	6	0.00	-0.11	0.00	0.00	0	14.94	94	63	17	0	7	0	0
CO DENVER INTL	49	27	57	16	38	***	0.00	***	0.00	0.00	***	15.19	***	69	32	0	5	0	0
CO GRAND JUNCTION	44	27	52	19	35	3	0.17	0.03	0.08	0.17	106	8.25	101	89	60	0	7	4	0
CO PUEBLO	59	19	66	7	39	6	0.00	-0.11	0.00	0.00	0	11.43	105	59	24	0	7	0	0
CT BRIDGEPORT	57	39	67	32	48	10	0.42	-0.40	0.32	0.43	46	33.73	86	88	57	0	2	3	0
CT HARTFORD	57	35	68	25	46	13	0.15	-0.76	0.13	0.16	15	31.78	77	86	47	0	4	2	0
DC WASHINGTON	65	44	75	36	55	12	0.57	-0.15	0.57	0.57	70	29.08	80	87	48	0	0	1	1
DE WILMINGTON	61	40	72	31	51	12	0.59	-0.21	0.59	0.59	65	32.47	85	92	50	0	1	1	1
FL DAYTONA BEACH	79	64	83	60	72	10	0.07	-0.51	0.04	0.07	11	58.01	126	99	65	0	0	4	0
FL JACKSONVILLE	75	55	81	48	65	8	0.34	-0.22	0.33	0.34	53	46.37	94	10	70	0	0	2	0
FL KEY WEST	80	72	82	71	76	3	1.03	0.55	0.87	1.03	184	44.92	118	90	73	0	0	2	1
FL MIAMI	81	71	82	69	76	6	1.75	1.32	1.18	1.76	359	70.59	129	88	65	0	0	4	1
FL ORLANDO	81	63	83	61	72	8	0.08	-0.42	0.08	0.08	14	54.89	118	10	62	0	0	1	0
FL PENSACOLA	74	52	78	47	63	7	0.05	-0.86	0.02	0.06	6	45.26	77	91	59	0	0	4	0
FL TALLAHASSEE	76	49	81	43	63	8	0.09	-1.01	0.08	0.10	8	62.81	101	98	61	0	0	2	0
FL TAMPA	83	66	85	62	74	10	0.16	-0.31	0.16	0.16	30	39.03	92	95	57	0	0	1	0
FL WEST PALM	81	70	82	64	76	7	1.00	0.35	0.67	1.05	138	64.99	110	91	68	0	0	4	1
GA ATHENS	72	44	77	35	58	10	0.00	-0.88	0.00	0.00	0	38.20	82	91	49	0	0	0	0
GA ATLANTA	71	48	75	44	60	13	0.00	-0.94	0.00	0.00	0	36.57	77	87	52	0	0	0	0
GA AUGUSTA	75	42	79	34	58	9	0.00	-0.69	0.00	0.01	1	32.62	78	96	54	0	0	0	0
GA COLUMBUS	75	48	78	45	61	10	0.01	-1.06	0.01	0.02	2	36.81	78	93	42	0	0	1	0
GA MACON	75	43	79	37	59	8	0.10	-0.78	0.08	0.11	11	45.72	111	95	45	0	0	3	0
GA SAVANNAH	76	50	80	42	63	9	0.18	-0.41	0.17	0.18	26	31.18	66	98	58	0	0	2	0
HI HILO	79	67	82	65	73	0	4.07	1.09	1.96	4.50	132	103.2	86	93	86	0	0	7	2
HI HONOLULU	83	74	84	72	79	4	0.00	-0.82	0.00	0.00	0	8.41	44	74	66	0	0	0	0
HI KAHULUI	81	68	83	65	75	1	0.30	-0.37	0.21	0.31	41	7.87	43	82	69	0	0	3	0
HI LIHUE	79	73	81	71	76	2	0.34	-0.80	0.13	0.66	51	28.62	73	85	76	0	0	5	0
ID BOISE	41	29	46	26	35	3	0.51	0.20	0.24	0.51	146	7.84	71	87	69	0	6	5	0
ID LEWISTON	46	35	49	32	41	5	0.24	-0.04	0.12	0.24	77	10.48	91	75	55	0	1	2	0
IL POCATELLO	34	22	43	14	28	1	0.66	0.41	0.23	0.72	257	6.73	60	89	77	0	7	4	0
IL CHICAGO/O'HARE	55	38	68	26	46	15	0.03	-0.59	0.03	0.03	4	44.80	132	84	64	0	2	1	0
IL MOLINE	57	34	69	26	45	16	0.10	-0.44	0.10	0.10	16	39.38	105	86	65	0	5	1	0
IL PEORIA	57	37	67	28	47	16	0.13	-0.48	0.13	0.13	19	36.49	106	96	66	0	3	1	0
IL ROCKFORD	54	34	67	27	44	16	0.10	-0.42	0.10	0.10	17	36.19	104	90	70	0	4	1	0
IL SPRINGFIELD	58	38	67	29	48	14	0.08	-0.58	0.08	0.08	11	33.01	99	89	67	0	3	1	0
IN EVANSVILLE	61	43	70	34	52	13	0.82	-0.06	0.64	0.82	81	43.62	108	91	74	0	0	3	1
IN FORT WAYNE	56	41	67	29	48	16	0.05	-0.64	0.04	0.05	6	40.04	123	94	70	0	1	2	0
IN INDIANAPOLIS	59	43	70	33	51	16	0.17	-0.63	0.17	0.17	19	39.07	104	90	63	0	0	1	0
IN SOUTH BEND	56	41	70	29	49	16	0.09	-0.70	0.05	0.09	10	36.63	100	85	65	0	1	3	0
IA BURLINGTON	56	36	67	26	46	15	0.09	-0.41	0.09	0.09	16	37.77	109	91	62	0	3	1	0
IA CEDAR RAPIDS	55	31	67	20	43	16	0.19	-0.22	0.19	0.19	41	34.85	107	95	57	0	6	1	0
IA DES MOINES	54	33	66	24	44	15	0.44	0.11	0.23	0.44	116	27.92	87	87	68	0	5	2	0
IA DUBUQUE	52	32	64	22	42	16	0.31	-0.20	0.31	0.31	53	33.79	91	91	71	0	5	1	0
IA SIOUX CITY	48	26	62	23	37	11	0.12	-0.07	0.08	0.12	55	30.22	119	91	75	0	6	3	0
IA WATERLOO	53	30	67	19	41	16	0.22	-0.12	0.22	0.22	56	34.26	104	93	75	0	5	1	0
KS CONCORDIA	59	32	68	26	46	13	0.00	-0.21	0.00	0.00	0	27.15	96	79	52	0	5	0	0
KS DODGE CITY	62	32	71	23	47	12	0.00	-0.17	0.00	0.00	0	18.30	87	77	25	0	4	0	0
KS GOODLAND	56	26	65	19	41	9	0.00	-0.11	0.00	0.00	0	16.40	92	72	33	0	7	0	0
KS TOPEKA	65	34	73	26	49	15	0.00	-0.36	0.00	0.00	0	42.56	124	86	57	0	4	0	0

Based on 1961-90 normals

*** Not Available

Weather Data for the Week Ending December 8, 2001

STATES AND STATIONS	TEMPERATURE EF						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. EF		PRECIP		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
KY	WICHITA	65	36	73	26	51	15	0.02	-0.28	0.02	0.02	6	24.41	86	82	49	0	4	1	0
	JACKSON	65	46	76	37	56	15	0.82	-0.20	0.69	0.82	70	33.40	72	85	48	0	0	2	1
	LEXINGTON	61	42	72	32	52	13	0.83	-0.09	0.50	0.83	79	38.26	92	85	60	0	1	3	1
	LOUISVILLE	63	43	73	36	53	13	0.84	-0.03	0.48	0.84	84	42.24	101	95	58	0	0	3	0
LA	PADUCAH	63	45	70	32	54	14	1.36	0.26	0.70	1.36	108	47.68	104	95	62	0	1	3	2
	BATON ROUGE	75	53	77	45	64	9	0.00	-1.22	0.00	0.00	0	58.10	102	99	58	0	0	0	0
	LAKE CHARLES	74	56	79	49	65	9	0.10	-1.01	0.04	0.10	8	51.74	101	97	65	0	0	4	0
	NEW ORLEANS	74	55	78	49	65	8	0.00	-1.27	0.00	0.00	0	66.59	116	95	70	0	0	0	0
	SHREVEPORT	73	54	78	42	64	14	0.50	-0.46	0.47	0.50	45	53.76	125	99	59	0	0	2	0
ME	CARIBOU	40	28	56	14	34	14	0.13	-0.65	0.09	0.14	16	28.57	83	89	62	0	6	2	0
	PORTLAND	54	34	71	24	44	14	0.05	-1.06	0.05	0.08	6	31.26	76	84	56	0	4	1	0
MD	BALTIMORE	63	38	75	29	50	10	0.64	-0.13	0.64	0.65	74	33.24	87	85	42	0	3	1	1
MA	BOSTON	58	42	72	31	50	13	0.22	-0.72	0.21	0.22	21	28.81	75	76	39	0	1	2	0
	WORCESTER	53	38	67	27	45	14	0.19	-0.76	0.19	0.19	17	30.71	69	79	43	0	2	1	0
MI	ALPENA	51	29	65	19	40	13	0.87	0.39	0.84	0.87	158	26.48	97	92	58	0	5	3	1
	GRAND RAPIDS	53	38	69	29	45	15	0.20	-0.51	0.11	0.20	25	38.54	113	92	66	0	4	3	0
	HOUGHTON LAKE	50	32	64	20	41	15	0.14	-0.33	0.08	0.14	26	27.83	104	89	70	0	4	2	0
	LANSING	53	38	69	29	45	15	0.11	-0.47	0.05	0.14	21	30.87	107	87	71	0	4	3	0
	MUSKEGON	51	38	63	30	44	12	0.21	-0.51	0.17	0.21	26	33.79	111	90	71	0	4	2	0
	TRAVERSE CITY	49	33	63	23	41	12	0.81	0.31	0.71	0.89	156	30.66	109	94	60	0	3	2	1
MN	DULUTH	35	20	44	10	28	11	0.18	-0.12	0.16	0.18	51	29.62	102	93	83	0	7	2	0
	INTL FALLS	31	13	38	3	22	10	0.21	0.02	0.21	0.22	100	27.51	116	91	77	0	7	1	0
	MINNEAPOLIS	45	29	63	20	37	15	0.19	-0.08	0.17	0.19	61	33.70	122	88	70	0	5	3	0
	ROCHESTER	46	29	61	15	37	15	0.86	0.59	0.81	0.87	281	38.54	133	94	79	0	5	3	1
	ST. CLOUD	39	20	50	13	29	10	0.08	-0.13	0.08	0.08	33	28.36	106	96	69	0	7	1	0
MS	JACKSON	74	49	78	41	62	12	0.04	-1.27	0.04	0.04	3	58.85	115	96	52	0	0	1	0
	MERIDIAN	74	46	76	39	60	9	0.03	-1.30	0.01	0.03	2	63.70	122	10	68	0	0	3	0
	TUPELO	68	47	72	38	58	12	0.70	-0.68	0.51	0.71	45	61.76	120	99	71	0	0	4	1
MO	COLUMBIA	62	41	69	28	51	16	0.00	-0.63	0.00	0.00	0	39.15	105	88	58	0	1	0	0
	KANSAS CITY	63	37	74	28	50	16	0.01	-0.38	0.01	0.01	2	52.74	145	91	53	0	2	1	0
	SAINT LOUIS	62	45	74	34	53	15	0.08	-0.68	0.08	0.08	9	31.92	90	86	66	0	0	1	0
	SPRINGFIELD	65	41	72	28	53	15	0.03	-0.78	0.03	0.03	3	41.79	102	85	64	0	2	1	0
MT	BILLINGS	43	27	49	20	35	7	0.00	-0.17	0.00	0.00	0	10.81	75	66	37	0	6	0	0
	BUTTE	34	15	43	7	25	5	0.01	-0.10	0.01	0.03	23	10.56	90	83	40	0	7	1	0
	GLASGOW	35	13	47	6	24	5	0.00	-0.08	0.00	0.00	0	12.69	119	87	71	0	7	0	0
	GREAT FALLS	42	27	53	16	34	7	0.00	-0.17	0.00	0.00	0	9.89	68	70	32	0	5	0	0
	HAVRE	39	13	53	2	26	5	0.00	-0.11	0.00	0.00	0	6.89	64	76	59	0	6	0	0
	KALISPELL	35	23	41	16	29	4	0.23	-0.15	0.10	0.24	56	12.22	80	84	70	0	7	4	0
	MISSOULA	36	25	41	20	31	6	0.13	-0.11	0.09	0.14	52	12.31	98	88	71	0	7	3	0
NE	GRAND ISLAND	54	27	61	21	40	11	0.03	-0.16	0.03	0.03	14	23.06	94	88	59	0	7	1	0
	LINCOLN	56	27	66	24	41	12	0.17	-0.05	0.17	0.17	65	32.07	116	84	63	0	7	1	0
	NORFOLK	50	27	59	24	38	12	0.01	-0.18	0.01	0.01	5	27.48	112	84	57	0	7	1	0
	NORTH PLATTE	48	19	55	13	33	6	0.00	-0.11	0.00	0.00	0	23.63	125	97	42	0	7	0	0
	OMAHA	54	29	66	24	41	12	0.35	0.09	0.35	0.35	117	28.14	97	91	75	0	6	1	0
	SCOTTSBLUFF	48	24	56	15	36	7	0.00	-0.14	0.00	0.00	0	13.04	88	81	47	0	7	0	0
	VALENTINE	43	23	46	17	33	8	0.00	-0.10	0.00	0.00	0	20.58	115	87	59	0	7	0	0
NV	ELY	38	12	45	2	25	-3	0.09	-0.08	0.09	0.09	47	6.16	64	80	60	0	7	1	0
	LAS VEGAS	59	40	64	34	50	2	0.00	-0.08	0.00	0.00	0	3.86	101	51	36	0	0	0	0
	RENO	46	28	54	21	37	3	1.19	0.97	1.19	1.19	476	3.75	55	83	61	0	6	1	1
	WINNEMUCCA	46	27	53	18	37	5	0.16	-0.06	0.16	0.18	72	4.15	55	79	59	0	6	1	0
NH	CONCORD	54	28	72	20	41	13	0.10	-0.67	0.08	0.14	16	29.10	85	93	44	0	5	3	0
NJ	NEWARK	62	44	74	37	53	14	0.72	-0.09	0.68	0.72	77	29.95	72	88	56	0	0	2	1
NM	ALBUQUERQUE	52	28	60	25	40	3	0.00	-0.11	0.00	0.00	0	6.29	74	60	27	0	6	0	0
NY	ALBANY	54	33	68	25	43	13	0.31	-0.39	0.29	0.31	38	27.12	80	80	51	0	5	3	0
	BINGHAMTON	52	36	62	28	44	14	0.37	-0.35	0.36	0.37	45	32.37	93	87	55	0	3	2	0
	BUFFALO	54	37	67	28	46	13	0.05	-0.83	0.04	0.06	6	28.74	80	92	51	0	2	2	0
	ROCHESTER	55	34	68	24	44	11	0.14	-0.52	0.14	0.14	18	27.61	92	86	52	0	5	1	0
	SYRACUSE	57	34	72	25	46	14	0.17	-0.62	0.12	0.17	19	32.32	88	87	47	0	3	3	0
NC	ASHEVILLE	68	38	71	30	53	11	0.01	-0.81	0.01	0.01	1	32.15	71	97	61	0	3	1	0
	CHARLOTTE	71	42	75	30	57	12	0.00	-0.77	0.00	0.00	0	24.28	60	96	45	0	1	0	0
	GREENSBORO	69	42	74	34	56	13	0.01	-0.73	0.01	0.01	1	27.65	69	92	44	0	0	1	0
	HATTERAS	68	57	73	52	62	11	0.20	-0.81	0.16	0.20	17	27.33	52	94	72	0	0	4	0
	RALEIGH	71	41	76	30	56	11	0.00	-0.72	0.00	0.01	1	32.98	85	92	45	0	1	0	0
	WILMINGTON	75	47	79	40	61	10	0.00	-0.78	0.00	0.00	0	36.69	71	98	45	0	0	0	0
ND	BISMARCK	40	14	51	5	27	9	0.06	-0.05	0.06	0.06	46	21.29	141	89	73	0	7	1	0
	DICKINSON	38	15	54	4	27	7	0.12	0.04	0.12	0.12	133	18.51	117	91	53	0	7	1	0
	FARGO	31	16	42	7	24	8	0.00	-0.14	0.00	0.00	0	20.11	106	91	74	0	7	0	0
	GRAND FORKS	27	11	37	2	19	4	0.08	-0.06	0.08	0.08	50	21.40	120	95	77	0	7	1	0
	JAMESTOWN	30	13	40	6	21	4	0.05	-0.06	0.05	0.05	38	20.16	122	95	74	0	7	1	0
	WILLISTON	31	3	50	-11	17	0	0.60	0.48	0.51	0.60	462	13.74	104	89	75	0	7	2	1
OH	AKRON-CANTON	55	40	69	31	48	14	0.16	-0.55	0.12	0.16	20	30.72	89	90	64	0	1	4	0
	CINCINNATI	59	42	70	34	50	13	0.78	0.02	0.54	0.78	90	43.29	111	87	67	0	0	3	1
	CLEVELAND	57	43	71	35	50	15	0.01	-0.73	0.01	0.01	1	31.84	93	89	61	0	0	1	0
	COLUMBUS	57	43	70	33	50	15	0.34	-0.36	0.28	0.34	43	34.19	95	86	64	0	0	2	0
	DAYTON	56	43	68	33	50	15	0.29	-0.42	0.28	0.29	36	38.85	113	88	64	0	0	2	

Weather Data for the Week Ending December 8, 2001

STATES AND STATIONS	TEMPERATURE EF						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. EF		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	57	41	70	28	49	18	0.04	-0.68	0.02	0.04	5	31.94	103	90	66	0	1	3	0
OK YOUNGSTOWN	57	40	71	32	49	16	0.07	-0.64	0.05	0.07	9	27.45	78	84	62	0	2	3	0
OK OKLAHOMA CITY	64	43	73	32	53	11	0.02	-0.33	0.02	0.02	5	28.18	87	87	52	0	1	1	0
OK TULSA	67	45	76	34	56	14	0.00	-0.56	0.00	0.00	0	26.98	69	83	60	0	0	0	0
OR ASTORIA	49	38	52	33	44	0	2.19	-0.21	0.67	3.38	123	52.44	90	97	83	0	0	6	1
OR BURNS	35	14	41	3	24	-3	0.32	0.04	0.24	0.40	129	7.76	85	90	80	0	7	4	0
OR EUGENE	49	38	52	35	44	2	1.38	-0.60	0.68	2.58	114	23.88	55	93	87	0	0	7	1
OR MEDFORD	45	34	55	32	39	0	1.15	0.38	0.67	1.69	192	12.36	75	99	81	0	3	6	1
OR PENDLETON	48	34	54	30	41	5	0.17	-0.22	0.08	0.17	39	9.89	91	82	58	0	2	3	0
OR PORTLAND	47	38	51	35	43	1	1.54	0.16	0.55	2.59	164	26.46	83	97	89	0	0	7	1
OR SALEM	48	39	54	32	43	2	2.18	0.61	0.87	3.63	203	29.33	86	96	87	0	1	6	1
PA ALLENTOWN	58	34	70	25	46	11	0.01	-0.82	0.01	0.01	1	34.09	83	92	54	0	4	1	0
PA ERIE	57	41	72	32	49	14	0.05	-0.84	0.04	0.05	5	30.03	77	81	63	0	1	2	0
PA MIDDLETOWN	59	38	73	31	49	12	0.60	-0.17	0.54	0.60	68	24.49	64	97	56	0	1	4	1
PA PHILADELPHIA	62	43	72	35	53	14	0.67	-0.10	0.67	0.67	76	29.59	76	84	50	0	0	1	1
PA PITTSBURGH	59	41	73	32	50	15	0.34	-0.32	0.26	0.34	45	33.64	97	85	42	0	1	2	0
PA WILKES-BARRE	56	37	67	28	46	13	0.36	-0.26	0.35	0.36	51	26.73	78	89	47	0	3	2	0
PA WILLIAMSPORT	55	34	66	29	44	10	0.63	-0.12	0.61	0.63	73	34.12	89	96	56	0	5	3	1
RI PROVIDENCE	58	39	72	31	49	13	0.12	-0.90	0.12	0.12	10	37.77	89	91	48	0	2	1	0
SC BEAUFORT	74	51	78	45	62	8	0.04	-0.61	0.04	0.04	5	43.17	88	10	59	0	0	1	0
SC CHARLESTON	75	51	80	46	63	10	0.00	-0.66	0.00	0.00	0	38.31	78	98	58	0	0	0	0
SC COLUMBIA	74	44	79	32	59	10	0.00	-0.73	0.00	0.01	1	26.80	57	91	46	0	1	0	0
SC GREENVILLE	70	45	73	35	57	11	0.00	-0.91	0.00	0.00	0	38.15	79	92	46	0	0	0	0
SD ABERDEEN	33	11	38	3	22	2	0.00	-0.11	0.00	0.00	0	22.56	124	92	79	0	7	0	0
SD HURON	37	19	42	14	28	6	0.00	-0.11	0.00	0.00	0	26.74	135	92	70	0	7	0	0
SD RAPID CITY	48	25	60	17	37	10	0.00	-0.11	0.00	0.00	0	14.45	89	74	31	0	7	0	0
SD SIOUX FALLS	41	21	50	14	31	9	0.02	-0.17	0.02	0.02	10	30.10	129	88	73	0	7	1	0
TN BRISTOL	66	38	74	28	52	11	0.44	-0.31	0.25	0.44	52	38.79	102	97	48	0	3	2	0
TN CHATTANOOGA	69	44	73	35	56	12	0.08	-1.08	0.06	0.08	6	49.99	101	94	57	0	0	2	0
TN KNOXVILLE	66	44	71	35	55	12	0.60	-0.40	0.32	0.60	52	38.45	88	97	58	0	0	2	0
TN MEMPHIS	69	51	76	39	60	14	0.76	-0.61	0.37	0.76	49	56.56	118	90	58	0	0	3	0
TX NASHVILLE	67	45	72	32	56	13	1.25	0.18	0.71	1.25	102	46.85	107	95	58	0	1	3	1
TX ABILENE	68	50	74	32	59	11	0.00	-0.25	0.00	0.00	0	20.88	88	80	51	0	1	0	0
TX AMARILLO	63	35	72	26	49	10	0.00	-0.11	0.00	0.00	0	18.44	96	74	28	0	3	0	0
TX AUSTIN	72	58	79	46	65	11	2.27	1.82	1.38	2.31	444	37.11	122	98	85	0	0	5	2
TX BEAUMONT	73	59	78	52	66	10	0.24	-0.83	0.18	0.24	20	67.01	125	99	75	0	0	5	0
TX BROWNSVILLE	81	64	84	51	73	9	0.53	0.25	0.41	0.85	274	16.68	65	98	75	0	0	6	0
TX CORPUS CHRISTI	76	63	80	50	70	10	1.32	1.04	0.70	1.37	442	39.14	134	10	83	0	0	4	2
TX DEL RIO	70	59	75	44	64	10	0.15	0.00	0.06	0.17	100	9.43	53	89	79	0	0	3	0
TX EL PASO	62	34	72	29	48	2	0.00	-0.13	0.00	0.00	0	4.17	50	56	23	0	3	0	0
TX FORT WORTH	70	55	76	38	63	13	0.53	0.09	0.51	0.53	106	35.41	109	90	56	0	0	2	1
TX GALVESTON	73	63	77	54	68	9	0.36	-0.44	0.31	0.36	40	56.47	142	10	81	0	0	3	0
TX HOUSTON	73	60	81	49	67	11	1.23	0.43	0.70	1.24	136	66.29	152	10	79	0	0	3	2
TX LUBBOCK	64	39	68	28	52	9	0.00	-0.14	0.00	0.00	0	15.50	85	81	46	0	1	0	0
TX MIDLAND	65	42	68	30	53	6	0.00	-0.14	0.00	0.00	0	9.96	68	85	46	0	1	0	0
TX SAN ANGELO	67	50	73	32	59	10	0.00	-0.19	0.00	0.00	0	18.41	93	82	62	0	1	0	0
TX SAN ANTONIO	72	60	79	43	66	11	1.75	1.36	0.92	1.86	413	35.17	118	97	77	0	0	5	2
TX VICTORIA	75	61	80	48	68	10	2.39	1.92	2.00	2.51	465	41.78	116	99	82	0	0	5	1
TX WACO	70	58	76	41	64	13	0.43	-0.02	0.36	0.43	83	32.09	105	91	83	0	0	5	0
TX WICHITA FALLS	67	46	76	35	57	12	0.00	-0.30	0.00	0.00	0	16.88	60	75	42	0	0	0	0
UT SALT LAKE CITY	43	29	49	22	36	4	0.57	0.24	0.26	0.57	150	14.14	93	86	55	0	5	5	0
VT BURLINGTON	50	36	64	23	43	16	0.26	-0.35	0.17	0.26	37	22.26	68	76	53	0	2	2	0
VA LYNCHBURG	65	37	76	26	51	10	0.24	-0.50	0.24	0.25	29	29.56	77	90	50	0	3	1	0
VA NORFOLK	65	46	74	39	56	10	0.00	-0.68	0.00	0.00	0	31.53	75	91	58	0	0	0	0
VA RICHMOND	66	43	78	34	55	12	0.06	-0.66	0.04	0.06	7	29.92	73	89	54	0	0	2	0
VA ROANOKE	66	41	76	30	54	13	0.26	-0.43	0.25	0.26	33	22.89	59	73	40	0	1	2	0
VA WASH/DULLES	63	37	77	26	50	12	0.51	-0.23	0.51	0.52	61	35.96	95	87	49	0	3	1	1
WA OLYMPIA	45	33	48	30	39	0	2.44	0.59	0.55	4.03	191	42.56	95	97	89	0	4	7	2
WA QUILLAYUTE	44	33	48	28	39	-2	3.74	0.22	1.43	5.66	141	85.68	91	98	86	0	4	6	2
WA SEATTLE-TACOMA	45	37	50	35	41	-1	1.08	-0.28	0.31	1.47	94	33.12	101	93	88	0	0	6	0
WA SPOKANE	36	26	42	24	31	1	0.53	-0.02	0.17	0.67	106	12.34	84	96	75	0	7	5	0
WA YAKIMA	41	25	44	19	33	1	0.63	0.33	0.43	0.75	214	6.47	94	93	76	0	7	4	0
WV BECKLEY	62	41	73	31	51	14	0.59	-0.14	0.57	0.59	71	34.13	88	77	56	0	1	3	1
WV CHARLESTON	63	39	77	28	51	11	1.14	0.34	0.80	1.14	125	40.46	101	94	48	0	2	3	1
WV ELKINS	61	29	74	19	45	10	0.65	-0.15	0.53	0.65	71	38.06	90	98	45	0	3	3	1
WV HUNTINGTON	62	40	76	29	51	11	0.93	0.16	0.67	0.93	106	33.77	87	93	54	0	1	3	1
WI EAU CLAIRE	46	27	64	16	37	16	0.54	0.27	0.51	0.54	174	35.79	116	96	59	0	5	2	1
WI GREEN BAY	48	32	64	24	40	16	0.52	0.13	0.52	0.53	118	26.97	97	94	72	0	3	1	1
WI LA CROSSE	50	31	64	21	41	16	0.39	0.07	0.39	0.40	108	31.78	107	95	62	0	5	1	0
WI MADISON	51	34	64	25	43	17	0.19	-0.27	0.19	0.19	36	37.57	127	89	68	0	4	1	0
WI MILWAUKEE	52	37	68	28	45	17	0.24	-0.33	0.22	0.25	38	35.69	114	88	68	0	2	2	0
WY CASPER	41	23	49	15	32	6	0.00	-0.17	0.00	0.00	0	6.68	55	70	49	0	7	0	0
WY CHEYENNE	45	22	59	14	34	4	0.01	-0.10	0.01	0.01	8	13.11	93	54	34	0	7	1	0
WY LANDER	38	20	45	13	29	6	0.04	-0.10	0.03	0.04	25	5.24	42	72	47	0	7	2	0
WY SHERIDAN	46	22	56	19	34	9	0.00	-0.17	0.00	0.00	0	11.08	79	66	41	0	7	0	0

Based on 1961-90 normals

*** Not Available

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

November Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Mid- to late-November storm systems erased autumn dryness across the southern Plains and upper Midwest, but largely bypassed winter wheat areas in Montana and the east-central Plains, including portions of Kansas and Oklahoma. Mostly dry weather also persisted in the East, hampering winter grain development and contributing to wildfire activity. In contrast, heavy rain and strong thunderstorms struck areas from the western Gulf Coast region to the lower Ohio Valley, including the Delta, flooding fields, halting fieldwork, and causing localized wind damage. Meanwhile in the West, a series of storms boosted topsoil moisture for winter grains and blanketed high-elevation areas with heavy snow. Although the precipitation eased long-term drought across northern California, the Great Basin, and the Northwest, reservoir supplies remained limited due to previously dry conditions dating to the spring of 2000. Cold weather was confined to the western half of the Nation toward month's end, boosting November temperatures at least 10°F above normal in the upper Midwest. In fact, more than two dozen cities from the western Corn Belt to the northern Mid-Atlantic region set November average-temperature records.

The parade of storms began in mid-November with a slow-moving system that soaked much of Texas and eastern New Mexico. On the 15th, rainfall totaled 8.68 inches in Austin (Bergstrom), TX, their highest single-day amount since 8.70 inches fell on November 23, 1974. Nearby Austin (Mabry) recorded 7.55 inches, a record for any November day and their highest 1-day total since 15.00 inches fell on September 9, 1921. Elsewhere in Texas, November rainfall was the highest on record in Lubbock (3.45 inches, or 460 percent [%] of normal).

Farther north, back-to-back storms struck the upper Midwest on November 23-24 (mostly rain) and 26-27 (mostly snow). Daily-record rainfall totals on November 23 included 1.92 inches in Sioux Falls, SD, a record 1-day sum for November, and 1.24 inches in Kearney, NE. Sioux Falls received 3.20 inches on November 23-24 and 1.44 inches on November 26-27, easily surpassing their November precipitation record (formerly 3.66 inches in 1919) and exceeding their 2.94-inch normal for all of November, December, January, and February. Meanwhile in Sioux City, IA, where 2.40 inches fell on November 23-24, the rain snapped a 40-day spell without measurable precipitation.

The November 23-24 storm also contributed to a rash of severe weather across the South. During the 24 hours beginning the evening of November 23, seven tornadoes claimed at least 11 lives from Arkansas to Alabama, the Nation's first November tornado fatalities since 1996. At least 21 tornadoes struck northern and central Alabama alone, including an F3 twister (winds estimated at 158 to 206 mph) that carved a 38-mile path across Lamar, Fayette, and Walker Counties. According to preliminary reports from the Storm Prediction Center, there were 57 tornadoes nationwide during November. If that number stands in the final analysis, it would represent the highest November total since 1995.

The second Midwestern storm left 30.4 inches of snow in Willmar, MN, on November 26-27, just shy of the station's storm-total snowfall record of 30.7 inches, set in November-December 1985. Elsewhere in the upper Midwest, late-November snowfall totaled 15.0 inches in Mitchell, SD, and 11.8 inches in St. Cloud, MN. Heavy snow also blanketed the upper Great Lakes region, where Marquette, MI, measured 33.1 inches. Marquette's total included their snowiest November day on record—19.2 inches on the 27th.

Despite the late-month snow, temperatures remained above normal in most upper Midwestern and Great Lakes locations. For example, November 30 marked the 34th consecutive day with above-normal temperatures in Minneapolis. In fact, a number of locations not only experienced their warmest November on record, but also averaged at least 10°F above normal and exceeded their previous record by 2°F or more.

Highest November Average Temperature (°F), November Temperatures at Least 10°F Above Normal, and Eclipsed Previous November Record by at Least 2°F

Location	Avg.	Dep.	Previous Record/Year
Des Moines, IA	49.8	+10.8	47.4 in 1999
Moline, IL	49.8	+10.2	47.4 in 1931
Waterloo, IA	47.9	+12.2	43.7 in 1931
LaCrosse, WI	47.5	+11.9	43.2 in 1931
Minneapolis, MN	46.4	+13.2	41.8 in 1999
Rochester, MN	45.4	+12.8	40.4 in 1913
Mason City, IA	45.4	+11.4	41.5 in 1913 and 1999
St. Cloud, MN	41.8	+12.8	39.5 in 1899
Ironwood, MI	40.9	+10.7	38.8 in 1931
Marquette, MI	39.9	+10.4	37.2 in 1999
Int'l Falls, MN	36.9	+12.0	34.9 in 1981

Farther to the south and east, several locations in the Great Lakes States completed their least snowy November on record. In southeastern Minnesota, Rochester concluded their first autumn (September-November) on record without measurable snowfall. Rochester finally received 0.6 inch on December 7, easily surpassing the date—November 29, 1960—of their previous latest first snowfall. Farther east, not even a flake of snow was observed in Buffalo, NY, in stark contrast to last year's November-record total of 45.6 inches.

Record-Low November Snowfall (Inches)

Location	Total	Normal	Previous Record/Year
Buffalo, NY	0.0	10.4	trace in 1899, 1918, & 1946
South Bend, IN	0.0	8.6	trace in 1990, 1994, & 1998
Lansing, MI	0.0	4.8	trace in 1963 and 1973
Fort Wayne, IN	0.0	3.2	0.0 in 1946 and 1998
Milwaukee, WI	0.0	2.8	0.0 in 1999
Toledo, OH	0.0	3.0	0.0 in 1998
Mansfield, OH	0.0	2.4	trace in 1998 and earlier
Erie, PA	trace	9.2	trace in 1987 and earlier
Gr. Rapids, MI	trace	7.2	trace in 1948 and earlier
Binghamton, NY	trace	7.5	trace in 1964
Cleveland, OH	trace	4.2	trace in 1994 and earlier
Madison, WI	trace	3.4	trace in 1999 and earlier

Stormy weather returned to the southern Plains on November 27-28, producing local snowfall in excess of 10 inches in Texas from near Midland to just southwest of Wichita Falls. Midland's snowfall reached 8.0 inches, their second-highest 24-hour total on record. Elsewhere, storm-total snowfall included 6.3 inches in Wichita Falls and 5.2 inches in Oklahoma City, OK. Farther east, torrential rainfall developed from the western Gulf Coast region to the lower Ohio Valley. In the Mississippi Delta, Stoneville experienced their wettest 3- and 4-day periods on record, netting 10.14 inches from November 27-29 and 11.19 inches from November 27-30. Memphis, TN, received 5.86 inches on November 28, their sixth-highest daily amount on record. In western Tennessee, monthly rainfall of 11.61 inches (228% of normal) in Memphis and 10.31 inches (215%) in Jackson were the stations' highest November totals since 1934 and 1948, respectively.

In contrast, extremely dry weather prevailed in the East Coast States. November precipitation was the lowest on record in locations such as Norfolk, VA (0.08 inch), Greensboro, NC (0.34 inch), and Blacksburg, VA (0.41 inch). It was the driest November since 1890 in Richmond, VA, where only 0.17 inch fell. In the Delaware River Basin, which supplies roughly half of New York City's water, the daily storage fell to 66.4 billion gallons (40% of the November 30 average) at month's end, down 31.2 billion gallons from November 1. Meanwhile, streamflow into the Chesapeake Bay averaged a November-record low of 9.3 billion gallons per day (75% below the long-term average), edging the standard set in 1964. In parts of the Mid-Atlantic region, where September-November precipitation totaled 2.65 inches (28% of normal) in Washington, DC, and 3.21 inches (33%) in Baltimore, MD, it was the driest autumn since 1941.

Farther south, the center of weakening Hurricane Michelle passed less than 200 miles southeast of Miami, FL, on November 5. Southern Florida's peak wind gusts included 47 mph at Ft. Lauderdale and Key West, and 51 mph at Miami Beach. Storm-total rainfall reached 2.56 inches in Key West. Toward midmonth, locally heavy showers developed across east-central Florida, totaling 4.04 inches in Melbourne and 6.17 inches in Daytona Beach from November 12-15. However, on the other side of the Florida peninsula, Tampa's monthly total of 0.10 inch (6% of normal) was their lowest November sum since 1978. After the Atlantic hurricane season ended on November 30, the National Hurricane Center announced that for the first time since 1981-82, the U.S. mainland missed a landfalling hurricane for 2 consecutive years. Since Hurricane Irene struck southern Florida in October 1999, the mainland has escaped direct strikes from 19 consecutive hurricanes.

In the West, a barrage of storm systems moved ashore after November 10. Relative to normal, precipitation was most significant north of a line from central California to northern Utah. Monthly precipitation totals included 3.34 inches (259% of normal), a November record, in Salt Lake City, UT, and 13.30 inches (166%) in Olympia, WA. Nearly 90% (2.97 inches) of Salt Lake City's precipitation fell during the last 9 days of the month. In the nearby Wasatch Range, monthly snowfall totaled 137 inches in Alta and 115 inches at Snowbird, nearly all of which fell on November 22-23, 24-27, and 29-30. Farther west, the Sierra Nevada snow pack gained an average of 5 inches of liquid equivalent during the last 3 weeks of the month, according to the California Department of Water Resources.

With the prevalence of warm November weather nearly nationwide, many locations set various temperature records. For example, high temperatures reached or exceeded 60°F on 17 days in Rapid City, SD, and 12 days in Rochester, MN, breaking November records that had last been attained in 1999 and 1975, respectively. Similarly, highs peaked at 70°F or above on 4 days in LaCrosse, WI, breaking their record of 3 days, set in 1953, 1991, and 1999.

Trade winds, including the embedded remnants of Hurricane Octave, brought locally heavy showers to Hawaii in early November. Thereafter, only light showers fell until the late-month development of a strong, cut-off storm system—known locally as a “kona low”—west of Kauai. The storm eased long-term drought but caused widespread flash flooding during a 48-hour period from November 26-28, when rainfall on the Big Island reached 22.48 inches at Kapapala Ranch, 18.93 inches in Pahala, and 16.31 inches in Glenwood. Maximum reported 48-hour totals on other islands included 8.83 inches in Kokee, Kauai; 6.05 inches in Maunawili, Oahu; 6.61 inches in Mahinahina, Maui; and 5.33 inches in Lanai City, Lanai. Monthly totals reached 27.38 inches (154% of normal) in Glenwood and 23.60 inches (291%) at Kapapala Ranch. In Honolulu, Oahu, where 3.24 inches fell on November 27, the daily

total exceeded every monthly rainfall since March 1997, when 4.90 inches fell. Meanwhile in Alaska, temperatures returned to above-normal levels after midmonth, following a 6-week cold snap. Nome warmed to a daily-record high of 41°F on November 19, up from a low of -7°F on November 11. Below-normal precipitation was reported nearly statewide. In fact, only 0.06 inch (8% of normal) fell in Fairbanks, their driest November since 1953. It was the second-driest November on record in locations such as King Salmon (0.14 inch) and Nome (0.04 inch).

Fieldwork

Fieldwork summary provided by USDA/NASS

The end of the harvest season quickly approached, as dry weather aided progress across most of the Nation during the first half of the month. Seeding of winter wheat and other winter crops also neared completion before midmonth, although abnormally dry soils hindered planting along the Atlantic Coastal Plain. Moisture shortages increased across most of the Great Plains, but a midmonth storm provided beneficial moisture for developing winter crops across much of the southern Great Plains. Scattered light precipitation periodically boosted moisture supplies in parts of the Pacific Northwest and Southwest and prevented winter wheat deterioration on the central High Plains. However, moisture shortages increased crop stress in the southern High Plains, northern Great Plains, and along the Atlantic Coastal Plain. Warm weather and adequate topsoil moisture supplies supported winter grain development in the Corn Belt. Warm weather stimulated root development and growth of winter grains and forages where adequate moisture supplies were available. Rain halted cotton harvest and other fieldwork in the Southeast late in the month, but the precipitation provided critical moisture for germinating and establishing winter wheat along the Atlantic Coastal Plain.

Winter wheat seeding progressed about 1 week ahead of last year's slow pace and slightly ahead of the 5-year average. Seeding progressed with only a few rain interruptions, but dry soils limited planting in parts of the southern Great Plains. Planting was also active in the lower Mississippi Valley, Atlantic Coastal Plain, and California. In North Carolina, planting progressed ahead of normal, despite topsoil moisture shortages. By November 11, planting was virtually complete in the Great Plains and rapidly approaching completion in the Corn Belt. Temperatures were favorable for development across most of the Nation during November, but emergence and growth were spotty and uneven due to topsoil moisture shortages, especially in Kansas, North Carolina, and Oklahoma. Ample moisture aided development across most of the Corn Belt. Occasional light showers prevented serious crop deterioration on the central High Plains and in the Pacific Northwest. Heavy rain boosted soil moisture reserves and promoted emergence and growth in the southern Great Plains near midmonth. However, the precipitation varied from light, soaking showers across most of Oklahoma and eastern Texas, to persistent downpours that flooded streams and low-lying areas in central and northern Texas. Fields in California and the interior Pacific Northwest received beneficial precipitation after midmonth, but moisture reserves remained low in Idaho, Oregon, and Washington. Along the Atlantic Coastal Plain, fields received critical moisture for germination and root development near the end of the month.

Dry weather supported the corn harvest across most of the Corn Belt and Great Plains. Growers in Iowa, Minnesota, and Ohio picked about one-fourth of their crop during the week ending November 4. Harvest was also very active in the Dakotas early in the month. In the central Corn Belt and Great Lakes region, harvesting accelerated after excess moisture from late-October's

heavy rains drained from fields. However, progress remained behind the 5-year average in Indiana, Michigan, and Wisconsin until midmonth. Growers in Kansas, North Carolina, Tennessee, and Texas completed their harvest before midmonth. By November 18, harvest was 97% complete and was on pace with last year's early finish.

The soybean harvest was aided by warm, dry weather in the Corn Belt, lower Mississippi Valley, and Atlantic Coastal Plain during the first half of the month. By November 11, harvest was 96% complete, compared with 97% on the same date last year and the average of 95%. Harvesting was most active in the Ohio and Missouri River Valleys, where about one-fifth of the Kentucky, Missouri, and Tennessee acreage was reaped during the week that ended November 4. Harvest progressed behind normal in many parts of the Corn Belt, especially around the Great Lakes. Progress lagged far behind normal in Michigan and well behind normal in Indiana and Wisconsin. Meanwhile, harvest progressed far ahead of normal on the Atlantic Coastal Plain. Harvest neared completion several days earlier than normal in Arkansas and Kentucky. The harvest season ended in Nebraska and the Dakotas by November 11, and very few fields remained unharvested in Iowa, Kansas, and Minnesota.

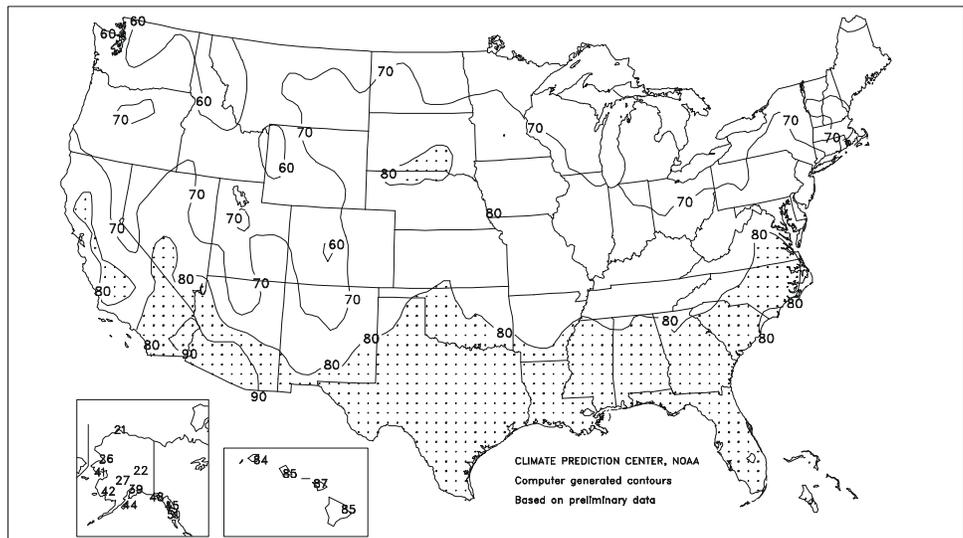
Cotton picking progressed slightly ahead of normal throughout the month, as picking steadily advanced in most areas. However, widespread, persistent rain suspended progress in the southern Great Plains for several days near midmonth. Elsewhere, dry weather aided harvest throughout the Southeast during most of the month. In Georgia, North Carolina, and Virginia, harvest progressed well ahead of the 5-year average. South Carolina's harvest lagged behind normal at the beginning of the month, but exceeded the 5-year average by the end of the month. Meanwhile, harvest progressed behind normal in Alabama. In the lower Mississippi Valley, harvest was virtually complete on November 25. In the Southwest, harvest was aided by dry weather most of the month, although rain occasionally interrupted progress in California. Picking continued without interruption in Arizona.

The sorghum harvest progressed with few rain delays in the Great Plains and Corn Belt. As the month began, harvest was most active in Nebraska. Harvesting neared completion well ahead of normal in Illinois and Kansas and progressed far ahead of normal in Colorado and New Mexico. As midmonth approached, harvest neared completion in the central and northern Great Plains but remained active on the High Plains, especially in New Mexico and Oklahoma.

Warm, dry weather aided the peanut harvest in the southern Great Plains early in the month. However, heavy rain slowed progress for

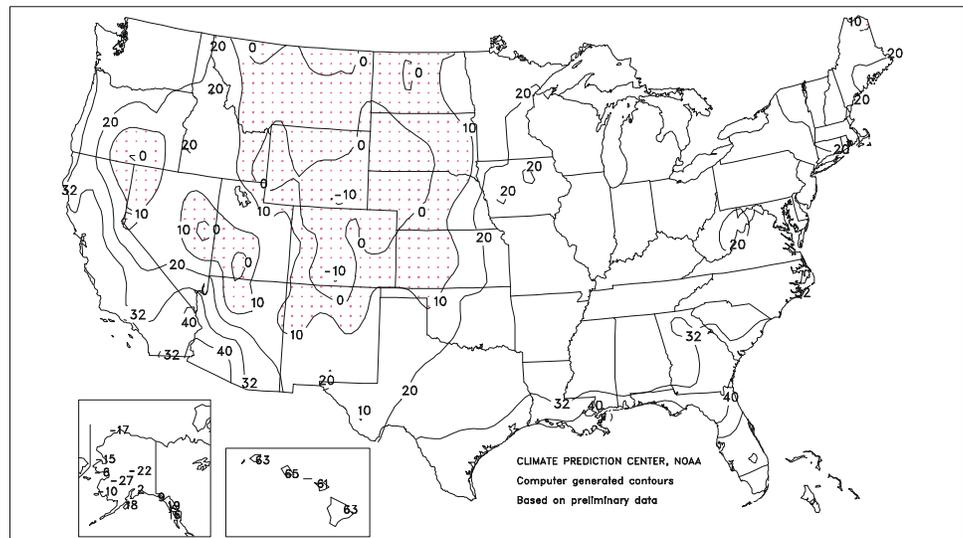
Extreme Maximum Temperature (°F)

November 2001



Extreme Minimum Temperature (°F)

November 2001



several days near midmonth, especially in Texas. Along the Atlantic Coastal Plain, harvest was virtually complete by November 11. In Alabama, digging lagged throughout the month.

The sugar beet harvest neared completion early in the month and was virtually complete by midmonth. In Michigan, about one-third of the acreage was harvested during the week ending November 4, as digging rapidly accelerated when warm, dry weather replaced October's excessive wetness. Michigan's dry weather pattern continued through midmonth, aiding efforts to finish the harvest. Dry weather also supported harvest in Idaho during the first half of the month.

The sunflower harvest continued with only minor rain delays in the four major sunflower-producing States. Harvest was most active in Colorado, where growers reaped more than one-fourth of their crop during the week ending November 4. Harvest was virtually complete in Kansas and the Dakotas by midmonth. Harvest neared completion well ahead of normal in North Dakota and slightly ahead of normal in South Dakota.

TEMPERATURE AND PRECIPITATION SUMMARY

November 2001

STATES AND STATIONS	TEMP, EF		PRECIP.		STATES AND STATIONS	TEMP, EF		PRECIP.		STATES AND STATIONS	TEMP, EF		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	59	6	4.20	-0.13	LEXINGTON	52	6	3.30	-0.09	COLUMBUS	49	6	3.69	0.47
AL HUNTSVILLE	57	6	3.53	-1.33	LONDON-CORBIN	51	5	2.28	-1.59	DAYTON	48	5	2.86	-0.21
AL MOBILE	64	4	1.24	-2.86	LOUISVILLE	53	6	5.16	1.46	MANSFIELD	47	5	3.18	-0.33
AL MONTGOMERY	60	3	2.96	-1.12	PADUCAH	52	4	7.74	3.42	TOLEDO	48	8	2.12	-0.69
AK ANCHORAGE	20	-1	0.26	-0.85	LA BATON ROUGE	63	3	0.58	-3.73	YOUNGSTOWN	48	7	3.14	0.03
AK BARRROW	1	3	0.46	0.21	LAKE CHARLES	64	4	2.95	-1.31	OK OKLAHOMA CITY	54	4	1.06	-0.92
AK COLD BAY	34	0	3.56	-0.63	NEW ORLEANS	65	4	2.54	-1.88	TULSA	55	5	3.44	0.31
AK FAIRBANKS	1	-2	0.06	-0.74	SHREVEPORT	60	3	4.16	-0.29	OR ASTORIA	49	2	14.21	4.16
AK JUNEAU	33	1	3.62	-1.29	ME BANGOR	40	3	1.93	-2.62	BURNS	35	1	1.42	0.17
AK KING SALMON	19	-3	0.16	-1.32	CARIBOU	35	4	2.08	-1.47	EUGENE	48	2	6.88	-1.44
AK KODIAK	33	-1	6.91	0.95	PORTLAND	41	2	2.20	-2.97	MEDFORD	47	3	4.16	0.93
AK NOME	14	-2	0.04	-1.00	MD BALTIMORE	51	4	1.01	-2.31	PENDELTON	42	0	1.15	-0.43
AZ FLAGSTAFF	39	2	0.27	-1.68	MA BOSTON	48	3	0.73	-3.49	PORTLAND	48	2	6.90	1.56
AZ PHOENIX	68	6	0.20	-0.46	Worcester	44	5	1.35	-3.14	SALEM	48	3	9.05	2.77
AZ TUCSON	63	4	0.05	-0.62	MI ALPENA	43	7	1.48	-0.72	PA ALLENTOWN	47	4	1.10	-2.78
AR FORT SMITH	56	5	1.97	-2.02	DETROIT	47	7	2.35	-0.32	ERIE	49	6	2.36	-1.66
AR LITTLE ROCK	56	4	6.16	0.96	FLINT	47	8	3.14	0.54	MIDDLETOWN	49	5	1.51	-2.01
CA BAKERSFIELD	58	2	1.08	0.38	GRAND RAPIDS	47	9	2.26	-1.06	PHILADELPHIA	53	7	0.56	-2.78
CA EUREKA	50	-2	7.71	1.27	HOUGHTON LAKE	42	7	1.92	-0.35	PITTSBURGH	48	6	3.47	0.62
CA FRESNO	56	2	1.99	0.62	LANSING	46	8	2.25	-0.38	WILKES-BARRE	46	5	1.89	-1.17
CA LOS ANGELES	61	-1	1.35	-0.41	MUSKEGON	46	7	2.20	-0.95	WILLIAMSPORT	46	4	2.74	-0.99
CA REDDING	53	1	7.22	2.01	TRAVERSE CITY	44	7	2.31	-0.13	PR SAN JUAN	80	0	4.73	-1.21
CA SACRAMENTO	56	3	2.41	-0.31	MN DULUTH	40	12	2.21	0.41	RI PROVIDENCE	47	3	0.31	-4.12
CA SAN DIEGO	61	-1	0.99	-0.46	INT'L FALLS	37	12	0.90	-0.25	SC CHARLESTON	64	6	0.53	-1.96
CA SAN FRANCISCO	57	2	4.52	1.66	MINNEAPOLIS	46	13	2.77	1.22	COLUMBIA	59	4	0.69	-2.21
CA STOCKTON	56	3	1.99	-0.18	ROCHESTER	46	13	2.02	0.41	FLORENCE	60	5	0.41	-2.11
CO ALAMOSA	31	1	0.26	-0.17	ST. CLOUD	42	12	2.83	1.56	GREENVILLE	56	4	1.98	-1.67
CO CO SPRINGS	41	3	0.37	-0.10	MS JACKSON	60	4	6.33	1.52	MYRTLE BEACH	61	6	1.61	-1.29
CO DENVER	41	2	0.72	-0.15	MERIDIAN	59	4	6.43	1.94	SD ABERDEEN	39	9	1.39	0.80
CO GRAND JUNCTION	44	4	1.06	0.35	TUPELO	56	3	6.24	1.39	HURON	42	10	2.35	1.63
CO PUEBLO	42	2	0.44	0.01	MO COLUMBIA	51	7	1.61	-1.32	RAPID CITY	40	5	0.07	-0.49
CT BRIDGEPORT	49	3	0.79	-3.02	JOPLIN	54	7	3.99	0.69	SIoux FALLS	44	11	4.76	3.67
CT HARTFORD	46	4	0.85	-3.19	KANSAS CITY	51	8	0.56	-1.36	TN BRISTOL	50	3	0.50	-2.44
DC WASHINGTON	55	5	0.55	-2.57	SPRINGFIELD	51	5	2.43	-1.32	CHATTANOOGA	56	5	4.84	0.23
DE WILMINGTON	51	5	0.99	-2.28	ST JOSEPH	50	8	0.62	-1.19	JACKSON	53	2	10.31	5.52
FL DAYTONA BEACH	69	3	6.93	4.09	ST LOUIS	53	7	3.06	-0.22	KNOXVILLE	54	5	1.55	-2.20
FL FT LAUDERDALE	74	1	2.90	-1.02	MT BILLINGS	41	6	0.37	-0.47	MEMPHIS	57	4	11.61	6.51
FL FT MYERS	71	0	0.42	-1.15	BUTTE	33	5	0.55	0.02	NASHVILLE	54	4	5.09	0.97
FL JACKSONVILLE	65	3	1.44	-0.75	GLASGOW	36	7	0.11	-0.17	TX ABILENE	58	3	3.39	1.91
FL KEY WEST	74	-2	2.82	-0.02	GREAT FALLS	42	8	0.14	-0.52	AMARILLO	51	5	1.86	1.17
FL MELBOURNE	70	2	5.26	2.26	HELENA	40	8	0.18	-0.30	AUSTIN	61	0	9.13	6.76
FL MIAMI	74	0	1.42	-1.24	KALISPELL	35	4	0.75	-0.55	BEAUMONT	64	3	5.32	0.47
FL ORLANDO	69	1	1.67	-0.63	MILES CITY	37	5	0.13	0.41	BROWNSVILLE	70	1	2.42	0.91
FL PENSACOLA	66	5	1.76	-1.78	MISSOULA	36	4	0.44	-0.37	COLLEGE STATION	64	4	2.88	-0.27
FL ST PETERSBURG	71	2	0.04	-2.10	NE GRAND ISLAND	47	9	1.55	0.51	CORPUS CHRISTI	67	1	7.44	5.85
FL TALLAHASSEE	63	3	2.11	-1.76	HASTINGS	47	10	1.57	0.59	DALLAS/F WORTH	60	4	1.07	-1.22
FL TAMPA	71	4	0.10	-1.67	LINCOLN	48	9	1.73	0.46	DEL RIO	63	3	1.12	0.20
FL WEST PALM BEACH	73	1	1.78	-2.91	MCCOOK	45	7	0.97	0.12	EL PASO	55	3	0.60	0.16
GA ATHENS	58	5	0.65	-3.01	NORFOLK	46	10	2.94	1.93	GALVESTON	68	4	4.33	0.96
GA ATLANTA	60	7	0.93	-2.93	NORTH PLATTE	39	4	0.97	0.31	HOUSTON	64	3	2.58	-1.21
GA AUGUSTA	59	4	0.83	-1.65	OMAHA/EPPLE	49	10	1.55	0.06	LUBBOCK	53	3	3.45	2.70
GA COLUMBUS	63	6	2.00	-1.56	SCOTTSBLUFF	39	3	0.14	-0.48	MIDLAND	54	1	1.47	0.78
GA MACON	60	4	2.48	-0.25	VALENTINE	40	6	1.57	0.97	SAN ANGELO	58	3	3.46	2.38
GA SAVANNAH	63	4	0.16	-2.03	NV ELKO	37	1	1.62	0.51	SAN ANTONIO	63	3	4.36	1.74
HI HILO	74	0	19.89	5.38	ELY	35	1	0.79	0.12	VICTORIA	64	1	3.83	1.38
HI HONOLULU	77	0	3.91	0.91	LAS VEGAS	59	4	0.09	-0.34	WACO	61	3	5.63	3.20
HI KAHULUI	76	0	3.41	0.82	RENO	45	5	0.83	-0.04	WICHITA FALLS	58	6	1.16	-0.38
HI LIHUE	76	1	6.65	1.20	WINNEMUCCA	39	1	0.94	0.00	UT SALT LAKE CITY	43	2	3.34	2.05
ID BOISE	44	4	1.52	0.04	NH CONCORD	41	4	1.11	-2.55	VT BURLINGTON	42	5	1.81	-1.32
ID LEWISTON	44	3	1.23	0.08	NJ ATLANTIC CITY	49	3	1.06	-2.52	VA LYNCHBURG	51	3	0.33	-2.81
ID POCATELLO	38	2	0.73	-0.43	NE WENAR	52	5	0.84	-3.07	NORFOLK	56	3	0.08	-2.77
IL CHICAGO/O'HARE	48	8	1.22	-1.70	NM ALBUQUERQUE	48	4	0.68	0.25	RICHMOND	55	5	0.20	-2.97
IL MOLINE	50	10	1.49	-1.02	NY ALBANY	45	5	1.36	-1.87	ROANOKE	53	6	0.63	-2.56
IL PEORIA	50	9	1.90	-0.79	WASH/DULLES	44	6	1.84	-1.44	WASH/DULLES	50	5	0.84	-2.46
IL ROCKFORD	48	10	2.04	-0.53	WA OLYMPIA	47	7	3.35	-0.48	WA OLYMPIA	45	3	13.34	5.29
IL SPRINGFIELD	50	7	2.61	0.08	QUILLAYUTE	47	7	1.90	-1.02	QUILLAYUTE	46	2	12.47	-2.27
IN EVANSVILLE	51	5	5.42	1.69	SEATTLE-TACOMA	47	2	2.93	-0.79	SEATTLE-TACOMA	47	2	9.25	3.42
IN FORT WAYNE	47	6	1.18	-1.61	SPokane	40	5	2.61	0.46	SPOKANE	40	5	2.61	0.46
IN INDIANAPOLIS	49	6	2.69	-0.54	YAKIMA	40	1	1.96	0.93	YAKIMA	40	1	1.96	0.93
IN SOUTH BEND	48	7	1.72	-1.55	WV BECKLEY	49	6	0.66	-2.33	BECKLEY	49	6	0.66	-2.33
IA BURLINGTON	50	9	1.39	-0.94	CHARLESTON	50	3	1.43	-2.16	CHARLESTON	50	3	1.43	-2.16
IA CEDAR RAPIDS	48	10	0.93	-1.08	ELKINS	44	3	0.86	-2.47	ELKINS	44	3	0.86	-2.47
IA DES MOINES	50	11	1.01	-0.78	HUNTINGTON	51	5	1.64	-1.66	HUNTINGTON	51	5	1.64	-1.66
IA DUBUQUE	47	11	1.89	-0.82	WI EAU CLAIRE	44	12	2.48	0.96	EAU CLAIRE	44	12	2.48	0.96
IA SIOUX CITY	46	10	3.05	1.97	GREEN BAY	43	9	1.70	-0.46	GREEN BAY	43	9	1.70	-0.46
IA WATERLOO	48	12	0.78	-1.04	LA CROSSE	47	11	1.92	0.19	LA CROSSE	47	11	1.92	0.19
KS CONCORDIA	49	7	0.52	-0.61	MADISON	46	11	1.59	-0.50	MADISON	46	11	1.59	-0.50
KS DODGE CITY	48	5	0.14	-0.69	MILWAUKEE	47	9	0.98	-1.53	MILWAUKEE	47	9	0.98	-1.53
KS GOODLAND	43	4	0.88	0.19	WAUSAU	42	9	2.22	0.22	WAUSAU	42	9	2.22	0.22
KS HILL CITY	45	5	0.68	-0.06	WY CASPER	39	6	0.76	-0.01	CASPER	39	6	0.76	-0.01
KS TOPEKA	51	8	1.13	-0.80	CHEYENNE	39	4	0.23	-0.30	CHEYENNE	39	4	0.23	-0.30
KS WICHITA	51	6	0.65	-0.94	LANDER	35	4	0.45	-0.35	LANDER	35	4	0.45	-0.35
KY JACKSON	55	7	1.82	-2.38	OH AKRON-CANTON	49	6	2.62	-0.55	SHERIDAN	37	4	0.83	0.00
					CLEVELAND	49	6	2.62	-0.55					

Based on 1961-90 normals.

*** Not Available.

Autumn Weather Review

Review provided by USDA/WAOB

Highlights: Autumn began and ended with flooding rains in the Delta and environs, although long periods of warm, dry weather between the wet spells allowed fieldwork, including summer crop harvesting and winter wheat planting, to proceed. Meanwhile, extremely dry conditions prevailed from the Appalachians eastward, causing drought intensification, hampering winter wheat emergence and establishment, and contributing to a rash of autumn wildfires. The exception to the Eastern dry pattern was southern and eastern Florida, where the mid-September passage of Tropical Storm Gabrielle and an early-November brush with Hurricane Michelle contributed to above-normal rainfall. Meanwhile, heavy October rainfall hampered harvest activities across the eastern Corn Belt, followed by a return to warm and often dry weather in November. On the Plains, mid- to late-November precipitation eased autumn dryness in many areas, while November warmth promoted some late-season winter wheat development across the southern half of the region. However, extreme dryness persisted in wheat areas on the drought-plagued northern High Plains, while pockets of dryness lingered in parts of Kansas and Oklahoma. In the West, precipitation intensified during the last 3 weeks of November across northern California, the Great Basin, and the Northwest, following a slow start to the wet season. The Northwestern moisture eased the region's 21-month drought and boosted topsoil moisture and high-elevation snow packs. Farther south, however, only sporadic, light precipitation fell across the Southwest.

September: Widespread showers boosted soil moisture for newly planted winter wheat on the Plains, especially from Nebraska southward into Texas. However, unfavorably dry pockets persisted on the southern High Plains' wheat areas, while very warm, often dry weather reduced soil moisture for wheat emergence on the drought-affected northern High Plains. In winter wheat areas of the Northwest, scattered showers provided little relief from long-term drought, leaving reservoir supplies and soil moisture reserves limited. Elsewhere in the West, very warm, mostly dry weather promoted summer crop maturation and harvesting. Meanwhile across the South, heavy rainfall diminished early in the month, although moisture damage to some cotton, soybeans, and sorghum was irreversible in parts of the western and central Gulf Coast States. As the month progressed, fieldwork accelerated in the South, except across Florida's Peninsula, where the midmonth passage of Tropical Storm Gabrielle and subsequent showers further eased hydrological drought but caused localized flooding. Farther north, cool, mostly dry weather prevailed in the Mid-Atlantic region, while occasional showers eased long-term moisture deficits from the eastern Great Lakes region into the Northeast. In the Corn Belt, summer crops progressed toward maturity under mild,

frequently showery conditions. Late-planted, immature corn and soybeans in the northwestern Corn Belt largely escaped a brush with scattered frost and near-freezing temperatures on September 24 and 25.

Monthly temperatures were generally below normal in the East and above normal in the West. Readings averaged 1 to 3°F below normal from the Corn Belt southward to the Gulf Coast, but as much as 5°F below normal in the Mid-Atlantic region. In the East, only Maine—where temperatures averaged up to 3°F above normal—escaped cool conditions. Meanwhile in the West, temperatures ranged from 3 to 7°F above normal across most inland areas. Cool weather was confined to the Pacific Coast region.

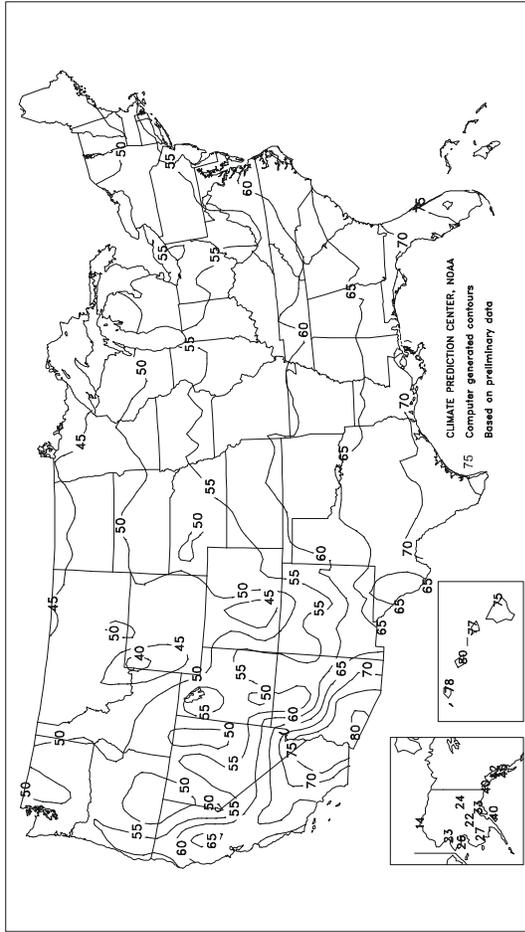
October: Heavy rainfall repeatedly disrupted summer crop harvesting and winter wheat planting in the eastern Corn Belt. In contrast, western Corn Belt corn and soybean harvests progressed with few delays. High winds swept across the Midwest on October 24-25, preceded by several days of scattered large hail. The severe weather adversely affected some unharvested Midwestern crops, including corn (lodged due to high winds and wet soils) and soybeans (locally battered by large hail). Meanwhile across the South, heavy showers diminished west of the Appalachians, allowing fieldwork to accelerate after midmonth. However, dryness persisted through a second consecutive month in the Atlantic Coast region, favoring fieldwork but hampering winter wheat establishment. Similarly, mild, breezy, mostly dry conditions on the Plains promoted summer crop harvesting but reduced soil moisture for winter wheat development, especially in Montana and from the central High Plains southward into Texas. An exception to the Plains' tranquil weather pattern was an early-season blizzard in the Red River Valley of the North on October 24-25 that halted fieldwork, disrupted transportation, and stressed livestock. Elsewhere, significant precipitation was confined to southern Florida and the Northwest. Florida's precipitation further eased long-term rainfall deficits, while the Northwest's rain and snow aided pastures and winter wheat, but provided little relief from subsoil moisture shortages and drought-reduced reservoir supplies.

The remainder of the West experienced warm, mostly dry weather. Warmth was especially prominent during the second half of October, propelling monthly temperatures 2 to 6°F above normal from northern California and the Great Basin southward to the Mexican border. Sharp temperature fluctuations were observed east of the Rockies, but monthly temperatures averaged within a few degrees of normal. The coolest weather, relative to normal, was noted in the Southeast, where readings averaged as much as 4°F below normal.

November: *A complete summary begins on page 7.*

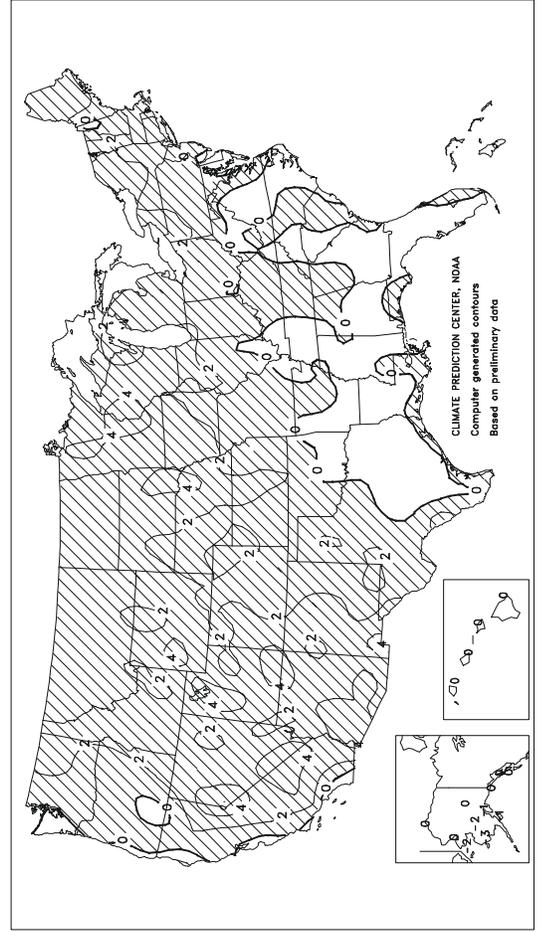
Average Temperature (°F)

SEP - NOV 2001



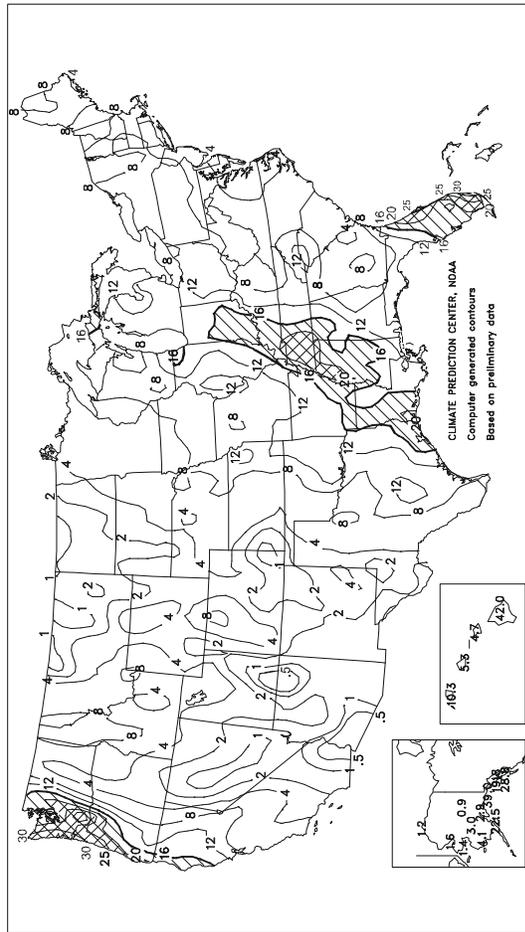
Departure of Average Temperature from Normal (°F)

SEP - NOV 2001



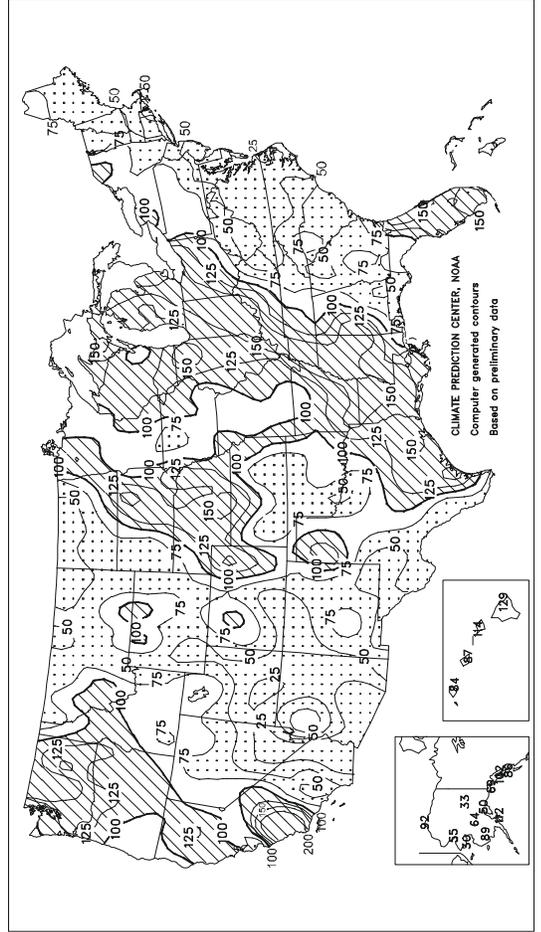
Total Precipitation (Inches)

SEP - NOV 2001



Percent of Normal Precipitation

SEP - NOV 2001



TEMPERATURE AND PRECIPITATION SUMMARY

Autumn 2001

STATES AND STATIONS	TEMP, EF		PRECIP.		STATES AND STATIONS	TEMP, EF		PRECIP.		STATES AND STATIONS	TEMP, EF		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	64	1	12.88	1.81	LEXINGTON	58	1	9.47	0.31	COLUMBUS	56	2	8.59	0.26
AL HUNTSVILLE	62	0	10.80	-1.39	LONDON-CORBIN	57	0	6.04	-4.07	DAYTON	55	1	11.74	3.65
AL MOBILE	68	-1	7.37	-5.58	LOUISVILLE	60	2	15.62	6.05	MANSFIELD	53	0	10.43	1.20
AL MONTGOMERY	65	-1	7.14	-3.48	PADUCAH	59	0	18.00	6.99	TOLEDO	55	4	13.10	5.34
AK ANCHORAGE	33	-2	2.94	-2.90	LA BATON ROUGE	68	-1	13.20	0.56	YOUNGSTOWN	54	3	9.37	0.16
AK BARRROW	14	0	1.19	-0.11	LAKE CHARLES	69	0	17.51	3.61	OK OKLAHOMA CITY	61	-1	10.15	1.10
AK COLD BAY	40	-1	14.90	1.96	NEW ORLEANS	71	2	13.95	0.97	TULSA	63	1	8.19	-3.30
AK FAIRBANKS	24	0	0.86	-1.79	SHREVEPORT	66	-1	16.16	4.86	OR ASTORIA	53	0	19.41	0.72
AK JUNEAU	42	1	19.79	0.31	ME BANGOR	49	1	7.29	-4.09	BURNS	46	1	2.98	0.45
AK KING SALMON	32	-2	5.43	-0.86	CARIBOU	46	3	8.76	-1.34	EUGENE	55	1	10.22	-3.18
AK KODIAK	40	-2	22.49	2.36	PORTLAND	51	2	8.09	-4.07	MEDFORD	57	2	5.15	-0.42
AK NOME	27	-2	1.44	-3.38	MD BALTIMORE	57	0	3.23	-6.48	PENDELTON	53	1	2.78	-0.25
AZ FLAGSTAFF	50	3	2.17	-3.42	MA BOSTON	56	1	4.00	-6.58	PORTLAND	56	1	10.75	0.99
AZ PHOENIX	80	6	0.22	-1.95	Worcester	53	3	5.48	-7.34	SALEM	55	2	13.01	2.20
AZ TUCSON	73	3	1.09	-2.31	MI ALPENA	49	2	11.28	3.87	PA ALLENTOWN	54	0	6.13	-4.62
AR FORT SMITH	63	1	9.01	-1.90	DETROIT	54	2	13.40	5.74	ERIE	55	2	8.84	-3.34
CA LITTLE ROCK	63	0	14.66	1.66	FLINT	52	2	13.43	5.09	MIDDLETOWN	56	1	4.70	-5.26
CA BAKERSFIELD	68	1	1.30	0.14	GRAND RAPIDS	52	3	13.50	3.13	PHILADELPHIA	60	3	3.96	-5.42
CA EUREKA	52	-3	8.97	-1.03	HOUGHTON LAKE	48	2	10.20	2.34	PITTSBURGH	55	2	8.02	-0.16
CA FRESNO	67	3	2.26	0.12	LANSING	51	2	11.17	2.88	WILKES-BARRE	53	1	6.88	-2.28
CA LOS ANGELES	65	-1	1.40	-1.01	MUSKEGON	51	1	12.14	2.31	WILLIAMSPORT	53	1	9.56	-0.86
CA REDDING	66	3	8.54	0.18	TRAVERSE CITY	49	0	12.21	3.08	PR SAN JUAN	82	1	14.74	-1.70
CA SACRAMENTO	64	1	3.09	-1.08	MN DULUTH	46	4	6.06	-2.07	RI PROVIDENCE	55	1	5.34	-6.26
CA SAN DIEGO	65	-2	0.99	-1.07	INT'L FALLS	44	4	5.61	-0.66	SC CHARLESTON	67	0	6.10	-4.02
CA SAN FRANCISCO	61	1	4.94	0.66	MINNEAPOLIS	52	5	7.57	1.11	COLUMBIA	64	0	2.69	-6.92
CA STOCKTON	64	1	2.52	-0.79	ROCHESTER	50	3	7.53	0.13	FLORENCE	64	-1	4.39	-4.15
CO ALAMOSA	44	1	0.40	-1.62	ST. CLOUD	48	4	5.88	-0.76	GREENVILLE	61	0	12.11	0.51
CO CO SPRINGS	52	3	1.41	-1.23	MS JACKSON	65	0	14.28	2.66	MYRTLE BEACH	65	2	6.24	-5.46
CO DENVER	53	2	1.79	-1.30	MERIDIAN	64	-1	17.89	6.82	SD ABERDEEN	48	2	5.96	2.39
CO GRAND JUNCTION	56	2	2.19	-0.32	TUPELO	62	-1	16.45	4.58	HURON	51	4	4.51	0.60
CO PUEBLO	53	0	1.00	-0.90	MO COLUMBIA	57	1	8.68	-1.33	RAPID CITY	50	2	1.83	-1.06
CT BRIDGEPORT	57	1	4.70	-5.29	JOPLIN	61	2	12.98	0.53	SIoux FALLS	51	4	7.88	1.99
CT HARTFORD	54	2	4.74	-6.66	KANSAS CITY	58	2	11.10	1.03	TN BRISTOL	56	-1	3.54	-5.25
DC WASHINGTON	61	1	2.68	-6.77	SPRINGFIELD	58	0	9.88	-2.06	CHATTANOOGA	62	1	11.32	-0.66
DE WILMINGTON	58	1	4.29	-5.29	ST JOSEPH	56	1	9.52	0.19	JACKSON	60	-1	18.79	7.09
FL DAYTONA BEACH	73	0	26.26	12.95	ST LOUIS	60	2	11.38	2.30	KNOXVILLE	60	1	5.98	-3.68
FL FT LAUDERDALE	78	0	26.14	8.27	MT BILLINGS	51	3	2.18	-1.16	MEMPHIS	64	1	21.87	10.23
FL FT MYERS	75	-2	16.88	4.55	BUTTE	43	3	2.55	0.07	NASHVILLE	61	0	11.49	1.29
FL JACKSONVILLE	69	-1	18.30	6.16	GLASGOW	47	3	0.79	-1.10	TX ABILENE	66	0	6.18	-1.02
FL KEY WEST	78	-2	20.11	7.00	GREAT FALLS	50	4	1.96	-0.72	AMARILLO	60	2	4.93	0.88
FL MELBOURNE	74	0	21.56	7.83	HELENA	51	7	2.11	-0.12	AUSTIN	67	-4	13.32	4.22
FL MIAMI	78	0	32.31	16.38	KALISPELL	45	3	2.81	-0.62	BEAUMONT	70	0	20.14	4.69
FL ORLANDO	74	-1	13.16	2.43	MILES CITY	49	2	1.09	-1.62	BROWNSVILLE	76	1	6.03	-4.28
FL PENSACOLA	70	1	6.40	-6.67	MISSOULA	47	3	2.89	0.22	COLLEGE STATION	70	1	15.22	3.39
FL ST PETERSBURG	75	-1	13.97	2.50	NE GRAND ISLAND	55	4	4.45	-0.79	CORPUS CHRISTI	73	-1	16.70	6.57
FL TALLAHASSEE	68	-1	11.62	-0.75	HASTINGS	55	4	9.10	3.19	DALLAS/FT WORTH	66	-1	6.68	-2.52
FL TAMPA	75	1	14.26	4.49	LINCOLN	56	3	8.81	1.94	DEL RIO	71	1	3.80	-2.19
FL WEST PALM BEACH	77	0	24.91	5.09	MCCOOK	56	4	5.24	1.65	EL PASO	66	2	0.90	-2.00
GA ATHENS	63	0	2.64	-7.66	NORFOLK	54	4	6.35	1.29	GALVESTON	73	1	15.59	3.45
GA ATLANTA	64	1	4.00	-6.33	NEWARK	50	1	4.52	1.27	HOUSTON	69	-1	20.37	7.42
GA AUGUSTA	64	0	4.59	-3.75	OMAHA/EPPLEY	56	3	6.04	-1.45	LUBBOCK	62	1	4.32	-0.88
GA COLUMBUS	67	1	6.60	-2.41	SCOTTSBLUFF	51	2	2.08	-0.45	MIDLAND	65	2	2.45	-2.60
GA MACON	64	-1	9.20	1.51	VALENTINE	51	3	4.02	0.98	SAN ANGELO	66	0	5.85	-1.04
GA SAVANNAH	67	-1	5.04	-4.01	NV ELKO	50	3	2.09	-0.29	SAN ANTONIO	69	-1	10.50	1.30
HI HILO	75	0	42.05	9.41	ELY	48	3	1.69	-0.88	VICTORIA	71	0	15.69	4.18
HI HONOLULU	80	1	5.25	-0.81	LAS VEGAS	72	4	0.09	-0.83	WACO	67	-1	10.72	1.41
HI KAHULUI	77	0	4.74	0.57	RENO	57	7	1.08	-0.56	WICHITA FALLS	66	2	2.24	-5.86
HI LIHUE	78	1	10.30	-1.93	WINNEMUCCA	52	3	1.28	-0.68	UT SALT LAKE CITY	56	3	4.30	0.29
ID BOISE	55	4	2.83	-0.20	NH CONCORD	50	2	5.61	-4.09	VT BURLINGTON	51	3	4.59	-4.72
ID LEWISTON	55	2	3.28	0.45	NJ ATLANTIC CITY	57	1	3.41	-5.92	VA LYNCHBURG	56	-2	3.28	-6.80
ID POCATELLO	49	1	1.71	-1.21	NY ALBANY	53	3	4.33	-4.68	NORFOLK	62	0	3.30	-6.60
IL CHICAGO/O'HARE	54	2	15.81	6.66	NM ALBUQUERQUE	60	3	1.35	-0.97	RICHMOND	60	1	2.97	-7.07
IL MOLINE	55	3	9.11	-0.35	NY BINGHAMTON	51	2	8.06	-1.43	ROANOKE	59	2	3.18	-7.36
IL PEORIA	56	2	11.13	1.92	BUFFALO	54	3	11.13	0.72	WASH/DULLES	57	1	5.69	-4.17
IL ROCKFORD	53	2	15.23	5.98	ROCHESTER	53	2	7.33	-1.00	WA OLYMPIA	50	0	18.20	3.58
IL SPRINGFIELD	56	1	10.07	1.61	SYRACUSE	54	3	9.15	-1.60	QUILLAYUTE	50	0	28.88	-1.26
IN EVANSVILLE	58	1	15.13	5.56	ASHEVILLE	56	-1	6.38	-4.67	SEATTLE-TACOMA	53	0	13.19	2.25
IN FORT WAYNE	54	1	12.62	4.67	CHARLOTTE	61	-1	5.93	-4.16	SPOKANE	50	3	4.87	1.00
IN INDIANAPOLIS	56	1	14.36	5.63	GREENSBORO	60	1	2.80	-7.19	YAKIMA	51	1	2.46	0.56
IN SOUTH BEND	54	2	12.42	2.45	HATTERAS	65	0	5.42	-9.80	WV BECKLEY	54	1	2.71	-6.50
IA BURLINGTON	56	3	8.70	-0.67	RALEIGH	61	0	3.21	-5.82	CHARLESTON	56	-1	4.66	-5.06
IA CEDAR RAPIDS	52	1	7.70	-0.51	WILMINGTON	65	-1	4.44	-6.40	ELKINS	51	0	3.91	-6.26
IA DES MOINES	55	2	7.65	-0.29	ND BISMARCK	65	-1	1.98	-0.90	HUNTINGTON	58	1	4.43	-4.63
IA DUBUQUE	51	2	10.88	0.77	DICKINSON	47	3	2.50	-0.57	WI EAU CLAIRE	50	4	7.26	-0.59
IA SIOUX CITY	53	3	7.66	1.76	FARGO	48	4	5.25	0.85	GREEN BAY	49	2	5.78	-2.08
IA WATERLOO	53	4	8.53	0.63	GRAND FORKS	45	3	3.30	-0.88	LA CROSSE	52	3	8.93	1.21
KS CONCORDIA	57	2	6.44	0.31	JAMESTOWN	46	2	2.83	-0.39	MADISON	51	3	9.76	2.13
KS DODGE CITY	58	1	2.39	-1.63	MINOT	46	3	0.95	-2.64	MILWAUKEE	53	3	9.88	1.58
KS GOODLAND	54	2	3.00	-0.16	WILLISTON	45	2	0.69	-1.86	WAUSAU	49	3	8.98	0.01
KS HILL CITY	55	1	4.64	0.39	OH AKRON-CANTON	54	1	9.88	1.20	CASPER	49	3	2.29	-0.39
KS TOPEKA	58	2	12.09	3.29	CINCINNATI	56	0	13.17	3.97	CHEYENNE	49	2	1.80	-0.74
KS WICHITA	60	2	4.81	-2.49	CLEVELAND	55	2	12.08	2.93	LANDER	48	3	1.82	-1.21
KY JACKSON	59	1	4.55	-6.51						SHERIDAN	47	2	4.53	1.15

Based on 1961-90 normals.

*** Not Available.

National Agricultural Summary

December 3 - 9, 2001

Weekly National Agricultural Summary provided by USDA/NASS

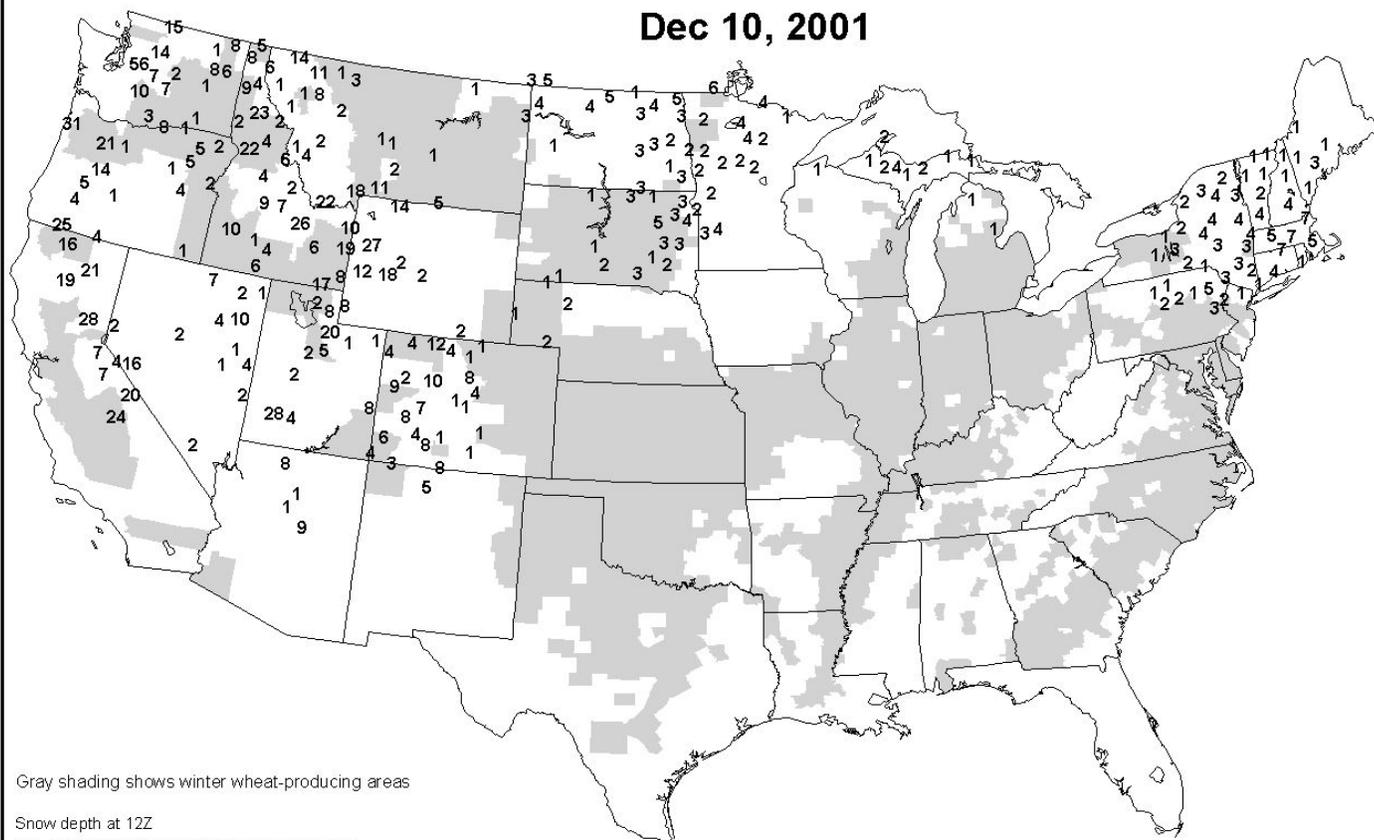
HIGHLIGHTS

Above-normal temperatures prevailed across most of the Nation, stimulating vegetative growth of winter crops and forages. In the northern Great Plains, the unusually warm weather melted the winter wheat crop's protective snow cover, but provided much-needed moisture for short-term development. In the central and southern Great Plains, moisture shortages increased, limiting the winter wheat crop's response to the favorable temperatures. Widespread, light precipitation maintained topsoil moisture supplies in the central and eastern Corn Belt, and supported development of the soft red

winter wheat crop. Rain boosted moisture reserves in the valleys of California and the Pacific Northwest, while snow accumulations continued to build in the higher elevations of the Cascade, Sierra, and interior mountain ranges. Unfavorably wet weather continued along a band extending from the western Gulf Coast to the upper Ohio River Valley, while much of the Atlantic Coastal Plain remained unfavorably dry. Late-season harvest and fall tillage were uninterrupted in the Texas High Plains, and field and orchard work continued with only brief rain delays in Florida.

Snow Depth (Inches)

Dec 10, 2001



Gray shading shows winter wheat-producing areas

Snow depth at 12Z

The NWS cooperative network is the principal source of the snow depth reports

International Weather and Crop Summary

December 2 - 8, 2001

International Weather and Crop Highlights and Summaries provided by USDA/WAOB

HIGHLIGHTS

EUROPE: Relatively mild weather in western Europe promoted additional crop development, while unseasonably cold weather continued across eastern Europe.

FSU-WESTERN: An adequate snow cover protected dormant winter grains from the first bitter cold outbreak of the season.

MIDDLE EAST: Widespread, locally heavy rain boosted moisture reserves for winter wheat in most major production areas.

NORTHWESTERN AFRICA: Warm, mostly dry weather reduced topsoil moisture for winter grains throughout the region.

SOUTH AFRICA: Locally heavy rain continued in the western corn belt, while sunny skies aided summer crop development in the east.

SOUTH ASIA: Dry, warmer-than-normal weather hastened summer crop harvesting and fostered winter crop planting.

SOUTHEAST ASIA: A tropical depression moved across the central Philippines, bringing heavy showers and causing flooding.

EASTERN ASIA: In the northern North China Plain, winter wheat began to enter dormancy, while widespread precipitation boosted moisture supplies for winter grains and oilseeds across the southern North China Plain and northern Yangtze Valley.

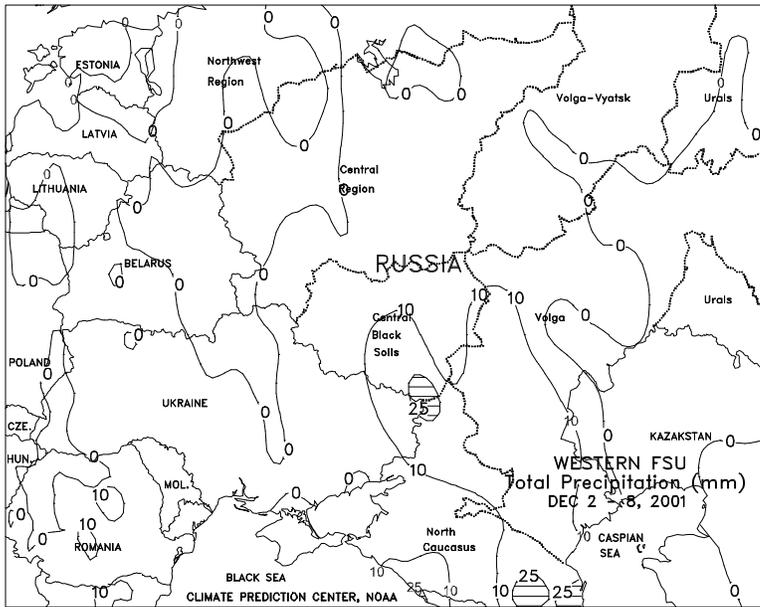
SOUTH AMERICA: In central Argentina, mostly dry weather continued to favor maturing winter wheat and summer crop planting, but western summer crop areas are becoming too dry. Across the major crop areas of southern Brazil, widespread showers continued to maintain adequate soil moisture for crop development.

AUSTRALIA: Scattered, mostly light showers continued in primary growing areas, benefiting vegetative summer crops but slowing winter crop harvesting.



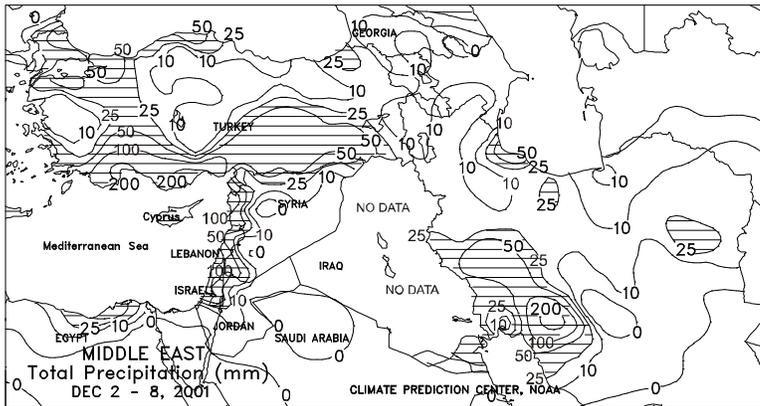
EUROPE

In northwestern and north-central Europe, scattered showers (3-23 mm or more) maintained adequate moisture supplies for winter grains and oilseeds, but caused some interruptions in fieldwork, including late sugar beet harvesting in England. Farther east, scattered rain and snow showers (mostly less than 10 mm of liquid equivalent) had little impact on dormant winter grains in eastern Europe. In south-central and southwestern Europe, mostly dry weather promoted winter grain planting, but helped reduce topsoil moisture for germinating and emerging winter grains. Temperatures in England, Spain, and Portugal averaged near normal, while elsewhere in western and central Europe, temperatures averaged about 2 to 4 degrees C above normal. The continued relatively mild weather in western Europe promoted additional winter grain and oilseed development. In contrast, temperatures in eastern Europe averaged about 2 to 5 degrees C below normal, keeping winter grains dormant. A shallow, uniform snow pack covered much of northeastern Europe, while more patchy snow cover was established across major crop growing areas in southeastern Europe. Although minimum temperatures ranged from -19 to -12 degrees C in parts of Poland and Romania, temperatures were unlikely low enough to cause widespread winterkill.



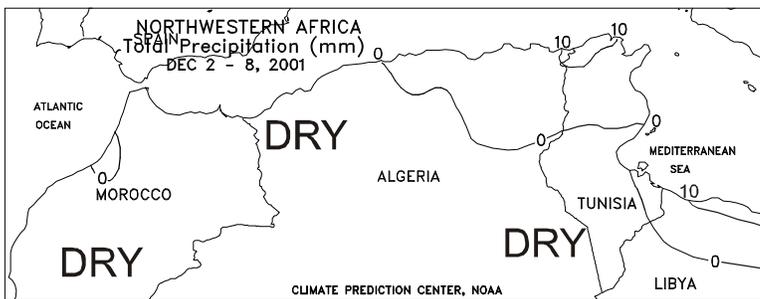
FSU-WESTERN

Snow accompanied the first bitter cold outbreak of the season. Periods of light snow (less than 5 mm of liquid equivalent) fell in western Ukraine during the week, providing additional protective snow cover. Light to moderate snow (3-28 mm of liquid equivalent) fell in eastern Ukraine, the lower Volga Valley, and the North Caucasus region in Russia, increasing protective snow cover. Elsewhere, scattered snow showers maintained a moderate to deep snow cover in northern Russia and a light to moderate snow cover in Belarus and the Baltics. Bitterly cold air gradually spread southward across winter grain areas in Ukraine and the North Caucasus region in Russia. In general, extreme cold (minimum temperatures ranging from -20 to -15 degrees C) was observed over winter grain areas protected by snow cover, minimizing the threat for widespread damage. Although winter grain areas in southern Ukraine and the extreme southern portion of the North Caucasus region in Russia lacked a protective snow cover, minimum temperatures (-13 to -5 degrees C) remained above the threshold for potential winterkill. Weekly temperatures averaged 5 to 8 degrees C below normal in northern Russia, Ukraine, Belarus, and the Baltics, and 2 to 5 degrees C below normal in southern Russia.



MIDDLE EAST

Beneficial rain continued across the region's primary winter wheat areas. The heaviest rain (25-50 mm or more) fell in southeastern Turkey and the Anatolian Plateau, as well as in previously dry sections of Iran, where the moisture was especially welcomed. In western Turkey, very heavy rain (50-200 mm or more) exacerbated flooding in some south-coastal areas, possibly causing additional damage to unharvested summer crops, including the relatively small percentage of remaining cotton. Lighter rain (5-10 mm or more) covered the remainder of the region including Iraq, as depicted by satellite imagery and prevailing weather patterns. The weather was seasonably cool throughout the region, slowing vegetative growth and easing some crops toward dormancy. Although seasonal temperatures are limiting winter wheat development, especially in the northwest, rain is still needed across Iran to build moisture reserves for proper wheat establishment.

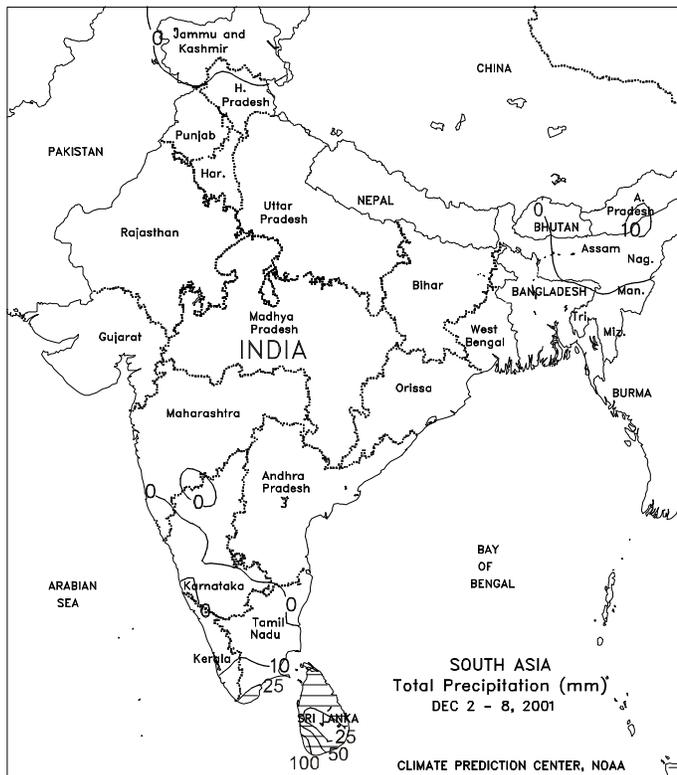
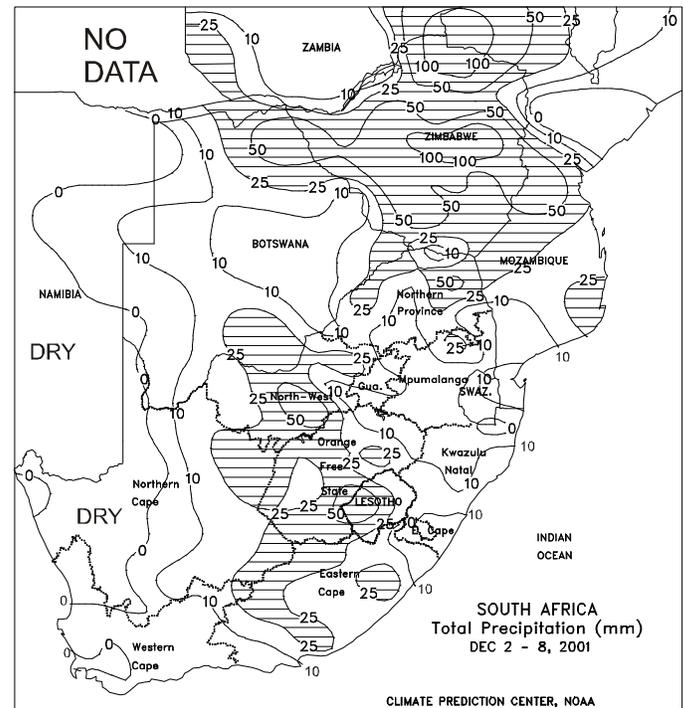


NORTHWESTERN AFRICA

Warm, mostly dry weather prevailed throughout Morocco, Algeria, and Tunisia. Topsoil moisture remained unfavorably low in Morocco, where growers continued to await more rain. Little if any rain has fallen in Morocco since the beginning of the growing season. The mostly dry weather in winter grain areas of Algeria and Tunisia resulted in declining topsoil moisture, needed for winter grain germination and establishment. Subsoil moisture reserves continued to be unfavorably low throughout the region, necessitating timely rains during the remainder of the growing season to sustain normal crop development.

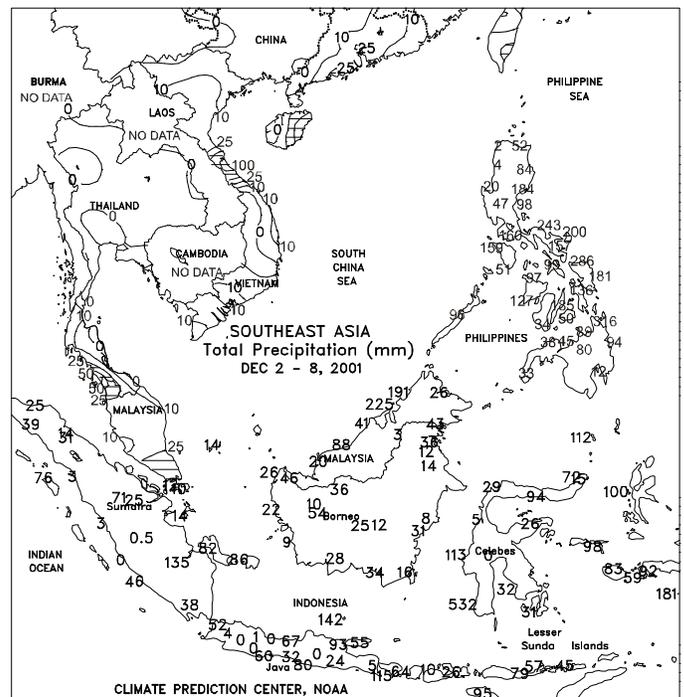
SOUTH AFRICA

Moderate to heavy rain (10-50 mm) continued in western sections of the corn belt (North West and central Free State), maintaining abundant moisture supplies for summer crop establishment. Drier weather (rainfall less than 10 mm) dominated much of the eastern corn belt (eastern Free State, southern Mpumalanga, and surrounding areas), but moisture levels remained favorable for crop development. Temperatures averaged near to below normal across the corn belt, slowing vegetative growth of corn, sunflowers, and other summer crops. Rainfall tapered off somewhat in previously wet areas of KwaZulu-Natal and Eastern Cape, with amounts totaling 10 to 25 mm or more. Warm, dry weather maintained seasonably high irrigation requirements in orchards and vineyards in Western Cape.



SOUTH ASIA

Dry, warmer-than-normal weather dominated the region, as the monsoon retained its seasonal position over Sri Lanka. Conditions favored summer crop harvesting and allowed winter grain and oilseed planting to progress unimpeded. In Pakistan and northwestern India, temperatures averaging 3 to 6 degrees C above normal hastened drydown and harvesting of cotton.



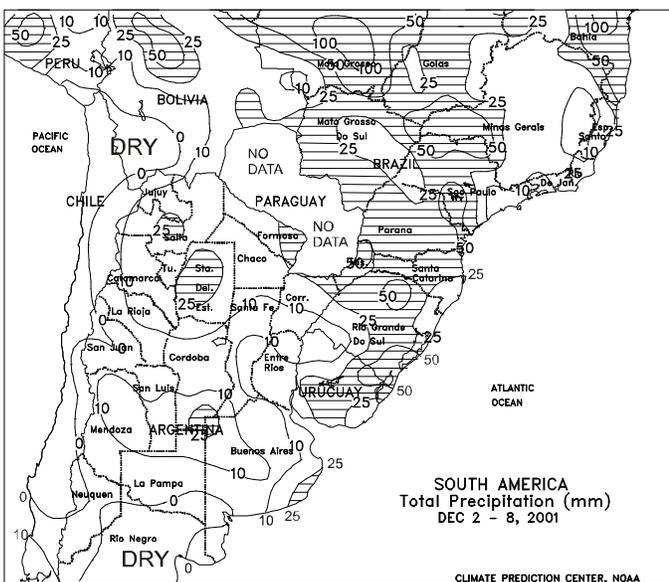
SOUTHEAST ASIA

A tropical depression moved across the central Philippines, bringing heavy showers (50-300 mm) from southern Luzon to northern Mindanao. The system became a tropical storm (Kajiki) as it moved into the South China Sea. The rainfall slowed fieldwork for rice and plantation crops and caused flooding. Dry weather in western Java, Indonesia, reduced moisture supplies for vegetative main-season rice, while showers (25-50 mm) in eastern areas were more favorable. Showers (25-100 mm) increased moisture availability to oil palm in Sumatra, Indonesia, while lighter showers (10-25 mm) maintained moisture reserves in peninsular Malaysia. In Vietnam, showers (10-25 mm) were widespread, favoring winter-spring rice transplanting in the south and vegetative rice in the north. Seasonal dryness favored rice fieldwork across Thailand.



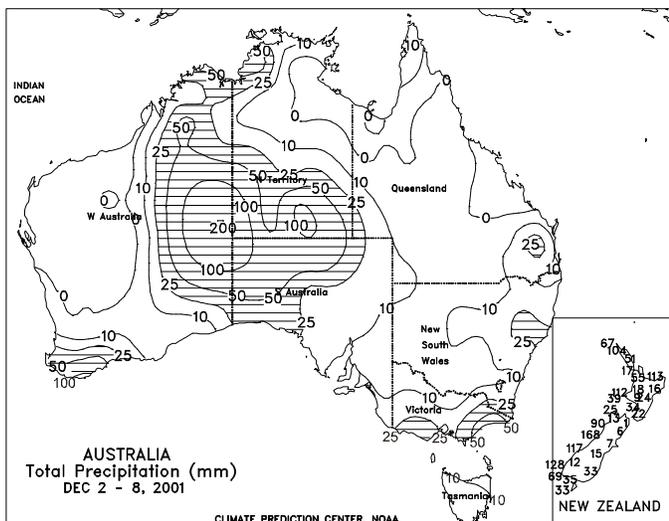
EASTERN ASIA

Across the North China Plain, seasonably cold weather prompted winter wheat to begin entering dormancy across the northern areas of Hebei, Shanxi, and Beijing. Farther south, widespread precipitation (15-60 mm or more) fell across the southern North China Plain and the northern half of the Yangtze Valley. Mostly dry weather covered southern China, favoring late rice harvesting, but reducing moisture supplies for winter crops and sugarcane. Temperatures averaged 2 to 4 degrees C below normal across the North China Plain and 1 to 3 degrees C above normal across extreme southern China.



SOUTH AMERICA

In central Argentina, mostly dry weather continued to favor maturing winter wheat and summer crop planting. However, in portions of south-central Cordoba and northern La Pampa, topsoil moisture is becoming unfavorably low for summer crops. Moderate showers (20-40 mm) maintained adequate soil moisture for summer crop development in extreme southeastern Cordoba and southern Santa Fe. Winter wheat harvesting continued in Cordoba and Santa Fe and started in northern Buenos Aires. In northern Argentina, light to moderate rain (10-30 mm) aided germinating cotton. Across Argentina, temperatures averaged 2 to 4 degrees C below normal, slowing crop development. In southern Brazil, widespread showers (20-70 mm or more) covered the major soybean- and corn-producing areas, maintaining adequate soil moisture for soybeans, sugarcane, coffee, and oranges. Drier weather (less than 15 mm) fell across Espirito Santo and eastern Minas Gerais. According to Safras, a Brazilian grain analyst firm, as of December 7, soybeans were 91 percent planted, compared with the 5-year average of 88 percent.



AUSTRALIA

Light to moderate showers (5-10 mm, locally exceeding 25 mm) continued across the southeast (South Australia, Victoria, and southern New South Wales) and in southern agricultural districts of Western Australia. The moisture was untimely for mature winter grains and oilseeds but further improved grazing conditions. Near- to below-normal temperatures in these areas enhanced the effects of dampness on unharvested winter crops and raised quality concerns. Elsewhere, rain (10-25 mm or more) boosted irrigation reserves for cotton, sorghum, and sugarcane in east-central Australia (southern Queensland and northern New South Wales), although showers were lighter (5 mm or less) in western-most growing areas. Seasonably warm weather spurred summer crop development but kept evaporative losses high in western grazing areas. In New Zealand, light to moderate showers (5-25 mm or more) returned to the main small grain and pasture areas, with heavier rain (25-50 mm or more) falling in west-coastal growing areas.

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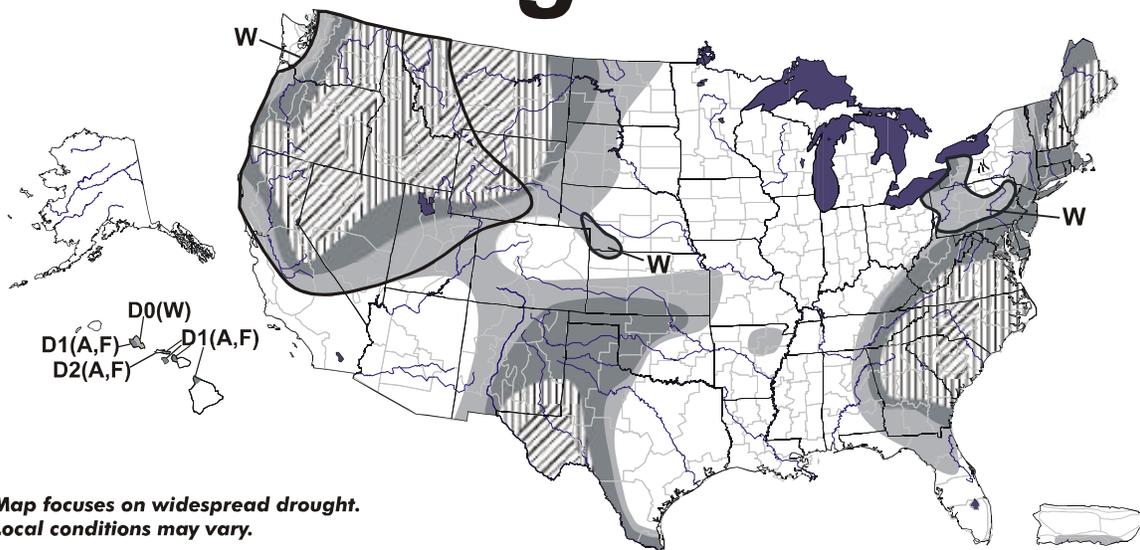
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December 4, 2001 Valid 8 a.m. EST

U.S. Drought Monitor



Map focuses on widespread drought. Local conditions may vary.

- D0 Abnormally Dry
- D1 Drought-First Stage
- ▨ D2 Drought-Severe
- ▩ D3 Drought-Extreme
- ⊠ D4 Drought-Exceptional
- Delineates Overlapping Areas

Drought Impact Types:
A = Agriculture
W = Water (Hydrological)
F = Fire danger (Wildfires)
(No type = All 3 impacts)



See accompanying text summary for forecast statements
<http://enso.unl.edu/monitor/monitor.html>

● Released Thursday, December 6, 2001 ●
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