

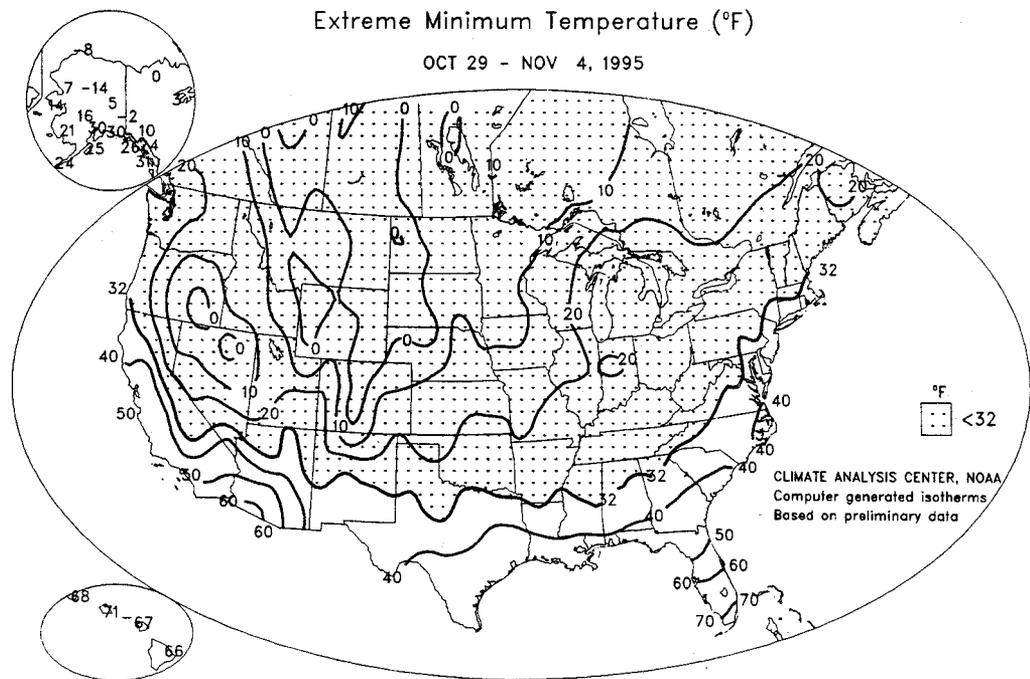
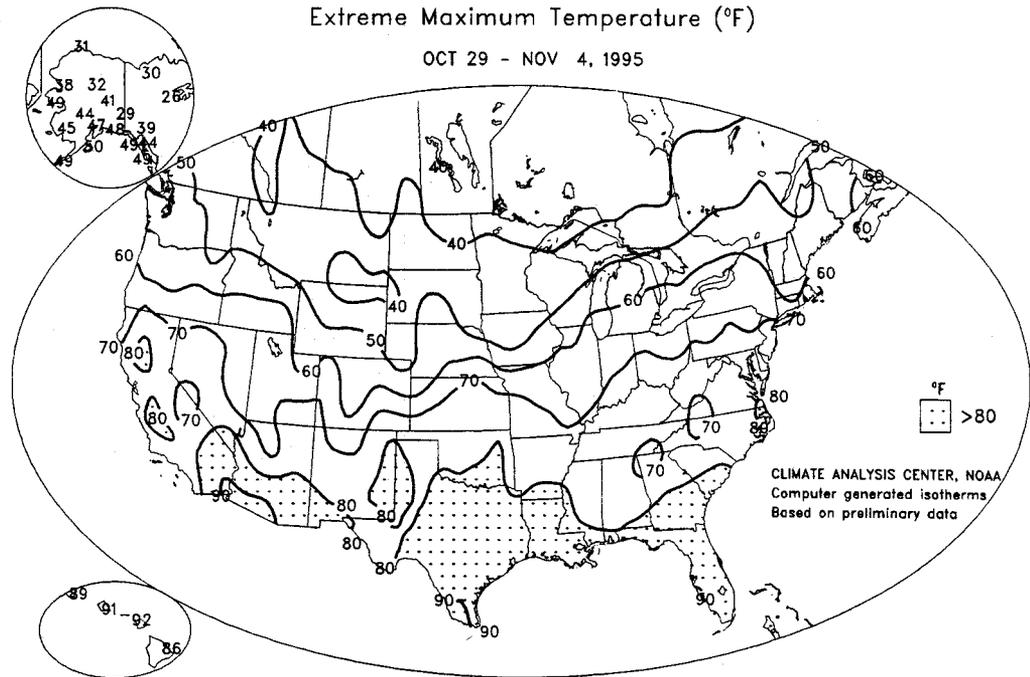
(Continued from front cover)

Early in the week, the tail of a cold front lingered near the **Texas coast**, fueling torrential rains. **Corpus Christi, TX** received 7.92 inches on Sunday, breaking their single-day October record of 5.71 inches, set on October 8, 1994. Farther north, the leading edge of a cold but shallow air-mass edged across the **Northwestern and Central States**. Light snow developed over the **Midwest**, resulting in 2-inch depths by Tuesday morning in **Aberdeen, SD** and **Rochester, MN**. Meanwhile, the month ended with a half-dozen daily-record lows in the **Northwest**, including 16°F in **Yakima, WA** and 24°F in **Salem, OR**.

Elko, NV ended the week with four consecutive daily records, including a low of -2°F on Thursday. On November 3, minima of -7°F in **Valentine, NE** and -3°F in **Rapid City, SD** were low enough to eclipse daily records set in 1991, while farther south, lows dipped into the lower to middle 10's as far south as **western Kansas**. **Midland, TX** notched a minimum of 32°F. A day later, lows fell to 20°F as far south as **Dalhart, TX**, with the freezing line extending roughly along the **Red River** (Texas-Oklahoma border) eastward through **central Mississippi** and into **northern Georgia**. However, daily-record warmth persisted as late as Saturday in **Florida**, where **Melbourne** logged a high of 89°F.

Precipitation brought relief from short-term dryness in areas from **southern Iowa to central Texas**. Weekly totals of 1.21 inches in **Kansas City, MO** and 0.73 inches in **Topeka, KS** more than doubled their respective October totals of 0.51 and 0.21 inches. In **Austin, TX**, a paltry October 1-30 rainfall of 0.12 inches contrasted sharply with totals of 1.31 inches on October 31 and 1.51 inches on November 1. Farther west, 1.25 inches of rain pelted **Phoenix, AZ** on November 1, 189 percent of their normal monthly total. After midweek, heavy rain shifted into the **Great Lakes States** and the **Southeast**. Although totals approached 2 inches in locations such as **Peoria, IL**, **Green Bay, WI**, and **Memphis, TN**, very heavy rain was confined to the **central Gulf Coast region**, where rainfall included 5.32 inches in **Mobile, AL** and 8.75 inches--including 7.47 inches in 24 hours on November 2-3--in **Lafayette, LA**.

Heavy rain also struck **western Hawaii**, where **Lihue** measured a weekly total of 11.33 inches, 8.95 inches of which fell on November 3. Meanwhile, weekly temperatures in **Alaska** averaged up to 18°F above normal, with highs topping 40°F as far north as **Fairbanks** on October 29.



Snow, Cold on Halloween: Shades of 1991, 1993

For the third time this decade, wintry weather arrived across much of the United States as October ended, but this year's edition of snow and cold unfolded as the least severe of the Halloween outbreaks of the 1990's. The 1995 cold snap most closely resembled--yet paled against--the 1991 event, when heavy snow immobilized a vast swath from northern Texas to Minnesota, and arctic high pressure broke nearly 300 daily-record lows. The 1993 freeze differed in that high pressure took a deeper plunge into South Texas and the Gulf Coast States, and that accumulating snowfall was confined to the upper Ohio Valley and interior Northeast.

As in 1991, late-October 1995 featured a surge of cool air eastward across the Nation's northern tier in advance of a southward plunge of arctic air through the Plains. Arctic high pressure was considerably stronger over Montana on November 2, 1991 (about 1047 millibars, or 30.92 inches), than on November 2, 1995 (1036 millibars, or 30.59 inches). In addition, the arrival of cold air in 1995 did not accompany a major snowstorm. In 1995, however, cold air penetrated farther into the Northwest and Great Basin than during either 1991 or 1993.

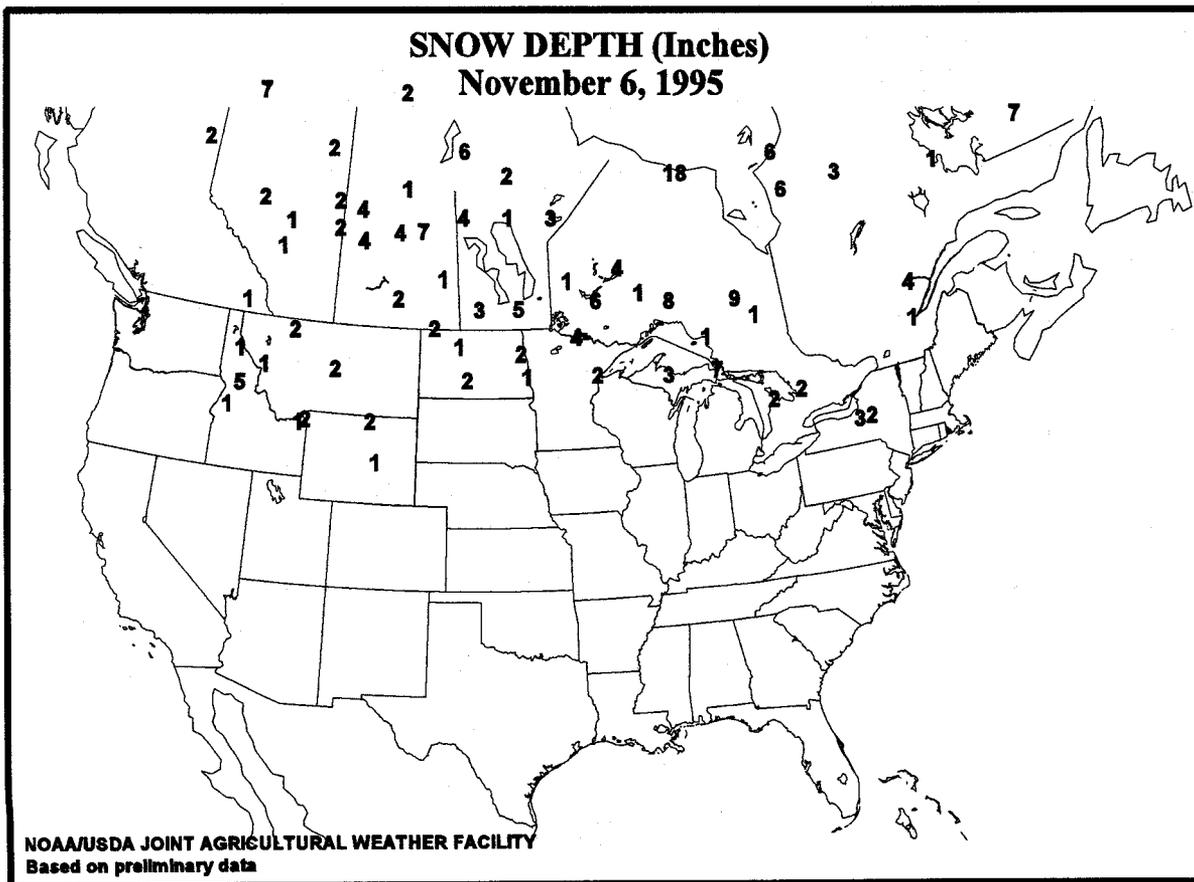
The tables that follow quantitatively compare minima and snow cover for selected cities during the late-October/early-November arctic outbreaks of the 1990's. Readers may wish to note that in both 1991 and 1993, secondary surges of arctic air brought even colder air to some locations after November 5.

Minima for Selected Cities (°F)

Location	Nov. 2 - 4, '95	Oct. 30-Nov. 1, '93	Nov. 2-4, '91
San Antonio, TX	43	27	28
Lubbock, TX	33	20	7
Amarillo, TX	23	12	7
Dodge City, KS	13	10	3
Kansas City, MO	15	17	7
Valentine, NE	-7	10	0
Sioux City, IA	7	13	-3
Cheyenne, WY	-5	0	-7
Rapid City, SD	-3	8	0
Spokane, WA	15	24	10
Ft. Smith, AR	23	24	21
Meridian, MS	32	25	25

Snow Depth (Inches) for Selected Cities

Location	Nov. 2, 1995	Nov. 1, 1993	Nov. 2, 1991
Dalhart, TX	0	0	3
Dodge City, KS	0	0	4
Grand Island, NE	1	0	11
Minot, ND	4	0	13
St. Cloud, MN	2	0	13
Duluth, MN	T	0	30
Casper, WY	5	0	5
Great Falls, MT	2	0	3
Wenatchee, WA	0	0	1
Binghamton, NY	0	13	0



National Weather Data for Selected Cities

Weather Data for the Week Ending November 4, 1995

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	TEMP. °F		PRECIP.	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	63	47	71	30	55	-2	.4	-.4	.2	17.8	246	42.1	92	95	63	0	0	1	4	0
MOBILE	70	55	81	40	63	-1	5.3	4.6	1.9	14.7	158	68.2	124	86	60	0	0	0	5	3
MONTGOMERY	65	49	76	35	57	-2	1.1	.4	.5	9.4	138	36.1	78	96	66	0	0	0	4	1
AK ANCHORAGE	41	31	47	30	36	10	.2	-.1	.1	3.9	80	13.6	98	89	66	0	5	4	0	0
BARROW	25	12	31	-8	18	13	.1	.0	.1	.4	35	3.0	76	93	84	0	7	1	0	0
FAIRBANKS	34	19	41	5	26	14	.1	-.1	.1	1.8	93	8.8	94	94	74	0	7	2	0	0
JUNEAU	40	31	44	24	36	-1	.7	-.8	.4	10.2	66	38.3	83	98	74	0	4	2	0	0
KODIAK	45	33	50	25	39	2	3.1	1.6	2.2	29.4	196	81.2	146	86	53	0	4	4	1	1
NOME	37	27	49	14	32	11	1.3	1.0	.7	4.8	121	14.6	111	92	77	0	3	5	1	1
AZ PHOENIX	79	59	87	56	69	1	1.3	1.1	1.3	2.1	133	8.7	142	74	31	0	0	1	1	1
PRESCOTT	65	41	73	35	53	4	.1	-.2	.1	1.1	33	11.3	68	79	35	0	0	2	0	0
TUCSON	75	53	87	50	64	0	.4	-.2	.2	2.7	95	10.1	98	79	30	0	0	3	0	0
YUMA	82	62	90	60	72	2	.7	-.1	.7	.2	39	3.2	129	75	38	1	0	0	0	0
AR FORT SMITH	64	42	77	23	53	-3	.7	-.2	.6	6.5	88	33.9	98	86	42	0	2	2	1	1
LITTLE ROCK	...	...	...	...	...	...	.7	-.3	...	...	...	31.5	78	...	...	0	0	0	0	0
CA BAKERSFIELD	73	52	82	47	63	1	T	-.1	T	T	0	7.9	176	70	34	0	0	0	0	0
EUREKA	58	44	61	37	51	-2	T	-.1	T	1.2	29	37.5	145	91	60	0	0	0	0	0
FRESNO	73	51	81	47	62	3	T	-.2	T	T	0	15.2	192	92	26	0	0	0	0	0
LOS ANGELES	68	58	71	54	63	-1	.1	-.2	.1	.1	13	21.1	241	93	74	0	0	0	0	0
REDDING	75	45	85	34	60	3	.0	-.9	0	.0	0	46.6	202	78	28	0	0	0	0	0
SACRAMENTO	72	48	81	39	60	1	T	-.5	T	T	0	23.8	189	94	42	0	0	0	0	0
SAN DIEGO	69	61	71	57	65	0	.3	-.1	.3	.3	40	16.2	229	89	73	0	0	0	1	0
SAN FRANCISCO	65	51	71	46	58	0	T	-.5	T	T	2	21.0	150	90	60	0	0	0	0	0
CO DENVER	43	21	54	10	32	-13	T	-.2	T	3.0	125	15.7	112	93	56	0	0	7	1	0
GRAND JUNCTION	61	33	71	21	47	-2	T	-.2	T	.9	38	9.4	106	72	23	0	0	3	1	0
PUEBLO	48	21	65	14	35	-12	T	-.1	T	1.4	92	15.3	147	94	49	0	0	7	2	0
CT BRIDGEPORT	57	45	67	38	51	0	.9	.0	.8	9.7	146	27.6	79	81	58	0	0	0	3	1
HARTFORD	51	39	59	32	45	-2	.7	-.2	.6	13.3	169	34.9	95	87	58	0	1	3	1	1
DC WASHINGTON	62	48	73	35	55	0	.6	-.1	.3	12.9	191	33.4	102	86	60	0	0	0	3	0
FL PANAMA CITY	74	57	83	45	66	1	.1	-.7	.1	1.8	19	38.3	67	87	59	0	0	2	0	0
DAYTONA BEACH	81	65	87	54	73	3	.5	-.3	.4	18.1	166	48.8	114	93	57	0	0	0	2	0
JACKSONVILLE	78	59	87	44	68	0	.2	-.3	.1	9.1	81	44.9	101	95	59	0	0	0	3	0
KEY WEST	85	78	86	75	81	4	.4	-.4	.4	13.1	122	35.7	102	87	71	0	0	1	0	0
MIAMI	86	75	89	72	81	5	T	-.4	T	20.3	147	76.1	147	81	59	0	0	0	1	0
ORLANDO	83	65	88	58	74	3	T	-.4	T	8.0	91	41.0	93	92	57	0	0	1	0	0
TALLAHASSEE	74	58	85	45	66	2	1.7	1.0	1.0	9.3	104	47.0	82	89	58	0	0	2	2	2
TAMPA	82	66	85	59	74	3	.7	-.2	.1	7.5	91	51.8	129	86	60	0	0	1	0	0
WEST PALM BEACH	85	73	87	69	79	3	.7	-.6	.6	18.6	120	61.0	113	84	58	0	0	2	1	1
GA ATLANTA	60	45	71	32	53	-4	2.3	1.5	1.1	11.9	172	40.2	93	90	69	0	1	4	2	2
AUGUSTA	68	49	81	37	58	-1	.6	-.1	.3	10.8	175	41.1	105	98	60	0	0	3	0	0
Macon	68	48	82	37	58	-2	.4	-.1	.2	4.8	91	33.9	89	95	58	0	0	3	0	0
SAVANNAH	74	57	86	46	66	3	.4	-.1	.2	7.7	108	49.1	111	94	58	0	0	2	0	0
HI HILO	84	69	86	66	77	2	.8	-2.1	.5	12.6	63	73.0	70	92	68	0	0	4	0	0
HONOLULU	87	73	91	71	80	2	.6	-.1	.5	1.2	35	11.5	74	84	61	1	0	2	1	0
KAHULUI	88	70	92	67	79	2	.4	-.1	.2	.5	28	10.0	66	90	57	4	0	2	0	0
LIHUE	83	71	89	68	77	1	11.3	10.1	9.0	16.0	214	32.1	97	87	65	0	0	6	3	3
ID BOISE	49	21	60	15	35	-11	.0	-.3	.0	.6	37	9.7	103	82	27	0	7	0	0	0
LEWISTON	43	27	52	21	35	-11	.0	-.2	.0	3.1	168	14.3	139	92	50	0	7	0	0	0
POCATELLO	49	20	63	8	34	-7	T	-.2	T	.8	41	12.8	128	81	28	0	5	0	0	0
IL CHICAGO	48	34	62	20	41	-5	1.1	.5	.6	5.9	89	29.3	95	89	67	0	3	5	1	1
MOLINE	44	31	60	20	38	-9	1.5	1.0	.8	4.6	63	31.5	91	90	67	0	4	4	1	1
PEORIA	48	34	61	18	41	-6	1.9	1.3	.8	5.8	84	32.1	102	93	69	0	4	4	2	2
QUINCY	49	33	61	17	41	-8	1.4	.7	.5	3.7	44	31.0	89	80	51	0	4	4	1	1
ROCKFORD	45	31	59	19	38	-7	1.5	.9	.9	6.1	87	29.9	93	94	66	0	3	5	1	1
SPRINGFIELD	53	36	63	20	45	-5	.9	.4	.3	3.3	53	29.2	96	88	57	0	4	4	0	0
IN EVANSVILLE	60	41	71	23	51	-3	.7	-.1	.4	3.2	48	41.6	108	84	47	0	2	2	0	0
FORT WAYNE	51	37	69	20	44	-3	1.1	.5	.4	4.5	81	28.9	99	93	66	0	2	5	0	0
INDIANAPOLIS	56	37	70	20	46	-2	.8	-.1	.5	3.9	66	30.6	91	89	56	0	2	4	1	1
SOUTH BEND	48	36	64	21	42	-5	1.3	.6	.6	5.0	70	36.4	110	94	71	0	2	4	1	1
IA DES MOINES	41	27	51	11	34	-11	1.7	1.2	.8	5.2	75	30.2	97	86	50	0	3	4	2	2
SIOUX CITY	38	24	46	7	31	-13	.6	.3	.5	6.2	124	23.9	99	88	55	0	4	3	0	0
WATERLOO	40	27	48	13	34	-9	1.7	1.2	1.1	5.9	93	28.8	93	91	60	0	5	3	1	1
KS CONCORDIA	46	29	73	14	37	-11	.4	.0	.2	2.8	54	25.1	93	85	57	0	3	3	0	0
DODGE CITY	53	29	74	13	41	-9	T	-.2	T	1.4	42	18.8	93	80	49	0	3	2	0	0
GOODLAND	42	23	56	13	32	-13	T	-.2	T	2.3	89	19.7	115	90	61	0	6	1	0	0
TOPEKA	55	32	71	16	43	-6	.7	-.2	.5	3.7	51	35.7	111	89	52	0	4	4	1	1
WICHITA	57	35	75	21	46	-6	T	-.6	T	2.3	33	33.8	107	81	48	0	3	1	0	0
KY BOWLING GREEN	63	41	79	27	52	-1	.2	-.7	.1	9.5	130	34.6	82	88	50	0	2	2	0	0
LEXINGTON	58	41	74	23	49	-2	.6	.0	.3	7.0	114	44.8	119	84	53	0	2	2	0	0
LOUISVILLE	60	42	74	27	51	-1	.8	.0	.6	7.5	119	35.9	96	86	53	0	2	2	1	1
LA BATON ROUGE	69	55	85	41	62	-2	3.6	2.8	2.7	8.8	100	63.6	123	89	61	0	0	4	2	2
LAKE CHARLES	72	57	85	44	64	0	3.7	2.8	2.8	10.8	106	55.0	119	89	61	0	0	5	2	2
NEW ORLEANS	73	59	86	46	66	1	1.9	1.1	.9	3.7	41	57.8	111	87	59	0	0	5	2	2
SHREVEPORT	68	50	82	38	59	-1	1.6	.7	1.4	6.4	79	38.3	93	86	50	0	0	4	1	1

Based on 1961-90 normals.

Weather Data for the Week Ending November 4, 1995

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT	NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM		AVERAGE MINIMUM	TEMP. °F		PRECIP.
															90 AND ABOVE		32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	40	28	51	21	34	-3	.9	.1	.4	7.8	111	28.6	94	91	56	0	6	4	0
PORTLAND	49	35	57	27	42	-2	1.5	.4	1.0	8.0	104	30.2	86	95	62	0	2	3	1
MD BALTIMORE	63	46	74	33	54	0	1.5	.4	10.1	148	30.2	87	88	57	0	0	2	0	
SALISBURY	65	46	75	31	55	0	1.5	.4	7.3	97	24.8	64	91	52	0	1	3	0	
MA BOSTON	53	42	58	37	48	-3	1.0	.9	11.0	159	27.7	81	82	56	0	0	4	1	
CHATHAM	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
MI ALPENA	44	33	57	24	38	-3	1.0	.5	.7	4.5	82	19.9	80	94	72	0	4	4	
DETROIT	51	38	67	27	45	-1	1.6	1.1	1.0	5.6	105	24.8	90	86	60	0	2	0	
FLINT	48	34	62	24	41	-4	1.2	1.1	.3	3.2	52	19.8	76	95	67	0	2	3	
GRAND RAPIDS	47	33	61	24	40	-3	1.2	1.1	.5	4.9	65	29.9	99	95	69	0	3	4	
HOOVERTON LAKE	43	33	54	27	38	-3	1.2	.7	.7	5.0	85	25.8	106	92	69	0	4	4	
LANSING	49	34	62	23	41	-2	1.3	.3	.2	3.8	55	20.9	77	94	67	0	3	2	
MARQUETTE	35	26	43	19	31	-6	1.8	1.0	1.6	11.6	143	35.2	116	95	70	0	7	1	
MUSKOGON	45	32	59	28	39	-6	1.1	.5	.8	5.6	79	23.8	89	96	59	0	3	4	
SAULT ST. MARIE	38	30	44	23	34	-5	1.7	1.0	.6	13.1	178	37.4	132	91	35	0	6	2	
MN ALEXANDRIA	34	21	41	4	28	-11	1.2	.2	.1	6.1	118	23.1	97	95	72	0	7	2	
DULUTH	35	24	40	8	29	-7	1.9	.4	.8	8.2	124	31.8	117	91	57	0	6	5	
INT'L FALLS	33	20	37	3	27	-7	1.5	.1	.2	7.2	135	22.3	99	91	68	0	7	4	
MINNEAPOLIS	38	26	47	13	32	-9	1.6	.2	.5	6.4	124	24.2	93	87	62	0	5	3	
ROCHESTER	35	24	40	9	29	-11	1.7	.2	.4	5.8	96	25.6	94	94	70	0	6	3	
MS GREENWOOD	66	46	80	28	56	-3	1.4	.6	.3	1.4	18	31.0	70	93	51	0	1	3	
JACKSON	64	50	79	37	57	-2	1.0	.1	.5	8.9	131	48.3	108	89	62	0	0	5	
MERIDIAN	64	48	75	32	56	-3	1.2	.4	.5	9.5	135	44.8	96	95	64	0	1	5	
MO CAPE GIRARDEAU	60	41	68	27	50	-2	1.7	.1	.4	2.6	38	33.6	88	86	44	0	2	2	
COLUMBIA	54	35	66	17	45	-5	1.5	.2	.4	2.8	37	45.3	136	89	52	0	4	3	
KANSAS CITY	51	32	66	15	41	-8	1.2	.7	.8	3.1	37	33.8	98	88	56	0	3	4	
SAINT LOUIS	58	41	68	25	50	-3	1.4	.3	.2	3.0	48	37.8	120	83	46	0	2	4	
SPRINGFIELD	59	36	76	17	47	-4	1.2	.7	.1	3.1	35	38.6	103	87	47	0	4	0	
MT BILLINGS	30	15	39	8	23	-19	1.3	.0	.2	2.0	74	15.0	110	110	87	0	7	2	
GLASGOW	32	12	45	0	22	-16	1.1	.1	.1	1.1	67	12.4	121	88	53	0	7	0	
GREAT FALLS	29	9	44	2	19	-22	1.1	.0	.1	1.9	89	13.8	100	90	61	0	7	2	
HAVRE	33	10	48	5	22	-16	1.1	.1	.1	2.0	112	15.2	148	87	52	0	7	0	
HELENA	33	9	43	0	21	-17	1.1	.1	.1	1.6	91	10.7	101	86	47	0	7	0	
KALISPELL	35	15	38	8	25	-11	1.0	.2	.0	3.6	157	16.3	120	88	47	0	7	0	
MILES CITY	32	14	46	-3	23	-17	1.1	.0	.0	1.1	48	11.8	91	91	59	0	7	2	
MISSOULA	38	17	45	10	28	-10	1.1	.2	.1	3.7	189	12.8	110	88	43	0	7	0	
NE GRAND ISLAND	41	24	59	12	33	-12	1.2	.1	.2	3.8	87	23.5	101	84	56	0	5	2	
LINCOLN	43	26	65	10	34	-12	1.4	.1	.2	3.6	63	22.7	86	84	47	0	4	3	
NORFOLK	38	25	50	12	31	-13	1.6	.3	.4	8.0	190	32.6	139	83	55	0	5	3	
NORTH PLATTE	40	21	52	8	31	-12	1.2	.2	.1	2.9	107	17.2	94	91	54	0	6	1	
OMAHA	42	28	54	12	35	-12	1.4	.4	.4	4.7	75	26.0	94	88	49	0	3	0	
SCOTTSBLOFF	38	18	50	3	28	-14	1.3	.1	.2	2.2	110	16.2	115	90	54	0	5	3	
VALENTINE	35	16	61	-7	25	-19	1.2	.0	.1	4.7	127	21.8	103	92	64	0	6	2	
NV ELY	57	22	65	7	39	-1	1.5	.3	.5	.6	31	10.7	120	82	22	0	6	1	
LAS VEGAS	75	53	83	42	64	3	1.0	.1	.0	.1	0	3.7	110	56	21	0	0	0	
RENO	64	28	74	15	46	1	1.0	.2	.0	.0	0	10.0	174	79	21	0	5	0	
WINNEMUCA	60	15	72	1	37	-6	1.0	.2	.0	.1	5	8.1	124	70	15	0	6	0	
NH CONCORD	48	36	53	27	42	-1	1.1	.3	1.0	11.2	171	32.1	107	93	59	0	2	1	
NJ ATLANTIC CITY	63	44	76	31	54	3	1.5	.3	.2	9.5	154	30.6	90	91	56	0	1	3	
NM ALBUQUERQUE	65	43	74	33	54	4	1.1	.1	.1	2.4	120	5.5	69	59	23	0	0	2	
CLOVIS	59	38	81	27	49	-4	1.1	.2	.1	2.1	59	9.9	61	88	43	0	3	0	
ROSWELL	68	45	82	37	57	0	1.1	.1	.1	1.1	59	9.9	61	88	43	0	3	0	
NY ALBANY	51	36	63	30	43	-2	1.3	.4	.2	10.6	171	28.3	93	89	68	0	3	4	
BINGHAMTON	52	37	64	26	44	1	1.6	.1	.3	10.7	161	28.2	91	94	62	0	1	5	
BUFFALO	52	39	65	30	45	0	1.5	.3	.3	7.8	110	27.4	87	89	57	0	2	5	
NEW YORK	61	49	73	39	55	3	1.0	.2	.5	8.9	130	29.4	83	79	50	0	0	4	
ROCHESTER	52	39	69	30	46	0	1.4	.2	.3	7.5	130	24.7	92	93	63	0	2	4	
SYRACUSE	52	36	71	30	44	-1	1.0	.2	.5	9.9	132	25.3	78	98	64	0	3	6	
NC ASHEVILLE	59	41	73	30	50	-1	1.6	.4	.4	9.7	102	50.8	106	93	64	0	2	5	
CHARLOTTE	62	46	69	35	54	-2	1.5	.7	1.1	10.9	150	43.2	117	89	61	0	0	4	
GREENSBORO	61	44	68	32	53	-1	1.5	.3	.2	8.7	116	37.0	101	87	56	0	1	3	
HATTERAS	..	..	..	..	..	..	..	..	..	17.2	158	62.5	133	..	..	..	..	..
NEW BERN	70	56	80	44	63	4	1.4	.2	.3	10.0	118	27.6	58	93	59	0	0	3	
RALEIGH	65	47	75	34	56	1	1.5	.8	1.1	13.0	203	43.5	122	94	52	0	0	4	
WILMINGTON	71	55	78	39	63	4	1.7	.0	.4	16.7	158	61.9	124	96	59	0	0	3	
ND BISMARCK	31	13	46	-3	22	-15	1.4	.3	.1	2.1	86	18.0	124	92	72	0	7	4	
FARGO	34	20	44	1	27	-10	1.5	.3	.2	5.0	132	20.2	111	91	72	0	6	3	
GRAND FORKS	32	21	38	2	27	-9	1.7	.5	.3	5.0	138	24.6	143	94	71	0	7	4	
WILLISTON	32	14	41	6	23	-13	1.2	.1	.1	1.1	50	13.6	107	89	61	0	7	3	
OH AKRON-CANTON	52	38	66	25	45	-2	1.5	.1	.2	6.1	102	32.2	103	93	64	0	2	4	
CINCINNATI	56	39	70	20	47	-2	1.5	.2	.3	7.3	117	38.6	110	91	60	0	2	2	
CLEVELAND	55	40	71	31	48	0	1.6	.1	.3	5.9	93	34.5	112	88	63	0	2	4	
COLUMBUS	57	40	69	25	49	2	1.5	.1	.3	5.6	95	41.3	130	84	52	0	2	3	
DAYTON	55	39	69	21	47	-1	1.4	.3	.3	7.0	130	46.8	151	85	59	0	2	4	

Based on 1961-90 normals.

Weather Data for the Week Ending November 4, 1995

STATES AND STATIONS	TEMPERATURE °F							PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE 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	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE		
TOLEDO	53	40	70	27	47	1	.9	.3	.4	5.7	108	28.3	103	92	67	0	2	4	0	0	
YOUNGSTOWN	53	40	67	26	46	0	.7	.1	.3	5.1	79	25.9	82	90	63	0	2	5	0	0	
OK OKLAHOMA CITY	61	41	79	25	51	-.5	.3	.3	.3	7.9	106	30.7	101	81	44	0	2	2	0	0	
TULSA	62	41	80	26	52	-.4	.1	.7	.1	5.9	67	39.8	111	80	39	0	2	2	0	0	
OR ASTORIA	55	33	57	27	44	-.6	.1	-.8	.1	9.5	97	47.5	101	91	49	0	4	1	0	0	
BURNS	50	9	63	-1	30	-.9	0.0	-.2	0.0	.3	18	10.1	131	79	22	0	7	0	0	0	
MEDFORD	65	31	73	23	48	-.1	0.0	-.6	0.0	.3	12	14.6	115	85	26	0	4	0	0	0	
PENDLETON	44	22	50	18	33	-.3	.7	-.3	.7	1.6	101	13.2	146	90	48	0	7	0	0	0	
PORTLAND	55	34	60	28	45	-.5	.7	-.9	.7	4.5	89	26.8	106	74	33	0	2	0	0	0	
SALEM	56	29	58	24	42	-.6	0.0	-1.0	0.0	6.0	114	32.2	120	90	41	0	2	1	0	0	
PA ALLENTOWN	58	42	69	29	50	2	.6	-.2	.3	10.5	144	32.7	89	88	59	0	1	3	1	0	
ERIE	54	41	69	30	47	-.1	.7	-.2	.5	6.8	78	27.1	79	89	62	0	1	3	1	0	
HARRISBURG	59	45	73	33	52	3	.3	-.4	.1	7.5	108	29.2	85	89	61	0	0	3	0	0	
PHILADELPHIA	61	47	72	35	54	4	.4	-.4	.3	10.0	127	26.5	68	90	69	0	0	3	0	0	
PITTSBURGH	57	40	72	25	49	2	.5	-.1	.4	5.5	97	25.1	80	85	50	0	2	4	0	0	
SCRANTON	56	42	68	31	49	2	.3	-.4	.2	9.7	149	24.8	80	91	59	0	1	3	0	0	
RI PROVIDENCE	55	41	65	35	48	-.1	1.0	0.0	.8	11.2	145	32.1	86	88	54	0	0	4	1	0	
SC CHARLESTON	73	54	83	41	64	1	1.5	-.3	.9	11.5	145	46.6	101	94	54	0	0	3	0	0	
COLUMBIA	69	50	78	37	60	1	1.5	-.8	.3	10.1	142	50.9	116	96	57	0	0	3	2	0	
FLORENCE	70	54	80	39	62	3	.8	-.2	.7	11.4	181	42.5	111	94	54	0	0	3	1	0	
GREENVILLE	62	45	69	36	54	-.2	1.8	-.9	1.3	9.5	113	54.3	124	91	62	0	0	3	1	0	
SD ABERDEEN	34	17	44	3	25	-.13	.2	0.0	.1	4.6	130	23.1	116	93	73	0	7	3	0	0	
HURON	35	20	47	8	27	-.13	.3	0.0	.2	5.3	158	29.1	153	89	64	0	7	3	0	0	
RAPID CITY	29	16	41	-3	23	-.19	.3	0.0	.2	3.2	131	19.0	121	92	66	0	6	3	0	0	
SIOUX FALLS	34	21	44	6	28	-.13	.6	.3	.3	4.6	93	30.0	135	89	66	0	6	3	0	0	
TN CHATTANOOGA	61	44	68	31	53	-.2	1.2	.4	.5	13.9	176	47.9	108	92	60	0	1	5	0	0	
KNOXVILLE	61	43	70	29	52	-.1	2.0	1.3	.9	8.1	127	36.2	92	95	62	0	1	5	2	0	
MEMPHIS	64	46	77	33	55	-.2	2.0	1.0	1.1	3.9	54	43.5	104	79	47	0	0	2	2	0	
NASHVILLE	62	42	77	28	52	-.3	.9	-.2	.7	11.6	177	43.6	112	94	51	0	1	2	1	0	
TX ABILENE	63	46	81	30	56	-.3	.3	-.2	.2	3.5	58	22.7	102	83	54	0	1	2	0	0	
AMARILLO	57	36	78	23	46	-.6	0.0	-.2	0.0	3.0	87	17.5	94	80	46	0	3	0	0	0	
AUSTIN	67	52	81	40	59	-.6	3.4	2.7	1.5	6.2	86	32.1	114	96	61	0	0	4	2	0	
BRAUNSVILLE	69	55	82	45	62	-.3	3.3	2.3	2.2	8.9	80	48.6	101	94	65	0	0	6	1	0	
BROWNSVILLE	80	67	88	50	73	1	.9	.5	.6	10.1	112	26.4	109	96	65	0	0	4	1	0	
CORPUS CHRISTI	75	63	86	46	69	-.1	7.9	7.4	6.8	14.1	160	33.3	121	92	54	0	0	5	2	0	
DEL RIO	70	57	83	44	63	-.1	.2	-.3	.2	5.2	87	13.5	60	84	52	0	0	4	0	0	
EL PASO	70	48	81	36	59	1	.7	-.1	.7	3.2	126	7.6	96	64	29	0	0	4	0	0	
FORT WORTH	67	48	84	36	58	-.2	1.3	.6	.7	3.0	33	33.3	101	80	44	0	0	2	2	0	
GALVESTON	70	61	81	50	66	-.3	.6	-.1	.3	3.9	42	28.6	80	89	69	0	0	3	0	0	
HOUSTON	71	55	86	48	63	-.1	.7	-.4	.3	5.8	54	36.5	82	89	60	0	0	4	0	0	
LUBBOCK	60	43	78	33	52	-.4	.7	-.3	.7	8.7	188	18.5	106	78	43	0	0	0	0	0	
MIDLAND	66	46	79	32	56	-.3	.7	-.2	.7	2.1	45	10.7	76	76	37	0	1	1	0	0	
SAN ANGELO	65	48	81	33	57	-.4	.9	.5	.8	4.2	70	19.4	103	84	49	0	0	2	1	0	
SAN ANTONIO	67	54	83	43	61	-.4	.4	-.3	.1	4.9	69	20.9	77	89	59	0	0	3	0	0	
VICTORIA	74	59	86	49	66	-.1	2.6	1.7	1.2	7.6	68	29.2	74	87	59	0	0	6	2	0	
WACO	68	51	83	37	59	-.4	.6	0.0	.5	4.5	62	34.3	122	92	54	0	0	3	0	0	
WICHITA FALLS	65	45	81	34	55	-.4	1.3	.8	1.3	5.8	76	25.7	89	78	42	0	0	2	1	0	
UT CEDAR CITY	60	31	71	18	45	0	.2	-.1	.2	.9	43	11.3	114	67	25	0	3	1	0	0	
SALT LAKE CITY	55	30	72	20	43	-.4	.7	-.3	.7	1.9	64	14.9	109	76	38	0	4	0	0	0	
VT BURLINGTON	49	36	63	31	43	0	.7	0.0	.3	9.4	143	26.9	92	84	56	0	3	4	0	0	
VA NORFOLK	68	52	80	40	60	3	.8	-.2	.5	10.7	144	31.9	82	86	52	0	0	4	1	0	
RICHMOND	65	45	77	31	55	1	.5	-.3	.3	9.4	129	30.3	82	90	51	0	1	4	0	0	
ROANOKE	61	43	70	31	52	0	.4	-.4	.3	5.8	75	35.0	99	82	56	0	1	4	0	0	
WA QUILLAYUTE	52	31	55	25	42	-.5	.4	-.7	.4	16.1	94	70.3	92	93	49	0	4	1	0	0	
SEATTLE-TACOMA	52	35	54	32	43	-.5	.7	-1.1	.7	4.8	84	25.9	99	83	43	0	1	0	0	0	
SPOKANE	41	18	46	15	30	-1.1	0.0	-.4	0.0	3.6	184	17.9	147	90	41	0	7	0	0	0	
YAKIMA	49	16	54	12	33	-1.1	0.0	-.2	0.0	1.0	107	7.0	124	91	35	0	7	0	0	0	
WV BECKLEY	56	39	69	21	47	0	.7	-.1	.5	6.9	104	35.4	101	89	58	0	3	4	1	0	
CHARLESTON	61	41	74	24	51	0	.3	-.5	.1	5.6	85	39.8	111	92	57	0	2	4	0	0	
HUNTINGTON	61	42	73	27	51	3	.1	-.6	.1	6.7	101	37.2	102	86	48	0	2	3	0	0	
PARKERSBURG	60	42	73	23	51	2	.4	-.3	.3	5.6	93	...	...	90	50	0	2	3	0	0
WI GREEN BAY	43	29	51	22	36	-.6	1.8	1.3	1.8	9.3	156	27.7	109	85	54	0	5	2	1	0	
LACROSSE	40	30	45	22	35	-.9	.9	.5	...	6.5	103	28.8	104	89	54	0	4	...	...	...
MADISON	43	30	57	20	36	-.7	1.4	.9	1.1	7.2	112	30.8	107	92	60	0	4	2	1	0	
MILWAUKEE	46	33	61	22	40	-.4	1.0	.5	.7	6.5	106	27.3	96	85	58	0	3	3	1	0	
WADSAU	38	27	44	19	33	-.7	.5	0.0	.4	7.2	98	32.3	109	88	56	0	5	2	0	0	
WY CASPER	34	13	46	1	24	-1.6	.2	-.1	.2	3.7	184	18.1	162	90	63	0	7	2	0	0	
CHEYENNE	40	15	53	-5	28	-1.3	.1	0.0	.1	4.2	201	19.6	145	92	55	0	7	3	0	0	
LANDER	36	17	46	2	26	-1.3	.1	-.1	.1	2.9	125	18.0	153	87	52	0	7	1	0	0	
SHERIDAN	29	11	34	-6	20	-1.9	.5	-.3	.4	3.9	144	16.2	124	89	69	0	7	2	0	0	
PR SAN JUAN	88	75	89	74	81	0	1.1	-.3	.7	14.3	122	49.9	117	89	62	0	0	5	1	0	

Based on 1961-90 normals.

October Weather and Crop Summary

Weather

Except for Hurricane Opal's Florida landfall on October 4 and her subsequent interaction with a low-pressure system crossing the Northern States, the first half of October featured rather tranquil autumn weather. At mid-month, however, the first in a series of storms emerged from the Pacific Northwest and traversed the upper Midwest, drawing cool, dry air southward. As a result, dryness across the central and southern Plains became serious by month's end as storms continued to pass to the north. In contrast, the East saw long-term drought virtually eliminated due to heavy rain from the remnants of Opal and the mid- to late-month passage of three moisture-laden cold fronts.

In the East, October-record totals reached 11.90 inches (451 percent [%] of normal) in Birmingham, AL and 8.01 inches (278% of normal) in Wilmington, DE. Monthly totals topped 10 inches in Florida at Melbourne and West Palm Beach, in part due to a mid-month inundation that deposited up to 20 inches in 48 hours near the latter location. Wetness was also observed near the prevailing storm track through the Great Lakes States, where October rainfall records were established in Sault Sainte Marie, MI (6.55 inches) and Mansfield, OH (6.45 inches). Farther west, the month's biggest snowstorm unfolded on October 22-23, resulting in totals of 13.7 inches in Lander, WY and 8.6 inches in Huron, SD. As cold air arrived at month's end, additional light snow fell across the North Central States, pushing monthly totals to 10.7 inches in Huron (an October record) and 12.4 inches in Valentine, NE. On October 31, the season's first measurable snow fell on Alpena, MI (0.2 inches), LaCrosse, WI (0.5 inches), and Fargo, ND (1.0 inch).

The cold outbreak at month's end reinforced monthly temperatures that averaged 2 to 4°F below normal from the Cascades to the northern Plains, southward into western Oklahoma. On October 31, the coldest air of the season-to-date cloaked winter wheat areas of the Northwest, where lows included 16°F in Spokane, WA and 2°F in Great Falls, MT (with a 2-inch snow cover). In contrast, October-record warmth dotted the Eastern Seaboard, where monthly temperatures averaged 63.1°F in Atlantic City (downtown), NJ and 81.7°F in Miami, FL. Temperatures also averaged above normal in the Southwest, including brief episodes of 100-degree heat. Maxima reached 101°F at the Los Angeles Civic Center on October 2 and 100°F in Phoenix, AZ on October 11 and 12.

From California to the middle Mississippi Valley, a common weather element was the infrequency of precipitation. The wet season got off to a slow start in northern California, where Eureka's monthly total of 0.53 inches was 20% of normal. In the Great Basin, monthly totals in Nevada were as low as zero in Reno and a trace in Elko. Equally unimpressive amounts fell on the central and southern Plains, stressing rain-fed winter wheat. October totals in Colorado included a trace in Pueblo and 0.02 inches (2% of normal) in Colorado Springs; and in Kansas were as low as 0.08 inches (6% of normal) in Dodge City, 0.21 inches (7% of normal) in Topeka, and 0.28 inches (13% of normal) in Wichita. Texas hardly fared better, with monthly rainfall of 0.23 inches (7% of normal) in San Antonio, 0.34 inches (20% of normal) in Midland, and 0.45 inches (33% of normal) in Amarillo.

Fieldwork

October started with heavy rains from Hurricane Opal that saturated fields across the Gulf Coast and Southeast, slowing cotton harvest. Hurricane Opal's heavy precipitation and high winds damaged open cotton bolls and lowered cotton condition in the Southeastern States. Rain over the North-Central States slowed harvest activity, but the precipitation provided much-needed moisture for small grains. Clear weather across the Midwest allowed harvest activity to progress rapidly, pushing corn harvested a week ahead of schedule. High winds caused some lodging, stalk breakage, and ear droppage in the western Corn Belt. Farmers in the middle Mississippi Valley took advantage of fair weather to continue wheat seeding at a normal pace. Cool, wet weather in the lower Great Plains helped emerged wheat fields develop.

In early October, dry conditions across the Corn Belt and above-normal temperatures dried row crops. Ideal fall harvest weather in the Corn Belt allowed row crop harvest activity to proceed ahead of the average. Along the Gulf Coast States, continued heavy rains caused additional damage to the cotton crop and slowed harvest activity. Rain across the Gulf Coast and the Southeast delayed plantings but provided moisture to recently planted wheat fields. The moisture was welcomed along the Eastern Seaboard for recently planted small grains. Much-needed precipitation was received in the Pacific Northwest and helped small grain emergence. Warm, dry weather in the Central States allowed small grain seeding to advance ahead of normal, while planting was behind the average in the southern Great Plains.

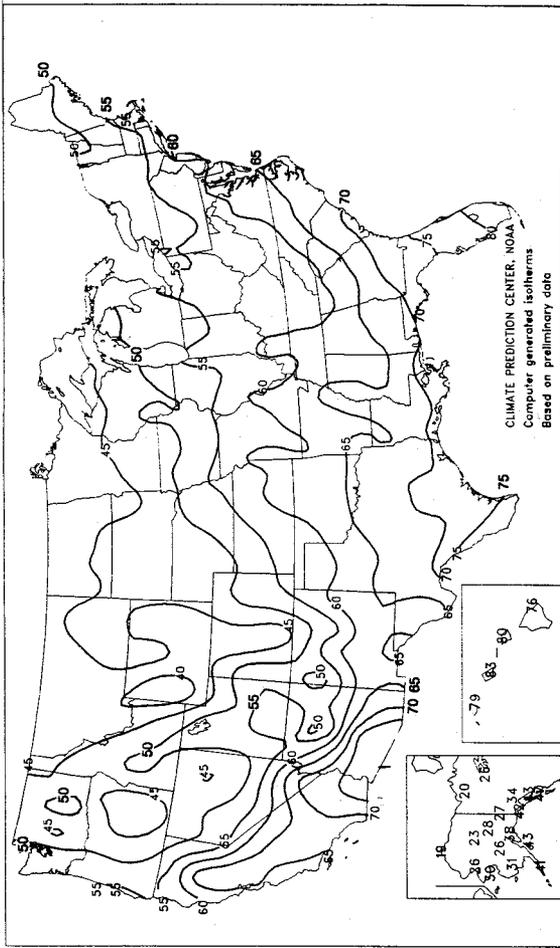
By mid-October, suitable weather conditions in the Midwest allowed fall harvest activity to continue ahead of normal. Dry weather in the Midwest allowed small grain planting to advance ahead of schedule by the middle of October. Ideal fall weather pushed the corn harvest in the northern Corn Belt and Great Lakes. In the central Great Plains, high winds damaged unharvested row crops. Dry soil conditions in the middle Mississippi Valley hindered emergence of recently planted wheat. Small grain fields needed moisture to aid emergence, and planting was delayed as producers waited for rain. Heavy rains in Florida damaged some vegetable acres and flooded citrus groves.

Later in the month, significant snow and rain in the upper Great Plains delayed row crop harvest activity. Heavy snowfall damaged soybeans and sorghum that remained in the field. The precipitation left fields saturated and halted harvest activity. Cool, rainy weather slowed fieldwork in the Pacific Northwest and the Great Lakes region. Suitable harvest weather allowed farmers in the middle Mississippi and Ohio Valleys to make considerable harvest progress.

By the end of October, dry soil conditions forced some producers in the Central States to wait for precipitation before seeding wheat. Dry weather in the middle Mississippi Valley allowed planting progress to advance rapidly but hindered small grain emergence. Emerged wheat fields in the central Great Plains were damaged by high winds. Continued dry conditions in the middle and lower Great Plains caused poor germination. Wet field conditions in the Pacific Northwest slowed wheat seeding. The cotton harvest in the Delta neared completion and farmers began gleaning fields.

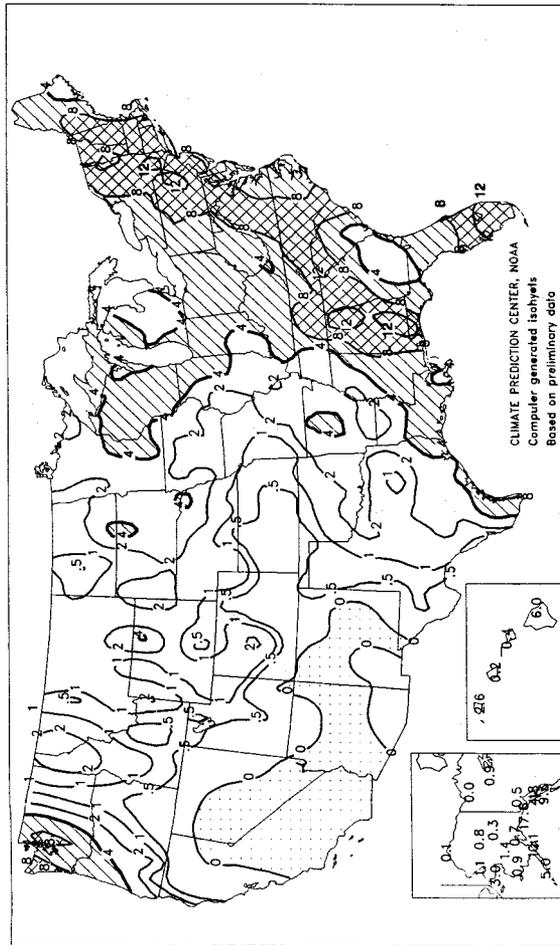
Average Temperature (°F)

OCT 1995



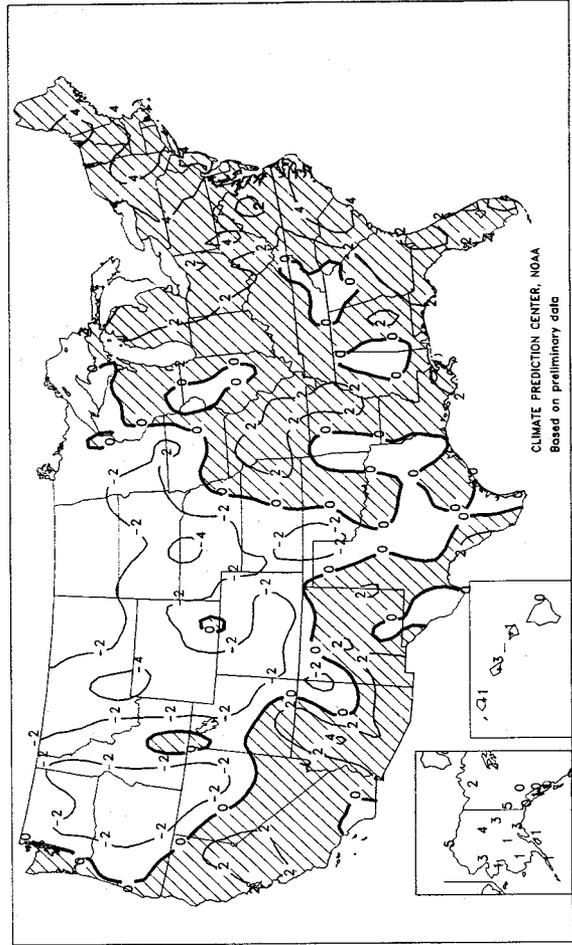
Total Precipitation (inches)

OCT 1995



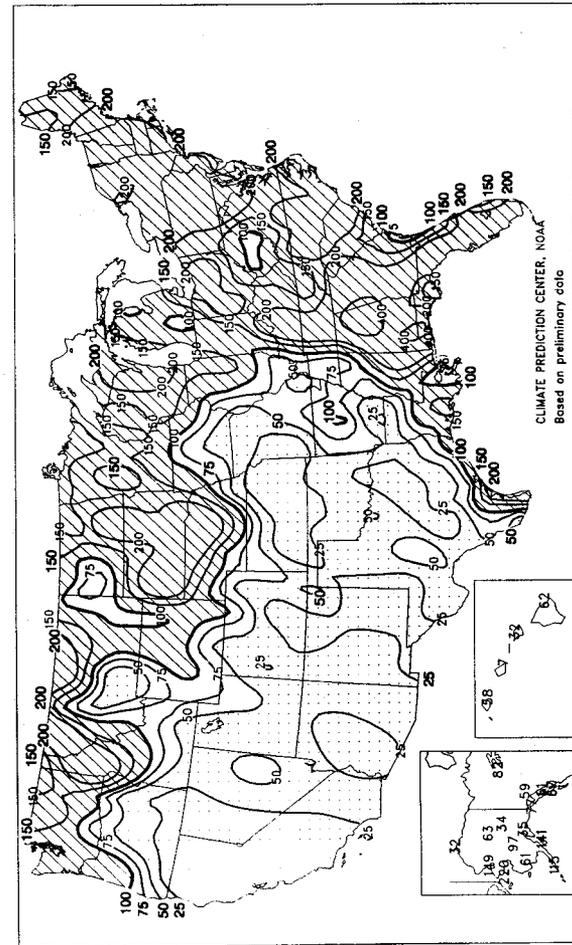
Departure of Average Temperature from Normal (°F)

OCT 1995



Percent Of Normal Precipitation

OCT 1995



TEMPERATURE AND PRECIPITATION SUMMARY

October 1995

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	63	0	11.9	9.1	LA BATON ROUGE	69	0	3.1	-0.4	PA YOUNGSTOWN	53	2	3.6	1.0
AL HUNTSVILLE	61	0	6.7	3.5	LA LAKE CHARLES	70	1	3.0	-0.9	OK OKLAHOMA CITY	62	0	1.5	-1.7
AL MOBILE	68	0	8.6	5.6	LA NEW ORLEANS	71	2	1.3	-1.7	OK TULSA	63	1	1.1	-2.6
AL MONTGOMERY	66	1	7.6	4.9	ME SHERBOURNE	66	1	1.6	-2.2	OR ASTORIA	53	1	7.0	1.3
AK ANCHORAGE	38	4	1.0	-1.1	ME CARIBOU	48	5	5.2	2.0	OR BURNS	42	-3	0.2	-0.5
AK BARRON	19	5	0.2	-0.3	ME PORTLAND	52	4	4.1	0.2	OR MEDFORD	56	1	0.2	-1.3
AK FAIRBANKS	28	3	0.3	-0.6	MD BALTIMORE	61	4	6.1	3.1	OR PENDELTON	51	-2	1.1	0.2
AK JUNEAU	43	1	6.0	-1.8	MA SALISBURY	60	2	4.8	1.4	OR PORTLAND	55	0	3.1	0.4
AK KODIAK	42	2	10.0	2.8	MA BOSTON	58	3	6.4	3.1	OR SALEM	53	0	4.0	1.0
AK NOME	30	2	3.0	1.6	MA CHATHAM	-	-	-	-	PA ALLENTOWN	57	3	7.5	4.6
AZ FLAGSTAFF	48	1	T	-1.6	MI ALPENA	49	2	1.8	-0.3	PA ERIE	56	2	4.9	1.1
AZ PHOENIX	76	2	0.0	-0.6	MI DETROIT	55	4	3.5	1.4	PA HARRISBURG	59	4	5.4	2.5
AZ PRESCOTT	59	5	0.0	-1.1	MI FLINT	52	2	1.8	-0.4	PA PHILADELPHIA	61	7	6.0	2.8
AZ TUCSON	72	2	0.4	-0.7	MI GRAND RAPIDS	51	2	2.9	0.0	PA PITTSBURGH	56	4	3.2	0.9
AZ WINSLOW	56	0	-	-	MI HOUGHTON LAKE	50	3	2.2	0.0	PA SCRANTON	56	5	7.2	4.4
AZ YUMA	79	3	0.1	-0.2	MI LANSING	52	3	2.5	-0.2	PA WILLIAMSPORT	55	3	7.9	4.6
AR FORT SMITH	62	0	1.8	-1.9	MI MARQUETTE	44	0	6.6	3.0	RI PROVIDENCE	57	3	6.4	2.7
AR LITTLE ROCK	65	2	4.2	0.4	MI MUSKEGON	51	0	3.8	1.0	SC CHARLESTON	70	3	3.5	0.6
CA BAKERSFIELD	69	1	0.0	-0.3	MI SAULT ST. MARIE	46	1	6.6	3.3	SC COLUMBIA	67	4	3.6	0.6
CA BISHOP	-	-	-	-	MN ALEXANDRIA	44	-2	1.8	-0.4	SC FLORENCE	69	5	8.7	6.1
CA BUREKA	55	0	0.5	-2.1	MN DULUTH	44	0	4.2	1.7	SC GREENVILLE	61	1	6.0	2.0
CA FRESNO	67	1	0.0	-0.5	MN INT'L FALLS	42	-1	2.6	0.7	SD ABERDEEN	45	-2	3.1	1.7
CA LOS ANGELES	67	1	T	-0.3	MN MINNEAPOLIS	49	0	3.7	1.5	SD HURON	46	-3	2.4	0.9
CA REDDING	66	2	T	-2.2	MN ROCHESTER	47	-1	3.0	0.7	SD RAPID CITY	47	-2	2.4	1.3
CA SACRAMENTO	66	2	0.0	-1.1	MS ST. CLOUD	45	-1	2.9	0.7	SD SIOUX FALLS	48	0	2.8	1.0
CA SAN DIEGO	67	-1	T	-0.4	MS GREENWOOD	66	1	0.6	-3.0	TN BRISTOL	56	-1	-	-
CA SAN FRANCISCO	62	2	T	-1.2	MS MERIDIAN	64	0	5.5	2.2	TN CHATTANOOGA	60	-1	7.2	4.0
CA SANTA MARIA	63	2	T	-0.5	MS TUPELO	62	0	3.2	-0.2	TN KNOXVILLE	59	0	3.6	0.7
CO ALAMOSA	42	-2	-	-	MO CAPE GIRARDEAU	60	2	0.7	-2.3	TN MEMPHIS	65	2	1.6	-1.4
CO CO. SPRINGS	49	-1	T	-0.8	MO COLUMBIA	58	2	1.2	-2.2	TN NASHVILLE	60	0	5.7	3.0
CO DENVER	49	-2	0.7	-0.3	MO KANSAS CITY	57	1	0.5	-2.8	TX ABILENE	66	0	1.0	-1.5
CO GRAND JUNCTION	54	-3	0.2	-1.0	MO SAINT LOUIS	51	2	2.0	-0.7	TX AMARILLO	58	0	0.5	-0.9
CO PUEBLO	49	-5	T	-0.6	MO SPRINGFIELD	59	1	0.6	-3.1	TX AUSTIN	71	0	1.4	-2.0
CT BRIDGEPORT	59	3	5.7	2.6	NY BILLINGS	47	-2	0.8	-0.4	TX BEAUMONT	69	0	5.6	1.3
CT HARTFORD	56	4	9.5	5.9	NY GLASGOW	45	-1	1.0	0.4	TX BROWNSVILLE	75	0	7.5	4.7
DC WASHINGTON	62	2	8.6	5.6	NY GREAT FALLS	44	-4	0.7	-0.1	TX CORPUS CHRISTI	74	0	8.5	5.5
FL PANAMA CITY	71	3	0.6	-3.1	NY HAVRE	44	-2	1.3	0.8	TX DEL RIO	71	1	1.1	-1.9
FL DAYTONA BEACH	76	3	3.4	-0.7	NY HELENA	43	-2	0.1	-0.5	TX EL PASO	66	2	0.0	-0.8
FL FT. MYERS	80	3	9.2	6.2	NY KALISPELL	40	-2	2.6	1.7	TX FORT WORTH	68	3	0.8	-3.3
FL JACKSONVILLE	73	0	3.5	-0.3	NY MILLS CITY	47	-1	0.6	-0.3	TX GALVESTON	74	1	0.6	-2.2
FL KEY WEST	82	2	8.8	4.3	NY MISSOULA	42	-2	1.1	0.3	TX HOUSTON	70	1	3.0	-1.5
FL MIAMI	82	3	9.9	4.3	NE GRAND ISLAND	52	-1	2.0	0.7	TX LAREDO	-	-	-	-
FL ORLANDO	77	2	4.4	1.9	NE LINCOLN	53	0	0.9	-1.2	TX LUBBOCK	62	0	0.5	-1.3
FL TALLAHASSEE	71	2	3.9	1.0	NE NORFOLK	51	0	2.6	1.0	TX MIDLAND	67	2	0.3	-1.1
FL TAMPA	78	3	4.7	2.7	NE NORTH PLATTE	48	-1	0.9	-0.1	TX SAN ANGELO	66	0	1.9	-0.5
FL WEST PALM BEACH	81	3	11.0	3.4	NE OMAHA	54	0	-	-	TX SAN ANTONIO	70	0	0.2	-2.9
GA ATHENS	64	2	7.3	4.0	NE SCOTTSBLUFF	47	-3	0.7	-0.1	TX VICTORIA	72	1	1.7	-2.7
GA ATLANTA	62	0	7.4	4.3	NE VALENTINE	47	-6	2.7	1.5	TX WACO	67	-2	0.1	-3.3
GA AUGUSTA	65	2	3.5	0.7	NV ELKO	44	-4	T	-0.7	TX WICHITA FALLS	65	1	2.2	-1.0
GA MACON	65	1	2.0	-0.2	NY ELY	46	0	0.5	-0.4	UT BLANDING	-	-	-	-
GA SAVANNAH	71	4	3.4	1.0	NY LAS VEGAS	70	1	0.0	-0.2	UT CEDAR CITY	53	1	-	-
HI HILO	76	0	7.6	-2.0	NY RENO	53	2	0.0	-0.4	UT SALT LAKE CITY	52	-2	0.5	-0.9
HI HONOLULU	83	3	0.2	-2.1	NY WINNEMUCCA	49	0	0.0	-0.6	VT BURLINGTON	54	6	5.8	2.9
HI KAHULUI	80	2	0.4	-0.8	NH CONCORD	52	4	7.5	4.3	VA LYNCHBURG	59	2	7.3	3.6
HI LIHUE	79	2	3.4	-1.0	NJ ATLANTIC CITY	59	4	5.1	2.3	VA NORFOLK	65	4	4.8	1.6
ID BOISE	49	-2	0.4	-0.3	NM ALBUQUERQUE	60	3	0.0	-0.9	VA RICHMOND	61	2	5.1	1.6
ID LEWISTON	50	-3	2.0	1.1	NM CLOVIS	61	3	T	-1.3	VA ROANOKE	58	2	3.5	-0.4
ID POCATELLO	47	-1	0.3	-0.6	NY HOBWELL	64	1	-	-	VA COLVILLE	47	0	1.5	0.3
IL CAIRO	-	-	-	-	NY ALBANY	53	3	8.0	5.2	VA QUILLYTTE	51	0	14.0	3.5
IL CHICAGO	54	1	4.2	1.8	NY BINGHAMTON	54	5	6.7	3.8	VA SEATTLE-TACOMA	53	0	3.9	0.7
IL MOLINE	53	0	1.8	-1.1	NY BUFFALO	54	3	6.2	3.1	VA SPOKANE	44	-3	1.5	0.5
IL PRORIA	54	0	3.2	0.6	NY NEW YORK	63	6	5.8	2.8	VA WALLA WALLA	53	-1	-	-
IL QUINCY	56	0	0.9	-2.5	NY ROCHESTER	55	4	5.6	3.2	VA YAKIMA	48	-2	0.1	-0.4
IL ROCKFORD	51	0	3.2	0.3	NY SYRACUSE	55	4	6.5	3.3	WV BECKLEY	54	2	3.3	0.4
IL SPRINGFIELD	56	1	2.2	-0.4	NC ASHEVILLE	57	1	7.2	2.7	WV CHARLESTON	57	1	2.6	-0.3
IN EVANSVILLE	60	1	2.0	-1.0	NC CHARLOTTE	63	1	7.2	3.8	WV ELKINS	54	4	2.1	-1.0
IN FORT WAYNE	55	2	3.4	0.9	NC GREENSBORO	60	1	6.0	2.5	WV HUNTINGTON	57	3	2.9	-0.1
IN INDIANAPOLIS	56	1	2.1	-0.5	NC HATTERAS	72	7	7.8	2.8	WV PARKERSBURG	57	1	3.3	0.6
IN SOUTH BEND	54	2	3.2	0.2	NC NEW BERN	68	4	6.3	3.3	WI GREEN BAY	49	1	4.8	2.5
IA DES MOINES	53	0	1.2	-1.6	NC RALEIGH	63	3	9.1	6.3	WI LACROSSE	51	1	3.5	1.3
IA DUBUQUE	50	-1	2.7	0.0	NC WILMINGTON	67	4	9.2	5.9	WI MADISON	50	0	4.3	1.9
IA SIOUX CITY	50	-2	2.2	0.3	ND BISMARCK	44	-1	1.1	0.2	WI MILWAUKEE	53	3	4.5	2.1
IA WATERLOO	50	0	2.4	-0.2	ND FARGO	44	-2	2.0	0.4	WI WAUSAU	47	1	4.3	1.7
KS CONCORDIA	55	-1	0.7	-1.3	ND GRAND FORKS	44	-1	2.1	0.8	WY CASPER	44	-2	1.1	0.1
KS DODGE CITY	56	-1	0.1	-1.2	ND WILLISTON	44	-1	0.4	-0.4	WY CHEYENNE	46	-1	0.8	0.0
KS GOODLAND	51	-2	0.8	-0.1	OH AKRON-CANTON	54	1	4.8	2.4	WY LANDER	44	-3	1.4	0.2
KS TOPEKA	57	1	0.2	-2.9	OH CINCINNATI	55	0	4.3	1.4	WY SHERIDAN	44	-2	1.7	0.6
KS WICHITA	59	0	0.3	-2.6	OH CLEVELAND	56	3	4.0	1.4	PR SAN JUAN	82	0	6.1	0.4
KY BOWLING GREEN	59	1	6.6	3.5	OH COLUMBUS	56	4	3.5	1.1					
KY JACKSON	58	1	5.0	1.8	OH DAYTON	56	2	5.7	3.2					
KY LEXINGTON	57	0	4.7	2.1	OH MANSFIELD	55	3	6.5	4.1					
KY LOUISVILLE	59	2	5.4	2.7	OH TOLEDO	56	4	3.7	1.6					
KY PADUCAH	59	0	2.3	-0.7										

Based on 1961-90 normals.

National Agricultural Summary

HIGHLIGHTS for October 30 - November 5, 1995

The first below-zero temperatures of the season occurred midweek as a blast of cold air plunged into the Nation. Freezing temperatures were reported from central New Mexico to northern Georgia and northward. Light snow at the beginning of the week across the northern Great Plains provided some protection from

the cold to the winter wheat crop. Rains from central Kansas to New England slowed the harvest of remaining row crops. Heavy rains at the end of the week delayed fieldwork along the Gulf Coast to the Atlantic seaboard. Conditions across the rest of the Nation were mostly dry.

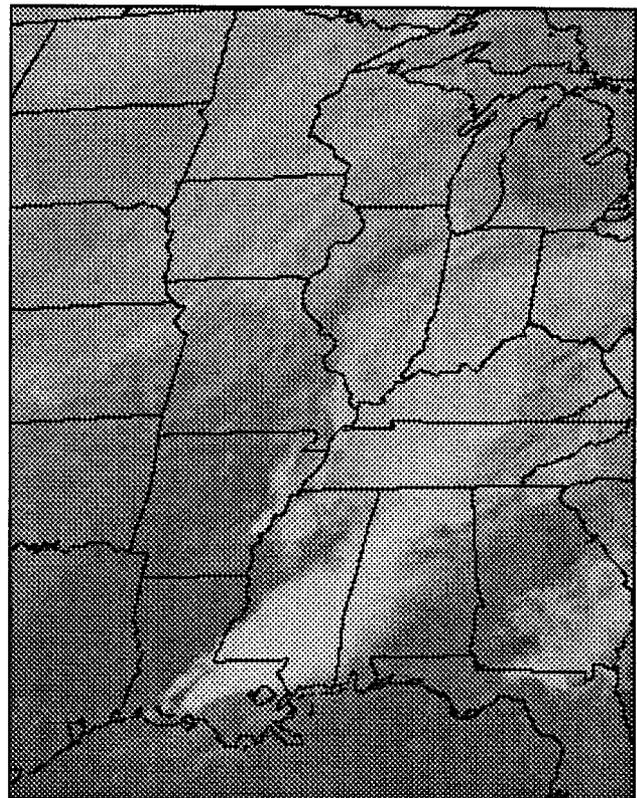
The **winter wheat** crop that emerged in the 19 major producing States was 79 percent (%) complete, up 8 percentage points from the previous week and 1 point behind the 5-year average. In the Texas plains, low temperatures slowed crop growth. In Kansas, emergence was good but many areas were becoming dry. Dry conditions in southwest Missouri hindered emergence. Cold conditions and crusted fields delayed emergence in Washington. The rainfall across the central part of the Nation was generally beneficial to the crop. Wheat condition in the 19 major producing States declined slightly from last week and was rated as 56% good to excellent.

The **corn** crop in the 17 major producing States was 87% harvested, up 10 points from the previous week and 13 points ahead of the average. Rains across the Corn Belt delayed harvest and raised concerns about grain stored outside.

Cotton harvested at 65% complete was up 8 points from the previous week and equal to the average. Harvest activities increased in Arizona and California, and progress increased by 17 and 30 points, respectively. Rains delayed the harvest from Texas to the Southeast.

Sorghum acreage harvested at 91% complete, up 6 points from last week, was 8 points ahead of the average. Harvest advanced in the Texas high plains with minimal delays. Good progress was made in Colorado, Illinois, and Oklahoma. The recent cold conditions in New Mexico allowed fields to dry down and resulted in the harvest increasing by 23 points.

Soybeans harvested at 91% complete was up 4 points from the previous week and 3 points ahead of the average. Good progress was made in Alabama, Arkansas, and Tennessee before the rains came.



Nov. 2, 1995, 12:15 UTC, GOES8 IR. A large thunderstorm complex drops heavy rain over Louisiana and Mississippi.

Crop Progress and Condition

Week Ending November 5, 1995

Winter Wheat Percent Emerged

	Nov 5 1995	Prev Week	Prev Year	5-Yr Avg
AR	44	26	51	44
CA	5	2	4	4
CO	96	92	98	97
GA	9	8	10	11
ID	71	62	67	78
IL	82	65	88	76
IN	83	72	88	77
KS	90	85	94	89
MI	89	83	89	82
MO	65	49	69	60
MT	85	83	76	82
NE	100	99	100	99
NC	21	13	32	28
OH	92	77	86	75
OK	70	56	87	77
OR	64	50	50	69
SD	95	93	100	100
TX	69	60	74	71
WA	88	87	66	85
ALL	79	71	82	80

These 19 States produced 92% of the 1994 winter wheat crop.

Soybeans Percent Harvested

	Nov 5 1995	Prev Week	Prev Year	5-Yr Avg
AL	58	45	39	56
AR	83	66	71	62
GA	21	13	26	38
IL	99	98	97	97
IN	99	98	99	94
IA	99	99	100	100
KS	95	93	84	91
KY	80	72	69	64
LA	92	91	78	80
MI	97	93	94	86
MN	94	90	98	98
MS	94	86	73	66
MO	90	82	80	83
NE	99	99	100	99
NC	16	13	22	23
OH	97	93	100	95
SC	11	5	21	20
SD	86	85	97	98
TN	65	51	54	51
ALL	91	87	89	88

These 19 States produced 94% of the 1994 soybean crop.

Corn Percent Harvested

	Nov 5 1995	Prev Week	Prev Year	5-Yr Avg
CO	74	46	88	68
GA	99	99	98	99
IL	94	92	86	82
IN	93	88	75	68
IA	89	76	87	76
KS	95	90	97	92
KY	97	95	89	86
MI	76	63	44	43
MN	85	74	79	71
MO	78	71	84	83
NE	80	63	89	77
NC	98	96	99	96
OH	81	68	65	61
PA	80	70	52	45
SD	69	55	74	69
TX	98	97	100	100
WI	80	70	67	52
ALL	87	77	82	74

These 17 States produced 93% of the 1994 corn crop.

Cotton Percent Harvested

	Nov 5 1995	Prev Week	Prev Year	5-Yr Avg
AL	86	81	52	76
AZ	60	43	85	78
AR	91	83	81	83
CA	50	20	82	78
GA	74	65	41	64
LA	99	98	86	93
MS	99	94	80	86
MO	89	82	91	86
NM	45	36	59	39
NC	55	50	62	62
OK	15	10	68	39
SC	53	49	50	63
TN	80	72	74	79
TX	49	44	59	47
ALL	65	57	67	65

These 14 States produced 99% of the 1994 cotton crop.

Sorghum Percent Harvested

	Nov 5 1995	Prev Week	Prev Year	5-Yr Avg
AR	100	99	100	98
CO	84	63	73	57
IL	86	70	88	80
KS	93	85	94	81
LA	100	100	100	100
MS	100	100	100	99
MO	82	77	83	83
NE	99	99	96	84
NM	50	27	58	46
OK	47	33	48	53
SD	81	78	85	87
TX	94	91	93	89
ALL	91	86	91	83

These 12 States produced 99% of the 1994 sorghum crop.

Winter Wheat Crop Condition by Percent

	VP	P	F	G	EX
AR	0	4	23	61	12
CA	0	0	25	75	0
CO	5	5	26	56	8
GA	0	2	33	65	0
ID	0	0	15	76	9
IL	2	7	36	49	6
IN	0	8	42	42	8
KS	2	12	43	41	2
MI	1	2	17	59	21
MO	1	7	61	28	3
MT	0	1	12	70	17
NE	1	5	27	64	3
NC	0	2	8	86	4
OH	0	1	21	63	15
OK	0	6	41	48	5
OR	0	0	14	76	10
SD	0	3	20	65	12
TX	1	18	43	36	2
WA	0	5	23	70	2
ALL	1	6	35	51	5
Prev Wk	1	8	33	51	7
Prev Yr	1	5	22	63	9

VP - Very Poor

P - Poor

F - Fair

G - Good

EX - Excellent

State Summaries of Weather and Agriculture

These summaries 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/".

ALABAMA: Rainfall 0.49 to 2.39 in. north; 0.62 to 2.55 in. central; 0.69 to 9.23 in. south. Temperatures 1 to 6° below normal statewide. Lows 25 to 35° north, 26 to 37° central; 32 to 40° south. Highs 66 to 75° north, 68 to 78° central; 73 to 82° south.

Days suitable for fieldwork 3.7. Topsoil 4% short, 72% adequate, 24% surplus. Sorghum harvested 71%, 66% 1994, 83% avg. Peanuts combined 99%, 99% 1994, 98% avg. Livestock 2% very poor, 3% poor, 27% fair, 62% good, 6% excellent. Activities: Harvesting row crops, vegetables. General care of livestock, poultry, catfish.

ARIZONA: Temperatures normal to 5° above normal. Extremes 23°; 84° higher elevations; 38°; 95° deserts. Precipitation most stations 0.05 to 1.26 in.

Harvest activity increasing in cotton fields. Alfalfa 12% fair, 86% good, 2% excellent. Harvest 39% light, 4% moderate, 32% active, 25% finished or between cuttings. Sheepling off increasing. Cantaloupe, honeydew, broccoli, green onions, mixed greens, cilantro, spinach, sweet corn, chili peppers, radishes shipped from central fields. Tomatoes, pumpkins, lettuce, squash, chili peppers harvested eastern areas. Cantaloupe, honeydew, watermelon, leaf lettuce, romaine, lettuce available western areas. Grapefruit, lemons were harvested central, western areas. Navel orange harvest continued in central groves. Apple, pistachio harvest winding down in eastern areas. Pecans shipped from eastern groves. Range, pasture condition continued to deteriorate. Cattlemen continued having to haul water, feed supplemental hay, cull their herds due to lack of forage. Grazing conditions varied across State, remained mostly fair, with nearly a third in poor to very poor condition and just over a third in good to excellent condition. Cattle, calves continued to be rated in fair to good condition. Stock water supplies remained short to adequate, soil moisture supplies remained mostly short. Insect damage was very light.

ARKANSAS: Temperatures below normal with showers, thundershowers mid week, heaviest in east. Extremes 16°; 83°. Precipitation 0.36 to 2.51 in.

Days suitable for fieldwork 5. Soil moisture 35% short, 59% adequate, 6% surplus. Main farm activities: Picking, ginning cotton, harvesting rice, soybeans, planting wheat, oats. Picking, ginning cotton continued numerous counties.

CALIFORNIA: Split in Pacific westerlies off northwest coast allowed two weak low pressure systems to drop southward, travel through State. Cool lows brought isolated light showers, mainly higher elevations, west. Late week clearing skies, lingering cool air allowed nighttime temperatures to drop near freezing, some areas, central valley. By 3rd, high pressure, eastern Pacific sent frontal systems on more northerly track, limiting effects. Field activities progressed normally.

Rice harvest rapidly declined. Harvested rice fields chopped, disced, re-flooded for straw decomposition. Stubble burning, very limited, poor weather conditions. Cotton harvest, full swing, San Joaquin Valley; followed by shredding, discing for pink bollworm control. Few late planted fields defoliated. Desert area cotton harvest virtually complete. Corn for grain, silage, dry beans, sunflowers harvested. Sugar beets planted, Fresno County; some growers placed mylar trees in fields to prevent bird damage. Ground preparation, fall-planted small grains, forage crops ongoing. Wheat, barley, oats, winter forages, new alfalfa seeded where soil moisture conditions permitted. Established alfalfa cut, baled. Almond, walnut, pistachio harvests neared completion. Picking kiwifruit, Fuji, Granny Smith variety apples continued. Persimmon picking, packing active. Harvesting pomegranate, quince continued. Olive picking nearly over. Wine grape harvesting neared end; table grape varieties continued. Navel orange maturity behind normal; picking proceeded slowly. Old crop Valencia

orange harvest winding down. Satsuma mandarin picking active; good sizes reported. Lemon, grapefruit packing continued. Parsley, celery harvested, Monterey County. Harvest, fresh tomatoes, underway; harvest processing tomatoes almost complete. Melons harvested, Imperial County; quantity, quality, good. Head lettuce harvest, full speed, San Joaquin Valley. Cool weather affected squash, honoima, Tulare counties. Spinach planted, Stanislaus County. Coastal area broccoli harvest, heavy; lettuce harvest, light. Cauliflower, Tulare County needed seasonal showers. Cauliflower harvest, active. Sweet potato harvest, about 75% complete, Merced County. Onions transplanted, San Joaquin County. Other crops harvested: sweet corn, cucumbers, okra, sugar peas, green beans, cabbage, peppers, oriental vegetables. Rangeland conditions deteriorated with normal seasonal usage, resulting in increased supplemental feeding. Winter pastures needed rain to promote vegetation growth. Fall calving remained active. Cattle movement, moderate to heavy. Sheep were lambing, grazing hay fields. Cattle, sheep, good condition.

COLORADO: Arctic air moved into the State on the 31st which brought below normal temperatures until the 4th, especially over the eastern part of the State. Freezing drizzle, snow fell on the 1st with a few locations along the front range receiving up to a half foot of snow.

Days suitable for fieldwork 4.7. Topsoil 12% very short, 28% short, 58% adequate, 2% surplus. Subsoil 12% very short, 32% short, 55% adequate 1% surplus. Sugar beets 94% harvested, 96% 1994, 91% avg. Livestock mostly in good to excellent condition.

DELAWARE: Precipitation 0.98 in., normal 0.76 in. Temperature 58.1°, normal 52.7°. Extremes 38°; 76°. High temperatures in the upper 60s to low 70s. Lows in the upper 30s.

Days suitable for fieldwork 5.0. Topsoil 1% short, 99% adequate. Subsoil 39% short, 61% adequate. Corn 96% harvested for grain, 85% 1994, 88% avg.; soybeans 97% shedding leaves, 92% 1994, 94% avg.; 40% harvested, 44% 1994, 40% avg. Sorghum 64% harvested, 30% 1994, 47% avg. Barley 76% planted, 82% 1994, 77% avg. Rye 43% planted, 53% 1994, 65% avg. Wheat 39% planted, 40% 1994, 46% avg. Other hay 20% 4th cutting, 95% 1994, 78% avg. Alfalfa hay 76% 4th cutting, 100% 1994, 100% avg. Apples 96% harvested, 99% 1994, 95% avg. Hay supply short to adequate. Field crop harvest, planting of small grains.

FLORIDA: Temperatures within 2° of normal Panhandle, 3 to 7° above normal rest of State. Lows: mid 30s Panhandle, Big Bend, upper 40s northern Peninsula, mid 50s central, interior south, mid 60s south. Highs: low 80s western Panhandle, 90° west central, upper 80s elsewhere in State. Rainfall 1.50 to 9.00 in. Panhandle, Western Big Bend, 0.20 to 1.50 in. Elsewhere north, under 0.50 in. central, south, except 0.50 to 4.50 in. locally in west central area.

Topsoil mostly short to adequate Panhandle, northern Peninsula. Central, southern Peninsula adequate to surplus. Cotton harvest delayed by rain. Peanut harvest virtually complete. Haying active when weather permitted. Sugarcane mills all open. Sugarcane planting active when field conditions permitted. Soybean harvest active. Small grain planting for winter pasture active. Palmetto-Ruskin growers drained excess water off vegetables after heavy showers early in week with initial reports showing no significant effect on plant growth, but reduced yield prospects due to fruit bruising, loss of blooms. Vegetable acreage in low lying areas along southeastern coast, near Webster drying out. Vegetables in central, northern Sumter County in excellent condition. Very light harvest of strawberries, endive, escarole, leaf lettuce beginning. Other vegetables being harvested: tomatoes, cucumbers, sweet corn, peppers, squash, snap beans, eggplant, watermelons, cherry tomatoes, okra, radishes. Most citrus areas dry, scattered showers West Coast. Harvest for fresh use increasing along with

increasing along with some activity of grove run fruit to processors. Packing houses all very active. Caretakers cutting cover crops, spraying, removing dead trees. Pasture nearing end of growing season north, central. Pastures still have standing water, central southeast, grass dead where water has long stood. Cattle fair 25%, good 75%.

GEORGIA: Cloudy, damp weather much of week. Rain 4 to 6 days northern half, 1 to 3 days south half. Rainfall 1.00 to 3.00 in. northern areas, isolated areas central, south. Most central, south less than 1.00 in. Temperatures 2 to 5° below normal northwest to slightly above normal southeast. Warmest temperatures from upper 60s northeast mountains to mid to upper 80s near Florida border. Freezing temperatures most of north over weekend 4th to 5th with minimums mid to upper 20s in mountains. Elsewhere minimums mid to upper 30s central, colder south locations to low to mid 40s along coast.

Days suitable for fieldwork 3.4. Soil moisture 2% very short, 12% short, 53% adequate, 33% surplus. Wet fields slowed planting, harvesting. Heavy rains widespread northern counties, crops damaged north by Hurricane Opal remain unharvested. Small grains already planted, pastures benefitted from rainfall. Cotton 5% poor, 51% fair, 41% good, 3% excellent; 98% open bolls, 95% 1994, 97% avg. Peanuts 100% dug, 100% 1994, 100% avg.; 98% threshed, 98% 1994, 98% avg. Rye 86% planted, 74% 1994, 71% avg. Sorghum 3% poor, 71% fair, 24% good, 2% excellent; 86% harvested for grain, 91% 1994, 88% avg. Soybeans 1% very poor, 7% poor, 40% fair, 46% good, 6% excellent; 98% dropping leaves, 100% 1994, 100% avg. Wheat 20% planted, 13% 1994, 16% avg. Other small grains 2% poor, 34% fair, 62% good, 2% excellent; 69% planted, 62% 1994, 52% avg. Onions 9% transplanted, 5% 1994, 9% avg. Other vegetables 12% poor, 58% fair, 30% good. Apples 2% poor, 17% fair, 81% good; 96% harvested, 100% 1994, 95% avg. Pecans 1% very poor, 7% poor, 72% fair, 20% good; 31% harvested, 32% 1994, 29% avg. Cattle 1% poor, 20% fair, 79% good. Hogs 2% poor, 19% fair, 79% good. Activities: Mowing cotton stalks, defoliating cotton, preparing land for tobacco beds, overseeding pastures, and the routine care of livestock, poultry.

HAWAII: Cooler, fall conditions early in week turned hot, humid during the second half. Trade winds became southerly as a low pressure systems northwest, south of the State combined to bring heavy precipitation to Oahu, Kauai on 3rd, with some flooding. Light to moderate showers prevailed over windward, upper elevations at the start of the week. Temperatures mid 60° to low 90°. Rainfall none to 12.10 in.

Heavy rains, flooding stopped farm activities on Kauai. Crop losses sustained some areas, extent not known yet. Heavy irrigation still necessary on islands not affected by the storm. Voluntary water conservation measures in effect several locations due to low supplies. Coffee, macadamia harvesting full swing. Sugar cane harvesting winding down some locations.

IDAHO: Temperatures 10° below normal to 2° below normal. All areas below normal. Precipitation none north, none southwest, none to 0.09 in. south central, none to 0.19 in. south east. Most areas received no precipitation. Extremes 2°; 70°.

Days suitable for fieldwork 7.0. Topsoil 1% very short, 27% short, 69% adequate, 3% surplus. Irrigation water supplies 1% poor, 4% fair, 85% good, 10% excellent. Apples harvested 97%, 99% 1994, 93% avg. Corn harvested for grain 48%, 60% 1994, 55% avg. Potatoes harvested 99%, 99% 1994, 99% avg. Sugar beets harvested 90%, 83% 1994, 88% avg. Activities: Harvesting apples, potatoes, sugar beets, corn, planting winter wheat, fall fertilization, moving cattle off high ranges, weaning, vaccinating calves, marketing cattle.

ILLINOIS: Temperatures 4 to 12° below average. Highs mid 40s to mid 50s. Lows were high 20s to mid 30s. Rainfall less than 0.25 to over 2.00 in.

Days suitable for fieldwork 3.4. Topsoil 9% very short, 28% short, 58% adequate, 5% surplus. Much needed rains limited field work activities across the State last week. Rains fell for two to four days, interrupting an otherwise perfect harvest season. In addition to harvesting, farmers were busy with fall tillage, spreading fertilizers, winterizing, cleaning equipment, caring for livestock. Winter wheat 98% seeded, 96% 1994, 93% avg.

INDIANA: Many areas of the State received precipitation during the week with the heaviest amount of 2.18 in. at Wanatah. High temperatures mid 40s in northern areas to high 50s southern areas. Coolest temperatures ranged from high 20s to low 40s with coldest temperature of 27° recorded at Crawfordsville.

Days suitable for fieldwork 3.7. Topsoil 8% very short, 27% short, 55% adequate, 10% surplus. Subsoil 15% very short, 43% short, 40% adequate, 2% surplus. Corn harvest by region, 93% complete in the north, 94% central, 91% south. Soybean harvest virtually complete. Seeding of winter wheat nearing completion. Activities: Winterizing equipment chopping stalks, spreading fertilizer, lime, selling grain, fall tillage, seeding winter wheat, care of livestock.

IOWA: Very cold, wet. Temperatures 9 to 11° below normal. Extremes 7°; 60°. Unseasonably heavy rain 30th through 1st. Snowfall 1.00 to 3.00 in. central, west central, northwest early week. Earliest snow of consequence since 1991. Precipitation 0.30 in. west central to 2.67 in. central; state average 1.46 in., normal 0.46 in. Wettest week in 23 weeks.

Days suitable for fieldwork 2.8. Widely scattered precipitation fell across most parts of State last week replenishing depleted topsoil, subsoil moisture supplies, also hindering harvest progress. Topsoil short 6%, adequate 72%, surplus 22%. Subsoil very short 5%, short 24%, adequate 61%, surplus 10%. Northern, central areas of State report corn being piled on ground in areas with limited storage space. Precipitation this past week have some in the grain industry concerned about spoilage of the corn stored outside. Grain movement 6% none, 42% light, 44% moderate, 8% heavy. Grain storage availability on-farm 15% short, 76% adequate, 9% surplus; off-farm 22% short, 71% adequate, 7% surplus. Winter wheat planted 98%, 99% 1994, 99% avg. 1996 row crops fall tillage complete 27%, 26% 1994, 27% avg.; fall fertilizer activities complete 23%, 22% 1994, 22% avg. Utilization of stubble fields for grazing 22% none, 33% light, 38% moderate, 7% extensive. Livestock in fair to good condition. Flu, pneumonia becoming more wide spread in hogs, cattle due to the cold, damp weather.

KANSAS: Temperatures 1 to 10° below normal across the State. Precipitation across the State was mostly light. Greatest amounts of precipitation were recorded in the north central, eastern districts.

Days suitable for fieldwork 4.3. Topsoil 14% very short, 53% short, 33% adequate. Subsurface 11% very short, 39% short, 50% adequate. Wheat seeding is complete across the State. Wheat acreage being pastured, 1%, 5% 1994, 4% avg. Wheat emergence is good but many areas are becoming dry, need rain on wheat fields, pastures. Strong winds have damaged some stands, replanting may be necessary. Additional moisture is needed for wheat to develop tillers, adequate growth for grazing. Fall harvest is nearing completion. Stockmen are beginning to graze cattle on crop residue.

KENTUCKY: High temperatures mid 50s to 60°, lows in mid 30s to low 40s. Temperatures 3 to 5° below normal. Rainfall light, generally less than 0.50 in. Locations 0.64 in. Lexington, 0.77 in. Louisville, Paducah received 0.46 in., Grayson 0.05 in. Some areas reported flurries on 5th. Rainfall generally 0.20 to 0.50 in. below normal. Coldest air of season arrived night of 3rd. Lows low to mid 20s, some teens reported northern, Bluegrass areas.

Days suitable fieldwork 3.8. Topsoil 4% very short, 11% short, 79% adequate, 6% surplus. Subsoil 5% very short, 28% short, 61% adequate, 6% surplus. Burley tobacco stripped 38% 1995, 26% 1994, 27% avg. Housed tobacco 1% very poor, 3% poor, 26% fair, 56% good, 14% excellent. Wheat 1% poor, 19% fair, 61% good, 19% excellent; seeded complete 88% 1995, 82% 1994, 77% avg.

LOUISIANA: Temperatures 3° below normal to normal. Extremes 31°; 87°. Rainfall 0.86 in. north central to 5.85 in. south central.

Days suitable for fieldwork 3.7. Soil 2% very short, 18% short, 45% adequate, 35% surplus. Cotton farmers continued gleaning activities as harvest edged closer to completion. Pecans 4% very poor, 25% poor, 53% fair, 16% good, 2% excellent; 10% harvested, 22% 1994, 30% avg. Soybeans 100% shedding, 99% 1994, 98% avg. Soybean harvest was hindered by adverse weather conditions. Sugar cane 1% poor, 21% fair, 65% good, 13% excellent; 34% harvested, 35% 1994, 31% avg. Sugar cane harvest was hampered by the weather as some cane was lodged by

heavy rains, high winds. Sweet potatoes 85% harvested, 83% 1994, 85% avg. Wheat 52% planted, 37% 1994, 35% avg.; 19% emerged, 20% 1994, 22% avg. Wheat improved with added moisture. Vegetables 4% very poor, 20% poor, 46% fair, 29% good, 1% excellent. Livestock 9% poor, 40% fair, 48% good, 3% excellent. Cattlemen continued supplemental feeding. Pasture feed added moisture helped recently planted pastures emerge.

MARYLAND: Precipitation 1.01 in. normal 0.72 in. Temperature 56.9°, normal 51.8°. Extremes 28°; 78°. Low temperatures upper 20s to low 40s. Highs were mainly in the upper 60s to upper 70s.

Days suitable for fieldwork 3.6. Topsoil 1% short, 81% adequate, 18% surplus. Subsoil 1% very short, 14% short, 82% adequate, 3% surplus. Corn 94% harvested for grain, 78% 1994, 82% avg. Soybeans 61% harvested, 65% 1994, 57% avg. Sorghum 74% harvested, 69% 1994, 72% avg. Tobacco 17% stripped, 17% 1994, 12% avg. Barley 91% planted, 93% 1994, 94% avg. Rye 76% planted, 85% 1994, 82% avg. Wheat 75% planted, 76% 1994, 74% avg. Other hay 91% 4th cutting, 71% 1994, 70% avg. Alfalfa hay 50% 5th cutting, 78% 1994, 60% avg. Apples 93% harvested, 99% 1994, 96% avg. Hay supplies mostly adequate. Activities: Harvesting of field crops, planting of small grains.

MICHIGAN: Temperatures 39 to 42°, which 4 to 8° below normal. Precipitation 0.29 to 1.67 in. Rains, snow throughout the State slowed harvest, fall planting, tillage.

Days suitable for fieldwork 3.5. Topsoil 2% short, 66% adequate, 32% surplus. Subsoil 1% very short, 19% short, 69% adequate, 11% surplus. Corn 1% very poor, 5% poor, 22% fair, 53% good, 19% excellent. Sugar beets harvested 78%, 98% 1994, 97% avg.

MINNESOTA: Temperatures near normal to 7 to 13° below normal for the State. Extremes -2°; 49°. Precipitation 0.30 to 0.50 in. above normal in the northwest district, southern third of the State to near normal across the remainder of the State. Greatest weekly total 1.22 in.

Days suitable for fieldwork 1.7. Topsoil 12% adequate, 88% surplus. Subsoil 3% short, 48% adequate, 49% surplus. Corn harvested 85%, 79% 1994, 71% avg.; moisture content 18%, 19% 1994, 23% avg.; stubble worked 41%, 43% 1994, 43% avg. Soybeans harvested 94%, 98% 1994, 99% avg.; moisture content 14%, 13% 1994, 11% avg.; stubble worked 48%, 66% 1994, 69% avg. Sugar beets harvested 98%, 99% 1994, 99% avg.

MISSISSIPPI: Temperatures 4° below normal. Extremes 24°; 84°. Soil temperatures 61°. Precipitation 2.07 in., 1.27 in. above normal. Rainfall throughout State 0.81 in. upper delta district to 4.83 in. coastal district.

Days suitable for fieldwork 2.6. Soil moisture 8% short, 60% adequate, 32% surplus. Pecans 30% harvested, 41% 1994, 29% avg.; 14% poor, 48% fair, 38% good. Sweet potatoes 97% harvested, 92% 1994, 93% avg.; 12% poor, 15% fair, 73% good. Cattle 1% very poor, 5% poor, 30% fair, 54% good, 10% excellent. Main farming activities: Cotton, soybean harvesting. Fall tillage for next years crop was also in progress. Recent rains have improved winter wheat, winter grazing crops. Some cattle producers are feeding hay, grazing winter pastures, due to a shortage or absences of grass in permanent pastures.

MISSOURI: Temperatures below normal across the entire State, 11° below normal at St. Joseph, to 2° below normal at St. Louis, Caruthersville. Precipitation 1.08 in., 0.36 in. southwest, to 2.20 in. north central.

Days suitable for fieldwork 3.3. Topsoil 16% very short, 28% short, 52% adequate, 4% surplus. Significant shortages continue to exist in the southwestern, south central districts, which received limited rainfall during the past week. Rainfall, cooler temperatures moved across most areas of the State during the past week. Precipitation was beneficial for the seeded winter wheat crop, it did slow the rapid pace at which State farmers had been harvesting in recent weeks. Corn harvest is varied across the State, ranging from around 65% across the northern third of the State, 90% across the

central third, to completion across the southern third of the State. Sorghum harvest is complete in the south central, south eastern districts, while only 32% of the crop has been harvested in the northeastern district. Ninety-one percent of the winter wheat crop has been seeded, compared with 82% 1994, 80% normally by this date. Dry weather conditions have hindered the emergence of the winter wheat crop in the southwestern district, which reports only 34% emerged. Twenty-four percent of the ground intended for spring crops has been worked at least once, compared with 21% 1994, 27% normally by this date.

MONTANA: Mild conditions beginning of week turning to cold by 2nd. Precipitation generally light, with most measurable precipitation falling in eastern third of State.

Days suitable for fieldwork 2.7. Topsoil 3% very short, 21% short, 71% adequate, 5% surplus. Subsoil 2% very short, 32% short, 64% adequate, 2% surplus. Cattle, calves moved from summer ranges, 92%. Sheep, lambs moved from summer ranges, 93%. Livestock receiving supplemental feed, cattle, calves 12%; sheep, lambs 17%.

NEBRASKA: Temperatures 11 to 12° below normals across the State. Precipitation 0.10 in. southwest to around 0.75 in. eastern one-third of the State.

Days suitable for fieldwork 3.4. Topsoil 1% very short, 19% short, 71% adequate, 9% surplus. Subsoil 3% very short, 34% short, 62% adequate, 1% surplus. Harvest progress was delayed last week due to wet weather conditions. Early in the week, snow, rain, damp conditions kept harvest at a slow pace or standstill. Later, harvesting picked up where soils had dried or frozen. Corn harvesting in the southern Panhandle, southwest was least advanced. Some reports from the southwest, central, eastern counties indicated higher than normal ear droppage due to wind received last week. Wheat rain, snow last week brought additional moisture to many fields across the State, should help crop growth, development.

NEVADA: Mostly cloudy skies, above normal temperatures at the beginning of the week gave way to weak storm disturbances through 3rd. Temperatures 4° below normal northeast, near normal northwest, 2 to 4° above normal central, south. Extremes -19° Mountain City, 89° Laughlin. Precipitation 0.46 in. at Ely, 0.14 in. at Mountain City, 0.04 in. at Overton, 0.03 at Fernley. Reno area has not received measurable precipitation in 111 consecutive days, tying the 1954 record.

Prolonged fall weather encouraged excellent growth of fall seeded grains. Final irrigations of winter grains were being applied. Alfalfa cutting was complete in the north and the final cutting was active in the extreme south. Aftermath grazing of alfalfa fields was increasing in the north. Planting of new alfalfa fields, sudan haying continued in the south. Potato harvest was completed, as was garlic planting. Pistachio harvest was 75% complete in the south. Weaning, movement of livestock from Fall ranges continued. Main farm, ranch activities: Finishing haying, final irrigating, moving/marketing livestock, hauling hay.

NEW ENGLAND: Precipitation 0.58 to 1.73 in. north, 0.50 to 1.47 in. south. Temperatures 33 to 43° north, 40 to 50° south. Maximum temperatures 48 to 63° north, 50 to 67° south. Minimum temperatures 21 to 34° north, 25 to 33° south. Latest freeze in 39 years occurred in the Reading, Massachusetts area on November 5, 1995.

Maine potatoes 100% harvested, condition good. Cranberries 98% harvested, set above avg., size avg/below avg, condition excellent/good. Major farm activities: Potato harvest wrapped up for the year in Maine. Cranberry harvest continues, with only 1 to 2% remaining. Farmers harvesting the last of the apple, hay crops. General field cleanup continues along with the sowing of cover crops.

NEW JERSEY: Temperatures slightly above normal, 48° north, 52° south, 54° near the coastal areas. Extremes 21° on the 6th; 77° on the 4th. Rainfall 0.81 in. north, 0.57 in. south, 0.52 in. the coastal sections. Heaviest

24 hour total 1.17 in. at canoe brook on the 1st to the 2nd. No snowfall was reported during the past seven day period, none was on the ground on 30th morning.

Days suitable for fieldwork 4. Lettuce, fall cabbage, spinach, kale, broccoli are still being harvested. Corn, soybean harvesting is active. Farmers continue planting wheat, rye, barley. Fruit grower activities include end-of-season pruning, clean-up.

NEW MEXICO: Strong surge of cold air finally broke the spell of unusually warm temperatures across eastern areas where readings for the week 4 to 10° below normal. Temperatures in the west, southwest remained above normal despite several cool nights. Precipitation was limited to light showers over the northwestern one-third of the State with weekly totals mostly of 0.10 to 0.20 in. Chama recorded several rain, snow showers totaling 0.51 in. Cold in the east was punctuated by a hard freeze as far south as Tucumcari.

Days suitable for fieldwork 6.4. Soil moisture 22% very short, 60% short, 18% adequate. Alfalfa 1% poor, 27% fair, 63% good, 9% excellent. Corn 8% poor, 40% fair, 47% good, 5% excellent. Cotton 10% poor, 34% fair, 34% good, 22% excellent; 45% harvested, 59% 1994, 39% avg. Sorghum 32% very poor, 26% poor, 21% fair, 20% good, 1% excellent; 75% mature, 100% 1994, 97% avg.; 50% harvested, 58% 1994, 46% avg. Wheat 1% very poor, 18% poor, 55% fair, 25% good, 1% excellent; 20% grazed. Chile 3% very poor, 16% poor, 55% fair, 23% good, 3% excellent. Pecans 1% very poor, 1% poor, 18% fair, 50% good, 30% excellent. Cattle 3% very poor, 13% poor, 38% fair, 45% good, 1% excellent. Sheep 1% very poor, 13% poor, 53% fair, 31% good, 2% excellent.

NEW YORK: Cold, wet week. Precipitation occurred at many locations each day. Week ended with snowfall. A few northern locations received over 10.00 in. of snow. Temperatures well below normal. Extremes 20°; 73°.

Corn for grain harvesting continued. Apple growers grading, packing, moving apples into storage. Orchard clean-up active. Cider making in full swing. Grape harvest winding down. Wineries very active this time of year. Few late season vegetables remain for harvest. Other major activities include caring for livestock, routine maintenance work.

NORTH CAROLINA: Rainfall 1.04 in. during October 29th to November 4th, 0.34 in. above normal. Mount Holly reported a high of 2.54 in. of rain during the past week. Temperature 57°, 1° above normal. High temperature 74° was reported in Arcola, with a low temperature of 32° reported in Belhaven.

Days suitable for fieldwork 3.3. Soil moisture 32% adequate, 68% surplus. Oats 50% planted, 68% 1994, 66% avg. Barley 73% planted, 70% 1994, 69% avg. Rye 64% planted, 71% 1994, 64% avg. Sorghum 65% harvested, 94% 1994, 83% avg. Peanuts 95% dug, 99% 1994, 97% avg.; 86% threshed, 92% 1994, 88% avg. Sweet potatoes 82% harvested, 91% 1994, 87% avg. Crop conditions: Peanuts, 10% poor, 51% fair, 38% good, 1% excellent; sorghum 15% fair, 85% good; sweet potatoes 4% very poor, 7% poor, 32% fair, 56% good, 1% excellent; hay, roughage supplies 1% very short, 6% short, 76% adequate, 17% surplus. Activities: Harvesting vegetables; cutting silage; spraying cotton; cutting hay; harvesting row crops; planting small grains; tending livestock; repairing equipment, general farm maintenance.

NORTH DAKOTA: Temperatures 15° below normal southwest, west central to 11° below normal east central. Extremes -5° north central, southwest; 49° west central, south central. Precipitation 0.23 in. west central to 0.69 in. northeast.

Days suitable for fieldwork 2. Topsoil 3% very short, 13% short, 76% adequate, 8% surplus. Subsoil 2% very short, 14% short, 76% adequate, 8% surplus. Row crop harvest completion was delayed by winter weather conditions. Sunflower 87% harvested; 77% 1994; 86% avg.; corn for grain 81% harvested; 79% 1994; 84% avg.; soybeans 88% harvested; 96% 1994; 99% avg.

OHIO: Most of the precipitation 0.50 to 1.50 in. Highs in the upper 50s to low 60s, average lows in the low 30s to low 40s. Extreme highs reached 70s, cold front arriving 4th, 5th brought extreme lows for the week into the teens. The statewide low for the week was 16° at Dayton.

Days suitable for fieldwork 4.1. Topsoil 1% very short, 7% short, 79% adequate, 13% surplus. Some moisture stress to winter wheat reported in Madison County, overall prospects for the wheat crop reported to be good. Corn harvest delayed by rains. Some livestock stress due to widely fluctuating temperatures, windy conditions.

OKLAHOMA: Precipitation 0.01 in. Panhandle district to 1.06 in. south central district.

Days suitable for fieldwork 5.8. Topsoil 13% very short, 59% short, 28% adequate. Subsoil 7% very short, 30% short, 63% adequate. Wheat 0% grazed, 16% 1994, 6% avg. Corn 92% harvested, 100% 1994, 100% avg. Soybeans 83% mature, 92% 1994, 89% avg.; 61% harvested, 69% 1994, 57% avg. Peanuts 92% mature, 97% 1994, 96% avg.; 81% dug, 77% 1994, 68% avg.; 68% combined, 63% 1994, n/a avg. Alfalfa 68% 5th cutting, 90% 1994, 79% avg.; 9% 6th cutting, 28% 1994, 12% avg. Livestock 2% poor, 24% fair, 72% good, 2% excellent. Feeder steers, heifers steady.

OREGON: Temperatures below normal, statewide. Precipitation mostly dry, Astoria 0.11 in. only site receiving precipitation.

Soil moisture mostly adequate. Columbia region: winter cereal grain seeding winding down. Eastern potato harvest winding down. Klamath Basin: Potato, sugar beet harvest winding down. Willamette Valley: Winter cereal grain planting continued as weather permitted, pumpkin, beet, carrot, other cole crops harvest continued, hazelnut, walnut harvest virtually completed, nurseries balling evergreens for shipment, Christmas tree harvest nearing. Hood, Rogue River Valleys: Pruning, fertilizing, liming orchards continued. Southern coast: Cranberry harvest nearly completed. Livestock good to excellent. Fall livestock activities winding down. Western pasture growth slowed, first frost.

PENNSYLVANIA: Cool week. First snow of season. Temperature 51°. Extremes 23°; 74°. Precipitation 0.66 in.

Days suitable for fieldwork 4.0. Soil moisture 2% very short, 20% short, 72% adequate, 6% surplus. Soybeans 64% harvested, 77% 1994, 55% avg. Potato harvest 95% complete, 98% 1994, 97% avg. Fall plowing 73% complete, 93% 1994, 87% avg. Wheat planted 85% complete, 97% 1994, 95% avg. Barley planted 92% complete, 100% 1994, 99% avg. Alfalfa 4th cutting 78% complete, 87% 1994, 83% avg. Quality of hay made 21% very poor, 25% poor, 28% fair, 19% good, 7% excellent. Activities: Harvesting corn grain, soybeans, potatoes; making hay; cutting haylage; planting barley, wheat; plowing; filling silos; fixing fences; machinery maintenance; storing equipment for winter; hauling manure; caring for livestock.

SOUTH CAROLINA: Weather information not available.

Days suitable for fieldwork 3.00. Soil moisture 1% short, 17% adequate, 82% surplus. Cotton harvest behind normal, delayed by rain, 53% harvested, 50% 1994, 63% avg. Sorghum 76% harvested, 59% 1994, 74% avg.; 4% very poor, 36% fair, 60% good. Peanuts 93% harvested, 84% 1994, 86% avg.; 69% fair, 31% good. Sweet potatoes 57% harvested, 54% 1994, 74% avg.; 57% very poor, 42% fair, 1%. Apples 92% harvested, 96% 1994, 97% avg.; 100% good. Pecan 5% very poor, 11% poor, 47% fair, 37% good. Livestock 2% very poor, 2% poor, 11% fair, 84% good, 1% excellent. Small grain planting delayed due rain, wet field conditions. All field activities delayed due to rain. Wheat 13% planted, 23% 1994, 15% avg.

SOUTH DAKOTA: Temperatures generally 10 to 15° below normal. Extremes -17°; 61°. Significant precipitation fell as rain, heavy snow. Heaviest precipitation fell in the southwest, south central with these areas generally receiving 0.75 to 1.00 in. precipitation. Rest of the State generally received 0.25 to 0.60 in. of precipitation. Heaviest precipitation reported 1.08 in. Custer.

Days suitable for fieldwork 1.7. Topsoil 1% short, 44% adequate, 55% surplus. Subsoil 6% short, 52% adequate, 42% surplus. Sunflowers 84%

harvested, 89% 1994, 91% avg. Winter rye 5% poor, 9% fair, 56% good, 30% excellent. Rain, snow again delayed row crop harvest, damaged some unharvested crops. By the end of the week, some areas of the State had resumed harvesting, other areas may not complete harvesting till spring because of the snow. Livestock condition 14% fair, 70% good, 16% excellent. Stock water supplies 3% short, 66% adequate, 31% surplus. Feed supplies 1% short, 80% adequate, 19% surplus.

TENNESSEE: Temperatures about 5° below normal across the entire State. Low temperatures mid 30s in the northeast to the mid 40s in the southwest. High temperatures mid to upper 50s across the Plateau, eastern sections to around 60° in the southwest. Extremes 21°; 78°.

Days suitable for fieldwork 4.0. Topsoil 1% short, 74% adequate, 25% surplus. Subsoil 5% short, 82% adequate, 13% surplus. Cotton 80%, harvested, 74% 1994, 79% avg. Tobacco 54% Stripped, 51% 1994, 49% avg. Soybeans 98%, mature; 91% 1994, 91% avg.; 65% harvested; 54% 1994, 51% avg. Winter wheat; 73% seeded; 69% 1994, 64% avg.

TEXAS: Week started warm, dry. However, series upper air disturbances sparked showers, thunderstorms over central, eastern areas of State. Modified arctic air invaded State 2nd, 3rd. An overrunning pattern set up which produced dreary, damp weather during late week, weekend. Freezing temperatures recorded late week over much of High Plains, Permian Basin, parts of Northern Rolling Plains. For week, temperatures ran below normal statewide. Departures from normal were as much as 13° southern Plains. Rainfall totals above normal except for below normal amounts for High, Low Plains, Trans-Pecos, Lower Valley. Total over 1° above normal southern east, south central.

Crops: Small Grains: cold temperatures slowed crop progress in Plains where moisture needed for increased growth. A few stockers have been placed for grazing; however many fields don't have enough growth at this time. Moisture in Blacklands should help planting conditions if open weather returns. Some replanting occurred. Rainfall will help on planted fields. Wheat 65% normal compared 71% 1994. Corn producers trying to finish up harvest; however, frontal passage slowed progress part of week. Cotton: damp morning conditions caused delays in harvest in Plains. Cold temperatures will slow any additional boll opening. Harvest activity continued with minimal delays Trans Pecos. Many producers in Northern Blacklands finishing up harvest as wet weather arrived, slowed progress. Bolls opening 90%, 97% 1994, 91% avg. Grain sorghum harvest moved ahead with minimal delays in High Plains by midweek. Peanuts: moisture in Cross Timbers should aid digging progress as open conditions return. Condition 72% normal compared 75% 1994. Soybeans harvest continued Plains as weather permitted during week. Good yields reported. Most harvest activity completed in Blacklands before rain arrived; however, progress slowed late week in remaining fields. Sunflowers 66% harvested, 73% 1994, 67% avg. Sugar beets 43% harvested, 41% 1994, 45% avg.

Commercial Vegetables: Rio Grande Valley, progress good on tomatoes, onions peppers. Isolated heavy rains not expected to cause major problems; however, citrus harvest delayed. San Antonio- Winter Garden, scattered heavy rain caused late watermelon harvest come to an end. Planting activity continued until midweek. East, harvesting winter greens continued as weather permitted. Sweet potato harvest also continued. High Plains, most harvest activity completed before cold front passed through. Pecans: colder weather should aid shuck split many areas. Harvest continued as weather permitted many areas during week.

Range and Livestock: Very light moisture in Plains provided little benefit to small grain pasture. Arriving stockers being processed before going onto small grains. A few have been put out on better fields. Colder temperatures will slow any new growth brought on by rainfall in native pastures. Supplemental feeding activity increased as colder temperatures arrived midweek. Livestock conditions were holding steady.

UTAH: Temperature maximums 3° above normal; minimums 1° above normal. Precipitation light to moderate in the State except for Uinta division which received no measurable precipitation.

Days suitable for fieldwork 6.4. Topsoil 5% very short, 44% short, 49% adequate, 2% surplus. Subsoil 5% very short, 44% short, 49% adequate, 2% surplus. Winter wheat emerged 90%. Corn harvested for grain 47%.

Major farm, ranch activities were fall tilling, corn harvesting, moving cattle, sheep to winter ranges.

VIRGINIA: Temperatures varied across the State this week. Extremes 27°; 80°. Showers fell over most of the State this week with some areas in central areas receiving over an 3.00 in. of rain.

Days suitable for fieldwork 3.6. Topsoil 5% short, 70% adequate, 25% surplus. Subsoil 1% very short, 16% short, 69% adequate, 14% surplus. Fall apples harvested 100%, 99% 1994, 98% avg. Winter apples harvested 88%, 100% 1994, 71% avg. Corn harvested for grain 90%, 88% 1994, 87% avg. Soybeans harvested 35%, 37% 1994, 45% avg. Peanuts dug 99%, 100% 1994, 98% avg.; combined 97%, 100% 1994, 95% avg. Cotton harvested 60%, 47% 1994, 37% avg. Barley seeded 82%, 91% 1994, 87% avg. Oats seeded 70%, 99% 1994, 92% avg. Winter wheat seeded 55%, 58% 1994, 53% avg. Livestock 1% poor, 11% fair, 82% good, 6% excellent. Small grain, winter grazing crop condition 12% fair, 75% good, 13% excellent. Rain this week slowed crop harvest progress as well as small grain seeding. Fertilizer, lime applications continued. Peanut, corn, apple harvest winding down.

WASHINGTON: Temperatures 8 to 12° below normal west; 10 to 17° below normal east. Precipitation none west; none east. Cool, clear fall weather dominated the week.

Days suitable for fieldwork 6.5. Topsoil 16% short, 80% adequate, 4% surplus; subsoil 3% short, 97% adequate. Irrigation water supply 100% adequate. Pumpkin growers pleased with strong sales. Greenery harvest for Christmas underway. Early raspberry pruning began. Grape harvest continued with difficulty due to frost. Sub-freezing conditions hastened apple harvest. Pasture growth improved with cattle on fall or winter feed. Beef producers fed cattle supplemental hay. Winter wheat, dryland 5% poor 26% fair, 69% good; irrigated 77% good, 23% excellent. Corn 100% good. Hay, other roughage supplies 3% short, 95% adequate, 2% surplus. Winter wheat 96% planted, 93% 1994, 96% avg.; 88% emerged, 66% 1994, 85% avg. Potatoes 99% harvested, 98% 1994, 95% avg. Corn harvested for grain 33%, 78% 1994, 59% avg.

WEST VIRGINIA: Temperature 48°. Extremes 15°; 77°. Temperatures mild side for most of the week until a strong cold front pushed overnight lows into the teens, twenties, produced some light snow across northern sections of the State. Temperatures close to normal. The greatest weekly total precipitation was 1.08 in. reported at Flat Top. State average was 0.43 in.

Days suitable for fieldwork 4.2. Topsoil 1% very short, 7% short, 91% adequate, 1% surplus. Wheat 65% planted, 81% 1994, 71% avg. Corn harvested 89%, 80% 1994, 73% avg. Soybeans 1% poor, 8% fair, 81% good, 10% excellent; 44% harvested, 70% 1994. Barley 96% planted, 80% 1994. Cattle 13% fair, 84% good, 3% excellent. Sheep 15% fair, 82% good, 3% excellent. Activities: Marketing cattle, harvesting corn, soybeans, sowing wheat, barley, equipment maintenance, building, repairing fences.

WISCONSIN: Temperature 36°, 4° below normal. Extremes 15°; 60°. Precipitation 0.60 to 2.30 in.

Days suitable for fieldwork 2.9. Soil 1% short, 43% adequate, 56% surplus. Soybeans harvested 92%, 92% 1994, 89% avg. Fall tillage 50%, 42% 1994, 42% avg. Hay, roughage supply 7% short, 65% adequate, 28% surplus. Several reporters mentioned that harvest would resume when the ground was frozen enough to handle machinery. Corn harvested as grain was the main activity of farmers. The dry conditions early in the week allowed farmers to complete 10% of the acreage that was used for grain. Some farmers indicated that the ground in their area was dry enough to handle some harvesting after the rainfall. A large number of cornstalks have been made for bedding. Soybean harvest was slowed significantly by the rain, but over 90% of the crop has been harvested. Remaining acreage was too wet to harvest during the week. Hay, roughage supplies were reported as 93% good to excellent. A reporter mentioned that the straw supply was short due to excess rains during, after small grain harvest. Fall tillage remained ahead of last year and the 5-year average with half of the acreage completed.

Reporters mentioned that manure was being hauled; this activity will increase as the ground freezes up.

WYOMING: Temperatures 2 to 16° below normal across the State. Extremes -15° Douglas; 61° Medicine Bow. Precipitation 0.10 to 0.70 in. above normal across most of State. Southwestern part 0.10 to 0.50 in.

below normal. Most of the State received precipitation with the east central receiving the greatest amount of about 0.80 in.

Days suitable for fieldwork 2.9. Topsoil 94% adequate. Subsoil 96% adequate. Potatoes 90% harvested, 100% 1994, 100% avg. Corn 59% harvested, 72% 1994, 69% avg. Livestock moved from summer pastures: cattle 95%, sheep 94%. Livestock were in mostly good condition. Supplemental feeding begun in some areas.

Pasture and Range Crop Condition by Percent

	VP	P	F	G	EX		VP	P	F	G	EX
AL	5	9	38	45	3	NH	0	18	49	33	0
AZ	10	21	36	25	8	NJ	0	0	50	50	0
AR	10	29	48	13	0	NM	10	30	40	20	0
CA	0	40	40	20	0	NY	0	0	20	80	0
CO	2	18	35	39	6	NC	0	3	25	67	5
CT	0	0	35	65	0	ND	1	16	28	49	6
DE	0	5	23	72	0	OH	1	9	30	52	8
FL	0	5	35	60	0	OK	1	8	39	48	4
GA	1	2	39	58	0	OR	0	0	28	63	9
ID	0	19	33	44	4	PA	12	14	45	28	1
IL	10	19	40	29	2	RI	0	0	0	100	0
IN	11	31	43	15	0	SC	2	2	18	77	1
IA	12	26	38	21	3	SD	3	10	25	52	10
KS	3	17	43	36	1	TN	2	6	30	55	7
KY	1	10	34	50	5	TX	3	18	52	25	2
LA	6	20	40	33	1	UT	1	18	30	40	11
ME	53	0	46	1	0	VT	0	10	10	64	16
MD	0	2	19	66	13	VA	0	6	34	54	6
MA	0	11	40	49	0	WA	0	14	36	50	0
MI	2	14	26	50	8	WV	1	19	29	50	1
MN	25	50	25	0	0	WI	3	12	37	44	4
MS	1	17	44	31	7	WY	0	0	4	65	31
MO	18	36	33	13	0	ALL	4	17	36	39	4
MT	0	12	22	60	6						
NE	1	10	37	47	5	Prev Wk	4	16	36	40	4
NV	0	0	8	90	2	Prev Yr	NA	NA	NA	NA	NA

October 1995
MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
 *** = DATA NOT AVAILABLE

International Weather and Crop Summary
October 29 - November 4, 1995

HIGHLIGHTS

FSU-WESTERN: A cold snap over northern Russia caused winter grains to begin entering dormancy.

EUROPE: Increasing precipitation and cooler weather covered most of Europe, benefiting winter grains, but slowing late-season harvesting. Drought continued over Spain.

NORTHWESTERN AFRICA: Late-week rain increased topsoil moisture for winter grain planting in eastern Algeria and Tunisia, while conditions remained too dry for planting in Morocco and western Algeria.

SOUTH ASIA: Seasonably warm, dry weather favored summer crop harvesting and winter crop planting.

SOUTH AFRICA: Widespread showers improved planting prospects across the corn belt.

AUSTRALIA: Scattered showers caused some harvest delays in winter grain areas of the west and southeast.

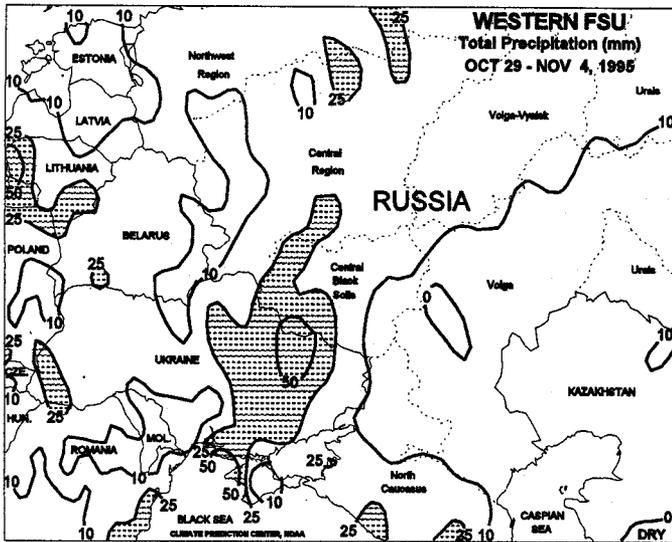
EASTERN ASIA: Seasonably dry weather favored late summer crop harvesting in the north and rice harvesting in the south.

SOUTHEAST ASIA: Typhoon Angela ravaged Luzon Island in the Philippines, damaging rice, sugarcane, and copra. Typhoon Zack hit south-central Vietnam, causing some coastal crop damage.

SOUTH AMERICA: Rain continued to favor winter wheat in Argentina, but freezing temperatures burned back wheat in the south. Dry weather favored soybean planting across extreme southern Brazil.

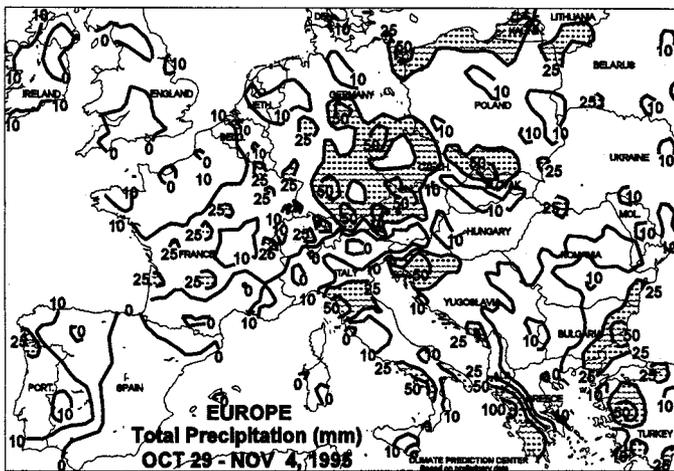
COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI	LO	AVG	DEPART F/NRM	TOTAL	DEPART F/NRM
NORWAY	OSLO	11	5	16	-4	8	3.2	46	-54
SWEDEN	STOCKHOLM	12	6	21	-5	9	1.9	25	-25
FINLAND	HELSINKI	11	5	16	-4	8	2.7	62	-11
U KING	GLASGOW	15	9	19	-2	12	2.2	268	138
	EDINBURGH	15	9	20	-1	12	2.7	115	50
	BIRMINGHAM	16	9	24	0	13	2.4	39	-13
	LONDON	18	9	23	0	14	2.7	19	-54
IRELAND	DUBLIN	16	10	21	1	13	2.3	37	-34
ICELAND	REYKJAVIK	6	2	12	-3	4	-0.5	48	-38
DENMRK	COPENHAGEN	14	8	21	1	11	2.0	35	-24
LUXEMB	LUXEMBOURG	16	10	23	1	13	3.6	39	-36
SWITZL	ZURICH	17	10	22	6	14	4.1	8	-61
	GENEVA	18	11	22	6	14	4.4	49	-25
FRANCE	PARIS/ORLY	20	11	27	3	15	***	16	**
	STRASBOURG	17	10	25	1	14	3.6	45	2
	BOURGES	21	11	26	4	16	4.1	73	14
	BORDEAUX	23	13	29	7	18	4.3	60	-27
	TOULOUSE	23	13	27	6	18	4.1	32	-19
	MARSEILLE	23	15	26	9	19	3.2	72	-5
SPAIN	VALLADOLID	22	10	28	4	16	3.1	18	-18
	MADRID	24	10	29	6	17	2.3	7	-46
	SEVILLE	29	17	32	13	23	2.7	2	-65
PORTUG	LISBON	25	16	32	13	20	2.0	45	-31
GERMNY	HAMBURG	16	9	24	-1	13	2.9	16	-47
	BERLIN	17	9	24	0	13	2.7	4	-32
	DUSSELDORF	18	11	24	1	14	3.7	26	-26
	LEIPZIG	17	9	24	0	13	3.5	7	-36
	DRESDEN	16	9	24	-1	12	3.2	26	-26
	STUTTGART	17	9	24	1	13	3.2	41	-1
	NURNBERG	16	9	23	0	13	3.7	32	-13
AUSTRI	VIENNA	16	8	22	-2	12	1.8	15	-35
	INNSBRUCK	19	6	24	-1	13	3.2	2	-50
CZECH	PRAGUE	15	7	22	-3	11	2.2	10	-20
POLAND	WARSAW	15	6	24	-3	10	2.0	16	-21
	LODZ	15	6	25	-3	11	2.8	13	-26
	KATOWICE	16	6	25	-4	11	2.8	21	-33
	PRZEMYSL	15	6	25	-3	10	1.5	22	-21
HUNGAR	BUDAPEST	18	7	24	-2	13	1.8	1	-33
F YUGO	BELGRADE	20	9	27	2	15	2.0	0	-42
ROMANI	BUCHAREST	18	5	27	-1	11	-0.4	31	2
BULGAR	SOFIA	18	5	27	-1	12	0.8	11	-27
ITALY	MILAN	20	11	26	2	16	2.6	22	-82
	VERONA	19	9	25	0	14	1.0	18	-59
	VENICE	21	11	26	3	16	1.9	10	-61
	GENOA	22	15	27	11	18	0.8	164	-8
	ROME	23	12	26	7	17	0.4	0	-92
	NAPLES	25	13	29	8	19	2.4	25	-106
GREECE	THESSALONIKA	21	10	27	4	16	-0.5	7	-32
	LARISSA	21	8	27	3	15	-1.2	8	-39
	ATHENS	22	14	27	10	18	-0.7	9	-50
TURKEY	ISTANBUL	18	12	21	10	15	-0.1	9	-55
	ANKARA	17	3	23	-3	10	-2.0	30	12
CYPRUS	LARNACA	27	16	30	12	22	0.2	0	-26
ESTONI	TALLINN	11	7	17	-1	9	2.6	89	24
FSU	ST. PETERSBERG	11	6	17	-2	9	2.8	51	-12
LITHUA	KAUNAS	13	6	22	-2	9	2.2	19	-30
FSU	MINSK	12	4	21	-4	8	2.0	30	-18
	KAZAN	9	3	19	-4	6	2.4	35	-11
	MOSCOW	10	4	16	-5	7	1.7	17	-39
	YEKATERINEBURG	7	1	21	-9	4	2.2	26	-15
	OMSK	8	1	19	-8	5	3.0	19	-12
	KUSTANAY	11	1	22	-6	6	2.5	18	-8
	NOVOSIBIRSK	8	2	18	-7	5	4.0	59	28
	BARNAUL	10	2	20	-5	6	3.4	15	-35
	KHABAROVSK	12	2	16	-4	7	2.7	14	-31
	VLADIVOSTOK	13	8	18	5	11	2.6	83	29
	KIEV	14	5	23	0	9	1.3	6	-27
	LVOV	15	5	25	-4	10	2.0	24	-23
	KIROVOGRAD	14	3	24	-6	9	0.1	6	-25
	ODESSA	15	8	23	4	12	0.6	2	-23

Based on Preliminary Reports



FSU-WESTERN

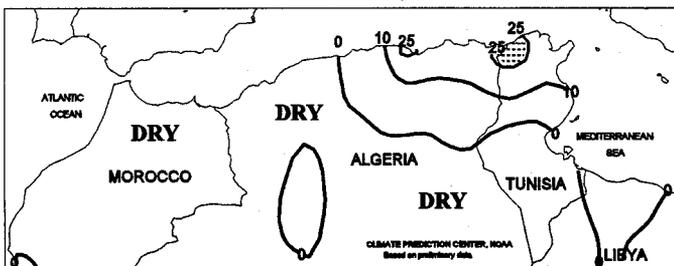
Widespread light to moderate showers (8-25 mm, with local amounts in excess of 40 mm) over southern Russia and Ukraine were accompanied by unseasonably mild weather, benefiting winter wheat development. Weekly average temperatures in these areas ranged from 1 to 4 degrees Celsius (C) above normal, promoting further vegetative growth. Winter grains in southern Ukraine and North Caucasus, Russia usually enter dormancy by the end of November. Farther north, a cold snap covered winter grains in northern Russia (Central Region, Volga Vyatsk, and upper Volga Valley), causing winter grains to begin entering dormancy about 2 weeks later than usual. Minimum temperatures in these areas dropped to as low as -10 degrees C. Furthermore, widespread precipitation (10-25 mm) accompanied the colder weather, with rain changing to snow by week's end.



EUROPE

Precipitation increased and became more widespread as the week progressed, favoring winter crop development but slowing late harvesting of summer crops. The exception was in England and Spain where the weather was mostly dry. Severe drought continued in Spain, hampering further winter wheat planting and adversely affecting pastures and livestock. In addition, reservoir levels continued to fall well below capacity. Light to moderate showers (10-25 mm, with local amounts in excess of 30 mm) fell from France, northeastward through Germany, and eastward into Poland, benefiting winter grain and oilseed development, but slowing late-season corn and sunflower harvests. A late-week storm system produced widespread rain over the central and eastern Mediterranean. Greatest amounts of rain (25-50 mm, with local amounts in excess of 100 mm) fell over central and southern Italy and western Greece. In eastern Europe, widespread light precipitation (around 10 mm) was accompanied by a cooling trend at week's end. The cooler weather spread westward over Europe, prompting hardening in winter grains, following several weeks of unusually mild weather.

**NORTHWEST AFRICA Total Precipitation (mm)
OCT 29 - NOV 4, 1995**

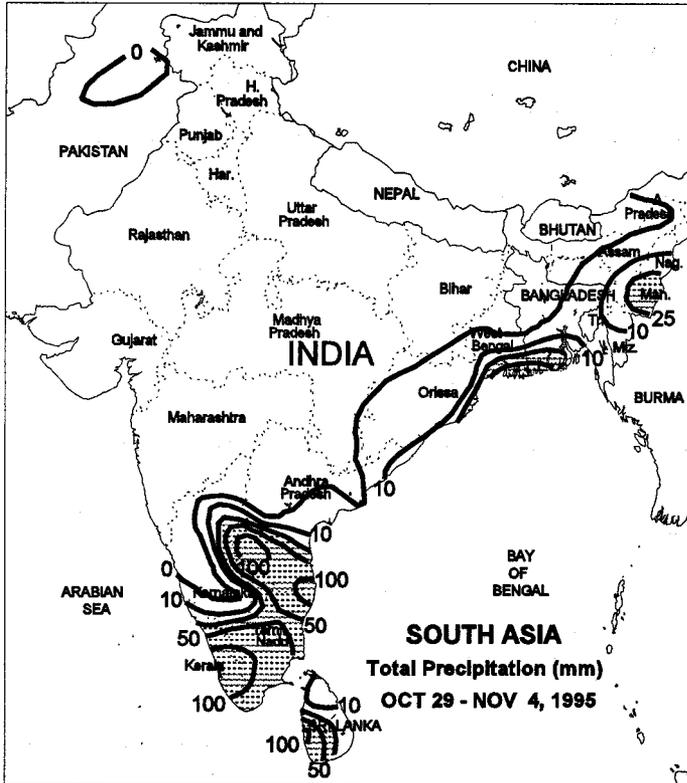


NORTHWESTERN AFRICA

In eastern Algeria and Tunisia, several days of dry weather benefited fieldwork for winter grain planting. By week's end, widespread light to moderate rain (5-34 mm) fell over these areas, providing topsoil moisture for germination and establishment. Farther west, dry weather covered Morocco and western Algeria, where the autumn rainy season has been slow to begin. Producers in these areas were awaiting the onset of significant rain before widespread planting could begin. Weekly average temperatures ranged from 2 to 6 degrees C above normal in Morocco and western Algeria and 2 to 3 degrees C above normal in eastern Algeria and Tunisia.

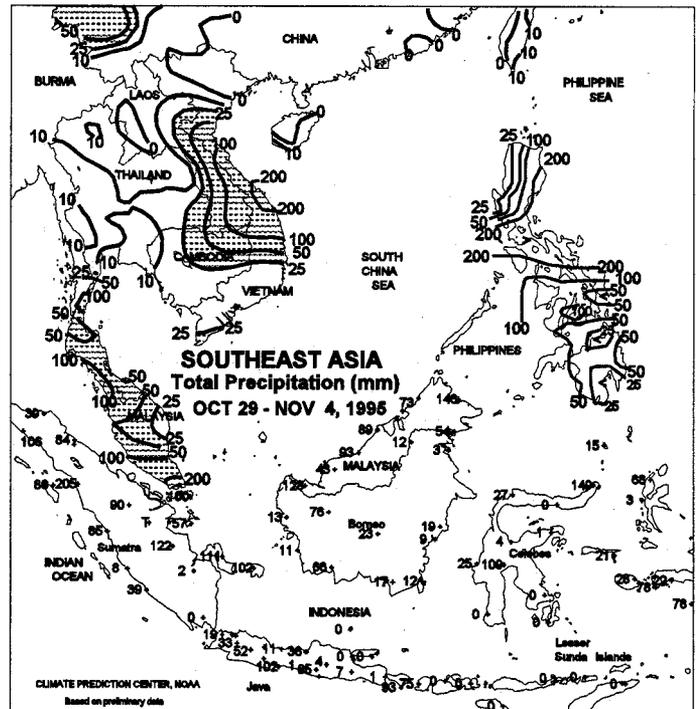
SOUTH ASIA

Dry, warm weather dominated the region. Overall, the seasonable conditions favored drydown and harvesting of summer grains, oilseeds, and cotton while spurring growth of newly planted rabi (autumn-planted) crops. From Pakistan eastward, winter grain and oilseed planting progressed. In southern India, substantial rain (25-50 mm, exceeding 100 mm locally) was confined to the extreme southern coast as well as isolated interior locations, affecting minor rice areas.



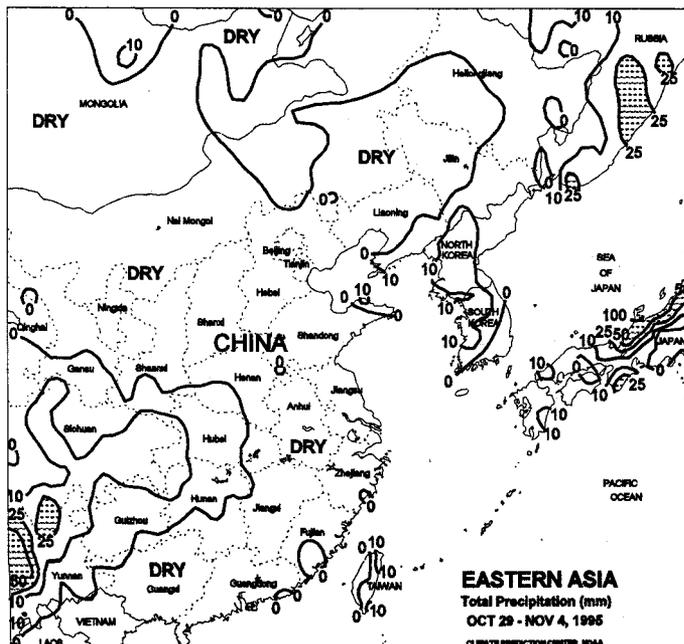
SOUTHEAST ASIA

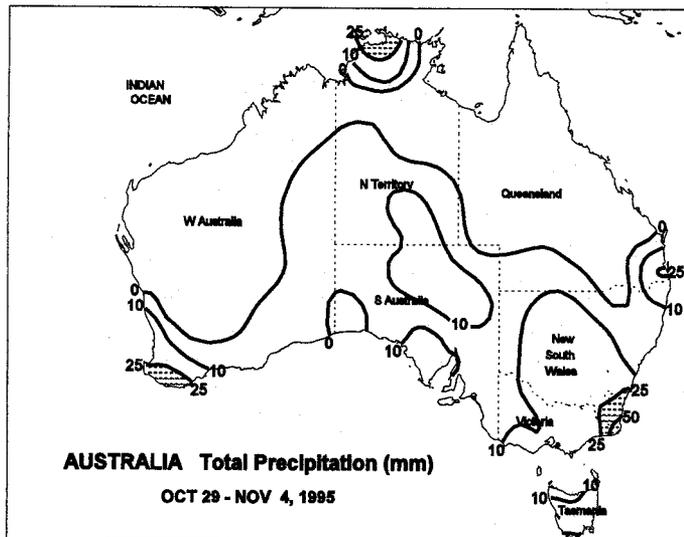
Super Typhoon Angela ravaged southern Luzon Island in the Philippines on November 2 and 3, with sustained winds of 120 to 140 knots (138-161 mph). Angela damaged copra along southeastern Luzon (Bicol) and sugarcane and rice in southwestern Luzon (near Manila). The storm produced widespread, very heavy showers in southern Luzon (80-250 mm, with isolated amounts greater than 300 mm), causing mudslides and flooding. This was the fourth typhoon to hit the central Philippines since late September. On November 1, Typhoon Zack hit south-central Vietnam with 100 knot (115 mph) sustained winds and heavy rain (50-100 mm), slowing rice harvesting. Mostly dry weather (5-25 mm) eased flooding and favored rice harvesting across Thailand. Variable showers (10-75 mm) fell across Java, increasing moisture supplies for secondary crops.



EASTERN ASIA

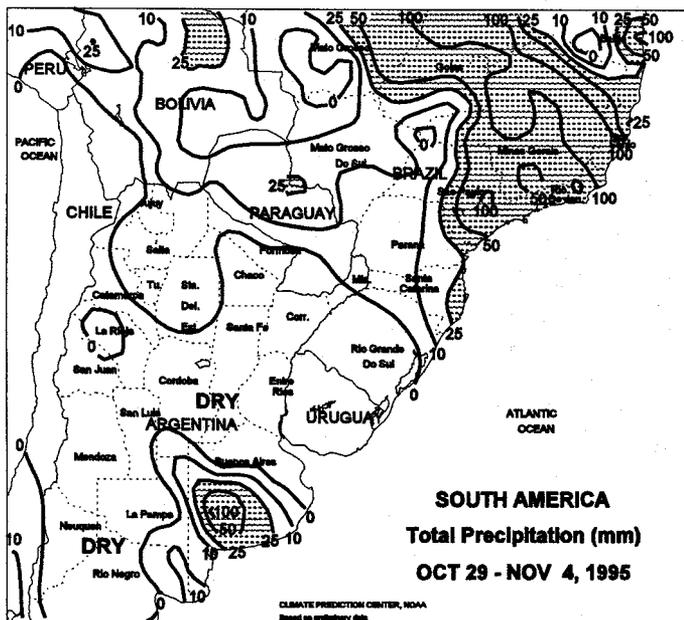
Seasonably dry weather favored late summer crop harvesting and winter wheat planting across the North China Plain and Manchuria. Freezing temperatures reached into the North China Plain, helping to dry down summer crops. Light to moderate rain (5-25 mm) favored emerging winter wheat across the Sichuan Basin. Dry weather spurred rice harvesting and winter oilseed planting across central and southern China. Temperatures averaged near to slightly above normal across most of China. Moderate to heavy rain (40-100 mm) slowed rice harvesting across the western coast of Japan, while mostly drier weather elsewhere favored fieldwork.





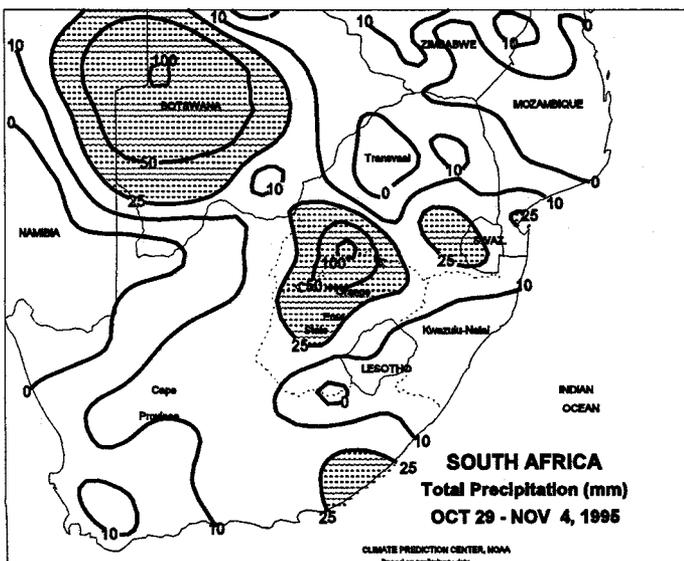
AUSTRALIA

Light to moderate showers (5-25 mm or more) swept across the winter grain areas of Western Australia and the southeast (South Australia to southern New South Wales). The rain was untimely for winter grain drydown and harvesting. However, the moisture continued to improve pasture conditions throughout the southeast. In Queensland, mostly dry weather favored sorghum and late cotton planting following last week's beneficial rain. However, temperatures were unseasonably warm (2-6 degrees C above normal, with highs reaching the upper 30's to lower 40's C), enhancing evaporation losses. Highs of 41 to 44 degrees C stressed livestock in the western pasture lands of Queensland and northern South Wales. In New Zealand, moderate rain covered major pasture areas of North Island. Rainfall was light (10 mm or less) in eastern pasture lands of South Island, while heavy showers (25-50 mm or more) fell along the west coast.



SOUTH AMERICA

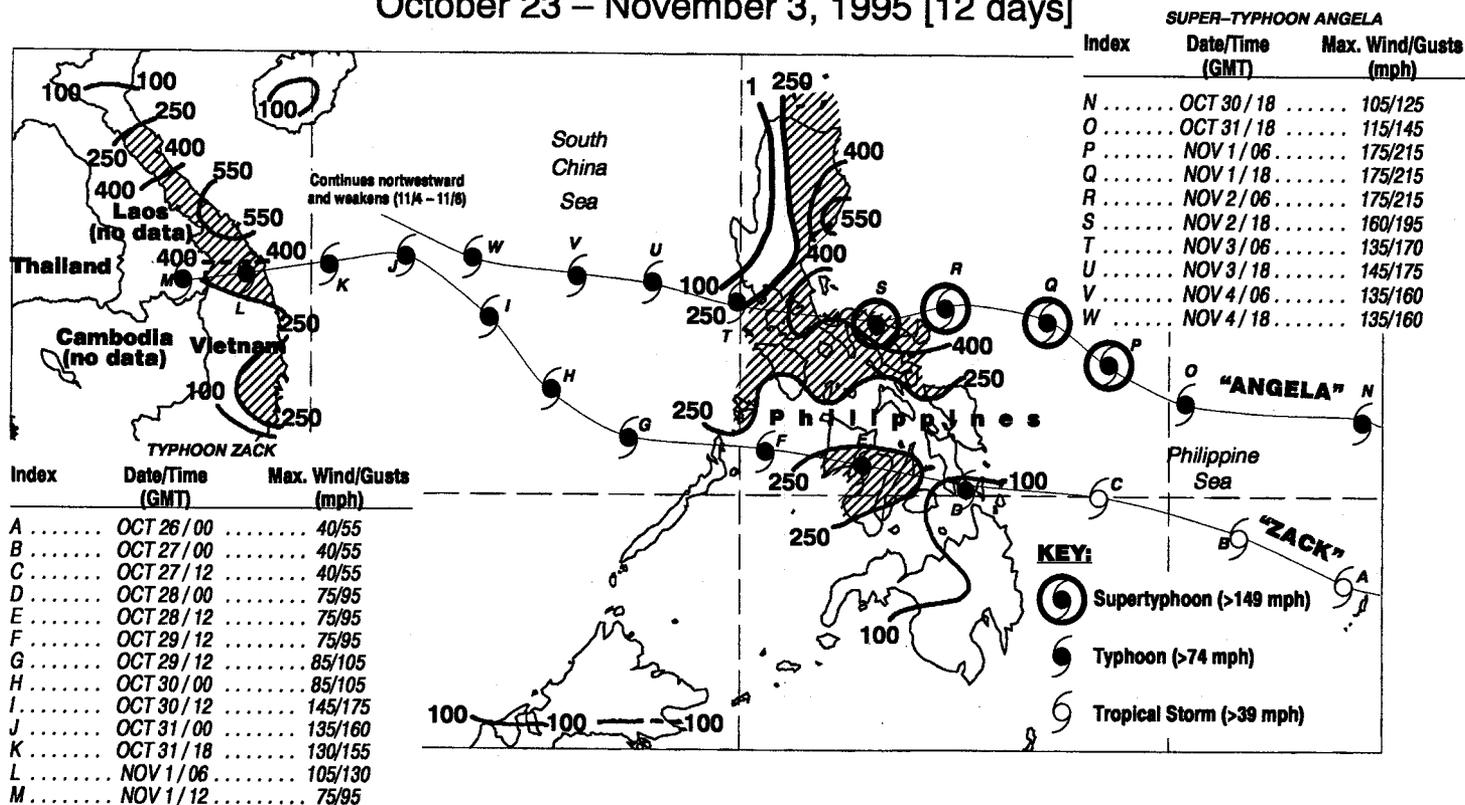
In Argentina, light to moderate rain (10-40 mm, with an isolated amount greater than 100 mm) fell across south-central Buenos Aires, aiding winter wheat and increasing soil moisture for summer crops. Early in the week, freezing temperatures in southern Buenos Aires burned back vegetative wheat. Dry weather elsewhere spurred corn and sunflower planting in northern Buenos Aires and southern Santa Fe and cotton planting in northern Argentina. However, above-normal temperatures (2-4 degrees C) reduced topsoil moisture for summer crop planting, especially in Cordoba and La Pampa. In southern Brazil, dry weather prevailed across Parana, Santa Catarina, and Rio Grande do Sul, aiding soybean planting. A stalled frontal system brought widespread rain (50-100 mm, with amounts greater than 100 mm concentrated in central Minas Gerais) from eastern Sao Paulo, southern Minas Gerais, and Espirito Santo northward into central Goias. This rain benefited citrus and coffee development and germinating soybeans. Dry weather for 2 weeks in portions of Mato Grosso and Mato Grosso do Sul has reduced topsoil moisture for corn and soybean planting. Temperatures averaged 1 to 2 degrees C below normal across southern Brazil.



SOUTH AFRICA

Light to moderate rain (10-43 mm, with isolated heavier amounts) swept across the corn belt, improving moisture conditions for corn germination and establishment. Temperatures were generally seasonable, but highs reached the low 30's C in the traditionally warmer western corn areas (North West and western Orange Free State), keeping evaporation rates high. Corn planting should be in full swing. Elsewhere, rainfall was light (less than 10 mm) in sugarcane areas of Kwazulu-Natal, but moderate rain (10-41 mm) continued in crop regions of Eastern Cape Province.

TOTAL PRECIPITATION (mm)
and
PATHS OF TYPHOON ZACK AND SUPER-TYPHOON ANGELA
October 23 – November 3, 1995 [12 days]



TYPHOONS STRIKE THE PHILIPPINES AND VIETNAM

After a slow start to the 1995 Western Pacific Tropical Cyclone season, several storms have wreaked havoc in the Philippines and Vietnam since late September, bringing widespread rainfall, high winds, and crop damage.

The Philippines were especially hard hit by the recent activity. Typhoon Sibyl struck the central Philippines on September 29, producing inundating rain (225–350 mm) and flooding across the central islands and southern Luzon (Weekly Weather and Crop Bulletin, Vol. 82, No. 40, p. 22). In late October, Tropical Storm Yvette (October 23) and Typhoon Zack (October 28) brought additional heavy rain to the same region (WWCB, Vol. 82, No 44, p. 18). Super Typhoon Angela struck on November 3 with sustained winds of 160 mph (based on satellite estimates) and brought more heavy rain. Thus, from late October to early November, 250 to 400 mm of rain (200–300 percent of normal) fell across southern Luzon, causing flooding, mudslides, and crop damage throughout the region. Zack took the most southerly course of the four storms, passing through the major sugarcane areas of the central islands and producing rainfall 300 to 400 percent of normal. Flooding and damage to sugarcane and rice was likely. Sibyl, Yvette, and Angela all affected southern Luzon, thus compounding the severity of Angela's impact on copra and rice. This region accounts for about 30 percent of the Nation's copra area. It will take 2 to 3 weeks to fully assess the damage to crops. Typically, 70 percent of intense storms like Angela that hit the Philippines do so during October and November. Angela was the strongest storm to hit the country since Typhoon Nina struck southern Luzon with 160 to 170 mph winds in late November of 1987 (WWCB, Vol. 74, No. 48, p. 18). On November 6, Angela dissipated in the Gulf of Tonkin without affecting either Vietnam or China.

In Vietnam, Yvette hit the south-central coast on October 26, while Zack struck the coast just to the north on November 1 (WWCB, Vol. 82, No. 44 and 45). Those two storms combined to drop 200 to 300 mm of rain (200–250 percent of normal) on Vietnam's south-central coast, slowing rice harvesting. However, this region of Vietnam accounts for less than 10 percent of Vietnam's total rice production, and rice harvesting was nearing completion. The area receiving heavy rainfall (400–550 mm) in the above figure is not a major rice growing region and typically receives very heavy rain this time of year.

– Bob Stefanski

– Graphics by Rich Tinker

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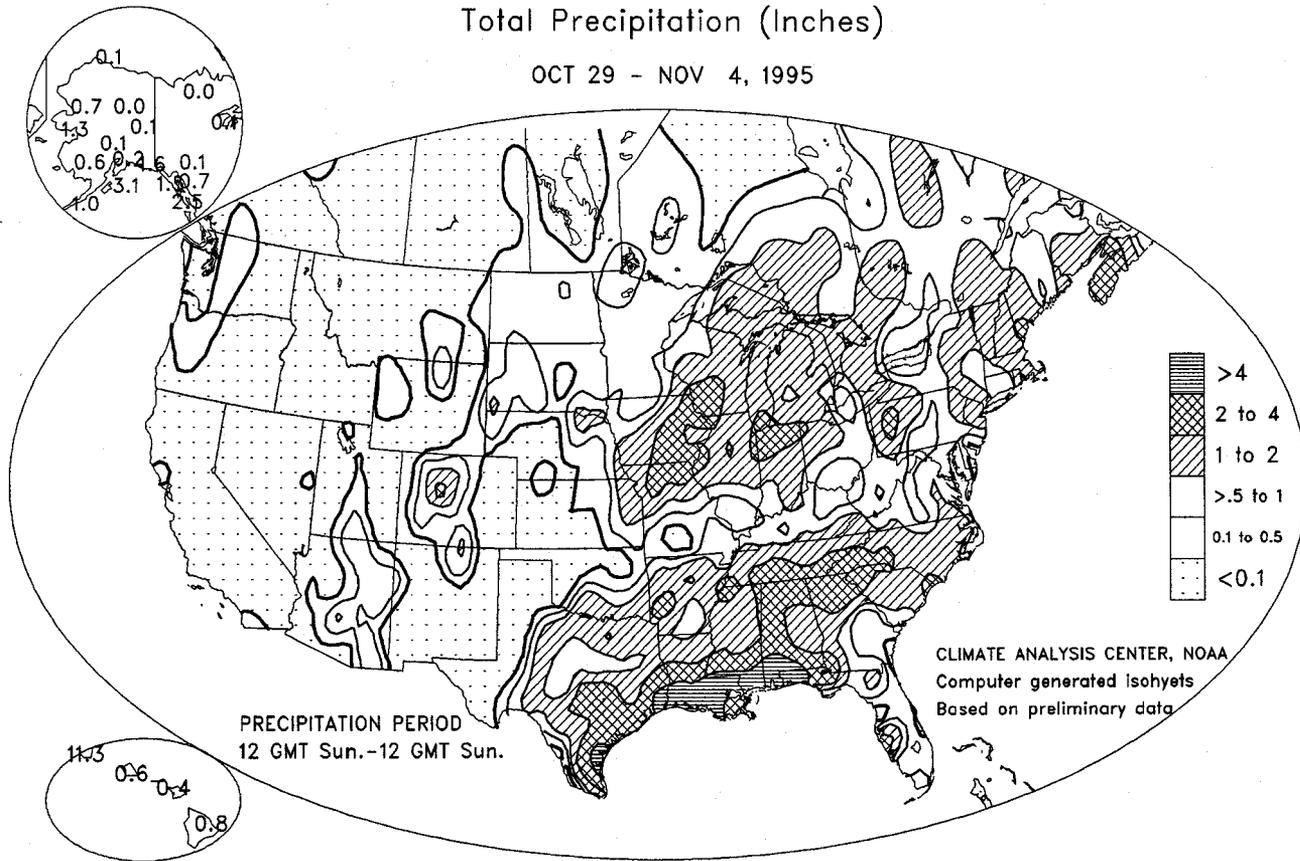
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