

# WEEKLY WEATHER AND CROP BULLETIN

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

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

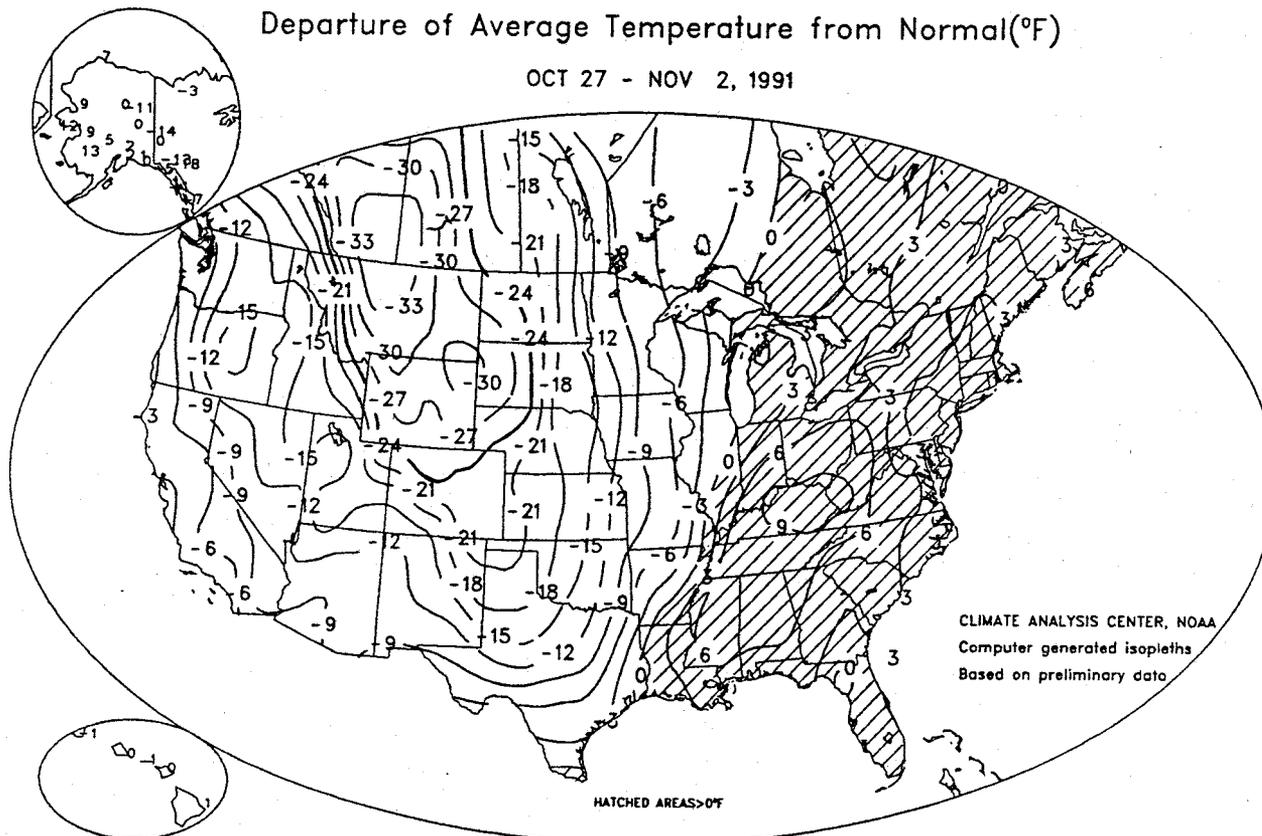
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November 5, 1991

## Departure of Average Temperature from Normal(°F)

OCT 27 - NOV 2, 1991



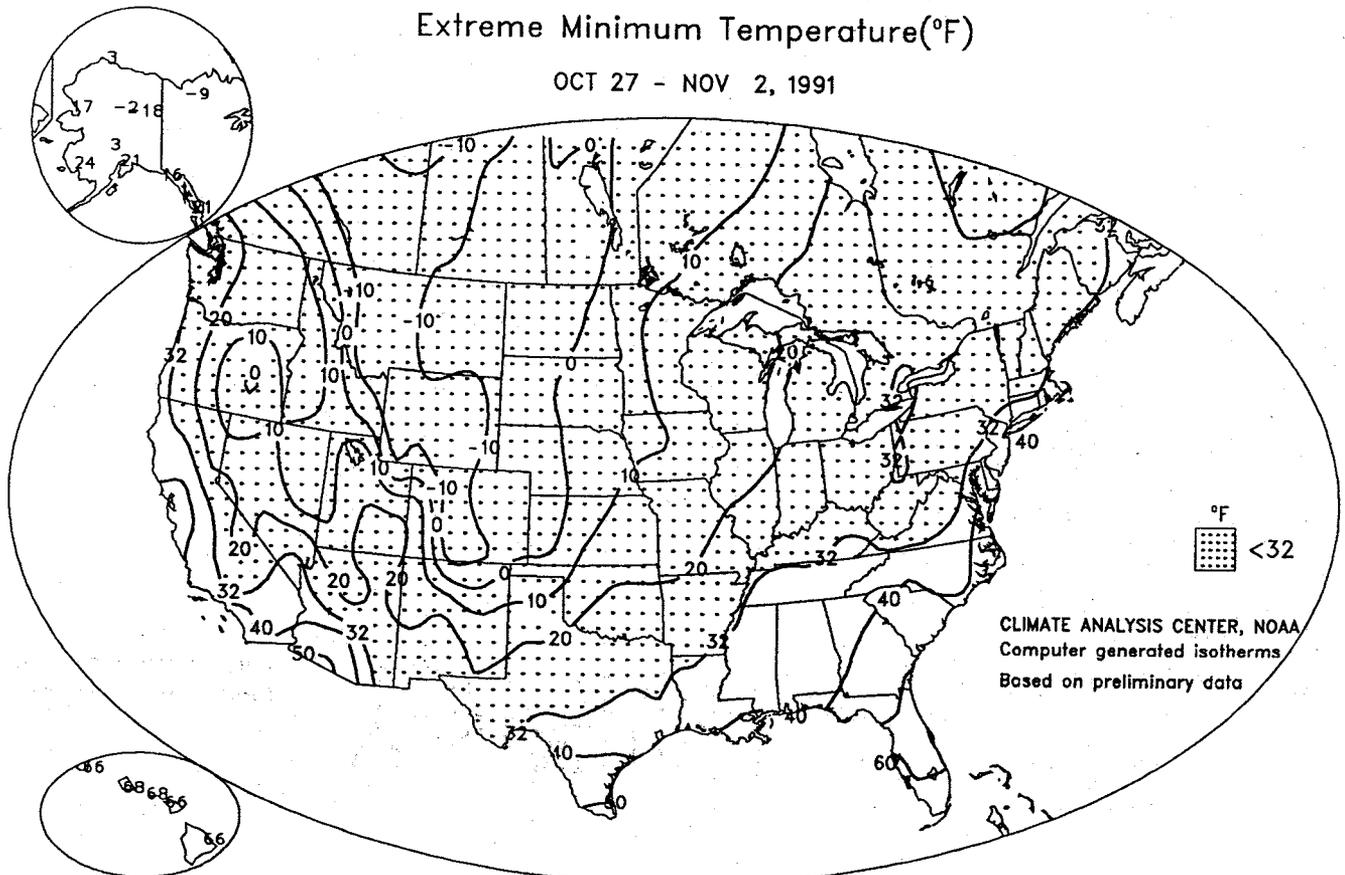
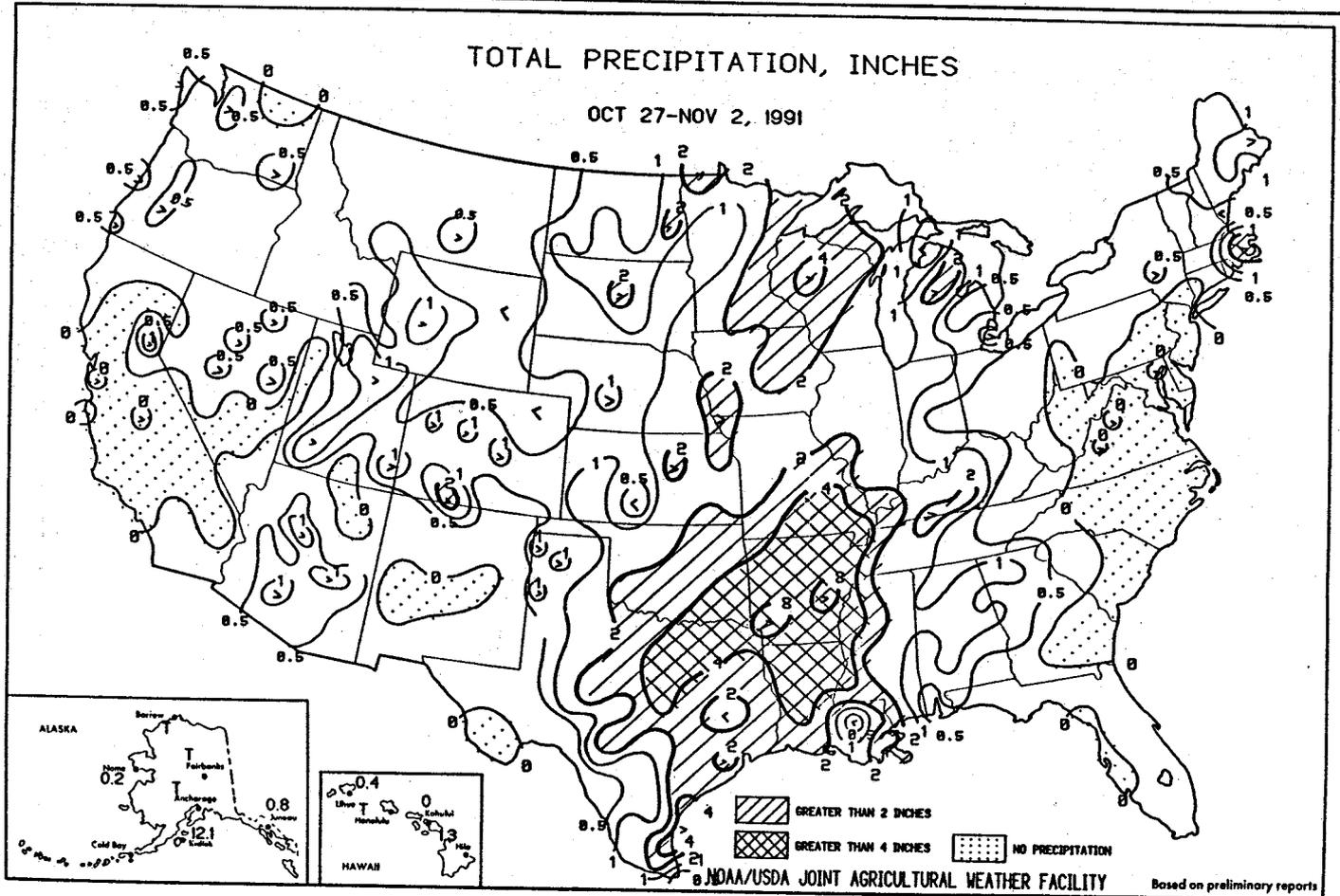
## HIGHLIGHTS

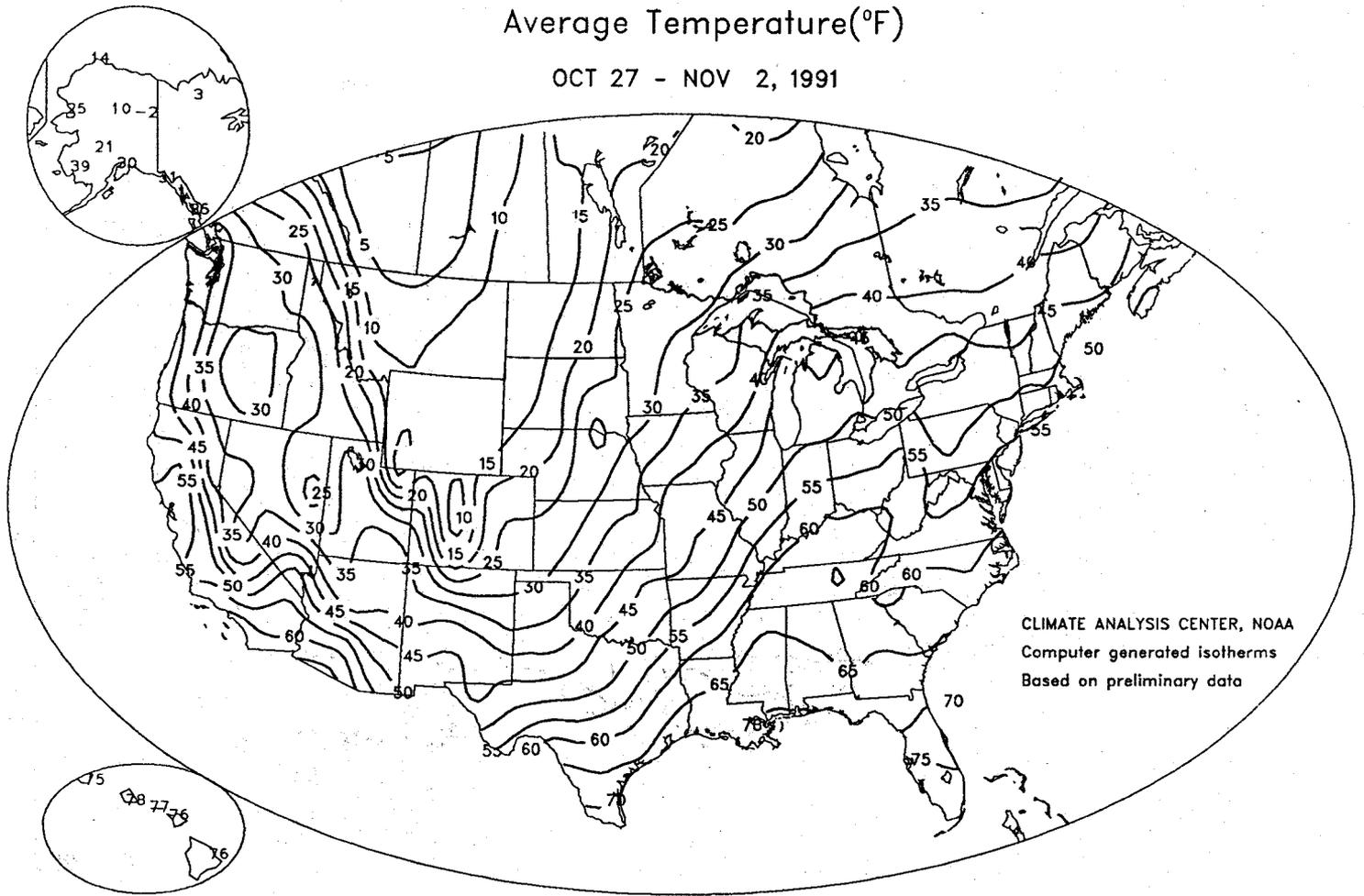
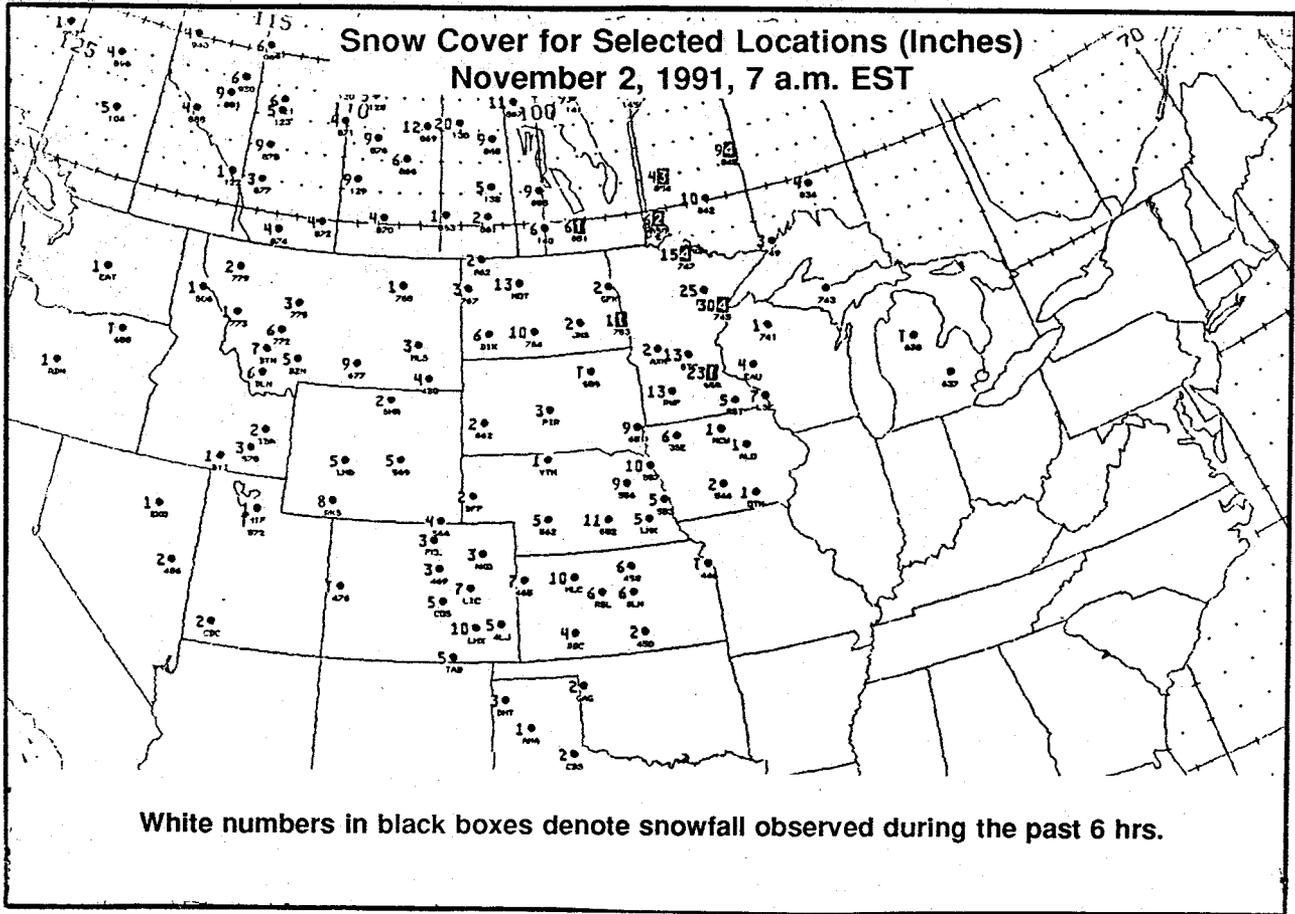
October 27 - November 2, 1991

A strong cold front drew arctic air deep into the **Plains**, setting the stage for a major snowstorm from **northern Texas** to the **western Great Lakes**, and for torrential rain from **eastern Texas** to **Missouri**. Meanwhile, a northeaster roiled Atlantic coastal waters, wreaking havoc on beachfront property in **New England**. The arctic front spread snow from the **Great Basin** to the **northern Plains**. Accumulations topped a foot in **western Montana**, while more than 6 inches of snow covered freezing rain in **western South Dakota**. Monday's maximum temperature of 17° F in **Alliance, NE**, was 55° lower than Sunday's (72° F). Cold, gusty winds swirled into the **Plains** and the **West**. Gusts reached 87 mph in **Roswell, NM**. But in the **East**, a few days of warmth lingered before the wintry chill arrived on Saturday. **Knoxville's (TN)** 85° F reading was among the 20 daily record highs established.  
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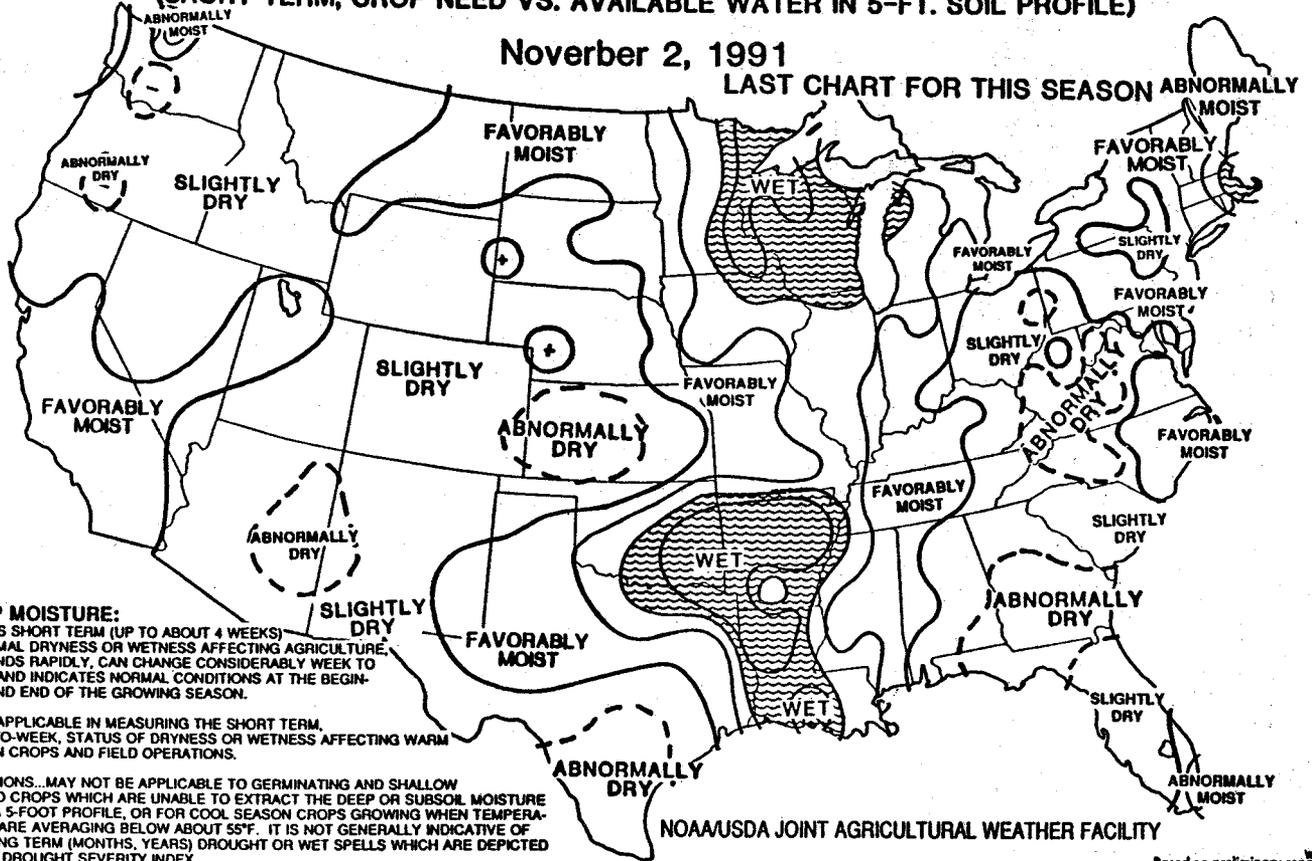


### CROP MOISTURE

(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)

November 2, 1991

LAST CHART FOR THIS SEASON



**CROP MOISTURE:**  
 DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE. RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK, AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

**USES.** APPLICABLE IN MEASURING THE SHORT TERM, WEEK-TO-WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS.

**LIMITATIONS.** MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

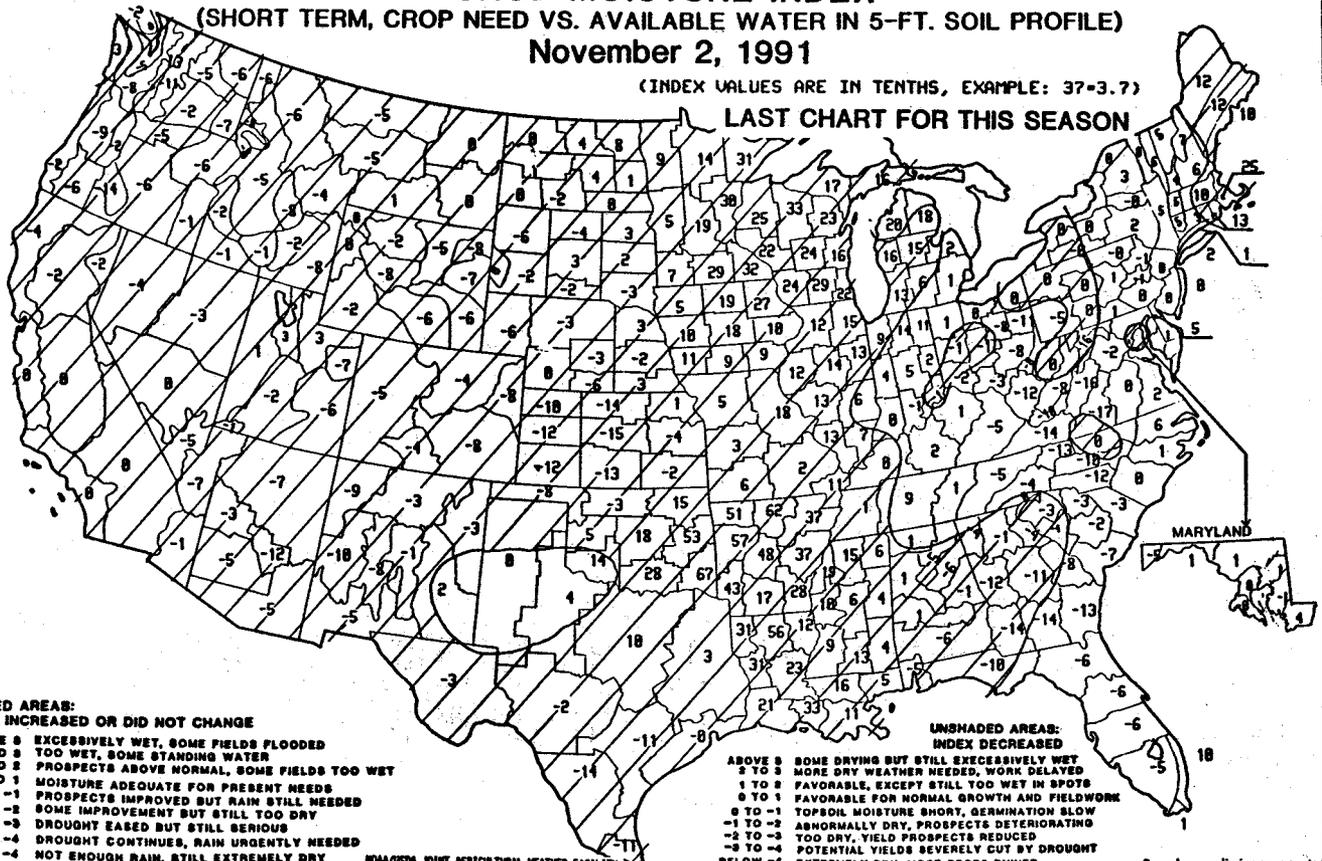
### CROP MOISTURE INDEX

(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)

November 2, 1991

(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)

LAST CHART FOR THIS SEASON

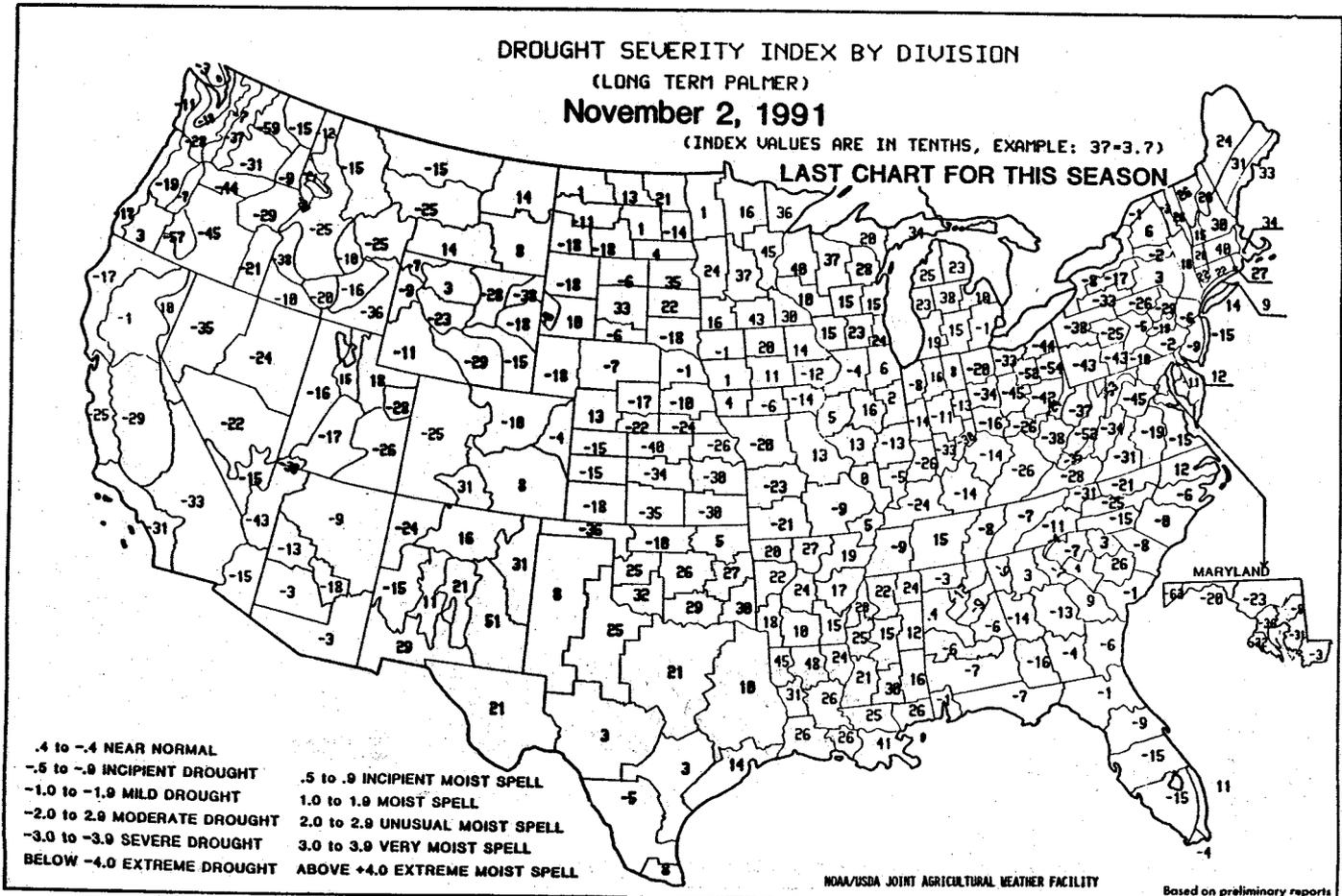
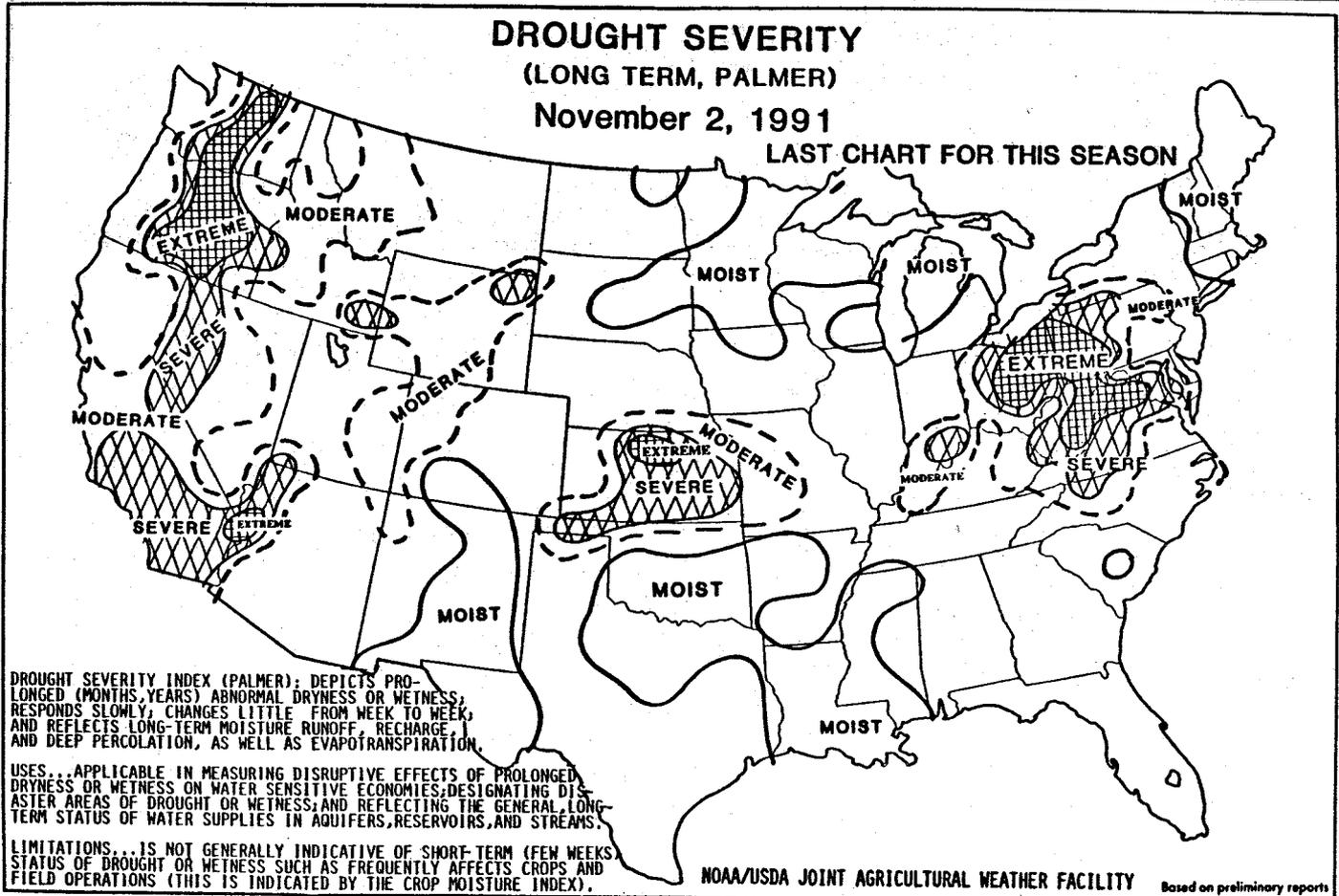


**SHADED AREAS:**  
**INDEX INCREASED OR DID NOT CHANGE**  
 ABOVE 8 EXCESSIVELY WET, SOME FIELDS FLOODED  
 5 TO 8 TOO WET, SOME STANDING WATER  
 1 TO 5 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET  
 0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS  
 0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED  
 -1 TO -2 SOME IMPROVEMENT BUT STILL TOO DRY  
 -2 TO -3 DROUGHT EASED BUT STILL SERIOUS  
 -3 TO -4 DROUGHT CONTINUES, RAIN URGENTLY NEEDED  
 BELOW -4 NOT ENOUGH RAIN, STILL EXTREMELY DRY

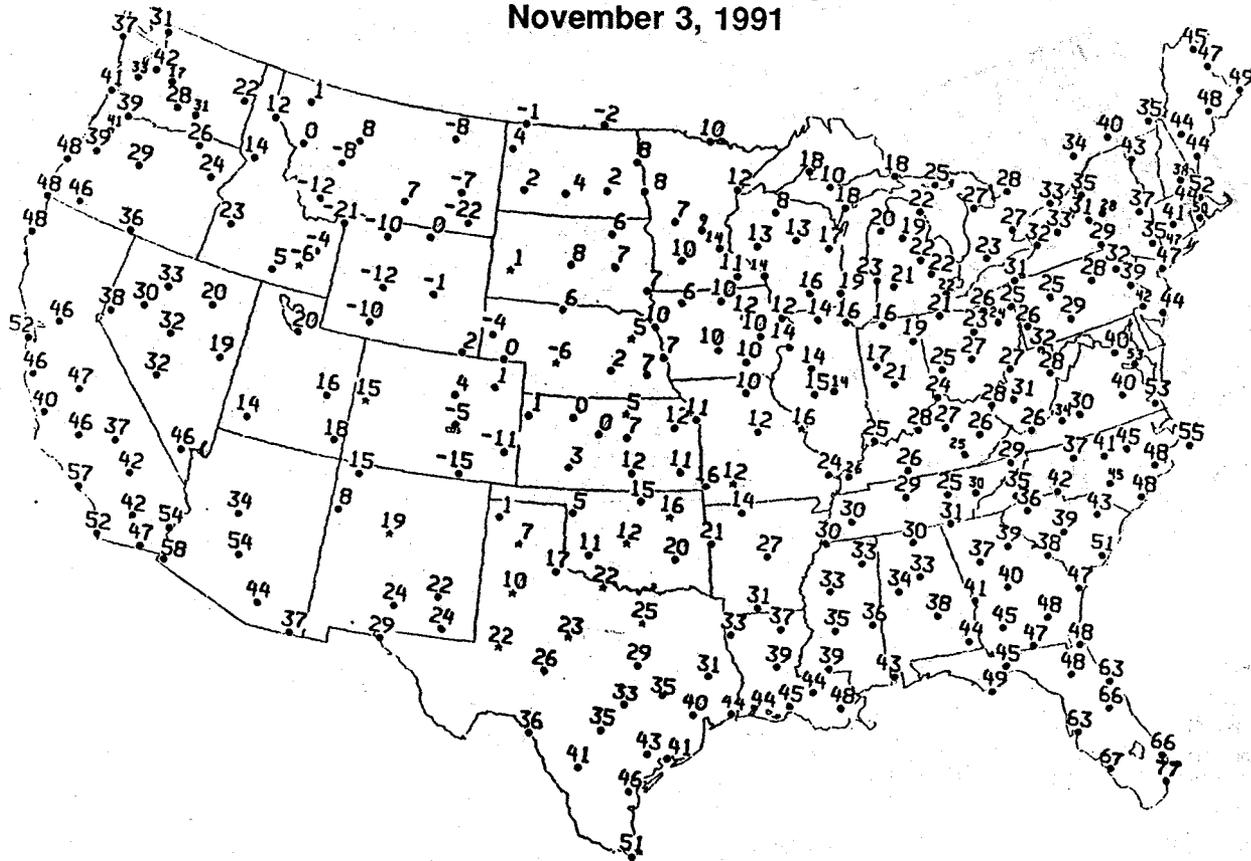
**UNSHADED AREAS:**  
**INDEX DECREASED**  
 ABOVE 8 SOME DRYING BUT STILL EXCESSIVELY WET  
 5 TO 8 MORE DRY WEATHER NEEDED, WORK DELAYED  
 1 TO 5 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS  
 0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK  
 0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW  
 -1 TO -2 ABNORMALLY DRY, PROSPECTS DETERIORATING  
 -2 TO -3 TOO DRY, YIELD PROSPECTS REDUCED  
 -3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT  
 BELOW -4 EXTREMELY DRY, MOST CROPS RUINED

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

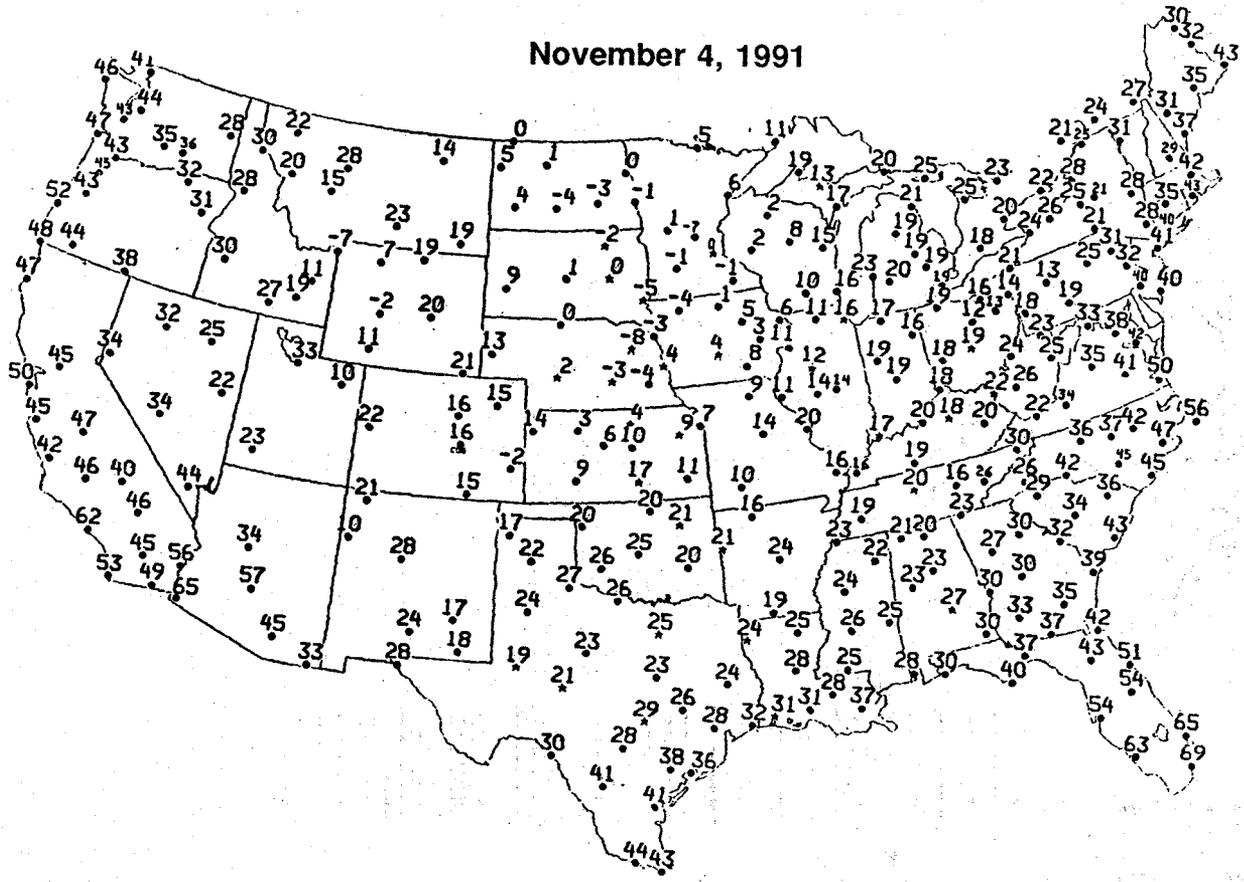
Based on preliminary reports



### Minimum Temperatures (° F) through 7 a.m. EST November 3, 1991



### November 4, 1991



NOTE: In some cases, actual minimum temperatures may be slightly lower due to additional cooling after 7 a.m. EST.

# National Weather Data for Selected Cities

Weather Data for the Week Ending November 2, 1991

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 Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE		.50 INCH OR MORE	
																		OR MORE	OR MORE		
AL BIRMINGHAM	75	54	85	35	64	7	1.2	.6	1.2	4.3	60	46.6	101	86	46	0	0	1	1		
MOBILE	77	59	82	37	68	4	1.2	.3	1.2	3.0	32	73.0	132	94	55	0	0	1	0		
MONTGOMERY	78	53	87	38	66	5	1.0	.5	1.0	5.6	78	57.2	138	93	47	0	0	1	0		
AK ANCHORAGE	35	27	39	21	31	2	T	T	T	5.4	127	14.0	109	91	70	0	0	1	0		
BARROW	21	8	26	4	14	7	T	T	T	.8	66	1.7	41	94	81	0	0	1	0		
FAIRBANKS	27	3	32	-2	15	0	T	T	T	1.9	98	7.9	88	93	61	0	0	1	0		
JUNEAU	34	23	37	17	29	-9	1.4	.2	1.4	23.5	162	65.0	148	90	57	0	0	2	2		
KODIAK	46	40	47	33	43	6	12.1	10.6	6.4	25.2	185	80.1	161	98	88	0	0	4	4		
NOME	38	32	42	26	35	13	1.2	.0	1.2	5.0	138	13.6	104	89	64	0	2	6	6		
AZ PHOENIX	69	49	76	46	59	-8	1.2	1.0	1.1	2.0	154	5.5	97	73	26	0	2	2	1		
PRESCOTT	53	28	65	22	40	-9	.3	.0	.3	1.9	68	11.6	73	75	30	0	6	2	1		
TUCSON	68	41	75	36	54	-11	.7	.5	.5	2.3	101	8.5	89	86	25	0	0	2	1		
YUMA	74	54	84	48	64	-6	.2	.1	.2	1.3	96	2.3	120	43	13	0	0	1	0		
AR FORT SMITH	56	44	74	25	50	-7	4.2	3.4	3.1	13.7	206	37.9	113	94	73	0	2	2	2		
LITTLE ROCK	62	49	73	27	56	-2	6.5	5.8	4.7	9.9	135	50.2	124	84	74	0	1	5	2		
CA BAKERSFIELD	67	43	74	40	55	-8	.0	.1	.0	1.3	69	4.9	113	85	31	0	0	0	0		
EUREKA	59	42	64	38	50	-3	.1	.1	.1	1.2	31	19.0	71	91	65	0	0	2	0		
FRESNO	66	43	72	41	54	-5	.1	.1	.1	.8	127	9.3	122	92	40	0	0	1	0		
LOS ANGELES	71	51	75	48	61	-3	.0	.0	.0	2.9	34	8.2	93	77	24	0	0	0	0		
REDDING	68	40	72	35	54	-7	.0	.8	.0	1.9	58	19.3	67	76	25	0	0	0	0		
SACRAMENTO	67	43	71	39	55	-4	T	T	T	1.3	106	14.0	117	82	30	0	0	0	0		
SAN DIEGO	70	53	73	48	61	-4	.2	.1	.2	1.0	173	11.8	174	78	32	0	0	1	0		
SAN FRANCISCO	66	50	71	45	58	0	T	T	T	1.8	132	13.1	95	83	38	0	0	0	0		
CO DENVER	33	12	72	1	22	-23	.5	.3	.3	1.6	73	17.6	128	87	55	0	6	5	0		
GRAND JUNCTION	40	25	60	19	33	-15	.6	.4	.2	3.6	220	7.7	114	93	48	0	6	0	0		
PUEBLO	35	14	75	-9	25	-23	.8	.6	.4	2.1	128	11.4	113	79	50	0	7	3	0		
CT BRIDGEPORT	61	48	67	37	55	3	T	T	T	5.4	79	33.4	98	79	56	0	0	1	0		
HARTFORD	60	44	72	32	52	4	.1	.8	.1	8.8	116	40.3	111	88	51	0	1	0	0		
DC WASHINGTON	67	47	74	37	57	3	T	.6	T	5.5	88	23.7	72	85	43	0	0	0	0		
FL APALACHICOLA	77	62	80	46	70	4	.1	.4	.1	2.9	24	88.7	182	92	62	0	0	1	0		
DAYTONA BEACH	81	62	84	50	72	2	T	.8	T	8.5	73	65.1	148	92	53	0	0	0	0		
JACKSONVILLE	79	57	84	50	68	2	T	.6	T	12.6	121	78.4	165	96	52	0	0	2	0		
KEY WEST	83	74	84	72	79	1	T	-1.0	T	12.5	109	40.4	117	84	61	0	0	0	0		
MIAMI	83	69	87	65	76	1	.3	.9	.3	32.8	212	70.1	132	87	51	0	0	2	0		
ORLANDO	82	63	87	55	73	2	T	.5	T	9.3	97	60.4	132	94	50	0	0	1	0		
TALLAHASSEE	80	55	88	45	68	4	.3	.3	.3	2.4	24	70.3	124	96	47	0	0	1	0		
TAMPA	83	63	87	56	73	2	T	.4	T	4.2	49	41.3	97	95	55	0	0	0	0		
WEST PALM BEACH	83	67	84	61	75	0	.4	.9	.3	14.0	81	73.2	135	88	53	0	0	3	0		
CA ATLANTA	72	53	83	38	63	5	.5	.1	.5	2.9	50	50.5	123	87	45	0	0	1	1		
AUGUSTA	76	48	87	42	62	3	.1	.3	.1	2.0	36	52.6	139	96	42	0	0	0	0		
MACON	77	53	86	41	65	5	T	.4	T	1.0	19	48.0	125	92	43	0	0	1	0		
SAVANNAH	77	55	83	49	66	4	T	.4	T	1.9	26	65.4	145	94	44	0	0	0	0		
HI HILO	84	68	86	66	76	1	1.3	-1.6	.5	14.6	83	131.0	130	97	64	0	0	3	1		
HONOLULU	87	70	89	68	79	1	.0	.6	.0	4.0	151	15.1	90	87	53	0	0	0	0		
KAHULUI	85	67	86	66	76	0	.0	.3	.0	1.3	108	10.6	79	89	62	0	0	0	0		
LIHUE	82	69	82	67	75	-1	.4	.8	.3	4.2	59	28.3	85	92	69	0	0	2	0		
ID BOISE	39	26	43	16	33	-14	.1	.1	.1	1.2	88	7.5	83	91	46	0	7	2	0		
LEWISTON	38	26	41	18	32	-14	.1	.2	.1	.4	21	8.9	85	87	51	0	6	2	0		
POCATELLO	33	14	39	-4	24	-19	.6	.3	.3	1.7	106	12.1	136	88	52	0	7	4	0		
IL CHICAGO	54	40	70	18	47	-1	1.5	1.1	.8	10.3	165	30.7	103	94	79	0	2	6	1		
MOLINE	52	36	68	15	44	-3	1.7	1.2	.9	9.2	141	28.5	86	94	76	0	2	7	1		
PEORIA	53	37	70	16	45	-2	1.8	1.3	.7	11.5	183	31.1	100	97	83	0	2	5	2		
QUINCY	53	36	69	15	44	-5	1.4	.8	.6	10.5	138	33.1	97	93	77	0	3	4	2		
ROCKFORD	51	36	68	17	44	-2	1.5	.9	.5	9.9	146	26.9	83	93	77	0	2	5	1		
SPRINGFIELD	56	40	70	20	48	-2	1.9	1.4	.7	11.3	191	33.8	112	96	82	0	2	5	2		
IN EVANSVILLE	65	51	80	27	58	6	1.6	.9	.9	5.8	108	25.4	73	95	66	0	1	5	1		
FORT WAYNE	62	44	78	24	52	5	1.4	.8	.8	11.4	217	39.8	135	92	73	0	1	4	1		
INDIANAPOLIS	59	48	79	25	55	6	.3	.3	.2	6.8	125	32.3	98	92	68	0	1	4	0		
SOUTH BEND	56	42	73	21	49	2	1.2	.5	.8	11.7	178	32.2	100	90	73	0	2	3	1		
IA DES MOINES	45	31	69	11	38	-9	2.2	1.8	1.5	6.3	119	34.5	122	90	66	0	5	4	1		
SIOUX CITY	38	24	65	9	31	-15	1.1	.8	.6	4.3	99	22.7	95	94	70	0	6	5	1		
WATERLOO	46	31	67	14	38	-6	3.1	2.6	1.5	8.9	152	38.9	129	92	74	0	5	4	2		
KS CONCORDIA	41	25	77	8	33	-17	1.6	1.3	1.2	1.9	38	17.0	67	88	55	0	6	4	1		
DODGE CITY	39	22	76	4	30	-21	.7	.5	.3	1.5	49	8.6	45	92	59	0	6	5	0		
GOODLAND	35	16	75	1	26	-20	.9	.7	.4	1.6	70	20.7	137	89	61	0	6	3	0		
TOPEKA	48	33	75	14	40	-11	2.9	2.3	1.5	5.5	85	24.7	81	88	57	0	4	2	0		
WICHITA	45	30	77	14	37	-15	1.0	.5	.7	3.1	51	22.3	85	89	52	0	5	2	1		
KY BOWLING GREEN	68	52	80	30	60	8	1.8	1.1	1.5	7.0	112	38.3	94	96	62	0	1	2	1		
LEXINGTON	68	52	77	29	60	9	.7	.8	.7	4.8	84	33.3	86	90	54	0	1	2	1		
LOUISVILLE	70	54	81	30	62	10	1.5	.8	1.2	5.3	87	31.4	86	90	55	0	1	2	1		
LA ALEXANDRIA	72	58	84	35	65	3	5.3	4.5	2.6	7.9	128	67.0	154	94	62	0	0	5	2		
BATON ROUGE	74	61	84	36	68	4	.4	.2	.2	9.0	124	66.1	141	94	66	0	0	4	0		
LAKE CHARLES	75	58	87	38	67	2	3.4	2.6	2.5	7.0	73	65.0	144	96	64	0	0	3	2		
NEW ORLEANS	77	64	83	43	70	6	1.7	1.1	.9	5.5	63	97.8	194	92	65	0	0	6	1		

Based on 1951-80 normals

Weather Data for the Week Ending November 2, 1991

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 Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																			.01 INCH OR MORE	.50 INCH OR MORE		
SHREVEPORT	71	54	87	33	62	1	3.3	2.7	2.4	7.0	114	70.5	194	95	62	0	0	0	4	2	0	0
ME CARIBOU	47	36	50	25	41	3	3	2.7	2.4	8.0	117	31.7	105	87	60	0	0	3	4	0	0	0
PORTLAND	55	41	63	31	48	4	2	1.8	1.1	8.3	113	48.8	142	85	56	0	0	2	5	0	0	0
MD BALTIMORE	66	45	70	34	56	4	1	1.7	1.1	6.3	93	24.5	69	88	41	0	0	0	1	0	0	0
SALISBURY	66	45	78	34	56	3	0	1.8	1.0	7.1	90	39.5	102	91	46	0	0	0	0	0	0	0
MA BOSTON	58	46	75	34	52	2	2.7	1.9	1.6	11.6	166	36.6	104	90	58	0	0	0	3	2	0	0
CHATHAM	55	48	60	40	51	1	2.6	1.7	1.1	9.1	118	31.4	84	93	73	0	0	0	6	2	1	0
MT ALPENA	52	40	57	23	46	3	2.0	1.5	1.8	9.0	169	31.1	125	89	65	0	0	1	3	1	0	0
DETROIT	58	45	64	27	52	5	1.8	1.3	1.4	5.2	116	25.3	97	86	54	0	0	1	4	0	0	0
FLINT	57	42	64	25	49	4	1.5	1.0	1.3	4.3	94	26.7	107	89	58	0	0	1	3	0	0	0
GRAND RAPIDS	55	41	70	22	48	2	1.5	1.0	1.0	8.9	147	36.3	128	93	68	0	0	1	5	1	1	0
HOUGHTON LAKE	51	38	60	24	45	3	2.5	2.0	2.2	13.0	250	34.0	142	92	67	0	0	1	5	1	1	0
LANSING	55	41	66	23	48	3	3	1.1	1.2	5.0	101	25.8	103	94	65	0	0	1	2	0	0	0
MARQUETTE	44	31	53	14	38	0	1.6	1.0	1.1	8.3	112	30.2	94	99	82	0	0	3	5	1	0	0
MUSKOGON	56	41	70	23	49	3	1.7	1.1	1.2	10.9	185	35.5	136	86	65	0	0	1	4	1	1	0
SAULT ST. MARIE	49	35	54	19	42	2	1.8	1.1	1.4	10.4	149	27.7	100	91	74	0	0	1	4	0	0	0
MN ALEXANDRIA	34	22	57	9	28	-11	1.9	1.5	1.7	5.3	123	27.1	119	96	76	0	0	5	4	1	1	0
DULUTH	36	25	56	13	31	-7	2.6	2.1	1.1	13.2	238	38.9	146	92	74	0	0	5	5	2	2	0
INT'L FALLS	37	22	55	11	30	-6	1.3	1.0	1.0	7.2	145	25.9	118	93	67	0	0	5	4	2	2	0
MINNEAPOLIS	42	28	65	15	35	-7	3.2	2.9	1.9	10.0	225	32.3	134	91	72	0	0	5	6	2	2	0
ROCHESTER	41	27	64	12	34	-8	3.4	3.0	2.3	6.6	113	31.8	122	96	77	0	0	5	5	3	2	0
MS GREENWOOD	73	57	80	32	65	6	2.5	1.8	1.6	6.7	105	56.2	130	95	59	0	0	1	2	2	2	0
JACKSON	75	58	82	34	67	7	1.2	1.1	1.1	6.4	105	55.4	130	96	60	0	0	0	0	1	1	0
MERIDIAN	75	57	82	36	66	7	1.8	1.2	1.7	7.8	123	62.3	141	90	51	0	0	0	2	1	1	0
MO CAPE GIRARDEAU	65	49	78	28	57	-1	3.6	3.0	1.1	8.1	128	36.2	97	95	68	0	0	1	4	2	4	0
COLUMBIA	54	37	72	16	45	-6	2.4	1.8	1.0	7.4	102	29.3	90	92	74	0	0	3	6	4	2	0
KANSAS CITY	50	34	75	12	42	-11	1.3	1.0	1.1	5.9	76	24.7	74	90	61	0	0	4	4	2	2	0
SAINT LOUIS	57	42	74	23	50	-2	2.2	1.6	1.8	9.4	182	28.9	99	92	74	0	0	2	5	1	2	0
SPRINGFIELD	51	38	71	16	44	-8	2.6	1.9	1.5	7.3	96	30.3	88	95	75	0	0	2	2	2	2	0
MT BILLINGS	21	5	32	-7	13	-30	1.8	1.5	1.5	4.4	179	19.5	146	82	56	0	0	7	4	4	4	0
GLASGOW	20	2	32	-6	11	-28	1.1	1.1	1.1	7	50	10.4	102	85	55	0	0	7	2	0	0	0
GREAT FALLS	18	-5	32	-16	7	-35	1.1	1.1	1.1	1.8	98	13.2	97	87	60	0	0	7	4	0	0	0
HAVRE	15	-9	27	-21	3	-36	1.1	1.1	1.1	4	25	8.9	82	91	63	0	0	7	0	0	0	0
HELENA	19	1	25	-13	10	-29	1.2	1.1	1.2	1.9	126	10.3	100	85	54	0	0	7	2	0	0	0
KALISPELL	26	10	32	-4	18	-19	1.1	1.1	1.1	1.5	71	12.3	95	80	50	0	0	7	2	0	0	0
MILES CITY	20	4	35	-8	12	-29	1.2	1.1	1.1	4.3	209	19.5	150	81	58	0	0	7	3	0	0	0
MISSOULA	29	15	34	0	22	-17	1.2	1.1	1.1	6	32	9.1	82	79	45	0	0	7	3	0	0	0
NE GRAND ISLAND	37	20	76	4	28	-18	1.6	1.5	1.8	2.7	73	26.4	122	90	64	0	0	6	4	2	2	0
LINCOLN	41	25	74	9	33	-14	1.8	1.5	1.1	3.1	65	21.2	84	89	56	0	0	6	3	2	2	0
NORFOLK	36	20	70	5	29	-16	1.4	1.1	1.6	3.7	107	26.4	118	92	67	0	0	6	4	1	1	0
NORTH PLATTE	34	13	67	-1	24	-20	1.6	1.4	1.1	3.9	150	18.9	103	92	63	0	0	6	3	1	1	0
OMAHA	40	28	70	9	34	-14	2.2	1.8	1.4	5.2	92	33.9	120	90	67	0	0	5	3	2	2	0
SCOTTSBLUFF	30	5	70	-6	18	-26	1.7	1.5	1.6	2.1	112	13.6	100	89	54	0	0	7	3	1	1	0
VALENTINE	28	8	69	-2	19	-24	1.9	1.7	1.9	2.1	91	20.6	126	92	68	0	0	6	2	1	1	0
NV RLY	34	10	46	-3	22	-18	1.6	1.5	1.4	2.3	174	9.3	122	93	65	0	0	7	4	0	0	0
LAS VEGAS	62	42	70	36	52	-9	1.1	1.0	1.1	1	21	3.5	105	45	18	0	0	0	2	0	0	0
RENO	53	27	65	21	40	-5	1.1	1.1	1.1	1.8	146	4.1	76	78	27	0	0	6	0	0	0	0
WINNEMUCCA	43	25	54	17	34	-10	1.1	1.1	1.1	1.4	150	6.4	104	91	49	0	0	7	1	0	0	0
NH CONCORD	58	38	73	23	48	5	1.1	1.1	1.1	8.8	137	31.0	104	90	53	0	0	3	3	0	0	0
NJ ATLANTIC CITY	64	45	73	34	55	3	1.1	1.1	1.1	4.0	65	29.9	86	85	45	0	0	0	0	0	0	0
NM ALBUQUERQUE	51	27	69	21	39	-13	1.3	1.1	1.2	1.7	101	8.2	116	79	36	0	0	6	2	0	0	0
CLOVIS	44	24	72	13	34	-19	1.3	1.1	1.2	3.9	103	20.1	125	94	50	0	0	5	3	0	0	0
ROSWELL	54	30	78	15	42	-12	1.1	1.1	1.1	4.2	148	17.7	178	83	37	0	0	4	2	0	0	0
NY ALBANY	58	39	75	29	49	3	1.1	1.1	1.1	7.2	113	28.1	95	86	48	0	0	2	1	0	0	0
BINGHAMTON	60	37	73	29	49	5	1.3	1.4	1.3	4.3	65	26.2	85	86	44	0	0	1	1	0	0	0
BUFFALO	60	39	69	30	50	3	1.2	1.5	1.2	6.4	100	32.5	107	89	48	0	0	1	2	0	0	0
NEW YORK	63	49	74	38	56	3	1.2	1.8	1.8	4.8	69	33.0	93	82	49	0	0	0	0	0	0	0
ROCHESTER	56	37	69	27	46	0	1.2	1.6	1.6	4.5	84	23.9	91	92	52	0	0	2	1	0	0	0
SYRACUSE	61	34	75	25	47	0	1.2	1.6	1.1	6.9	104	31.2	96	94	48	0	0	2	2	0	0	0
NC ASHEVILLE	70	44	80	36	57	5	1.1	1.6	1.1	1.6	22	35.6	94	89	35	0	0	0	1	0	0	0
CHARLOTTE	74	50	85	42	62	6	1.2	1.6	1.6	2.2	34	39.4	107	83	35	0	0	0	0	0	0	0
GREENSBORO	73	44	81	34	58	5	1.2	1.6	1.6	5.6	80	37.3	102	81	34	0	0	0	0	0	0	0
HATTERAS	69	58	79	53	63	3	1.0	1.1	1.0	9.3	85	58.9	126	82	59	0	0	0	0	0	0	0
NEW BERN	74	51	83	40	62	3	1.0	1.7	1.0	8.2	88	45.1	97	94	45	0	0	0	0	0	0	0
RALEIGH	73	45	82	35	59	4	1.2	1.6	1.6	4.6	74	32.1	90	91	40	0	0	0	0	0	0	0
WILMINGTON	75	49	83	40	62	2	1.2	1.6	1.6	4.2	48	52.3	111	92	43	0	0	0	0	0	0	0
ND BISMARCK	23	7	51	-10	15	-24	1.5	1.3	1.6	5.0	227	16.0	113	93	77	0	0	7	5	2	2	0
FARGO	34	21	53	9	28	-11	1.8	1.5	1.6	2.1	66	20.2	112	90	71	0	0	5	4	1	1	0
GRAND FORKS	31	17	51	6	24	-13	1.5	1.3	1.0	5.6	173	20.9	124	91	73	0	0	5	6	5	1	0
WILLISTON	22	6	46	-3	14	-24	1.1	1.0	1.1	3.1	150	17.0	136	83	60	0	0	7	3	0	0	0
OH AKRON-CANTON	65	42	74	26	54	6	1.1	1.4	1													

Weather Data for the Week Ending November 2, 1991

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 Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	NUMBER OF DAYS		
													90 AND ABOVE					32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	63	48	79	28	56	7	.2	-.3	.2	4.9	109	31.6	107	88	55	0	1	2	0	0
TOLEDO	59	45	71	26	52	6	.7	-.3	.5	6.4	140	23.7	89	93	62	0	1	3	0	0
YOUNGSTOWN	66	40	73	28	53	6	T	-.6	T	4.1	70	21.3	67	83	34	0	1	0	0	0
OK OKLAHOMA CITY	48	35	76	19	42	-15	2.5	2.0	1.4	15.9	253	35.9	127	90	56	0	4	6	2	2
TULSA	52	39	75	21	46	-11	2.6	2.0	1.7	11.3	142	27.0	78	93	63	0	3	5	2	2
OR ASTORIA	50	36	53	31	43	-7	.4	-1.4	.3	2.5	25	40.2	83	93	60	0	1	4	4	0
BURNS	35	19	44	-3	27	-15	T	-.2	T	.2	15	4.6	61	94	58	0	7	0	0	0
MEDFORD	58	32	64	26	45	-4	.1	-.4	.1	.4	15	11.0	82	99	43	0	4	3	0	0
PENDLETON	36	27	43	18	32	-15	.5	-.2	.2	.9	58	10.1	113	90	68	0	6	5	0	0
PORTLAND	49	36	52	27	42	-8	.2	-.7	.2	1.5	31	22.9	89	89	51	0	1	2	0	0
SALEM	51	34	55	27	43	-6	.3	-.2	.2	1.7	34	23.7	86	90	54	0	2	2	0	0
PA ALLENTOWN	64	41	70	26	53	4	.0	-.7	.0	5.9	81	28.4	77	84	39	0	2	0	0	0
KRIE	62	42	70	33	52	4	.1	-.7	.1	6.3	80	25.4	77	83	42	0	0	2	0	0
HARRISBURG	64	44	74	31	54	4	.0	-.6	.0	4.6	70	26.3	80	79	40	0	1	0	0	0
PHILADELPHIA	65	48	72	41	57	5	.0	-.7	.0	5.2	81	30.8	89	78	42	0	0	0	0	0
PITTSBURGH	69	43	75	31	56	8	T	-.6	T	4.0	75	26.4	84	77	31	0	1	0	0	0
SCRANTON	62	38	71	26	50	4	T	-.7	T	5.0	80	23.7	80	82	40	0	2	0	0	0
RI PROVIDENCE	59	46	72	35	53	4	1.1	-.2	.5	8.1	107	38.2	104	90	55	0	0	0	3	1
SC CHARLESTON	78	52	83	47	65	4	T	-.5	T	3.1	38	46.4	100	90	39	0	0	0	0	0
COLUMBIA	76	47	87	40	62	3	.1	-.4	.1	3.1	45	58.5	135	96	40	0	0	0	0	0
FLORENCE	78	49	86	41	63	4	.0	-.5	.0	3.0	46	39.6	102	91	33	0	0	0	0	0
GREENVILLE	73	47	85	39	60	4	.2	-.5	.2	1.9	22	43.2	98	92	36	0	0	0	1	0
SD ABERDEEN	32	16	60	8	24	-16	1.0	.9	1.0	1.6	65	22.6	136	88	67	0	6	3	1	1
HURON	34	19	65	7	26	-15	.8	.6	.8	2.9	105	22.5	130	87	65	0	6	1	1	1
RAPID CITY	24	5	51	-2	15	-28	.4	.2	.3	1.6	86	16.5	109	86	60	0	7	2	0	0
SIOUX FALLS	34	20	60	6	27	-15	1.7	1.5	.8	5.8	133	25.7	115	96	78	0	6	6	2	2
TN CHATTANOOGA	73	49	84	35	61	6	.8	-.1	.8	3.4	46	43.9	101	93	42	0	0	0	1	0
KNOXVILLE	73	52	85	34	62	8	.1	-.6	.1	4.4	74	43.0	110	88	45	0	0	0	1	0
MEMPHIS	69	55	82	31	62	5	2.4	1.8	1.3	6.1	99	48.8	115	93	63	0	1	6	1	1
NASHVILLE	71	54	83	33	62	8	.8	-.2	.6	9.6	148	36.4	90	91	52	0	0	2	1	1
TX ABILENE	53	39	77	25	46	-14	2.1	1.7	1.4	8.5	154	26.7	126	91	58	0	4	5	2	0
AMARILLO	41	24	65	10	32	-21	.6	.4	.3	2.7	85	13.0	73	92	57	0	6	4	0	0
AUSTIN	67	50	86	36	58	-6	1.9	1.2	.9	5.3	75	37.2	137	88	61	0	0	0	4	2
BEAUMONT	76	59	88	38	68	2	3.6	2.8	2.9	10.8	116	65.9	143	94	62	0	0	0	3	2
BROWNSVILLE	81	65	90	52	73	1	T	-.5	T	8.9	100	29.3	129	91	60	1	0	0	2	0
CORPUS CHRISTI	74	60	89	43	67	-3	1.5	1.1	.7	10.2	108	37.9	133	91	66	0	0	0	2	0
DEL RIO	70	53	89	37	61	-4	.2	-.2	.2	7.2	143	17.6	110	77	39	0	0	0	0	0
EL PASO	66	39	76	30	53	-6	.2	.1	.1	2.0	96	8.4	121	84	27	0	2	3	0	0
FORT WORTH	56	44	72	28	50	-12	6.9	6.3	3.5	13.9	212	43.7	160	91	70	0	1	4	4	4
GALVESTON	74	59	84	33	67	-2	2.3	1.7	1.6	7.8	87	52.7	155	89	65	0	0	0	4	2
HOUSTON	75	54	90	34	64	-1	2.3	1.5	1.3	5.3	58	46.7	119	95	58	3	0	0	4	4
LUBBOCK	47	31	71	19	39	-16	.6	.3	.4	7.4	189	20.7	125	96	56	0	5	4	0	0
MIDLAND	55	36	82	24	46	-13	.6	.4	.6	4.5	129	20.7	166	86	46	0	4	4	3	1
SAN ANGELO	56	41	79	28	49	-12	3.3	3.0	2.1	8.1	157	20.1	122	97	60	0	4	0	5	0
SAN ANTONIO	70	52	87	37	61	-4	.8	-.3	.4	2.3	34	28.4	112	89	55	0	0	0	3	0
VICTORIA	73	55	89	38	64	-4	3.1	2.6	2.9	6.2	64	49.6	152	95	59	0	0	0	4	1
WACO	60	46	81	31	53	-10	3.1	2.4	1.3	7.4	116	35.5	132	93	67	0	1	4	3	1
WICHITA FALLS	53	38	80	24	46	-13	2.4	2.0	1.4	12.2	200	28.2	117	95	58	0	4	5	2	2
UT CEDAR CITY	37	17	48	5	27	-19	1.2	1.0	.8	2.9	166	10.7	123	92	62	0	7	4	1	1
SALT LAKE CITY	40	27	43	21	33	-13	1.2	1.0	1.0	4.8	233	15.4	122	86	48	0	5	3	1	0
VT BURLINGTON	53	34	70	24	43	0	.3	-.3	.3	10.2	165	29.7	104	97	63	0	4	1	0	0
VA NORFOLK	66	53	81	48	59	2	T	-.7	T	6.7	85	38.7	99	87	56	0	0	0	0	0
RICHMOND	71	44	78	33	57	3	.0	-.8	.0	5.2	69	30.6	82	91	42	0	0	0	0	0
ROANOKE	72	41	82	29	56	4	T	-.7	T	.2	3	30.7	91	78	28	0	1	0	0	0
WA QUILLAYUTE	46	34	50	27	40	-7	.9	-.8	.4	3.1	18	70.2	92	97	67	0	4	4	0	0
SEATTLE-TACOMA	47	37	51	30	42	-7	.2	-.8	.2	1.3	23	26.8	100	84	44	0	1	4	0	0
SPOKANE	34	17	38	10	26	-16	T	-.3	T	.4	19	10.1	83	79	47	0	7	1	0	0
YAKIMA	40	25	49	16	33	-12	.4	-.2	.2	.9	99	6.2	110	93	47	0	7	4	0	0
WV BECKLEY	68	46	78	29	57	10	T	-.6	T	3.4	53	29.8	82	75	35	0	1	1	0	0
CHARLESTON	72	49	81	32	61	10	T	-.6	T	6.6	114	31.6	87	72	35	0	1	0	0	0
HUNTINGTON	72	51	80	32	61	10	.1	-.5	.1	3.3	59	30.2	86	80	38	0	1	1	0	0
PARKERSBURG	70	46	76	29	58	7	T	-.5	T	5.1	95	35.3	108	83	35	0	1	0	0	0
WI GREEN BAY	47	34	60	17	41	-6	1.2	.8	.8	6.3	118	22.7	92	91	71	0	4	5	1	1
LACROSSE	45	31	65	16	38	-7	3.4	3.0	1.9	5.0	90	30.6	111	89	70	0	5	4	2	1
MADISON	49	34	67	17	42	-2	1.8	1.3	.8	10.1	186	34.2	125	94	77	0	3	6	1	1
MILWAUKEE	51	39	64	19	45	0	1.3	.8	.5	11.8	227	34.5	128	89	76	0	1	6	0	0
WAUSAU	43	29	61	14	36	-5	2.9	2.5	1.5	8.1	129	33.7	117	98	80	0	5	6	1	1
WY CASPER	24	3	56	-14	14	-27	.5	.3	.2	1.1	65	11.0	109	84	52	0	7	6	0	0
CHEYENNE	25	3	59	-7	14	-27	.3	.2	.1	2.4	133	17.7	143	87	54	0	7	4	0	0
LANDER	22	4	52	-12	13	-26	1.2	1.0	.5	1.9	91	12.6	107	94	62	0	7	4	1	1
SHERIDAN	20	2	33	-11	11	-29	.1	-.1	.1	2.3	97	13.0	96	90	67	0	7	2	0	0

Based on 1951-80 normals

## October Weather Summary

Most of October's weather highlights were generated by winter-like storms that blasted through the Western and Central States after the 22nd. Until that time, a relatively stable atmospheric pattern kept the West very warm and dry and the East cool, with substantial precipitation falling only in the Nation's northeastern quadrant and in Florida.

Significant storminess occurred only twice before the 23rd. Both times, storm centers dove southeastward out of Canada and tapped subtropical moisture, spreading rain from the Midwest to New England and along the Atlantic coastline. The first low-pressure center deposited more than 4 inches of rain in a band from Missouri to Michigan between the 2nd and the 5th. Excessive rainfall, locally topping 10 inches, inundated northeastern Florida on the 1st, followed by additional downpours on the 5th. Florida rains shifted to the Miami area thereafter, where heavy rain fell from the 7th to the 9th and on a half-dozen days between the 14th and the 25th, causing considerable flooding. The second Canadian storm delivered its heaviest rain from the Middle Atlantic States to New England.

With the lack of storminess in the East, a large swath from the Panhandle of Florida to western Pennsylvania had less than 50 percent of the normal rainfall for the month. The central and southern Appalachians were especially dry, contributing to the ignition of numerous forest fires by late October. In the Western and Central States, precipitation during the last week of the month quashed the threat of wildfires and eased long-term dryness.

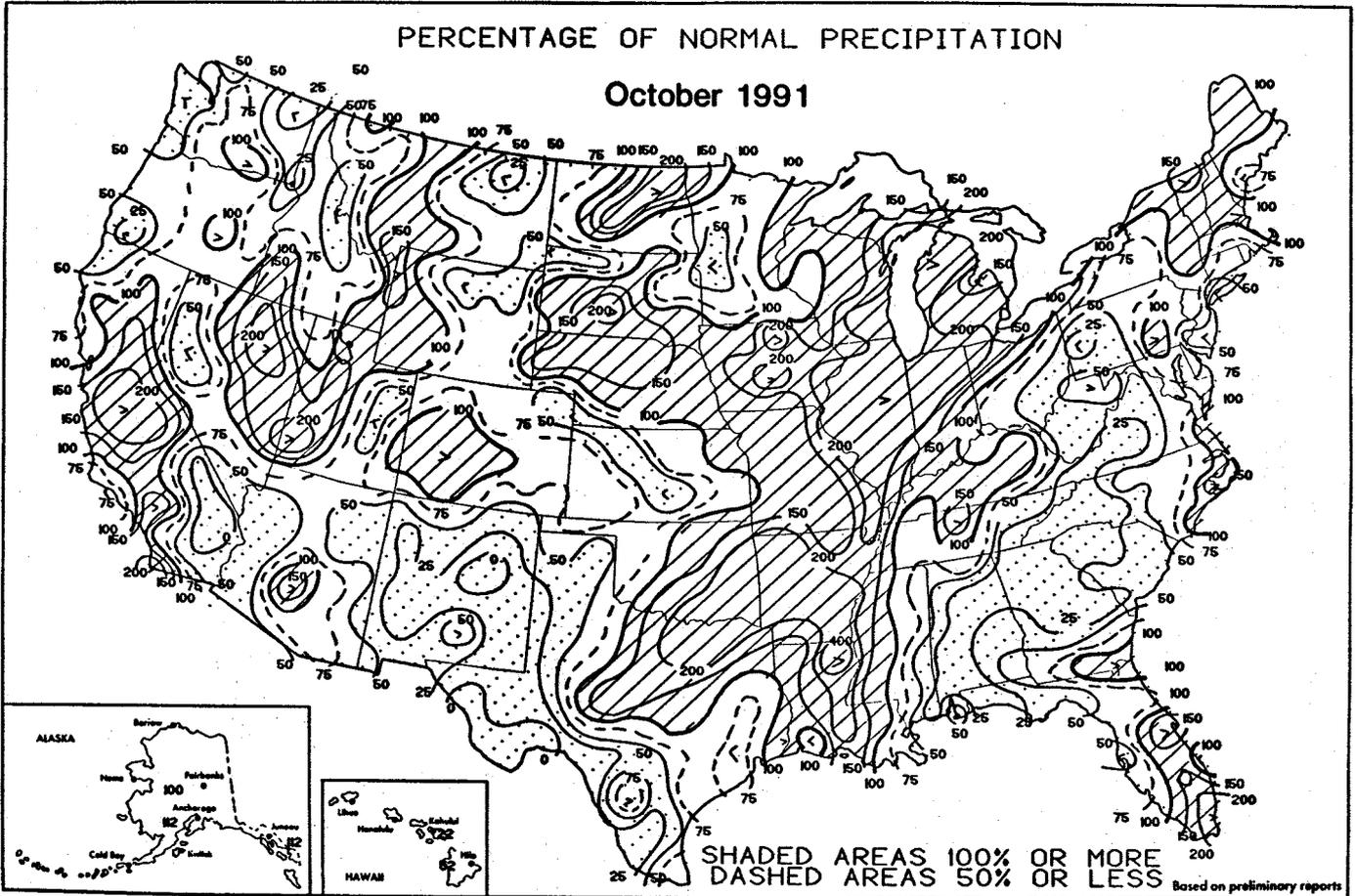
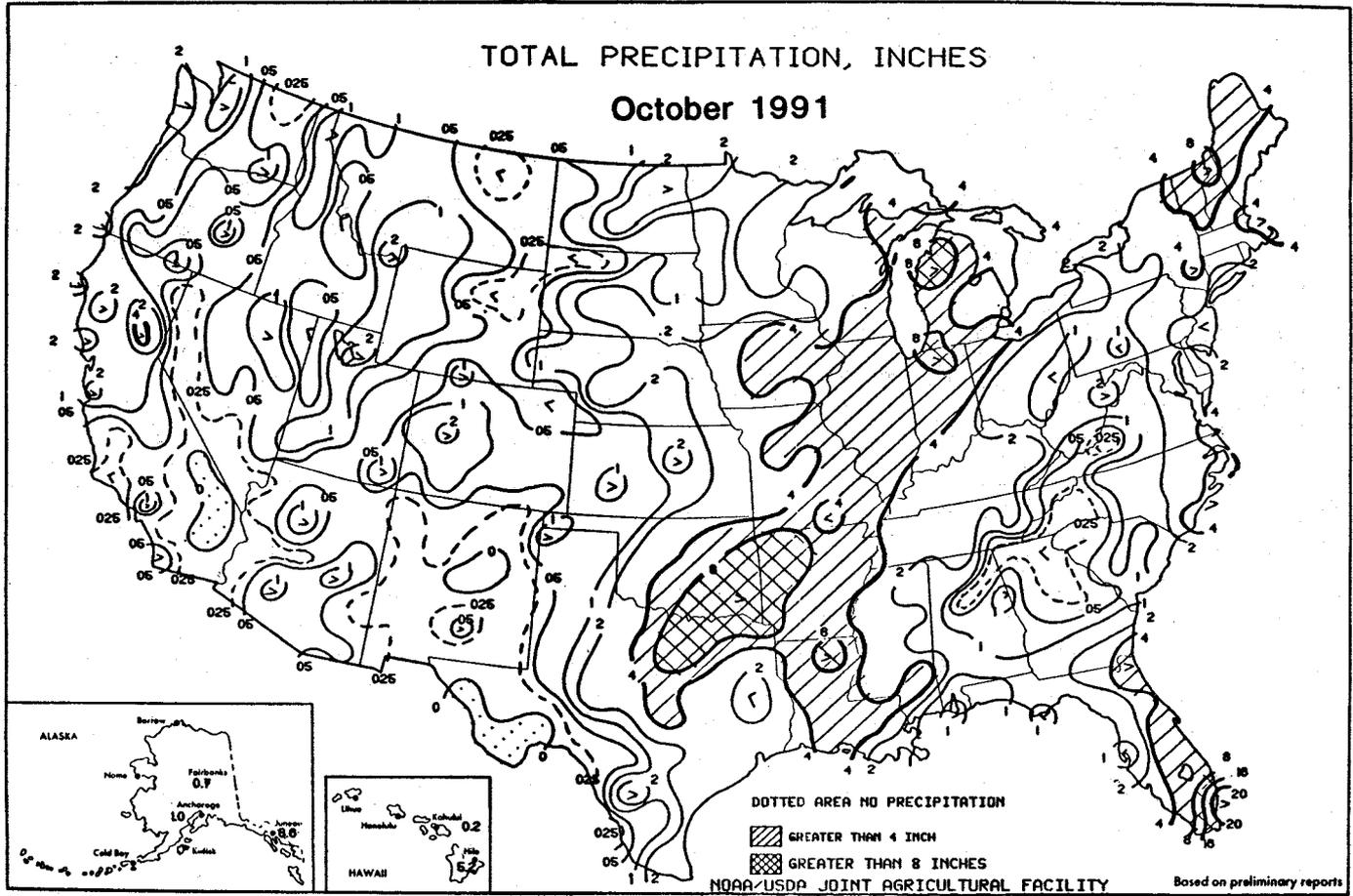
October's first week was warm in the East and West but chilly in the Plains. After a cold front swept off the east coast on the 6th, cool air settled across the Nation's eastern half (50 daily record lows) until after mid-month. Meanwhile, the West baked in unusual autumn heat (more than 140 daily record highs set) until the final 10 days of the month. In the center third of the Nation, warm, dry spells were interspersed with seasonably cool ones until frigid air arrived late in the month.

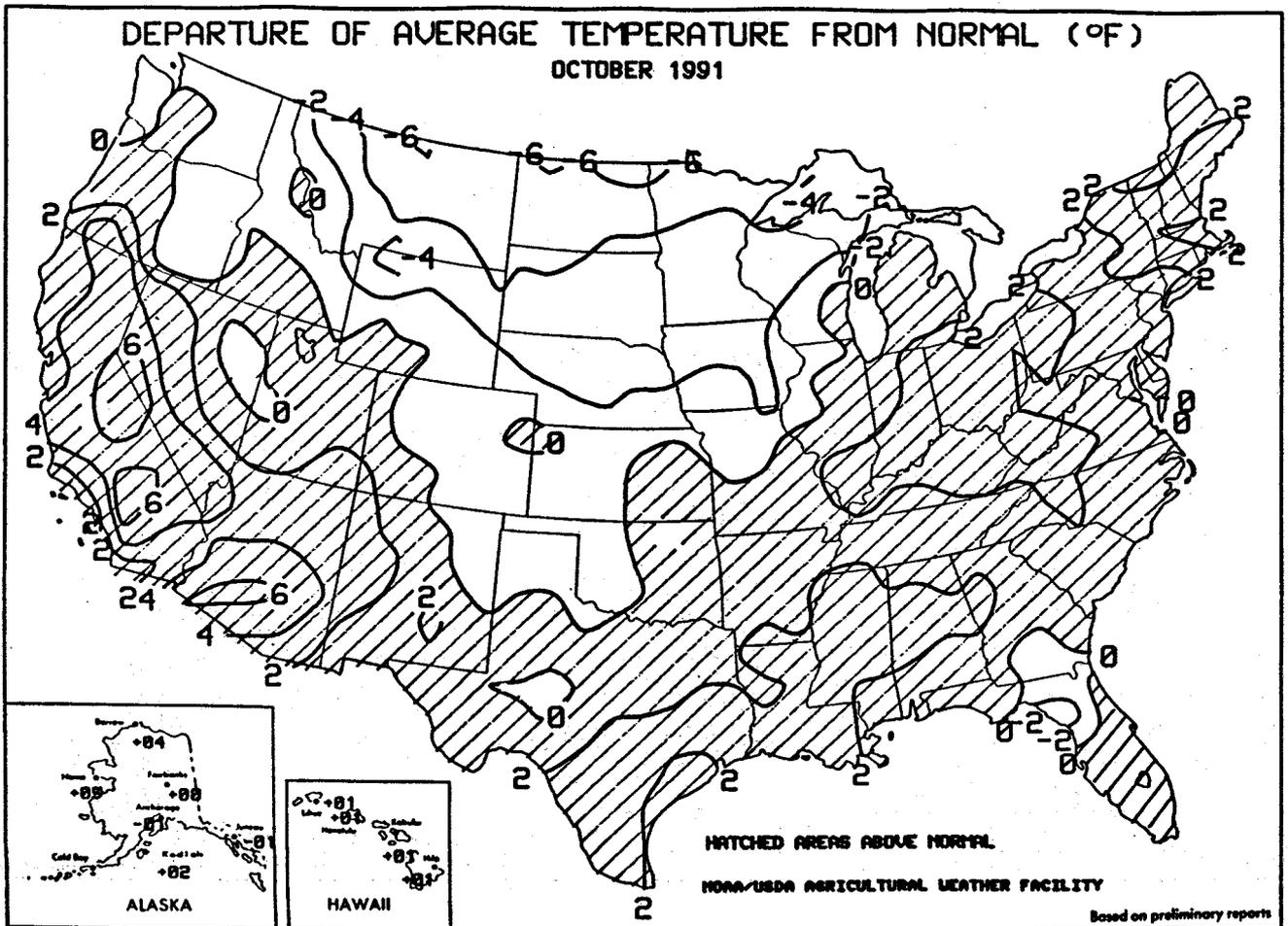
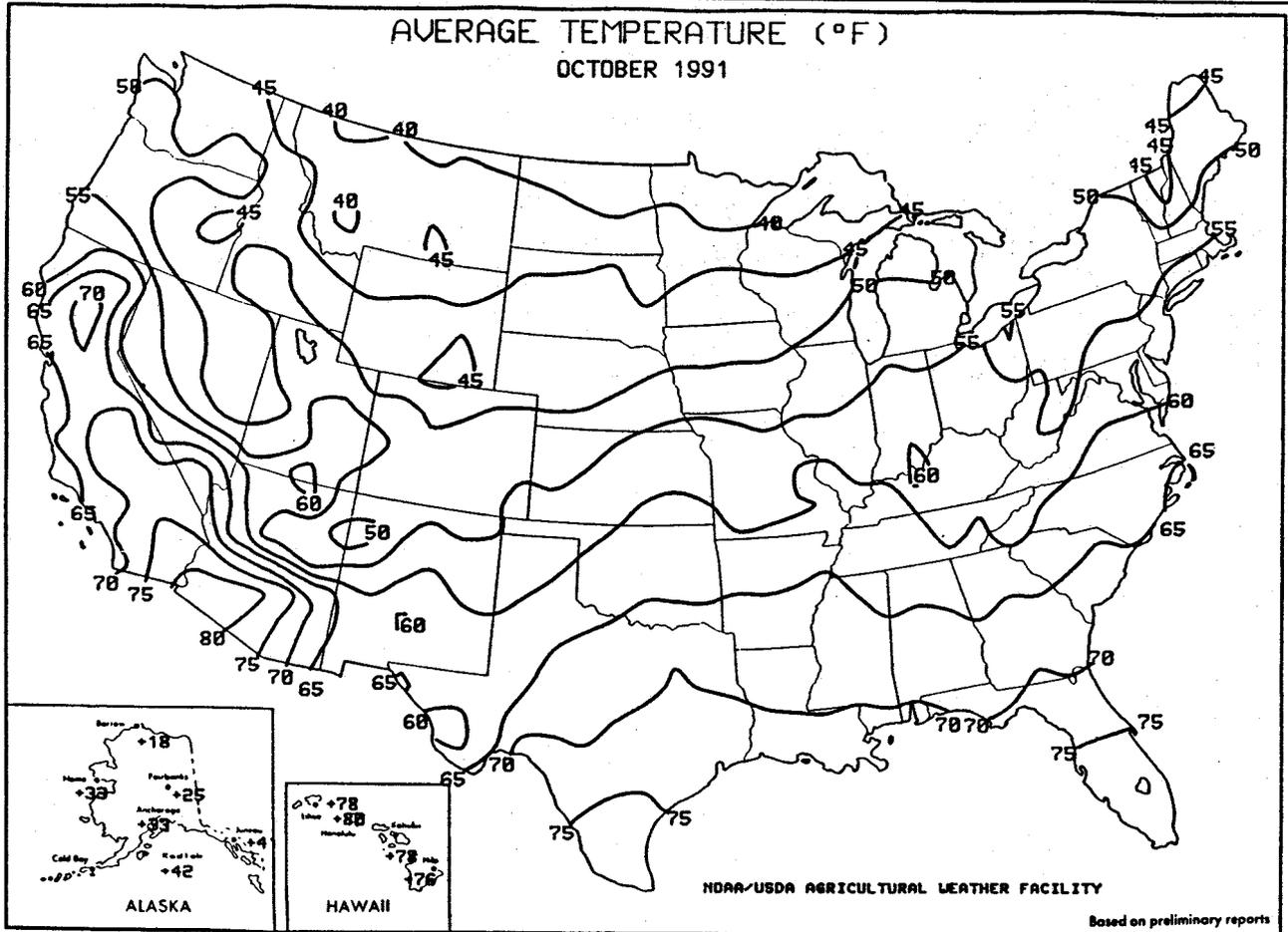
After the 20th, signs of a major weather change appeared. The East warmed (40 daily record highs), and the first of three powerful Alaskan storms plunged into the Northwest. Between contrasting airmasses, excessive rain pounded areas from Texas and Louisiana to the Great Lakes States, while precipitation fell in the central Plains for the first time in more than a month. Prior to the passage of the first storm, winds increased, fanning numerous Western wildfires, including one that swept through wooded residential sections of Oakland, CA. By the 23rd, snow blanketed the northern Plains (up to 10 inches in North Dakota) and the northern and central Rockies. The second storm drove cold air into the Southwest and provided California with its first statewide precipitation of the autumn on the 25th and 26th. Snow accumulated from the Great Basin to the northern Plains.

A ferocious winter storm (both in terms of snow and cold) was in progress as October ended. Spokane, WA, set three daily record lows in a row, including a 10° F chiller on the 30th. Several cities in the northern Plains set all-time October record lows, including Dickinson, ND (-7° F; former October record was 3° F in 1951). On the 31st, the maximum temperature struggled to 25° F in Amarillo, TX. Heavy snow fell throughout the Rockies and from northern Texas to Minnesota, establishing several record October snowfall records. Bismarck, ND, netted 20.1 inches of snow for the month, nearly doubling the 1919 record (11.4 inches). Both Grand Island, NE, and Sioux City, IA, garnered 10 inches of snow on the 30th and 31st. Eastern Nebraska and western Iowa received major ice accumulations. Farther north, the storm lingered into early November (Minneapolis, MN: 8 inches in October and 20 inches in November).

Miscellaneous records set during October included continuing strings of warmth in Milwaukee, WI (15 months in a row with above-normal temperatures) and Raleigh, NC (22 consecutive months). October rainfall in the lower Mississippi Valley pushed Shreveport, Minden, and Barksdale, LA, past record annual rainfall totals. The former records were set in 1957, 1946, and 1990, respectively, at the three locations. Minden's 1991 rainfall has reached 81.78 inches.

(NOTE: The "October Crop Summary" and "October in Historical Perspective" features will appear in next week's issue.)





# TEMPERATURE AND PRECIPITATION SUMMARY October 1991

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	65	3	0.1	-2.5	LA ALEXANDRIA	69	2	5.9	2.9	TOLEDO	55	3	5.5	3.6
AL HUNTSVILLE	63	2	2.5	-0.4	LA BATON ROUGE	71	2	4.6	2.0	TOLEDO YOUNGSTOWN	54	2	1.1	-1.5
AL MOBILE	69	1	0.9	-1.8	LA LAKE CHARLES	71	2	3.4	-0.3	OK OKLAHOMA CITY	63	0	4.0	1.3
AK ANCHORAGE	67	1	0.6	-1.7	LA NEW ORLEANS	72	2	1.9	-0.8	OK TULSA	64	2	5.1	1.7
AK BARROW	33	-1	1.9	0.2	ME SHREVEPORT	69	2	3.6	0.9	OR ASTORIA	52	-1	2.4	-3.8
AK FAIRBANKS	18	4	0.4	-0.2	ME CARIBOU	45	2	4.5	1.4	OR BURNS	45	-3	1.1	0.3
AK JUNEAU	25	0	0.7	0.0	ME PORTLAND	51	2	2.8	-1.0	OR MEDFORD	58	4	0.4	-1.3
AK KODIAK	41	-1	8.6	0.9	MD BALTIMORE	58	1	3.2	0.1	OR PENDLETON	52	-1	0.9	-0.1
AK NOME	42	1	10.2	3.4	MD SALISBURY	58	0	2.4	-1.4	OR PORTLAND	56	1	1.5	-1.5
AZ FLAGSTAFF	33	5	2.3	1.1	MA BOSTON	56	2	4.3	0.9	PA SALEM	54	1	1.7	-1.6
AZ PHOENIX	51	4	1.1	-0.4	MA CHATHAM	55	2	4.6	0.9	PA ALLENTOWN	55	1	2.6	-0.4
AZ PRESCOTT	80	7	1.2	0.6	MI ALPENA	48	0	6.5	4.4	PA ERIE	56	3	3.0	-0.6
AZ TUCSON	59	4	0.5	-0.8	MI DETROIT	55	3	4.1	2.0	PA HARRISBURG	56	1	3.2	0.4
AZ WINSLOW	74	4	0.7	-0.1	MI FLINT	53	2	3.5	1.4	PA PHILADELPHIA	59	2	1.6	-1.2
AR FORT SMITH	56	-1	0.3	-0.6	MI GRAND RAPIDS	52	1	5.6	2.9	PA PITTSBURGH	56	3	0.6	-1.9
AR YUMA	82	6	0.1	-0.2	MI HOUGHTON LAKE	48	1	8.1	5.8	PA SCRANTON	53	1	2.4	-0.4
AR LITTLE ROCK	64	1	8.8	5.5	MI LANSING	52	2	3.8	1.7	PA WILLIAMSPORT	54	2	2.2	-1.0
CA BAKERSFIELD	65	2	7.8	5.0	MI MARQUETTE	41	-3	4.7	1.5	RI PROVIDENCE	56	3	2.7	-1.0
CA BISHOP	72	4	0.3	0.0	MI MUSKEGON	52	1	7.3	4.6	SC CHARLESTON	68	2	0.8	-2.1
CA EUREKA	60	3	0.7	0.5	MI SAULT ST. MARIE	45	-1	4.0	-1.1	SC COLUMBIA	65	1	0.5	-2.0
CA FRESNO	56	2	1.1	-1.6	MN ALEXANDRIA	43	-3	0.8	-1.1	SC FLORENCE	65	1	0.8	-1.6
CA LOS ANGELES	71	6	0.8	0.4	MN DULUTH	40	-4	2.9	0.7	SD GREENVILLE	62	1	0.2	-3.2
CA REDDING	67	1	0.1	-0.2	MN INY'L FALLS	38	-5	1.5	-0.3	SD ABERDEEN	45	-2	1.1	0.1
CA SACRAMENTO	69	3	1.9	-0.1	MN MINNEAPOLIS	47	-2	2.5	0.6	SD HURON	46	-3	1.0	-0.4
CA SAN DIEGO	69	5	1.3	0.4	MN ROCHESTER	46	-3	2.0	-0.1	SD RAPID CITY	47	-3	1.0	0.2
CA SAN FRANCISCO	68	1	0.7	0.4	MS ST. CLOUD	44	-3	2.0	0.1	SD SIOUX FALLS	46	-3	1.7	0.1
CA STOCKTON	63	2	1.7	0.7	MS GREENWOOD	67	3	2.8	0.0	TN BRISTOL	58	1	0.3	-2.2
CO ALAMOSA	70	5	2.0	1.4	MS JACKSON	67	2	3.0	0.6	TN CHATTANOOGA	61	1	0.2	-2.7
CO CO. SPRINGS	45	1	1.0	0.3	MS MERIDIAN	67	3	1.1	-1.5	TN KNOXVILLE	61	1	1.1	-1.6
CO DENVER	50	-1	0.9	0.1	MS TUPELO	65	2	1.6	-1.4	TX MEMPHIS	66	3	4.1	1.7
CO GRAND JUNCTION	51	-1	0.7	-0.2	MO CAPE GIRARDEAU	-	-	5.2	2.8	TX NASHVILLE	61	1	3.9	1.3
CO PUEBLO	55	0	1.2	0.4	MO COLUMBIA	57	0	3.8	0.5	TX ABILENE	66	0	2.5	0.2
CT BRIDGEPORT	53	-1	0.6	-0.1	MO KANSAS CITY	58	-1	3.7	0.4	TX AMARILLO	59	0	0.6	-0.7
CT HARTFORD	57	1	1.9	-1.4	MO SAINT LOUIS	61	3	5.7	3.4	TX AUSTIN	73	3	3.1	-0.3
DC WASHINGTON	55	3	3.2	-0.3	MO SPRINGFIELD	59	1	3.8	0.6	TX BEAUMONT	73	3	3.6	-0.1
FL WASHINGTON	60	1	2.0	-0.9	MT BILLINGS	46	-3	1.3	0.2	TX BROWNSVILLE	77	2	3.3	-0.2
FL APALACHICOLA	71	0	1.0	-2.2	MT GLASGOW	42	-4	0.1	-0.4	TX CORPUS CHRISTI	76	2	1.6	-1.6
FL DAYTONA BEACH	74	1	2.9	-1.7	MT GREAT FALLS	43	-5	0.8	0.0	TX DEL RIO	73	2	0.2	-2.0
FL FT. MYERS	78	1	3.0	-0.9	MT HAVRE	40	-6	0.8	0.2	TX EL PASO	66	2	0.2	-0.5
FL JACKSONVILLE	71	1	6.4	2.6	MT HELENA	44	-2	0.7	0.0	TX FORT WORTH	68	1	9.3	6.8
FL KEY WEST	80	0	7.1	2.2	MT KALISPELL	40	-3	0.8	-0.2	TX GALVESTON	74	2	2.3	-0.3
FL MIAMI	79	1	21.6	14.5	MT MILES CITY	44	-4	0.5	-0.4	TX HOUSTON	72	2	2.6	-1.2
FL ORLANDO	75	1	4.8	1.7	MT MISSOULA	45	0	0.3	-0.6	TX LARDO	78	3	0.1	-2.1
FL TALLAHASSEE	69	1	1.5	-1.5	NE GRAND ISLAND	51	-2	1.6	0.5	TX LUBBOCK	62	1	0.6	-1.2
FL TAMPA	75	1	0.8	-1.5	NE LINCOLN	53	-1	2.0	0.3	TX MIDLAND	65	0	0.6	-0.8
FL WEST PALM BEACH	79	1	7.6	-0.2	NE NORFOLK	49	-3	2.0	0.6	TX SAN ANGELO	66	-1	3.3	1.3
GA ATHENS	64	2	0.1	-2.6	NE NORTH PLATTE	48	-2	2.1	0.2	TX SAN ANTONIO	73	3	0.9	-2.0
GA ATLANTA	65	2	0.4	-2.1	NE OMAHA	52	-2	3.0	1.0	TX VICTORIA	74	2	3.3	0.0
GA AUGUSTA	65	1	0.6	-1.4	NE SCOTTSBLUFF	48	-2	1.2	0.4	TX WACO	70	1	3.6	0.5
GA MACON	66	1	0.3	-1.7	NE VALENTINE	46	-3	1.5	0.7	UT WICHITA FALLS	65	0	3.9	1.3
GA SAVANNAH	68	1	1.6	-0.7	NV ELKO	47	-1	1.3	0.7	UT BLANDING	-	-	1.4	-0.1
HI HILO	76	1	5.2	-4.8	NV ELY	46	0	1.0	0.4	UT CEDAR CITY	53	1	1.7	1.0
HI HONOLULU	80	1	3.6	1.7	NV LAS VEGAS	72	5	0.1	-0.2	UT SALT LAKE CITY	54	1	2.1	1.0
HI KAHULUI	78	1	0.2	-0.7	NV RENO	57	6	0.2	-0.1	VT BURLINGTON	50	2	5.1	2.3
HI LIHUE	78	1	3.2	-1.3	NV WINNEMUCCA	51	3	0.6	0.0	VA LYNCHBURG	60	3	0.6	-2.8
ID BOISE	52	0	0.9	0.2	NH CONCORD	51	2	3.3	0.2	VA NORFOLK	62	0	4.7	1.3
ID LEWISTON	51	-1	0.2	-0.8	NJ ATLANTIC CITY	56	0	1.4	-1.7	VA RICHMOND	60	1	2.5	-1.2
ID POCATELLO	48	0	0.7	-0.2	NM ALBUQUERQUE	60	2	0.3	-0.6	VA ROANOKE	59	2	T	-3.4
IL CAIRO	-	-	4.2	1.7	NM CLOVIS	58	-1	0.2	-1.6	VA COLVILLE	45	-1	0.2	-1.0
IL CHICAGO	53	0	7.4	5.4	NM ROSWELL	62	2	0.1	-0.9	VA QUILLYUTE	50	-1	2.7	-7.8
IL MOLINE	53	0	5.8	3.1	NY ALBANY	53	2	3.8	0.9	VA SEATTLE-TACOMA	53	1	1.3	-2.1
IL PEORIA	54	0	7.3	4.8	NY BINGHAMTON	51	2	1.7	-1.3	WA SPOKANE	47	-1	0.3	-0.7
IL QUINCY	55	0	7.9	4.6	NY BUFFALO	53	1	3.1	0.2	WA WALLA WALLA	-	-	2.0	0.6
IL ROCKFORD	51	-1	4.8	1.9	NY NEW YORK	60	2	1.2	-2.0	WA YAKIMA	49	-1	0.7	0.2
IL SPRINGFIELD	56	0	6.4	3.9	NY ROCHESTER	52	0	1.7	-0.8	WV BECKLEY	56	4	0.8	-1.9
IN EVANSVILLE	59	2	3.1	0.6	NY SYRACUSE	53	2	2.6	-0.5	WV CHARLESTON	59	3	1.1	-1.5
IN FORT WAYNE	55	2	8.9	6.3	NC ASHEVILLE	57	1	0.2	-3.0	WV ELKINS	52	1	2.4	-0.6
IN INDIANAPOLIS	58	3	5.5	3.0	NC CHARLOTTE	63	3	0.5	-2.2	WV HUNTINGTON	59	2	1.0	-1.3
IN SOUTH BEND	55	2	8.8	5.6	NC GREENSBORO	60	2	1.9	-1.3	WV PARKERSBURG	57	1	1.4	-1.1
IA DES MOINES	53	-1	5.0	2.8	NC HATTERAS	67	2	4.9	0.3	WI GREEN BAY	48	0	3.5	1.4
IA DUBUQUE	50	-1	3.9	1.0	NC NEW BERN	64	1	3.8	0.4	WI LA CROSSE	49	-2	1.8	-0.3
IA SIOUX CITY	49	-4	2.0	0.3	NC RALEIGH	61	1	1.4	-1.3	WI MADISON	49	0	5.4	3.2
IA WATERLOO	49	-2	4.6	2.2	NC WILMINGTON	65	0	4.2	1.2	WI MILWAUKEE	52	1	7.0	4.8
KS CONCORDIA	56	-1	1.5	-0.3	ND BISMARCK	41	-5	2.3	1.5	WI WAUSAU	45	-2	2.5	0.2
KS DODGE CITY	57	-1	1.3	-0.6	ND FARGO	42	-4	0.7	-0.6	WY CASPER	46	-1	0.6	-0.3
KS GOODLAND	53	0	0.9	0.0	ND GRAND FORKS	39	-6	2.0	0.9	WY CHEYENNE	46	-1	0.4	-0.2
KS TOPEKA	59	1	3.2	0.4	ND WILLISTON	41	-5	0.4	-0.3	WY LANDER	47	0	1.4	0.2
KS WICHITA	59	0	1.0	-1.5	OH AKRON-CANTON	54	2	1.5	-0.7	WY SHERIDAN	45	-2	0.8	-0.4
KY BOWLING GREEN	59	1	4.0	1.1	OH CINCINNATI	58	3	1.4	-1.2	PR SAN JUAN	82	1	1.8	-3.7
KY JACKSON	61	6	2.1	0.0	OH CLEVELAND	56	2	2.7	0.2					
KY LEXINGTON	59	2	2.7	0.4	OH COLUMBUS	56	2	1.8	-0.1					
KY LOUISVILLE	61	4	2.3	-0.3	OH DAYTON	57	2	1.5	-0.5					
KY PADUCAH	61	2	3.6	1.0	OH MANSFIELD	55	2	1.9	0.0					

Based on 1951-80 normals

## HEATING DEGREE DAYS (Base 65° F) October 1991

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL BIRMINGHAM	107	-30	NEW ORLEANS	22	-9	CINCINNATI	232	-84
MOBILE	32	-18	SHREVEPORT	36	-40	DAYTON	281	-61
MONTGOMERY	62	-24	ME CARIBOU	619	-60	TOLEDO	315	-104
AK ANCHORAGE	988	46	PORTLAND	433	-82	YOUNGSTOWN	360	-63
BARROW	1447	-128	MD BALTIMORE	246	-15	OK OKLAHOMA CITY	150	5
FAIRBANKS	1234	-6	SALISBURY	234	-14	TULSA	121	-25
JUNEAU	764	45	MA BOSTON	273	-56	OR ASTORIA	420	45
KODIAK	707	-31	CHATRAM	297	-53	BURNS	610	80
ROME	972	-175	MI ALPENA	525	-30	MEDFORD	246	-89
AZ FLAGSTAFF	438	-114	DETROIT	319	-95	PENDLETON	418	30
PHOENIX	34	21	FLINT	381	-74	PORTLAND	295	-37
PRESOTT	206	-108	GRAND RAPIDS	404	-39	SALEM	329	-43
TUCSON	56	27	HOUGHTON LAKE	525	-36	PA ALLENTOWN	326	-38
WINSLOW	264	-6	LANSING	407	-45	ERIE	304	-116
YUMA	14	6	MARQUETTE	739	97	HARRISBURG	279	-41
AR FORT SMITH	107	-36	MUSKEGON	397	-43	PHILADELPHIA	215	-58
LITTLE ROCK	87	-45	SAULT STE MARIE	615	4	PITTSBURGH	308	-85
CA BAKERSFIELD	72	22	MN ALEXANDRIA	661	91	SCRANTON	370	-47
EUREKA	274	-58	DULUTH	754	109	RI PROVIDENCE	275	-91
FRESNO	81	-9	INT'L FALLS	826	138	SC CHARLESTON	41	-35
LOS ANGELES	29	-26	MINNEAPOLIS	548	60	COLUMBIA	79	-44
REDDING	105	15	ROCHESTER	597	85	FLORENCE	76	-30
SACRAMENTO	78	-2	SAINT CLOUD	651	87	GREENVILLE	138	-24
SAN DIEGO	24	-8	MS GREENWOOD	77	-52	SD ABERDEEN	619	83
SAN FRANCISCO	96	-52	JACKSON	67	-31	HURON	580	75
STOCKTON	79	3	MERIDIAN	65	-53	RAPID CITY	581	99
CO DENVER	449	35	MO CAPE GIRARDEAU	181	-34	SIOUX FALLS	583	94
GRAND JUNCTION	304	-21	COLUMBIA	254	-21	TN CHATTANOOGA	142	-48
PUEBLO	380	34	KANSAS CITY	277	19	KNOXVILLE	159	-42
CT BRIDGEPORT	268	-17	SAINT LOUIS	191	-67	MEMPHIS	90	-47
HARTFORD	311	-80	SPRINGFIELD	202	-40	NASHVILLE	166	-27
DE WILMINGTON	244	-38	MT BILLINGS	612	125	TX ABILENE	110	20
DC WASHINGTON	175	-22	GLASGOW	709	126	AMARILLO	258	43
FL APALACHICOLA	17	-7	GREAT FALLS	705	169	AUSTIN	34	-3
DAYTONA BEACH	0	0	HAVRE	768	158	BEAUMONT	6	-29
FORT MEYER	0	0	HELENA	666	49	BROWNSVILLE	0	0
JACKSONVILLE	9	-16	KALISPELL	772	74	CORPUS CHRISTI	9	-2
KEY WEST	0	0	MILES CITY	660	145	DEL RIO	24	-3
MIAMI	0	0	MISSOULA	628	-20	EL PASO	66	-30
ORLANDO	0	0	NE GRAND ISLAND	442	65	FORT WORTH	69	11
TALLAHASSEE	34	-3	LINCOLN	391	38	GALVESTON	2	-9
TAMPA	0	0	NORFOLK	489	72	HOUSTON	15	-21
WEST PALM BEACH	0	0	NORTH PLATTE	508	45	LUBBOCK	163	6
GA ATLANTA	76	-54	OMAHA	412	70	MIDLAND ODESSA	107	15
AUGUSTA	76	-31	SCOTTSBUFF	536	77	SAN ANGELO	90	15
MACON	58	-28	VALENTINE	589	103	SAN ANTONIO	30	-11
SAVANNAH	34	-24	NV ELY	594	5	VICTORIA	14	-6
ID BOISE	409	3	LAS VEGAS	77	14	WACO	57	11
LEWISTON	441	32	RENO	265	-191	WICHITA FALLS	116	11
POCATELLO	533	9	WINNEMUCCA	431	-74	UT BLANDING	291	-118
IL CHICAGO	367	-1	NH CONCORD	438	-83	CEDAR CITY	380	-23
MOLINE	370	0	NJ ATLANTIC CITY	281	-17	SALT LAKE CITY	347	-30
PEORIA	347	-14	NM ALBUQUERQUE	188	-54	VT BURLINGTON	451	-79
QUINCY	314	0	CLOVIS	243	18	VA LYNCHBURG	195	-63
ROCKFORD	421	9	ROSWELL	152	9	NORFOLK	132	-14
SPRINGFIELD	295	-12	NY ALBANY	372	-78	RICHMOND	190	-31
IN EVANSVILLE	227	-32	BINGHAMTON	417	-76	ROANOKE	194	-73
FORT WAYNE	308	-76	BUFFALO	376	-47	WA COLVILLE	603	20
INDIANAPOLIS	254	-76	NEW YORK	190	-56	QUILLAYUTE	481	28
SOUTH BEND	318	-58	ROCHESTER	409	-3	SEATTLE-TACOMA	368	-20
IA DES MOINES	395	38	SYRACUSE	378	-47	SPOKANE	574	35
DUBUQUE	477	31	NC ASHEVILLE	243	-43	YAKIMA	499	31
SIOUX CITY	488	90	CAPE HATTERAS	49	-27	WV BECKLEY	293	-105
WATERLOO	488	31	CHARLOTTE	102	-64	CHARLESTON	229	-72
KS CONCORDIA	330	53	GREENSBORO	171	-50	HUNTINGTON	225	-68
DODGE CITY	311	60	NEW BERN	85	-33	FARKERSBURG	283	-17
GOODLAND	396	2	RALEIGH-DURHAM	156	-31	WI GREEN BAY	515	0
TOPEKA	262	-14	WILMINGTON	78	-16	LA CROSSE	490	42
WICHITA	242	23	ND BISMARCK	748	162	MADISON	476	-14
KY BOWLING GREEN	211	-29	FARGO	708	128	MILWAUKEE	394	-50
LEXINGTON	230	-50	GRAND FORKS	785	162	NAUSAU	609	60
LOUISVILLE	168	-82	WILLISTON	744	127	WY CASPER	587	35
LA ALEXANDRIA	36	-28	OH AKRON-CANTON	345	-49	CHEYENNE	586	43
BATON ROUGE	25	-22	CLEVELAND	310	-61	LANDER	572	8
LAKE CHARLES	14	-31	COLUMBUS	296	-59	SHERIDAN	637	79

## National Agricultural Summary

October 28 - November 3, 1991

**HIGHLIGHTS:** A cold front traversing the western two-thirds of the Nation brought much colder-than-normal temperatures to the Intermountain, Rocky Mountain, and Great Plains regions, slowing seeding and emergence of small grains. Rains in the Central States, particularly heavy from northeast Texas through the Delta, eased some concerns for supplies of soil moisture.

**SMALL GRAINS:** Winter wheat seeding advanced only 3 percentage points to 91 percent (%) complete in the 19 major producing States. Seeding progress remained, nevertheless, 1 point ahead of both last year and the 5-year average. Crop emergence advanced to 74% of the acreage, compared with 76% last year and 78% average. Progress was well ahead of normal in the eastern Corn Belt and Ohio Valley, but behind normal in the Northwest. Crop condition rated mostly fair to good for the major producing States, with poor to fair condition reported for Kansas. Seeding of winter varieties of oats, barley, and rye was in full swing in the Atlantic Coast States.

**CORN:** Corn harvest progress remained much earlier than normal despite some delays due to rain. Harvest reached 93% complete in the 17 major States, 23 points ahead of last year and 9 points ahead of the average. Harvest progress was at or ahead of normal in all of the major producing States, with harvest complete in South Dakota and well ahead of schedule in the eastern Corn Belt.

**SOYBEANS:** Soybean harvest, although slowed by rains, was completed in Iowa and very near complete in the other northern producing States. Harvest had been completed a week earlier in Nebraska. Harvest continued as weather permitted in the South. Harvest was 86% complete in the 19 major producing States, 4 points ahead of both last year and the average.

**COTTON:** Cotton picking was halted in Missouri and slowed to a near stand-still in Texas and the Mississippi and Tennessee Valleys. Harvest advanced to 57% complete in the 14 major producing States, compared with 60% last year and 54% average. Picking progressed at a near-normal pace in the West and Southeast.

**GRAIN SORGHUM:** Progress of sorghum harvest was also held to just 3 percentage points, as rains were general over the major producing States. Ninety-one percent of the crop was harvested in the 12 major States, compared with 88% last year.

**OTHER FIELD CROPS:** Haying continued on a limited scale in the West and East. Peanut digging was virtually complete in the Southeast and continued as weather permitted in Oklahoma. Potato harvest continued in Oregon and Washington. Rice harvest was completed in California and nearly completed in Arkansas and Mississippi. Sugarbeet digging continued in the West. Sweetpotatoes were being dug in California and the Southeast. Sunflower harvest was almost complete in North Dakota.

**FRUIT AND NUTS:** Apples, lemons, pecans, and pistachios were being harvested in Arizona. Apple, kiwifruit, olive, persimmon, pomegranate, walnut, late variety table grape, and early variety navel orange picking was active in California. Early orange, grapefruit, tangerine, and tangelo picking for fresh use continued in Florida, but a limited number of processing plants were open. Fall apple harvest progressed and cranberry harvest neared completion in New Jersey. Late variety apple harvest was concluding in Oregon, while cranberry harvest continued along the southern coast. Apple harvest neared completion in Utah. Fruit harvest was winding down in Washington. Pecan harvest was active across the Southern United States.

**VEGETABLES:** Broccoli, cauliflower, celery, lettuce, and carrot harvests continued in California. Fall harvests were near complete in Florida's northern areas while gaining momentum in the southern areas. Florida's volume leaders were cucumbers, tomatoes, squash, peppers, eggplant, and snap beans. Chile and lettuce harvests remained active in New Mexico. Broccoli and cabbage harvests continued in New York. Fall cole crops and carrots were being harvested in Oregon.

**PASTURES AND LIVESTOCK:** Cold weather placed increased demand on limited forage supplies in the Great Plains. Electricity failures due to storm damage caused some farrowing losses in Iowa. Extremely cold weather increased the incidence of respiratory problems in livestock in the North Central States.

Crop Progress

For Week Ending November 3, 1991

	Cotton % Harvested		
	1991	1990	Avg.
AL	91	95	85
AZ	62	72	58
AR	87	85	84
CA	55	50	55
GA	62	84	70
LA	89	97	94
MS	88	93	89
MO	89	87	90
NM	34	30	25
NC	68	71	55
OK	16	37	18
SC	66	82	68
TN	80	77	82
TX	36	38	30

14 States 57 60 54

These 14 states produced 99% of the 1990 cotton crop.

	Grain Sorghum % Harvested		
	1991	1990	Avg.
AR	97	96	99
CO	84	46	56
IL	98	54	83
KS	97	95	70
LA	99	96	99
MS	98	99	99
MO	87	77	85
NE	100	96	90
NM	19	55	NA
OK	41	73	44
SD	100	100	84
TX	88	83	81

12 States 91 88 NA

Excl. States with NA 92 88 78

These 12 states produced 98% of the 1990 grain sorghum crop

NA - not available.

	Corn % Harvested		
	1991	1990	Avg.
AR	78	59	69
CA	100	100	99
IL	99	78	91
IN	97	55	74
IA	90	91	88
KS	100	96	90
KY	94	72	83
MI	85	30	50
MN	94	85	87
MO	94	89	89
NE	98	89	84
NC	94	95	92
OH	92	44	56
PA	68	28	43
SD	100	90	71
TX	99	100	99
WI	74	44	66

17 States 93 77 81

These 17 states produced 95% of the 1990 corn crop.

	Soybeans % Harvested		
	1991	1990	Avg.
AL	56	65	59
AR	55	48	56
GA	40	42	44
IL	99	95	97
IN	98	84	90
IA	100	100	97
KS	97	95	70
KY	65	53	61
LA	64	83	76
MI	95	85	70
MN	99	99	98
MS	57	61	61
MO	83	79	78
NE	100	99	97
NC	28	23	22
OH	96	78	84
SC	24	21	19
SD	100	100	91
TN	45	42	60

19 States 86 82 82

These 19 states produced 95% of the 1990 soybeans crop.

Crop Condition  
PERCENT

For Week Ending November 3, 1991

Winter Wheat

	Winter Wheat % Planted		
	1991	1990	Avg.
AR	57	41	58
CA	5	15	22
CO	100	100	100
GA	15	13	20
ID	97	98	98
IL	97	91	93
IN	97	82	92
KS	98	98	95
MI	100	90	85
MO	79	77	78
MT	100	100	100
NE	100	100	100
NC	45	33	40
OH	96	79	87
OK	93	96	93
OR	85	92	83
SD	100	100	100
TX	86	87	91
WA	90	98	97

19 States 91 90 90

These 19 states produced 91% of the 1990 winter wheat crop.

	Winter Wheat % Emerged		
	1991	1990	Avg.
AR	44	27	40
CA	0	1	4
CO	96	96	96
GA	12	9	12
ID	69	84	84
IL	92	46	70
IN	88	54	72
KS	75	90	85
MI	90	80	75
MO	62	52	61
MT	80	90	90
NE	94	100	100
NC	24	24	26
OH	77	46	62
OK	68	75	77
OR	46	71	54
SD	100	100	100
TX	72	70	78
WA	80	92	88

19 States 74 76 78

These 19 states produced 91% of the 1990 winter wheat crop.

State	VP	P	F	G	EX
AR	0	2	23	75	0
CA	NA				
CO	2	4	36	50	8
GA	0	9	54	37	0
ID	6	6	39	49	0
IL	0	1	10	71	18
IN	0	0	25	66	9
KS	16	30	31	18	5
MI	0	0	15	55	30
MO	1	7	51	41	0
MT	0	10	40	40	10
NE	8	11	41	40	0
NC	NA				
OH	1	5	28	53	13
OK	0	4	71	25	0
OR	NA				
SD	3	11	35	45	6
TX	0	3	43	51	3
WA	2	14	30	54	0
16 State	5	12	39	39	5
Prev Week	NA				
Prev Year	0	3	33	56	8

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.

**ALABAMA:** Rainfall under 0.60 in.; 1.00 to 2.00 in. local areas north. Temperatures near normal. Extreme highs mid 80s; lows mid teens north.

Days suitable for fieldwork 6.3. Soil moisture 61% short, 39% adequate. Mostly dry weather provided excellent conditions for row crop harvest. Rainfall needed for planting, germination of small grains. Sorghum 91% harvested, 99% 1990, 91% avg.; Peanuts 99% combined, 100% 1990, 94% avg. Cotton 91% harvested, 95% 1990, 85% avg.; 26% fair, 64% good, 10% excellent. Soybeans 96% dropping leaves, 97% 1990, 95% avg.; 87% mature, 92% 1990, 87% avg.; 56% harvested, 65% 1990, 59% avg.; 9% poor, 45% fair, 46% good. Winter wheat 42% seeded, 42% 1990, 52% avg. Pastures 19% poor, 53% fair, 28% good. Livestock 20% fair, 77% good, 3% excellent. Activities: Harvesting cotton, sorghum, soybeans, sweet potatoes; combining peanuts; mowing cotton stalks; seeding small grains; preparing land for winter grazing; soil testing; weaning calves, marketing cattle; general care of livestock, poultry, catfish.

**ARIZONA:** Cool, rainy throughout period. Light rain west, heavy rain central, heavy snow central, northern mountains 27th. Light rain west, south, 29th, 30th. Precipitation, none far southwest to 1.71 in. east. Temperature 6 to 11° below normal. Extremes 8°, 74° higher elevations; 27°, 80° deserts.

Cotton bolls opening 100%, 100% 1990, 100% avg. Cotton harvested 62%, 72% 1990, 58% avg.; activities, defoliation, stalk shredding, plowing down. Condition 80% good, 20% excellent. Alfalfa harvest moderate; weed, insects, light; rain damage, light. Alfalfa condition good. Peanuts, grapefruit harvested, west. Lemons, honeydews harvested, west, central; watermelons, cantaloupe, pecans, harvested central; apples, pistachios harvest, east. Mixed vegetables harvested, central, east. Pasture, range conditions 55%, 77% 1990; cattle, calves fair to good; stock water short to adequate, soil moisture mostly short; range, pasture feed supplies were rated below average, insects light; north, central pasture, range conditions poor; southeast fair to good.

**ARKANSAS:** Temperatures above normal. Early week was dry; scattered showers last half, heaviest in the northwest. Extremes 33°; 85°.

Days suitable for fieldwork 6. Soil moisture supplies 60% short, 40% adequate. Corn harvested 100%, 100% 1990, 100% avg. Pasture condition was 26% poor, 53% fair, 21% good. Alfalfa condition was 11% poor, 62% fair, 27% good. Other hay condition was 6% poor, 67% fair, 27% good. Livestock good. Main activities: Harvesting rice, cotton, grain sorghum, corn, hay; seeding supplemental cool season forage. Cotton harvest past peak. Some producers second picking cotton. Gins running 24 hours a day.

**CALIFORNIA:** A deep, cold low pressure trough brought rain to much of the State over the weekend, significant cooling. High pressure building into the State behind the system pushed

the main low pressure though eastward, allowed temperatures to warm up again for a dry, mild weekend.

Few remaining rice fields harvested Sacramento Valley. Fields being prepared planting small grains. Planting just getting underway. Cotton harvest made good progress with good yields reported. Last cuttings of alfalfa being bailed. Harvest corn, sugar beets continued. Apple, kiwifruit, olive, persimmon, pomegranate, walnut, late variety table grapes, early variety navel orange picking active. Orchard work included pruning, pulling trees. Broccoli volume moderate, Salinas Watsonville area; fairly light, Santa Maria area, good quality. Fall harvest active, Sacramento Valley area; Fresno area plantings should begin in few weeks. Plantings, Blythe area, doing well under favorably cool weather. Cauliflower supplies fairly light, Salinas Watsonville area; fairly heavy, Santa Maria area, variable quality. Fall harvest on going, Patterson Newman area. Celery harvesting fairly heavy, Salinas Watsonville area; moderate, Santa Maria area, good quality. Lettuce movement seasonally light, Salinas Watsonville area; moderate, Santa Maria area, variable quality. Westside area, fall harvest slow; spring acreage being prepared for planting. Plantings, Blythe area, benefitted from favorably cool temperatures as harvest time approaches in few weeks. Watermelon harvest complete, desert area. Onion, garlic planting continued, westside area. Movement of fall potatoes, Tulelake Butte Valley area had cellars operating nearly full time. Sweet potato harvest in full swing, Merced Atwater area. Fall quarter fresh market tomato harvest continued, westside area. Ground preparation for 1992 processing tomato crop taking place. Other vegetables harvested include: beans, cabbage, cucumbers, eggplant, peppers, pumpkins, spinach. Range conditions very poor to fair. Supplemental feeding continued. Water supplies improved. Recent rains improved pastures slightly. Fall calving underway.

**COLORADO:** Winter storm on the 28th dropped up to 9 in. of snow at mountain locations. Lower elevations 0.10 in. or less of moisture except near Kansas border where 0.50 in. or more fell. A stronger system on the 30th, 31st dropped from 4 to 16 in. of snow across State. On the 2nd, 3rd a storm system produced little precipitation, record lows over much of the State. The storms kept temperatures 10 to 15° below normal at most locations throughout the week.

Days suitable for fieldwork 2.6. Soil moisture 14% very short, 34% short, 49% adequate, 3% surplus. Fourth cutting alfalfa hay 67% complete, 68% 1990, 56% avg. Sorghum 84% harvested, 46% 1990, 56% avg. Corn for grain 78% harvested, 59% 1990, 69% avg. Sugar beets 82% harvested, 93% 1990, 94% avg. Winter wheat seeding is complete. Winter wheat 96% emerged, 96% 1990, 96% avg. Livestock mostly good. Pasture, range feed good.

**FLORIDA:** Temperatures near normal. Extreme highs upper 80s throughout State. Extreme lows 28°, Panhandle; 40s northeast; 50s central,

interior south; 60s coastal south. Rainfall limited, under 0.25 in. most areas.

Soil moisture Panhandle, north, central Peninsula short to adequate; southern Peninsula adequate to surplus. Small grain, sugarcane planting active. Cotton harvest active. Soybean, sugarcane harvest becoming active. Peanut harvest virtually complete. States pastures mostly fair to good. Pasture ratings 45% fair, 55% good. States cattle herds mostly fair to good. Citrus groves, trees excellent. Low volume irrigation all areas. Good on tree fruit coloring. Early orange, grapefruit harvest active for fresh use and ahead of last year. Early tangerine, tangelo harvest increasing for fresh use. Limited number processing plants open at this time. Near normal temperatures, limited rainfall over major vegetable producing areas. Planting winter crops active. Fall harvest near complete northern areas; gaining momentum southern areas. Volume leaders: Cucumbers, tomatoes, squash, peppers, eggplant, snap beans. Increasing supply carrots, specialty lettuce, radishes available. First Homestead potatoes planted.

**GEORGIA:** Temperatures 2° below normal to 2° above normal. Highs upper 70s northeast mountains to middle 80s elsewhere. Lows, low to middle 20s north, 30° central, upper 30s extreme south, southeast. Rain only 1 or 2 days most stations. Most totals under 0.50 in., extreme northwest over 1.00 in.

Days suitable for fieldwork 6.4. Soil moisture 49% very short, 47% short, 4% adequate. Cotton 11% fair, 55% good, 34% excellent; 97% bolls open, 98% 1990, 97% avg. Sorghum 2% poor, 33% fair, 61% good, 4% excellent; 86% harvested for grain, 89% 1990, 87% avg. Peanuts 11% poor, 57% fair, 32% good; 100% dug, 99% 1990, 99% avg.; 98% threshed, 98% 1990, 96% avg. Soybeans 2% very poor, 3% poor, 40% fair, 47% good, 8% excellent; 100% dropping leaves, 100% 1990, 98% avg. Rye 16% poor, 54% fair, 28% good, 2% excellent; 62% planted, 72% 1990, 67% avg. Other small grains 21% poor, 52% fair, 27% good; 38% planted, 46% 1990, 47% avg. Apples 92% harvested, 99% 1990, 98% avg. Pecans 3% very poor, 26% poor, 49% fair, 22% good; 30% harvested, 27% 1990, 25% avg. Pasture 2% very poor, 20% poor, 51% fair, 27% good. Cattle, hogs good.

**HAWAII:** High pressure system sustained light trade winds, allowed buildup of volcanic haze. Temperatures warm, record-tying highs midweek. Mostly sunny, some scattered showers windward areas, higher elevations. Irrigation restrictions continued Waimea, island of Hawaii. Rainfall none to 2.10 in. Winds 5 to 15 mph.

Days suitable for fieldwork 7.0. Banana harvesting active. Papaya orchards passed peak production. Tomato seedlings planted for winter market. Vegetable crops showing stress in areas with irrigation restrictions.

**IDAHO:** Temperatures 6 to 15° below normal across State. Precipitation in form of rain and snow covered the State.

Soil moisture varied across State. Very short amounts south central; adequate southwest, east. Activities: Harvesting sugarbeets, planting winter wheat, ripping and plowing. Cold weather has slowed or halted most fieldwork. Winter wheat planting nearly complete. Winter wheat condition mostly good. Hay, roughage supply adequate. Livestock activities: sorting, shipping calves, fall vaccinations, pregnancy

testing. Sheep, cattle reported in good to excellent condition.

**ILLINOIS:** Temperatures 2 to 8° below normal. Precipitation 0.10 in. above normal across State. Days suitable for fieldwork 0.5. Soil moisture 13% short, 57% adequate, 30% surplus. Winter wheat emerged 92%, 46% 1990, 70% avg. Pasture condition as a % of normal, where 100% = normal, was 82%. Winter wheat condition 1% poor, 10% fair, 71% good, 18% excellent.

**INDIANA:** Temperatures 0 to 5° below normal north, 0 to 4° above normal south. Highs 50s. Lows mid 30s to mid 40s. Precipitation half inch to over an inch. Weekend snow flurries.

Days suitable for fieldwork 1.5. Topsoil 12% short, 56% adequate, 32% surplus. Subsoil 40% short, 48% adequate, 12% surplus. Corn moisture content 17%, 22% 1990, 19% avg. Soybean moisture content 13%, 13% 1990, 13% avg. Winter wheat acres plowed 99%, 69% 1990, 97% avg. Pasture 63% of normal. Hay, roughage availability 4% very short, 23% short, 73% adequate. Tobacco processing 16%, 15% 1990. Apple harvest 100%. Rains delayed completion of corn, soybean harvest. Minimal field activities.

**IOWA:** Worst early season blizzard ever for so early in the season northwest third. Worst ice storm in Iowa history southwest through north central on 31st, 1st. Wind chills to -35 degrees on 2nd, snow up to 15 in., record low temperatures throughout the weekend. Temperatures 9 to 19° below normal. Extremes -10°; 72°. Precipitation 1.16 in. to 5.86 in.; average 2.23 in.

Days suitable for fieldwork 1.9. Topsoil moisture 9% short, 60% adequate, 31% surplus; Subsoil moisture 39% short, 56% adequate, 5% surplus. Fall row crop tilling 29% complete, 36% 1990, 38% avg. Fall fertilizer application 22% complete, 30% 1990, 30% avg. Grain storage availability 14% short, 79% adequate, 7% surplus. Weather causing respiratory problems in livestock. No electricity from storm damage in some areas causing farrowing losses.

**KANSAS:** Temperatures 6 to 12° below normal with record lows in many areas. Snow, freezing rain covered State; precipitation 1.06 in. northwest to 2.53 in. northeast.

Days suitable for fieldwork 3.5. Topsoil 68% short, 32% adequate. Subsoil 91% short, 9% adequate. Snow, freezing rain drove farmers from fields late in week. Harvest corn complete; sorghum, soybeans nearing completion. Only few scattered fields remain. Wheat planting also near completion; emergence slow. Rain, snow may provide adequate moisture to germinate rest of crop. Feed grain, forage supplies short to adequate; cold weather placing increased demand on limited supplies. Weather slowed movement to sale barns.

**KENTUCKY:** Highs 70°, slightly above normal. Lows 40s, 5° above normal. Precipitation 1.00 in. west, 0.50 in. central. East less than 0.20 in. rain, little help in fighting forest fires.

Days suitable for fieldwork 3.5. Soil moisture 9% very short, 43% short, 42% adequate, 6% surplus. Corn harvest nearing completion. Nearly two thirds of soybean crop harvested. Burley stripping advanced to 32%, 24% 1990, 23% avg. Wheat 81% seeded, 67% 1990, 75% avg. Forest fires eastern areas. Pastures fair to good.

**LOUISIANA:** Temperatures 3 to 5° above normal. Extremes 30°; 90°. Rainfall 2.56 in. east central, southeast to 6.32 in. north central.

Days suitable for fieldwork 2.2. Soil moisture supplies 5% short, 30% adequate, 65% surplus. Hay 97% final cutting, 97% 1990, 99% avg. Pecans 39% poor, 43% fair, 18% good; 27% harvested, 25% 1990, 20% avg. Soybeans 98% leaves turning color, 100% 1990, 100% avg.; 94% shedding leaves, 96% 1990, 97% avg. Sugarcane 2% poor, 30% fair, 48% good, 20% excellent; 34% harvested, 10% 1990, 28% avg. Sweet potatoes 88% harvested, 85% 1990, 90% avg. Wheat 24% planted, 25% 1990, 31% avg.; 14% emerged, 14% 1990, 17% avg. Vegetables 8% poor, 61% fair, 31% good. Pastures 4% very poor, 9% poor, 12% fair, 24% good, 51% excellent. Livestock 31% fair, 67% good, 2% excellent. Crawfish pond management continued.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 0.01 in. Temperature 57.0°, normal 51.7°. Extremes 27°; 79°.

Days suitable for fieldwork 6.5. Topsoil 17% very short, 33% short, 50% adequate. Subsoil 22% very short, 28% short, 50% adequate. Field corn fair; soybeans fair to good; sorghum, small grains good. Field corn 89% harvested for grain, 84% 1990, 85% avg. Soybeans 60% harvested, 51% 1990, 51% avg. Sweet potatoes 94% harvested, 98% 1990, 96% avg. Wheat 76% seeded, 69% 1990, 74% avg. Barley 91% seeded, 92% 1990, 92% avg. Rye 75% seeded, 89% 1990, 84% avg. Other hay third cut 88% complete, N/A 1990, N/A avg.; fourth cut 62% complete, N/A 1990, N/A avg. Alfalfa fourth cut 94% complete, 96% 1990, 92% avg.; fifth cut 67% complete, 36% 1990, N/A avg. Hay supplies short to adequate. Pasture good, except western areas very poor. Activities: Active corn, soybean harvest; apple harvest virtually complete; small grain seeding; hay making winding down; stripping tobacco; caring for livestock.

**DELAWARE:** Precipitation none. Temperature 56.8°, normal 52.7°. Extremes 32°; 76°.

Days suitable for fieldwork 7.0. Topsoil 57% short, 43% adequate. Subsoil 29% short, 71% adequate. Soybeans fair to good. Sorghum, small grains good. Soybeans 51% harvested, 67% 1990, 54% avg. Sorghum 88% harvested, N/A 1990, N/A avg. Wheat 70% seeded, 64% 1990, 62% avg. Barley 91% seeded, 93% 1990, 89% avg. Rye 71% seeded, 86% 1990, 75% avg. Oats 80% seeded, N/A 1990, N/A avg. Alfalfa fifth cut 59% complete, N/A 1990, N/A avg. Hay supplies adequate. Pasture good condition. Activities: Harvesting soybeans, sorghum; planting small grains; caring for livestock.

**MICHIGAN:** Temperatures 6° below to 3° above normal. Extremes 10°; 73°. Precipitation 0.32 to 2.35 in. across the State.

Days suitable for fieldwork 3.0. Soil moisture 35% adequate, 65% surplus. Corn 85% harvested, 30% 1990, 50% avg. Soybeans 95% harvested, 85% 1990, 70% avg. Winter wheat 100% planted, 90% 1990, 85% avg.; 90% emerged, 80% 1990, 75% avg.; 15% fair, 55% good, 30% excellent. Pasture condition 85% of normal. Activities: Harvesting corn, sugarbeets, cutting wood.

**MINNESOTA:** Temperatures 9 to 16° below normal. Extremes 0°; 69°. Precipitation 0.89 to 3.47 in. Greatest weekly total 4.82.

Days suitable for fieldwork 4.2. Topsoil 5% very short, 15% short, 75% adequate, 5% surplus. Field corn 94% picked/combined, 85% 1990, 87% avg.; 16% moisture 26% 1990, 19% avg.; 66% stubble worked, 49% 1990, 60% avg. Soybeans 79% stubble worked, 69% 1990, 66% avg.

**MISSISSIPPI:** Temperature 65°, 5.4 above normal. Extremes 30°; 85°. Rainfall 2.06 in. 1.36 above normal. Showers statewide. Soil temperature 68°.

Days suitable for fieldwork 3.5, 6.6 1990, 5.5 avg. Soil moisture 24% short, 38% adequate, 26% surplus, 12% excessive. Corn 96% harvest, 99% 1990, 97% avg.; 4% very poor, 9% poor, 52% fair, 35% good. Cotton 88% harvest, 93% 1990, 89% avg.; 4% poor, 4% fair, 61% good, 31% excellent. Peanuts 96% harvest, 99% 1990, 98% avg. Rice 94% harvest, 97% 1990, 99% avg.; 63% fair, 18% good, 19% excellent. Sorghum 98% harvest, 99% 1990, 99% avg.; 1% poor, 44% fair, 40% good, 15% excellent. Soybeans 96% shedding leaves, 99% 1990, 100% avg.; 57% harvest, 61% 1990, 61% avg.; 4% poor, 23% fair, 58% good, 15% excellent. Sweet potatoes 97% harvest, 96% 1990, 92% avg. Wheat planted 52%, 55% 1990, 51% avg.; 40% emerged, 34% 1990, 40% avg.; 8% poor, 26% fair, 50% good, 16% excellent. Pecans 30% harvest, 13% 1990, 15% avg.; 2% very poor, 19% poor, 32% fair, 26% good, 21% excellent. Livestock 10% fair, 71% good, 19% excellent. Pasture 83% of normal. Activities: Harvesting crops, planting wheat.

**MISSOURI:** Temperatures 5 to 10° below normal except portions of east central, southeast near normal. Precipitation 2.75 in.; 2.00 in. west central, northern districts to 3.00 in. or more central, south central, southeast.

Days suitable for fieldwork 1.6. Topsoil 20% short, 53% adequate, 27% surplus, wettest areas southeastern, east central districts, driest areas northwest, west central districts. Subsoil 46% short, 47% adequate, 7% surplus. Harvesting progress ranged from none southeast to very minor elsewhere. Corn, soybean, sorghum harvesting still ahead of normal. Wheat seeding by district ranges 67% southeast to nearly 80% or more elsewhere. Additional seeding contingent upon several days warm weather. Ground worked at least once for spring crops 33%, 33% 1990, 35% avg. Pasture 14% very poor, 25% poor, 45% fair, 16% good.

**MONTANA:** Temperatures 16 to 36° below normal. Precipitation most areas with heaviest amounts in south central, southwest.

Extreme cold started winter livestock hay feeding season well ahead of normal. There is concern for winter wheat damage, assessment will not be feasible until early spring. Crop was not well hardened off. Snowcover protection helped. All crops virtually harvested. Livestock movement from summer ranges accelerated.

**NEBRASKA:** Extremely warm, then plunged into extreme cold. Temperatures 20 to 30° below normals. Precipitation form of rain, snow. Rainfall 0.70 in northwest to 2.00 in. east central.

Days suitable for fieldwork 3.6. Topsoil 73% short, 25% adequate, 3% surplus. Subsoil 84% short, 16% adequate. Corn 98% harvested, 89% 1990, 84% avg. Wheat 94% emerged, 100% 1990, 100% avg.; 8% very poor, 11% poor, 41% fair, 40% good.

**NEVADA:** Temperatures 4 to 16° below normal. Extremes -3°; 77°. Precipitation trace to 1.22. Cold temperatures, snow entered the State early. Moderate weather returned by weekend.

Snow, icy weather halted fieldwork early in the week. Potato, alfalfa seed harvest nearing completion. Livestock movement to winter grazing continues. Cold weather causing stress on young livestock.

**NEW ENGLAND:** Precipitation none to 1.35 in., up to 2.60 in. Massachusetts coastal areas. Temperatures high 30s to low 40s Northern Maine, mid 40s elsewhere north, mid 40s to low 50s south. Maximum temperatures low 50s to mid 70s; minimum temperatures low 20s to mid 30s.

Potato, corn, hay and cranberry harvests complete. Activities: Plowing fields, cutting firewood, making general repairs.

**NEW JERSEY:** Temperatures near normal, 49° north, 52° south, coastal. Extremes 22°; 75°. Precipitation below normal; averaged none north, south, 0.04 in. coastal. Heaviest 24 hour total 0.12 in. on 31st, 1st.

Harvest of corn continues active. Soybean combining active. Sweet potato digging active. Fall variety apple harvest progressed. Cranberry harvest well advanced. Plowing, planting active for cover crops. Early seeding growth good.

**NEW MEXICO:** Temperatures 9 to 26° below normal. A number of new record lows for the date were set over the State. Precipitation trace to 1.13 in.

Days suitable for fieldwork 4.0. Soil moisture 38% short, 62% adequate. Crop conditions: Alfalfa 33% fair, 67% good with the last cutting finished. Cotton 50% fair, 50% good. Corn good condition with grain harvest progressing. Irrigated sorghum 13% poor, 25% fair, 62% good. Dryland sorghum 25% fair, 75% good. Irrigated wheat 27% fair, 73% good. Dryland wheat 75% fair, 25% good. Pecans 20% poor, 40% fair, 40% good. Chile 33% fair, 67% good, with red harvest active. Lettuce harvest still active with crop in good shape. Cattle, sheep, fair to excellent. Range condition 90% of normal.

**NEW YORK:** Temperatures slightly above normal. Warmest at beginning of week when highs reached mid 70s. Lows for week dipped into the 20s. Precipitation generally light, scattered throughout week. All areas received less than 0.50 in. Extreme eastern Long Island received the most as a result of a strong ocean storm.

Days suitable for fieldwork 6.8. Soil moisture mostly short to adequate. Pasture conditions 65% of normal. Corn has dried down nicely, combining has picked up. Silage harvest virtually complete. Grain corn 72% harvested, 25% 1990, 38% avg. Some third cut alfalfa. Some late season vegetable crops were still being harvested. Broccoli, cabbage major crops. Orchard clean up continued. Growers busy packing apples, making cider.

**NORTH CAROLINA:** Temperatures 4 to 6° above normal. Precipitation none to 0.52 in.

Days suitable for fieldwork 6.5. Soil moisture 22% very short, 50% short, 26% adequate, 2% surplus. Crop condition: Cotton 7% fair, 85% good, 8% excellent; soybeans 1% poor, 31% fair, 66% good, 2% excellent; Pasture 4% very poor, 14% poor, 49% fair, 32% good, 1% excellent. Harvested: Corn for Grain 94%; sorghum for grain 68%; sweet potatoes 79%; Peanuts dug 99%; Peanuts threshed 93%; cotton 68%; soybeans 28%. Soybeans dropping leaves 91%; wheat emerged 24%. Planted: Wheat 45%; oats 64%; barley 70%; rye 55%. Activities: Harvesting cotton, corn, sorghum, sweet potatoes, soybeans, truck crops, peanuts, hay; planting small grains. Other activities: Land preparation; seeding pastures; shearing Christmas trees; tending livestock; equipment repair; general farm maintenance.

**NORTH DAKOTA:** Temperatures 29° below normal southwest to 18° below normal east central. Extremes -15° west central; 57° southeast. Precipitation 0.62 in. northwest to 1.71 in. central.

Days suitable for fieldwork 0.1. Topsoil 7% very short, 28% short, 63% adequate, 2% surplus. Subsoil 20% very short, 57% short, 21% adequate, 2% surplus. Corn for grain 100% harvested, 96% 1990, 93% avg. Sunflower 98% harvested, 99% 1990, 95% avg. Pastures furnished 24% of livestock roughage requirements. Stockwater supplies 8% very short, 47% short, 45% adequate.

**OHIO:** High temperatures 60° to the mid 70s, by 3rd were only in the 20s to the mid 30s. The low temperatures plunged into the 10s to the mid 20s 3rd. Distribution of precipitation was characterized by extremes. Within crop reporting districts, there were reports of anywhere from none to 6.00 in. of rainfall. Some areas dry, muddy, while some remained extremely dry.

Days suitable for fieldwork 5.7. Fall harvest is almost done. Soil moisture 58% short, 36% adequate, 5% surplus. Pastures 14% very poor, 28% poor, 34% fair, 21% good, 3% excellent. Winter wheat planted 96% complete, 79% in 1990, 87% 5 yr avg. Winter wheat emerged 77% complete, 46% in 1990, 62% 5 yr avg. Activities: Digging sugarbeets, hauling manure, fall tillage, chiseling, winterizing, repairing machinery, working with, preparing livestock for the winter, spreading lime, fertilizing, finishing up harvesting of corn, soybeans, planting winter wheat. Many farmers still scavenging for extra winter feed supplies.

**OKLAHOMA:** Temperatures 29° below normal Panhandle to 16° below normal southeast. Precipitation 0.40 in. Panhandle to 4.47 in. southeast.

Days suitable for fieldwork 3.9. Topsoil 11% short, 53% adequate, 36% surplus. Subsoil 28% short, 72% adequate. Wheat 93% planted, 96% 1990, 93% avg.; 68% emerged, 75% 1990, 77% avg.; 5% grazed, none 1990, 11% avg. Wheat fair. Cotton 82% open bolls, 96% 1990, 85% avg.; 16% harvested, 37% 1990, 18% avg. Cotton fair. Sorghum 93% mature, 97% 1990, 94% avg; 41% harvested, 73% 1990, 44% avg. Sorghum fair. Soybeans 48% harvested, 43% 1990, 40% avg.; good. Peanuts 73% harvested, 55% 1990, 60% avg. Pasture 92%. Cattle good; marketings average; prices mixed.

**OREGON:** Temperatures well below normal, statewide. Temperature departures 10 to 20° below normal, eastern areas; normal to 10° below normal, western areas. Precipitation abundant across State, heaviest on the central coast, northwestern Cascades. Laurel Mountains 0.94 in. precipitation. Elsewhere amounts 0.10 to 0.50 in.

Soil moisture 57% short, 43% adequate. 1992 winter wheat planted, 85%. 1992 winter wheat emerged, 46%. Snow, freezing temperatures stopping fieldwork, some planting will wait until spring, eastern areas. Mint, wheat, grass seeds planting; fertilizer, herbicide applications continue, western areas. Hazelnut harvest continued, slowed by rain. Late variety apples concluding, Lane County. Cranberry harvest continued, southern coast. Berry field pruning, cleanup, complete. Wine grapes, fall cole crop, carrot, pumpkin harvest continued, Willamette Valley. Potato harvest concluding, statewide. Livestock mostly good to excellent. Fall activities continued, statewide. Snow, ice caused

some problems in eastern areas. Statewide range, pasture, 2% very poor, 11% poor, 40% fair, 47% good.

**PENNSYLVANIA:** Dry, mild across the Commonwealth. Temperature 50°, 1° above normal. Extremes 19°; 80°. Precipitation 0.04 in., 0.62 in. below normal.

Days suitable for fieldwork 6. Soil moisture 78% short, 22% adequate. Corn 99% mature, 87% 1990, 92% avg.; 68% harvested, 28% 1990, 43% avg. Ensilage corn harvested 100% harvested, 84% 1990, 93% avg. Corn 20% very poor, 25% poor, 28% fair, 22% good, 5% excellent. Soybean harvest 63% complete, 31% 1990, 43% avg. Soybean 10% very poor, 24% poor, 31% fair, 31% good, 4% excellent. Potato harvest 96% complete, 94% 1990, 97% avg. Fall plowing 85% complete, 85% 1990, 91% avg. Winter wheat 96% planted, 89% 1990, 93% avg. Barley 100% planted, 96% 1990, 98% avg. Third cutting alfalfa 100% complete, 94% 1990. Fourth cutting alfalfa 84% complete, 72% 1990. Quality of hay made during week mostly fair to good. Amount of feed being obtained from pastures 34% very poor, 36% poor, 24% fair, 6% good. Apple harvest 96% complete, 91% 1990. Grape harvest 100% complete, 98% 1990. Activities: Repairing fence; hauling manure; harvesting hay, corn, soybeans; maintaining machinery; caring for livestock; fall plowing.

**PUERTO RICO:** Island rainfall of 1.50 in. was 0.15 in. below normal. Highest rainfall was 8.28 in. at Corozal Aes, 6.96 in. Negro-Corozal, 3.80 in. at Dos Bocas. Highest 24 hour total 3.52 in. at Corozal Aes. Divisional temperatures 80 to 81° on Coast, 73 to 75° in the Interior with mean station temperature 67.4° at Pico Del Este Luquillo to 83° at Vieques. Extremes 55°; 93°.

**SOUTH CAROLINA:** Temperatures near normal in the midlands to 2° above normal elsewhere. Rainfall none northeast to 0.30 in. mountains.

Days suitable for fieldwork 6.3. Soil moisture 29% very short, 66% short, 3% adequate, 2% surplus. Cotton 18% fair, 82% good; 66% harvested, 82% 1990, 68% avg. Fall hay fair to good; 94% harvested, 86% 1990, 92% avg. Peanuts fair to good; 97% harvested, 83% 1990, 83% avg. Sorghum fair to good; 81% harvested, 79% 1990, 69% avg. Soybeans 58% fair, 42% good; 80% shedding leaves, 82% 1990, 83% avg; 69% mature, 74% 1990, 73% avg.; 24% harvested, 21% 1990, 19% avg. Sweet potatoes fair to good; 84% harvested, 80% 1990, 75% avg. Winter grazing fair; 69% planted, 77% 1990, 78% avg.; 51% emerged, 65% 1990, 62% avg. Pastures 17% poor, 67% fair, 16% good.

**SOUTH DAKOTA:** Cold temperatures throughout the week. Temperatures 16 to 34° below normal. Extremes -19°; 65°. A major storm brought rain, snow to much of the west. Another storm brought up to 13.0 in. of snow to the southeast. Snow covered much of west, southeast, east central. Maximum depth 15.0 in. northwest, 13.0 in. south east.

**TENNESSEE:** A strong cold front crossed state 1st. Many stations recorded high temperature records 28th, low temperature records 3rd. Abundant rainfall west. East remained dry.

Days suitable for fieldwork 4.9. Soil moisture 17% very short, 29% short, 44% adequate, 10% surplus. Cotton 80% harvested, 77% 1990, 82% avg. Soybeans 90% mature, 80% 1990, 90% avg.; 45% harvested, 42% 1990, 60%

avg. Burley tobacco 48% stripped, 47% 1990, 48% avg. Wheat 62% seeded, 49% 1990, 69% avg. Pastures 6% very poor, 10% poor, 48% fair, 35% good, 1% excellent. Cattle 1% poor, 19% fair, 78% good, 2% excellent.

**TEXAS:** Week started on warm note as strong southerly flow kept temperatures near or above normal. Cold surge arrived mid week, crushed temperatures below freezing with snow in Plains. The surge pushed further into State bringing unusually cold conditions for all districts in State by weekend. Largest departure in Plains, -30° in south plains to -7° in Lower Rio Grande Valley where cold air is taking hold. Heaviest rainfall occurred ahead of cold wave in East Texas. Heavy rains triggered by strong moist flow leading up to cold snap. Rain departures above normal all areas except Panhandle, South Plains where dry cold air mass limited rainfall amounts. Rain departures +2.54 in. East Texas to +0.69 in. Lower Valley. Negative departures -0.03 to -0.15 in. across West Texas.

**Crops:** Cold, wet conditions delayed sorghum harvest. Activities should progress rapidly as conditions permit. Some fields on Plains damaged by hail late in week. Overall yields remained good to excellent. Late cotton on Plains affected by killing freeze late in week. Dry, warmer days needed to promote opening, drying of bolls that were developed enough when freeze came. Harvest activities delayed, should resume soon, accelerate rapidly in next few weeks due to freeze. Some fields in Plains damaged by hail. Moisture allowed some small grain producers to complete planting. Dryland fields improve with recent rain. Some fields in Blacklands received slight hail damage. Some replanting of wheat necessary due soil erosion before seed had germinated, established roots. Statewide wheat 76% of normal compared with 72% 1990. Soybean harvest continued as conditions permitted. Yields above average in Blacklands because of good conditions. Rain, freezing temperatures interrupted peanut harvest. Some dug fields that were not thrashed severely damaged by freeze. Peanuts remaining in field suffer potential threat from excess moisture received over week. Statewide peanut condition rate at 84% normal.

**Commercial Vegetables:** Rio Grande Valley, rain, cold temperatures delayed peppers, cucumber harvest. Broccoli, cabbage planting continued. High Plains, carrot harvest winding down. East Texas, cultivating cole crops began. Trans Pecos, onions emerging, land preparation continued. Rain delayed pecan harvest in Central Texas. Some hail damage in Blacklands. Yields ranged from fair to good.

**Range and Livestock:** Recent moisture aided range, pasture conditions. Pasture quality quantity continued to decline, recent rain should improve conditions. Calves being weaned, yearlings being shipped to feed yards. Many producers began supplemental feeding due to snow, cold conditions.

**UTAH:** Temperature maximums 16° below normal, minimums 4° below normal. Moderate precipitation all areas of the State.

Days suitable for fieldwork 2.7. Soil moisture 17% short, 75% adequate, 8% surplus. Winter wheat 84% emerged. Corn grain 60% harvested. Fourth crop alfalfa hay 85% cut. Apple harvest 97% completed. Cattle 98% in from range. Sheep 97% in from range.

**VIRGINIA:** Above normal temperatures first part of week, then cooling to near normal by weekend. Extremes 22°; 84°. Precipitation was sparse.

Days suitable for fieldwork 6.4. Topsoil 50% very short, 28% short, 22% adequate. Corn for grain 93% harvested, 83% 1990, 81% avg. Soybeans 38% harvested, 40% 1990, 30% avg. Cotton harvested 56%. Wheat 52% seeded, 54% 1990, 50% avg. Oats 91% seeded, 86% 1990, 85% avg. Barley 92% seeded, 87% 1990, 87% avg. Winter grain condition 32% very poor, 18% poor, 37% fair, 11% good, 2% excellent. Pasture 38% very poor, 22% poor, 36% fair, 4% good. Livestock 18% poor, 49% fair, 31% good, 2% excellent. Forage from pastures, winter grazing crops; dairy cattle 18%, beef cattle 65%, sheep 67%. Marketing feeder cattle, supplemental livestock feeding, preparing burley tobacco for market.

**WASHINGTON:** Temperatures 2 to 7° below normal, east; normal to 6° below normal, west. Precipitation 0.01 to 0.63 in. east; 0.59 to 1.34 in. west.

Days suitable for fieldwork 5.5. Soil moisture 74% short, 26% adequate. Hay, other roughage 1% very short, 10% short, 88% adequate, 1% surplus. Irrigation water 100% short. Range and pasture 5% very poor, 47% poor, 48% fair. Winter wheat 6% very poor, 1% poor and 93% fair. Potatoes 100% good. Dry beans 100% good. Corn 100% good. Winter wheat 87% planted, 75% emerged. Potatoes 83% harvested. Corn for grain 30% harvested. Dry beans 100% harvested. Measurable rain across the dryland wheat growing area helped the seeding efforts. Seeding will continue for about another week or so if farmers can reenter the fields. Some winter canola has been killed by frost in Garfield County. Fruit harvest was winding down. Carrot harvest was

about 50% complete. Calves looked good coming out of the mountain ranges.

**WEST VIRGINIA:** Temperature 51°. Extremes 20°; 80°. Precipitation none.

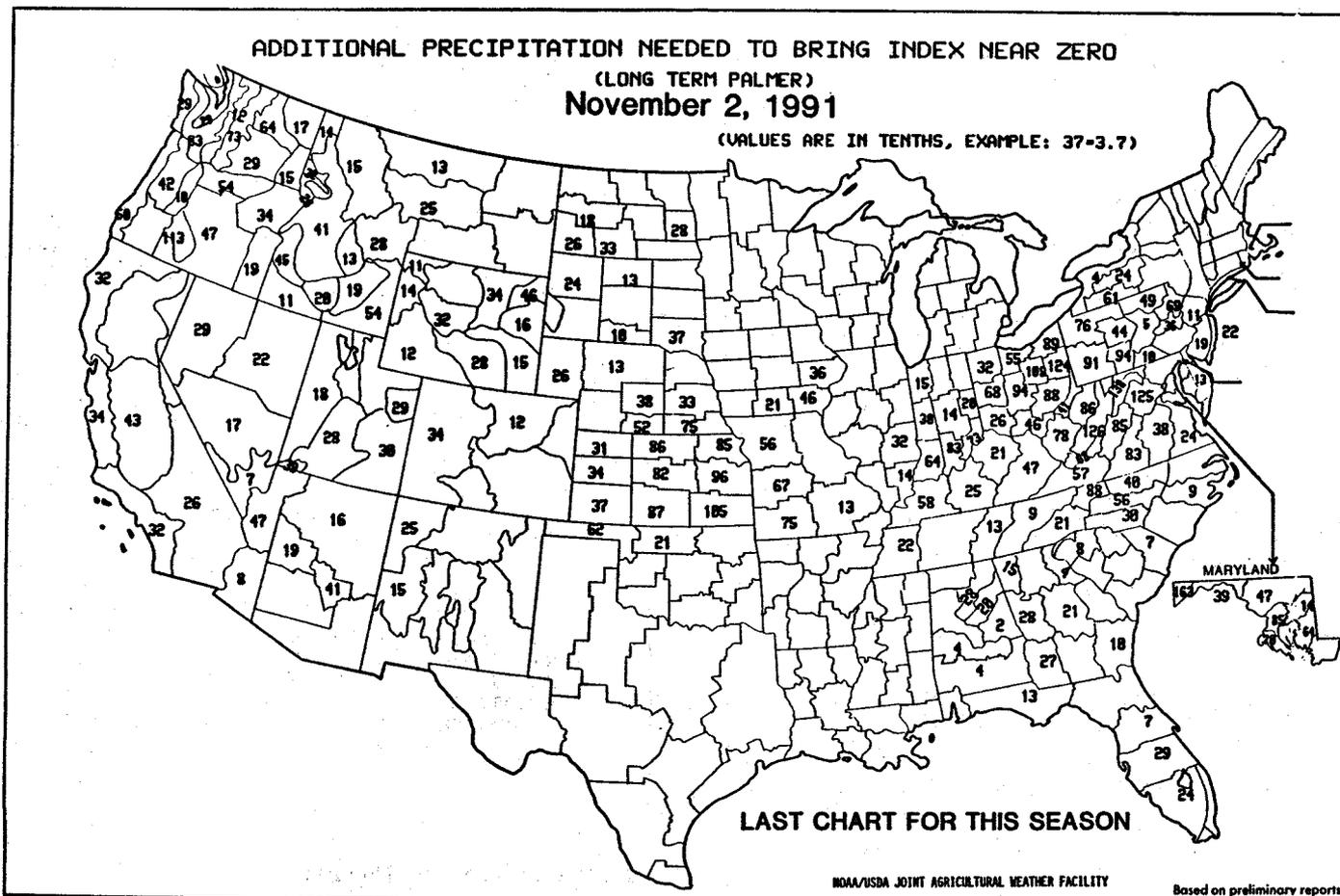
Days suitable for fieldwork 6.2. Soil moisture 29% very short, 63% short, 8% adequate. Corn, 3% very poor, 44% poor, 23% fair, 30% good; 88% harvested. Hay, 14% very poor, 53% poor, 19% fair, 14% good; 97% second cutting, 89% third cutting. Wheat, 35% sown. Apples poor. Pastures, 58% very poor, 17% poor, 25% fair; 46% of normal. Cattle, good, Sheep, very poor. Activities: Fencing, cutting hay, harvesting corn, chopping silage, harvesting apples, planting wheat, marketing livestock.

**WISCONSIN:** Temperature 35°, 5° below normal. Extremes 0°; 68°. Precipitation 1.40 to 3.60 in. An early season snowstorm went through the State. By the weekend, some of the counties in the north-west had received between 20 and 35 in. of snow.

Days suitable for fieldwork 1.3. Soil moisture 2% short, 59% adequate, 39% surplus. Corn for grain 74% harvested, 44% 1990, 66% avg. Soybeans 91% harvested, 86% 1990, 83% avg. Fall tillage 50% complete, 32% 1990, 45% avg. Progress of fall activities was delayed due to a cold, very wet week. Hay, roughage supplies good shape; 1% short, 54% adequate, 45% surplus.

**WYOMING:** Temperatures well below normal statewide. Precipitation mostly above normal.

Sugarbeet harvest concluding. 1992 winter wheat fair to good, additional moisture needed. Livestock mostly good, movement to markets, winter range continuing.



## October 1991

MONTHLY DATA FROM SELECTED FOREIGN CITIES  
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA  
\*\*\* = DATA NOT AVAILABLEInternational Weather and Crop Summary  
HIGHLIGHTS

October 27 - November 2, 1991

USSR ... Rain turns to snow, further aggravating late harvest conditions. Winter grains begin entering dormancy in the north about 2-3 weeks later than usual.

EUROPE ... Heavy rain disrupts crop harvests in the northwest. Unseasonably cold weather blankets the east.

EASTERN ASIA ... The North China Plain winter wheat region remains dry. Late rice harvesting continues across southern China.

SOUTHEAST ASIA ... Seasonably drier weather covers Indochina. Heavy rain from Typhoon Ruth soaks the northwestern Philippines.

SOUTH ASIA ... A cyclone brings flooding to southern India's coastal rice areas.

SOUTH AMERICA ... Beneficial rains cover central and northern Argentina into southern Brazil. Brazilian coffee and citrus region receives scattered light rains, but soil moisture reserves are low.

AUSTRALIA ... Rains favor planting of eastern summer crops, but arrive too late to aid winter wheat.

MEXICO ... Scattered rains delay eastern summer crop harvesting.

NORTHWESTERN AFRICA ... Light showers in eastern Algeria and Tunisia keep topsoils moist for early winter grain planting. The second consecutive week of dry weather in Morocco slows early season planting.

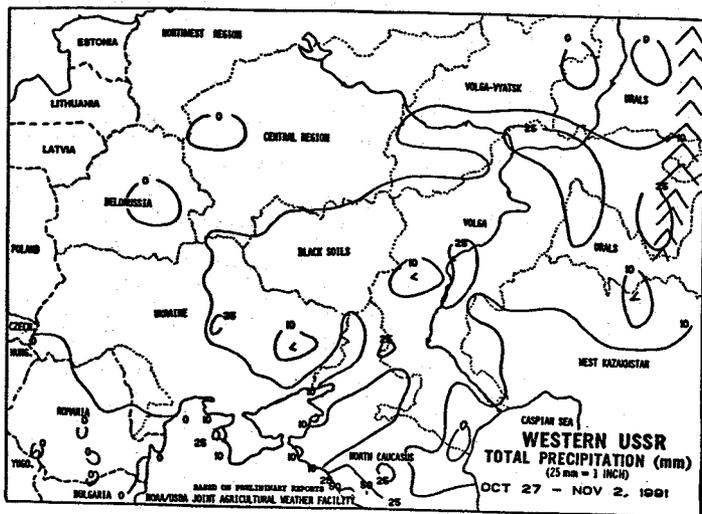
SOUTH AFRICA ... Corn planting progresses.

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	8	2	13	-5	5	0.6	92	-1
SWEDEN	STOCKHOLM	10	5	18	-4	7	-0.3	31	-21
FINLAND	HELSINKI	9	4	14	-5	6	0.7	51	-15
U KING	GLASGOW	12	6	15	-1	9	-0.6	91	-39
	EDINBURGH	12	7	15	2	9	-0.3	46	-12
	BIRMINGHAM	13	7	20	2	10	0.1	38	-14
	LONDON	14	7	21	-2	10	-0.4	35	-26
IRELAND	DUBLIN	13	8	18	3	10	-0.5	87	19
ICELAND	REYKJAVIK	7	3	11	-3	5	-0.2	82	-14
DENMRK	COPENHAGEN	13	7	19	-2	10	0.3	16	-43
LUXEMB	LUXEMBOURG	12	6	20	-2	9	-0.3	47	-11
SWITZL	ZURICH	12	6	20	-2	9	0.2	31	-42
	GENEVA	14	7	20	-2	10	0.4	109	38
FRANCE	PARIS	15	7	24	1	11	0.0	27	-20
	STRASBOURG	14	6	22	-2	10	0.2	47	8
	BOURGES	15	7	21	-1	11	-0.5	47	-11
	BORDEAUX	17	9	22	1	13	-0.1	145	62
	TOULOUSE	17	8	23	-1	13	-0.6	17	-33
	MARSEILLE	19	11	26	3	15	0.0	101	17
SPAIN	VALLADOLID	17	7	25	0	12	-0.8	34	-7
	MADRID	17	8	27	0	13	-1.8	52	-1
GERMNY	LEIPZIG	14	5	25	-5	10	0.4	15	-28
	DRESDEN	14	6	23	-3	10	0.8	15	-37
	HAMBURG	13	5	21	-4	9	-0.3	47	-12
	BERLIN	14	6	24	-2	10	0.3	24	-18
	DUSSELDORF	15	8	21	4	12	1.1	29	-24
	STUTTGART	13	4	21	-6	8	-1.2	27	-15
	NURNBERG	13	4	22	-5	9	0.0	13	-32
	MUNICH	12	4	21	-6	8	-0.4	42	-16
AUSTRI	VIENNA	14	6	23	-6	10	-0.3	27	-23
	INNSBRUCK	15	4	23	-2	10	0.7	23	-37
CZECH	PRAGUE	13	3	23	-8	8	-0.4	7	-31
POLAND	WARSAW	12	4	22	-4	8	0.0	37	-3
	LODZ	12	5	22	-6	8	0.4	25	-15
	KATOWICE	12	4	22	-8	8	-0.1	45	-9
	PRZEMYSL	11	5	21	-4	8	-0.6	98	50
HUNGAR	BUDAPEST	14	7	23	-4	10	-0.7	57	18
YUGOSL	SARAJEVO	16	5	30	-6	11	0.7	80	-50
ROMANI	BUCHAREST	18	7	32	-7	12	0.9	63	33
BULGAR	SOFIA	15	7	29	-6	11	0.5	39	12
ITALY	MILAN	17	9	24	1	13	0.5	51	-62
	VERONA	16	8	24	0	12	-0.7	134	60
	VENICE	17	10	25	1	13	-0.2	54	-24
	GENOA	19	14	26	7	16	-1.5	161	-11
	ROME	21	13	25	5	17	0.4	232	149
	NAPLES	22	14	29	7	18	1.8	55	-68
GREECE	THESSALONIKA	21	13	32	6	17	0.9	27	-23
	LARISSA	23	12	36	8	17	1.0	26	-35
	ATHENS	23	17	34	10	20	0.3	31	-34
TURKEY	ISTANBUL	19	13	30	5	16	0.9	139	75
	ANKARA	19	5	30	-6	12	0.3	34	16
CYPRUS	LARNACA	28	17	34	11	22	0.8	13	-13
USSR	TALLINN	10	4	20	-6	7	1.0	51	-7
	LENINGRAD	10	5	18	-2	8	2.3	59	-1
	KAUNAS	11	4	21	-4	8	0.6	41	-7
	MINSK	10	4	21	-4	7	1.2	19	-28
	KAZAN	10	4	23	-10	7	3.8	67	24
	MOSCOW	10	4	23	-5	7	2.0	112	56
	SVERDLOVSK	10	3	23	-10	7	5.4	19	-18
	OMSK	11	2	22	-9	6	4.8	8	-22
	KUSTANAY	14	2	23	-8	8	5.4	10	-16
	KRASNOYARSK	6	0	18	-13	3	1.7	64	29
	NOVOSIBIRSK	8	1	20	-8	4	3.4	58	28
	BARNAUL	10	2	18	-7	6	3.3	35	-10
	KHABAROVSK	10	1	22	-8	6	1.1	62	20
	VLADIVOSTOK	13	7	20	-3	10	1.7	126	64
	KIEV	12	6	26	-1	9	1.3	60	20
	LVOV	12	5	22	-7	8	0.4	76	27
	KIROVOGRAD	14	7	28	-5	11	2.1	38	7
	ODESSA	15	10	22	-3	12	1.3	37	18

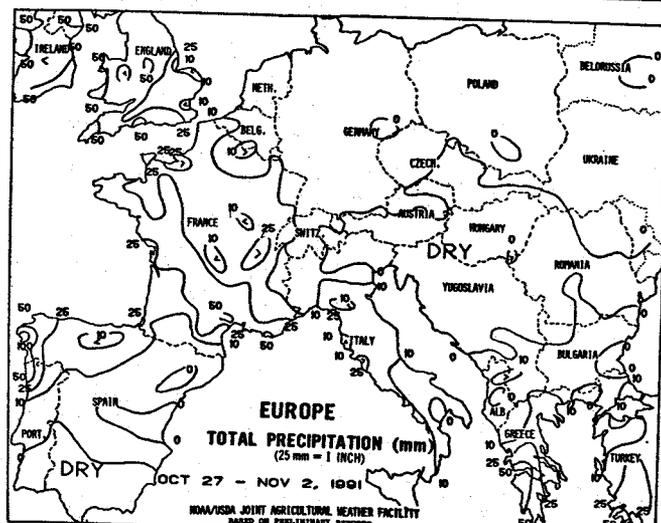
Based on Preliminary Reports

October 1991

COUNTRY	CITY	TEMPERATURE					PRECIPITATION				COUNTRY	CITY	TEMPERATURE					PRECIPITATION													
		(C)					(MM)						(C)					(MM)													
		AVG MAX	AVG MIN	HI	LO	DPART	AVG	F/NRM	TOTAL	DPART			AVG MAX	AVG MIN	HI	LO	DPART	AVG	F/NRM	TOTAL	DPART										
USSR	YALTA	19	13	25	3	16	1.5	28	-19											GABON	LIBREVILLE	28	23	29	21	25	-0.5	63	-344		
	VORONEZH	13	5	26	-3	9	3.3	62	22											TOGO	LOME	30	23	31	20	26	0.2	105	7		
	SARATOV	14	7	25	-1	11	5.6	47	10											B FASO	OUGADOUGOU	35	23	38	20	29	-0.1	34	-5		
	KHARKOV	14	7	26	-3	11	3.3	58	25											IVRY C	ABIDJAN	29	23	33	22	26	0.0	74	-94		
	VOLGOGRAD	16	7	26	-2	12	4.0	18	-12											MOZAMB	MAPUTO	28	20	37	13	24	1.2	0	-60		
	ROSTOV	18	8	27	-1	13	4.0	53	17											ZAMBIA	KABWE	29	17	34	12	23	-1.3	71	50		
	ASTRAKHAN	21	7	31	0	14	4.5	3	-13											ZIMBAB	HARARE	28	15	33	9	22	0.7	25	-12		
	KRASNODAR	20	9	29	-1	15	3.6	58	23											S AFRI	PRETORIA	28	16	34	11	22	2.2	35	-36		
	ORENBURG	16	6	25	-3	11	7.1	14	-27												KROONSTAD	26	12	33	6	19	0.3	62	-4		
	TSELINOGRAD	14	2	21	-6	8	5.0	15	-3												JOHANNESBURG	25	12	31	6	18	1.1	67	-1		
	KARAGANDA	14	2	21	-5	8	5.3	14	-15												BETHAL	25	10	31	1	18	0.5	20	-58		
	TBILISI	22	12	28	4	17	3.3	62	21												DURBAN	24	18	28	11	21	1.0	134	44		
	TASHKENT	23	8	28	2	16	2.5	5	-28												CAPE TOWN	21	13	26	7	17	1.4	48	13		
	ASHKHABAD	27	10	32	3	18	2.8	0	-18												CANADA	TORONTO	16	5	27	-3	10	1.1	46	-16	
SYRIA	DAMASCUS	29	11	34	3	20	0.1	1	-9												MONTREAL	14	5	24	-3	10	0.8	72	-4		
ISRAEL	JERUSALEM	26	15	31	9	20	-0.1	20	-2												WINNIPEG	7	-3	20	-16	2	-4.2	75	44		
PAKIST	KARACHI	36	21	45	18	29	0.9	0	0												REGINA	9	-4	27	-20	2	-3.0	17	-2		
INDIA	AMRITSAR	32	14	38	10	22	-2.0	9	-16												SASKATOON	6	-5	24	-24	1	-4.1	57	40		
	NEW DELHI	33	18	35	16	26	-0.7	0	-35												LETHBRIDGE	12	-3	31	-27	5	-3.0	25	7		
	AHMEDABAD	37	19	38	16	28	-0.7	0	-11												CALGARY	9	-5	27	-25	2	-3.3	17	-1		
	INDORE	34	17	36	15	26	0.5	3	-33												EDMONTON	7	-3	24	-18	2	-4.1	62	45		
	CALCUTTA	31	24	34	21	28	0.0	132	0												VANCOUVER	13	5	24	-4	9	-0.7	27	-87		
	VERAVAL	34	22	38	17	28	0.3	0	-27												MEXICO	GUADALAJARA	25	13	29	9	19	0.0	116	46	
	BOMBAY	34	23	37	20	29	1.0	0	-117													MEXICO CITY	21	12	24	9	16	1.2	133	99	
	POONA	32	17	34	11	25	-0.5	0	-76													ACAPULCO	32	24	34	13	28	0.1	106	-54	
	BEGAMPET	31	22	34	17	26	1.2	44	-45												BERMUD	ST. GEORGES	27	23	30	16	25	0.4	141	-20	
	MADRAS	32	25	36	23	29	0.5	230	-49													BAHAMA	NASSAU	30	24	33	18	27	1.3	101	-105
	MANGALORE	32	23	34	19	27	0.6	79	-127													CUBA	HAVANA	29	24	34	22	26	0.8	91	-85
H KONG	HONG KONG	27	23	31	17	25	0.1	297	175													JAMAIC	KINGSTON	32	25	33	23	29	1.4	15	-163
N KREA	PYONGYANG	16	4	24	-3	10	-1.2	45	-8													P RICO	SAN JUAN	32	24	34	23	28	0.6	46	-95
S KREA	SEOUL	20	9	26	4	14	0.9	27	-22													GUADEL	RAIZET	32	23	33	21	27	0.9	55	-113
JAPAN	SAPPORO	17	6	23	0	12	0.9	90	-26													BARBAD	BRIDGETOWN	30	24	31	22	27	-0.2	33	-135
	NAGOYA	22	15	28	9	19	1.6	216	95													TRINID	PORT OF SPAIN	32	23	34	22	28	1.4	46	-120
	TOKYO	21	16	28	12	19	1.2	550	369													COLOMB	BOGOTA	19	7	27	2	13	0.1	103	-25
	YOKOHAMA	20	16	27	13	18	1.1	561	374													VENEZU	CARACAS	32	24	35	24	28	0.9	10	-34
	KYOTO	22	15	29	9	18	1.8	258	134													F GUIA	CAYENNE	31	21	32	20	26	0.0	18	-50
	OSAKA	22	16	28	11	19	1.0	247	133													BRAZIL	PORTALEZA	29	24	30	22	26	-1.0	68	54
THAILN	PHETCHABUN	32	23	34	18	28	0.2	13	-81													RECIFE	27	22	29	20	25	-1.1	161	115	
	BANGKOK	32	24	37	21	28	0.4	340	122													BELO HORIZONTE	27	18	31	15	22	0.2	85	-54	
MALAYS	KUALA LUMPUR	32	23	33	21	28	1.3	161	-108													CAMPO GRANDE	30	20	35	13	25	1.8	109	-53	
VIETNM	HANOI	30	24	33	17	27	1.6	17	-82													FRANCA	27	18	32	14	23	1.6	105	-26	
CHINA	HARBIN	12	2	24	-7	7	1.2	22	-5													RIO DE JANEIRO	25	20	32	17	22	-0.9	95	10	
	HAMI	20	2	25	-2	11	0.8	0	-2													LONDRINA	28	17	34	12	23	1.5	34	-147	
	LANCHOW	16	6	21	-2	11	1.6	12	-12													SANTA MARIA	25	16	37	8	22	2.7	64	-113	
	BEIJING	20	9	26	1	14	1.5	12	-12													PERU	LIMA	21	16	23	15	19	1.6	1	-1
	TIENTSIN	20	10	26	3	15	1.0	11	-14													BOLIVI	LA PAZ	16	1	18	-2	8	-1.5	24	-14
	LHASA	19	2	22	-5	10	1.3	0	-7													CHILE	SANTIAGO	22	6	29	-3	14	-0.1	7	-4
	KUNMING	20	13	25	10	17	1.9	168	85													ARGENT	IGUAZU	29	17	36	7	23	***	116	***
	CHENGCHOW	23	9	28	-1	16	0.8	3	-41													FORMOSA	27	18	37	8	23	0.3	76	-67	
	YEHCHANG	25	15	31	7	20	1.3	7	-70													CERES	24	12	38	3	18	-1.7	80	3	
	HANKOW	24	13	31	3	18	1.0	6	-56													CORDOBA	24	10	38	1	17	-0.9	21	-49	
	CHIHKIANG	22	14	31	3	18	0.1	75	-22													RIO CUARTO	20	10	33	2	15	-1.3	84	-8	
	NANCHANG	23	16	31	8	20	0.1	38	-18													ROSARIO	23	11	33	1	17	-0.1	59	-39	
	TAIPEI	25	22	31	18	23	0.3	82	-40													BUENOS AIRES	21	10	31	-1	16	-0.1	136	4	

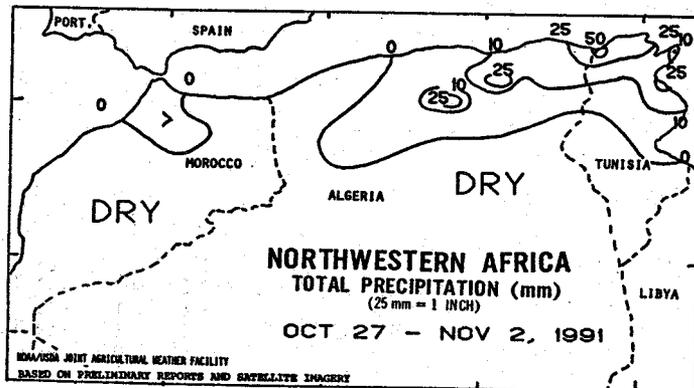


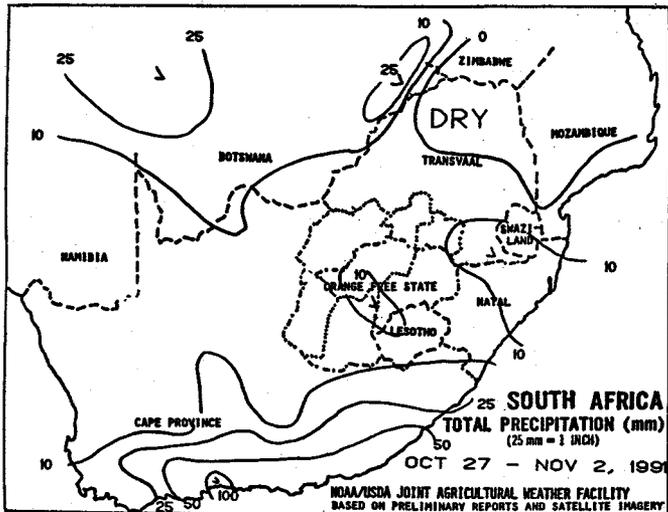
**WESTERN USSR** ... The coldest weather of the season spread south and eastward, turning rain to snow. Greatest amounts of precipitation (10-25mm, with local amounts in excess of 25mm) fell over eastern Ukraine, North Caucasus, Black Soils Region, and Volga Valley. Although the precipitation in these areas improved topsoil moisture for winter grains, it caused further delays in corn harvesting. Average weekly temperatures were 5-8 degrees Celsius (C) below normal over the region, ranging from 0 to -5 degrees C. Temperatures were low enough to halt vegetative growth as far south as the Black Sea Coast. Winter grains over the northern half of the region began entering dormancy about 2-3 weeks later than usual. Crops in Ukraine, North Caucasus, and lower Volga continued to harden.



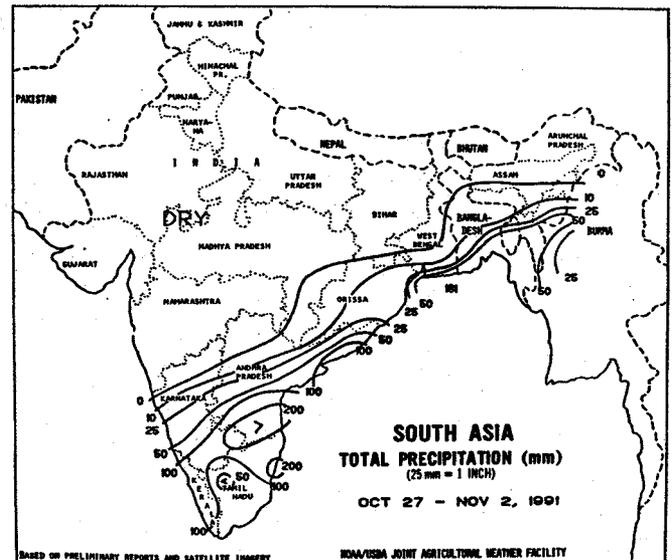
**EUROPE** ... Locally heavy rain (50-91mm) fell over the United Kingdom, disrupting the sugarbeet harvest. Significant precipitation (10-46mm) slowed corn harvesting, advancing into its final stages, in France. The moisture benefited winter grain establishment, including crops in northwestern Spain and northern Portugal where 10-50mm or more helped soil moisture supplies. Variable showers (5-69mm) covered western Italy and Greece. Dry weather prevailed over the southern half of the Iberian peninsula and across central and eastern Europe. Scattered, light showers (5mm or less) caused little, if any, interference to fieldwork in Germany and Poland. The drier weather was welcomed in the southeast, following last week's soaking rain, but additional topsoil moisture would be beneficial for winter grains in the northeast. The temperature pattern showed a marked contrast, with generally seasonal temperatures in the west and along the Mediterranean region but much colder weather persisting in the east. Weekly temperatures averaged 3-10 degrees below normal, with minimum temperatures of -7 degrees C in Poland and -11 degrees C in Romania pushing winter grains into dormancy.

**NORTHWESTERN AFRICA** ... Light showers (10-25mm) over northeastern Algeria and Tunisia continued to keep topsoils moist for early winter grain planting. The second consecutive week of dry weather over winter grain areas in Morocco and western Algeria may have slowed early season planting as more consistent rains are needed to stimulate widespread planting.

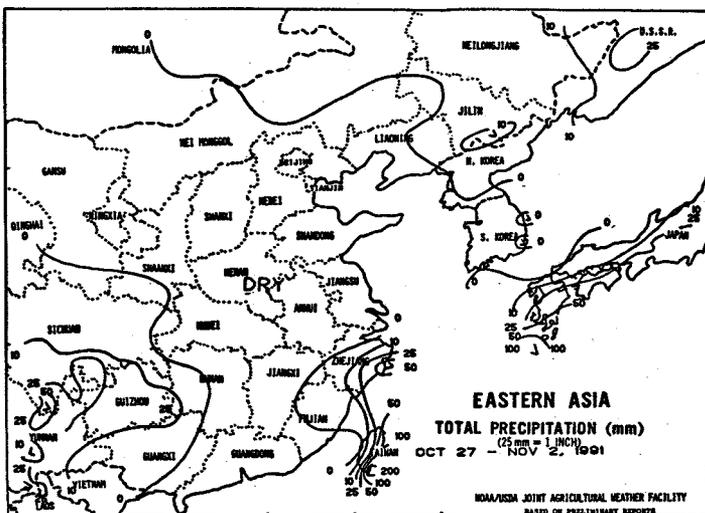




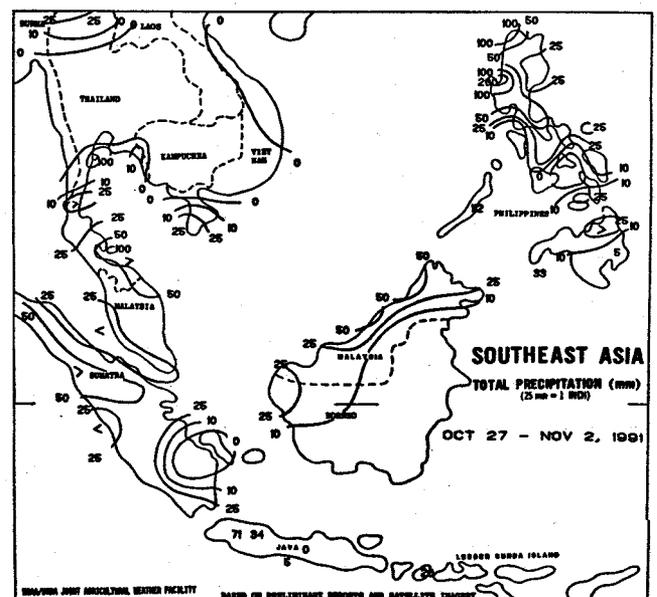
**SOUTH AFRICA** ... Light rain (1-17mm), accompanied by seasonably warm temperatures, covered South Africa's primary corn areas. The return of drier weather favored corn planting and field preparations across the region following 2 weeks of unseasonably wet weather. The dryness also extended into Natal's sugarcane region, but moderate to heavy rain (25-130mm) swept across the southern Cape Province.



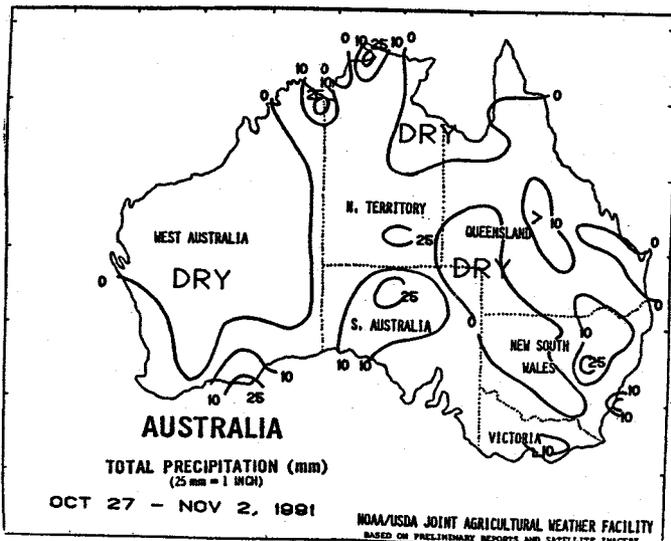
**SOUTH ASIA** ... A cyclone brought heavy rain (50-200mm or more) to India's southern coast as it made landfall and dissipated over the southern interior. Flooding from the storm occurred in coastal rice areas from Kerala to Andhra Pradesh, where planting is typically just underway. Scattered showers (10-72mm) also fell in rice areas of West Bengal and Bangladesh, boosting reservoir levels for upcoming plantings.



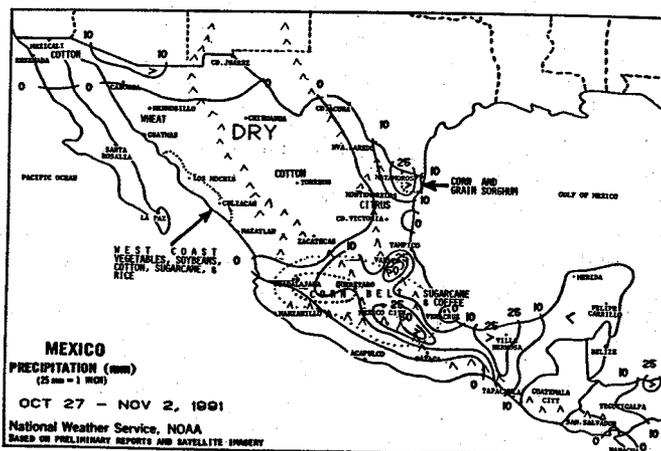
**EASTERN ASIA** ... The North China Plain remained dry, further delaying winter wheat planting and stressing germinating wheat. No significant rain has fallen across the region since mid-September. Additionally, freezing minimum temperatures were reported across the northern half of wheat belt, including Shandong and Henan, but average daily temperatures were still warm enough to promote winter grain growth. Light to moderate rain (20-58mm) again covered southwest China aiding winter grain germination and reservoir levels. Continued dry weather persisted across southern China, favoring late double-crop rice maturation and harvesting. Heavy rains (75-150mm), due to dissipating Typhoon Ruth, fell along eastern Taiwan, the Ryukyu Islands, and eastern Japan.



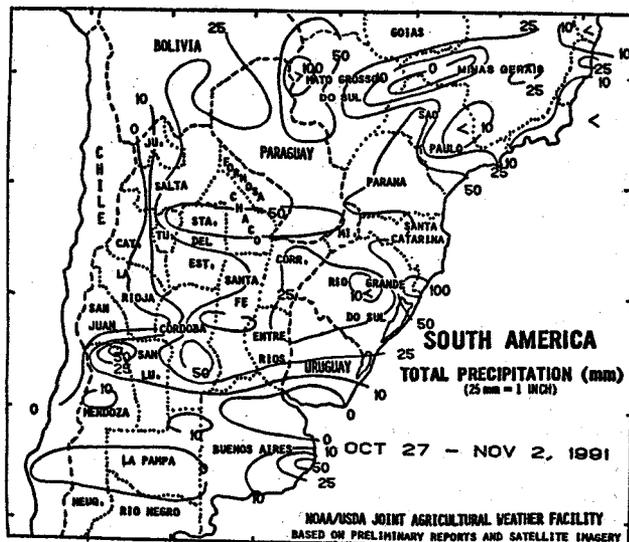
**SOUTHEAST ASIA** ... Dry, warm weather covered most rice areas of Indochina, although late-season moderate rain (12-64mm) lingered over Thailand's Northern Hills. Rainfall usually drops off rapidly during November across Indochina, resulting in beneficially drier weather for main season harvests and dry season rice planting. Further south, moderate to heavy rain (25-110mm) covered much of peninsular Thailand, Malaysia, and Sumatra, but drought continued over Java's rice areas. In the Philippines, heavy rain (80-250mm) from Typhoon Ruth caused more flooding along Luzon's western coast. Light rain (10-34mm) in the central and southern islands kept topsoils moist for grain planting and germination. A disturbance, which later became Tropical Storm Thelma, approached the central Philippines by week's end.



**AUSTRALIA** ... Light to moderate rain (10-27mm) fell across the New South Wales crop region benefiting topsoil moisture for summer crops, but arriving too late to aid winter grains. Light rain (2-13mm) fell in the remainder of the crop areas, with western areas receiving little or no rain. Harvesting of winter grains should be beginning in southern Queensland and spreading southward the next couple of months. Additional rains will probably not aid winter grains as they near maturation. Weekly temperatures averaged near normal in the west and 1-3 degrees C above in the east.



**MEXICO** ... Scattered moderate rain (23-75mm) fell across eastern Mexico, delaying late summer crop harvesting. Seasonably dry weather in the northwest aided winter wheat planting and west coast summer crop harvesting.



**SOUTH AMERICA** ... In Argentina, drier weather across Buenos Aires favored corn and soybean planting. To the north, moderate rain (33-61mm) fell from southern Cordoba and Santa Fe to Formosa, increasing soil moisture reserves for corn, soybeans, and northern cotton. Also, beneficial rains fell in southern Paraguay, aiding cotton and soybeans. In southern Brazil, scattered rains (30-75mm) fell from northern Rio Grande do Sul to extreme southern Sao Paulo, favoring summer crop germination and development. However, the rest of Sao Paulo and western Minas Gerais received only light rains (3-18mm), where moisture is needed for coffee and citrus flowering. Weekly temperatures in that region averaged 2-4 degrees C above normal. The northern soybean growing region (Mato Grosso do Sul, Mato Grosso, and Goias) received light to moderate rains (10-35mm) aiding soybean germination.

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(Continued from front cover)

Heavy rain fell between the contrasting airmasses. Areas from north-central Texas to the central and lower Mississippi Valley absorbed heavy rain until Thursday, causing local flooding. Bay St. Louis, MS, situated on the Gulf of Mexico, received 15.32 inches of rain in 24 hours. The winter storm arrived in the Pacific Northwest on Monday, gaining momentum as it plunged toward the southern Rockies. Temperatures plummeted in its wake, sending Billings, MT, to an earliest ever subzero reading (-7° F on the 30th), and Butte, MT, to -28° F. More than 100 stations noted daily record lows in the Central and Western States during the week, and weekly temperature departures reached -36° F in Montana. Temperatures dipped to 10° F as far south as Amarillo, TX. Snow began to bury the southern Rockies and central Plains at midweek. More than 2 feet of snow piled up in southwestern Colorado.

Halloween 1991 coincided with an unforgettable snowstorm in the Plains and western Great Lakes. Storm totals ranged from 5 inches in Dalhart, TX, to a foot in Nebraska, and to 3 feet in Duluth, MN. For parts of Minnesota, including Duluth and Minneapolis (28 inches), it was the heaviest one-storm snowfall on record. Winds of up to 50 mph accompanied the storm, and northern Plains windchills dropped to -50° F. Meanwhile in the East, the ocean storm kicked up 25 foot waves near Gloucester, MA, and hurled 78 mph wind gusts at Chatham, MA. Massive beach erosion ravaged the New England coastline, and coastal flooding occurred as far south as Florida. In the Southeast, smoke from hundreds of wildfires reduced visibilities. Ash fell from the sky in Charleston, WV. At week's end, very cold but drier air overspread much of the Nation, but warm weather returned to the West coast.

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