

# 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

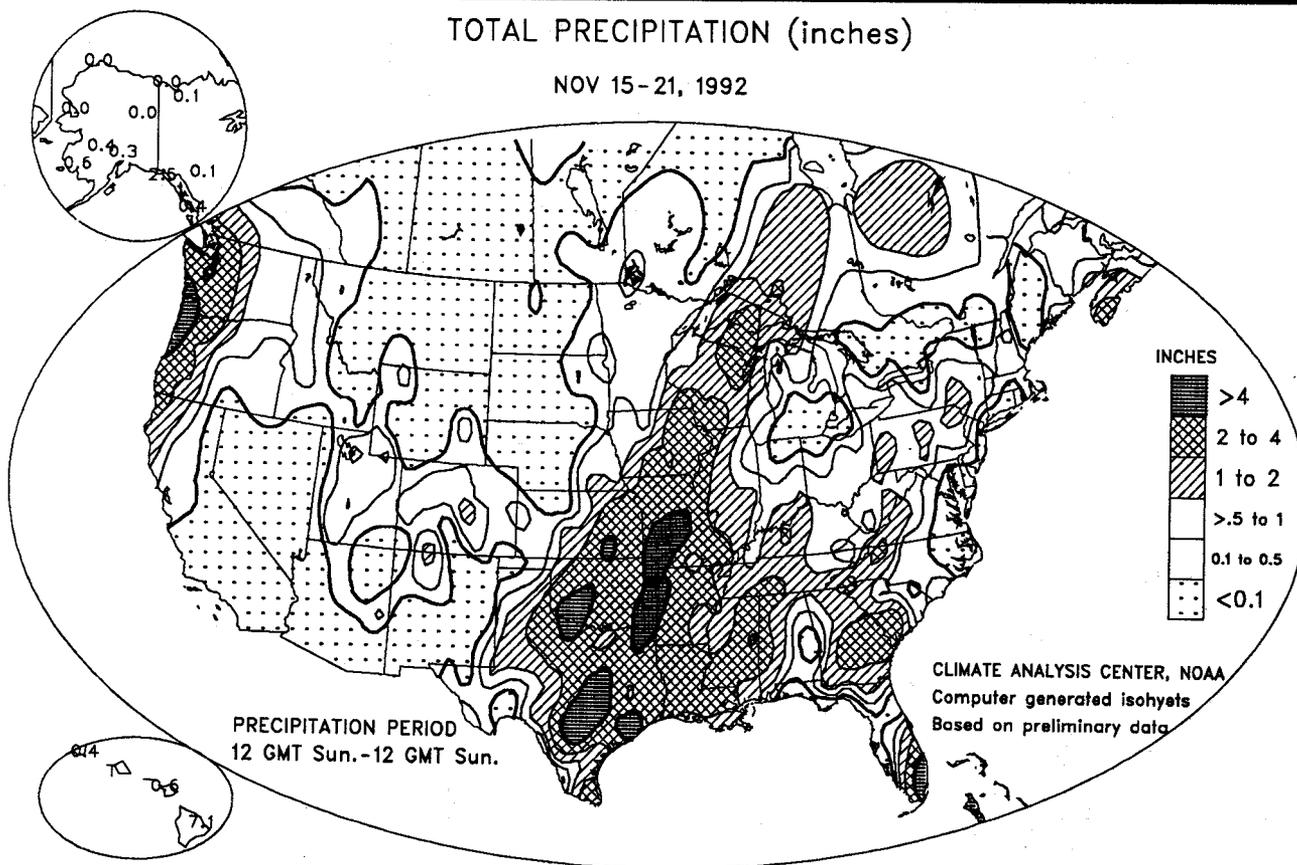
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Washington, D.C.

November 24, 1992

## TOTAL PRECIPITATION (inches)

NOV 15-21, 1992



PRECIPITATION PERIOD  
12 GMT Sun.-12 GMT Sun.

CLIMATE ANALYSIS CENTER, NOAA  
Computer generated isohyets  
Based on preliminary data

## HIGHLIGHTS

November 15 - 21, 1992

Early-week quietude gave way to a barrage of ferocious winter storms. Rain again hampered the corn harvest, and snow blanketed much of the West. Precipitation in the southern High Plains improved moisture levels for winter wheat, but disrupted cotton harvest activities. Early in the week, significant precipitation was confined to the Great Lakes States in the form of snow squalls. Accumulations reached 18 inches in western New York's snowbelt as cold air collided with Lake Ontario's relative warmth. Watertown, NY, reached 6°F on Monday morning. On Tuesday, separate weather disturbances produced snow in interior New England and heavy rain in eastern Florida. Snowfall reached 6 inches in the Berkshire Hills of Massachusetts; rainfall topped 8 inches in Miami, FL, causing flash flooding. At midweek, the first of three winter storms geared up in the

(Continued to back cover)

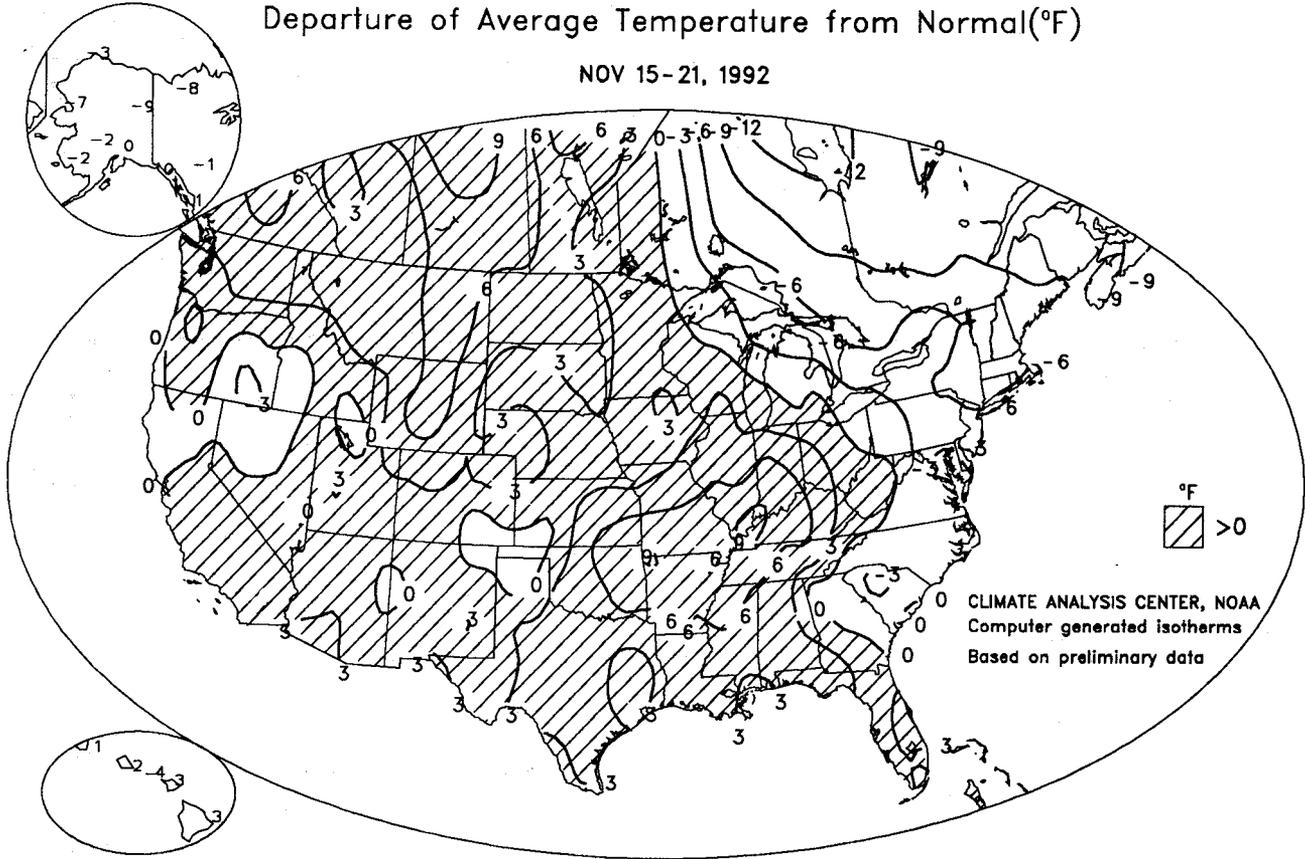
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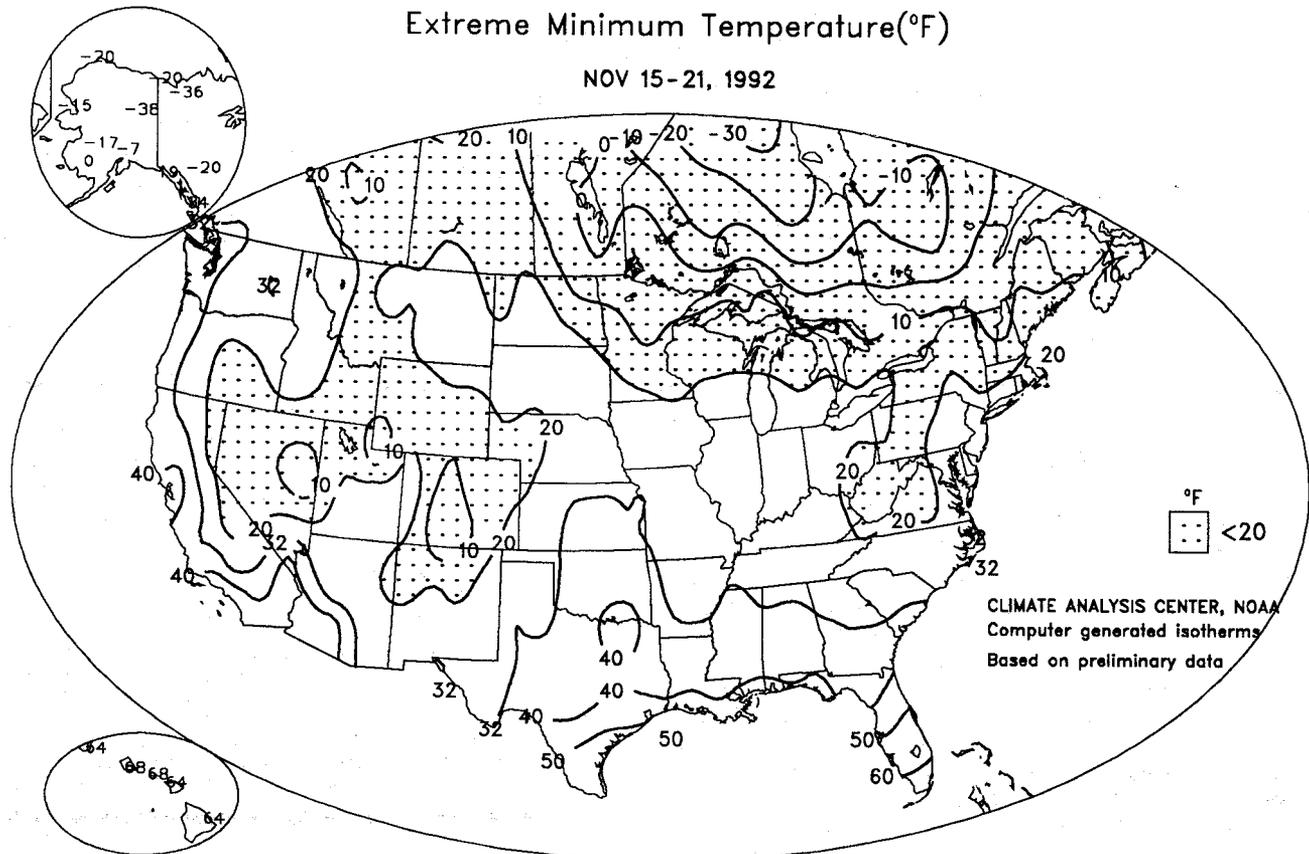
### Departure of Average Temperature from Normal(°F)

NOV 15-21, 1992



### Extreme Minimum Temperature(°F)

NOV 15-21, 1992



# National Weather Data for Selected Cities

## Weather Data for the Week Ending November 21, 1992

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	
																		TEMP. °F	PRECIP.		
AL BIRMINGHAM	68	43	75	34	55	4	.4	-.5	.2	13.4	144	48.9	101	90	41	0	0	2	0	0	0
MOBILE	71	51	78	40	61	3	.4	-.5	.3	13.8	121	62.0	107	90	51	0	0	2	2	0	0
MONTGOMERY	71	42	77	33	57	3	.4	-.4	.2	10.8	123	54.2	126	89	38	0	0	2	2	0	0
AK ANCHORAGE	26	16	31	4	21	0	1.1	-.1	.1	5.9	123	13.6	101	95	84	0	7	1	1	0	0
BARROW	0	-12	12	-21	-6	-3	T	-.1	T	.8	59	2.4	55	83	75	0	7	0	0	0	0
FAIRBANKS	8	-3	16	-16	2	1	.5	-.3	.4	3.1	133	11.5	121	84	71	0	7	4	0	0	0
JUNEAU	38	33	43	26	36	4	.6	-.5	.3	23.3	131	71.3	152	99	91	0	4	4	5	0	0
KODIAK	41	30	44	21	36	1	1.1	-.2	.6	9.0	52	49.1	92	93	70	0	4	5	1	0	0
NOME	13	1	17	-2	7	-8	.2	.0	.2	4.4	105	11.7	85	85	68	0	7	2	2	0	0
AZ PHOENIX	76	52	86	44	64	5	.0	-.1	.0	.3	20	11.2	188	46	17	0	0	0	0	0	0
PRESCOTT	59	29	69	22	44	-1	T	-.2	T	1.2	54	18.6	162	69	23	0	6	0	0	0	0
TUCSON	73	43	84	31	58	1	.0	-.1	.0	1.0	38	13.0	131	48	18	0	1	0	0	0	0
YUMA	78	53	88	47	66	3	.0	.0	.0	T	2	3.5	170	49	15	0	0	0	0	0	0
AR FORT SMITH	64	46	72	35	55	7	2.2	1.4	.9	12.0	135	41.8	117	94	61	0	0	3	2	2	2
LITTLE ROCK	66	48	72	35	57	7	2.3	1.2	1.6	8.5	84	40.7	93	76	57	0	0	3	1	1	1
CA BAKERSFIELD	65	44	73	37	54	-1	.0	-.2	.0	.9	105	6.6	139	82	43	0	0	0	0	0	0
EUREKA	56	44	59	36	50	-1	1.7	.2	.6	4.4	57	19.7	65	96	72	0	0	4	3	3	3
FRESNO	63	41	70	37	52	0	T	-.3	T	2.2	155	11.4	136	95	53	0	0	0	0	0	0
LOS ANGELES	71	54	77	47	62	1	.0	-.4	.0	.5	35	12.4	126	78	39	0	0	0	0	0	0
REDDING	60	39	69	33	50	-3	.5	-.9	.2	6.8	99	27.0	84	97	47	0	0	4	0	0	0
SACRAMENTO	63	40	70	38	52	0	.2	-.4	.2	1.5	57	11.6	87	97	44	0	0	1	0	0	0
SAN DIEGO	71	54	79	46	62	0	.0	-.3	.0	.2	14	10.2	136	80	39	0	0	0	0	0	0
SAN FRANCISCO	63	48	66	43	56	2	.1	-.5	.1	1.2	43	14.6	96	91	57	0	0	2	0	0	0
CO DENVER	52	29	70	16	40	3	.6	.5	.5	1.4	52	14.4	101	85	40	0	6	3	3	0	0
GRAND JUNCTION	51	30	58	27	40	3	.3	.1	.2	2.5	124	8.7	123	90	45	0	7	2	2	0	0
PUEBLO	50	23	66	11	37	-2	.4	-.3	.4	2.3	118	11.7	112	97	55	0	7	2	0	0	0
CT BRIDGEPORT	46	32	57	28	39	-5	T	-.9	T	9.6	105	39.3	108	74	51	0	5	0	0	0	0
HARTFORD	42	27	55	22	34	-6	.1	-.8	.1	6.8	67	35.9	92	87	45	0	7	2	2	0	0
DC WASHINGTON	53	37	66	27	45	-3	T	-.6	T	7.5	95	32.2	92	86	55	0	2	2	2	0	0
FL APALACHICOLA	71	54	77	44	63	3	.5	-.2	.3	14.5	107	54.9	108	108	---	---	2	2	2	0	0
DAYTONA BEACH	75	62	82	48	69	5	.5	-.1	.3	12.6	96	44.6	98	91	61	0	0	3	0	0	0
JACKSONVILLE	72	51	79	36	62	1	.8	.5	.6	17.3	153	62.2	128	94	58	0	0	2	1	1	1
KEY WEST	79	72	84	69	76	1	.4	-.3	.2	12.6	92	36.6	99	87	71	0	0	3	0	0	0
MIAMI	81	69	83	62	75	3	9.9	9.4	7.5	22.2	129	55.7	101	93	65	0	0	4	3	3	3
ORLANDO	77	61	81	51	69	3	.4	.0	.2	12.8	120	49.8	106	89	61	0	0	3	0	0	0
TALLAHASSEE	73	52	81	35	63	5	1.4	.6	.9	12.8	111	60.2	102	84	46	0	0	2	1	1	1
TAMPA	78	60	84	47	69	3	.1	-.3	.1	7.4	77	33.8	77	89	54	0	0	2	0	0	0
WEST PALM BEACH	79	68	81	60	74	3	3.5	2.8	1.7	18.9	97	55.8	98	90	62	0	0	4	2	1	1
GA ATLANTA	61	42	71	34	52	1	.8	.0	.8	17.3	217	49.6	115	93	53	0	0	2	1	1	1
AUGUSTA	66	37	77	29	52	-1	2.0	1.5	2.0	14.0	206	48.2	124	96	43	0	2	1	1	1	1
MACON	66	40	76	31	53	-1	1.9	1.4	1.9	12.9	192	51.8	130	94	39	0	1	1	1	1	1
SAVANNAH	67	46	75	34	57	0	1.6	1.1	1.6	14.8	172	54.5	117	85	46	0	0	1	1	1	1
HI HILO	84	70	87	65	77	3	7.1	3.5	4.8	32.1	118	88.9	80	95	64	0	0	6	4	0	0
HONOLULU	84	72	86	68	78	2	T	-.7	T	5.2	109	11.9	63	84	60	0	0	1	0	0	0
KAHULUI	86	71	91	65	78	3	.6	-.1	.5	4.2	161	12.0	81	88	60	1	0	2	1	1	1
LIHUE	81	71	83	65	76	1	.5	-.9	.3	6.9	64	23.6	64	86	63	0	0	2	0	0	0
ID BOISE	43	31	47	25	37	-2	.3	.0	.2	2.3	104	6.5	66	98	67	0	5	2	0	0	0
LEWISTON	47	37	51	33	42	3	.2	-.1	.1	2.1	81	9.6	86	86	60	0	0	3	0	0	0
POCATELLO	42	24	54	10	33	-1	.6	.5	.6	2.1	95	6.8	72	96	63	0	6	2	1	1	1
IL CHICAGO	47	33	63	21	40	1	.4	-.1	.2	10.6	142	26.7	86	89	65	0	3	3	0	0	0
MOLINE	48	33	58	25	41	4	2.5	2.1	2.0	11.5	149	34.5	100	95	73	0	3	4	1	1	1
PRORIA	51	36	62	23	43	5	1.5	1.0	.7	12.0	161	28.9	89	94	68	0	2	4	1	1	1
QUINCY	50	36	64	21	43	3	3.2	2.8	1.8	9.4	106	26.9	76	90	72	0	1	4	2	2	2
ROCKFORD	45	33	57	24	39	3	.9	.4	.6	10.0	122	27.1	80	93	70	0	4	3	1	1	1
SPRINGFIELD	53	40	65	22	46	6	1.2	.8	.4	8.0	113	26.0	83	94	67	0	1	5	0	0	0
IN EVANSVILLE	62	43	73	24	53	9	.4	-.3	.3	7.5	100	33.2	89	91	48	0	2	1	0	0	0
FORT WAYNE	49	35	64	24	42	4	.2	-.4	.2	14.1	204	39.5	126	90	63	0	2	2	0	0	0
INDIANAPOLIS	54	40	68	27	47	6	.4	-.4	.2	12.3	168	40.5	115	91	64	0	2	4	0	0	0
SOUTH BEND	48	36	65	27	42	3	1	-.5	.0	14.8	177	33.5	98	87	63	0	2	3	0	0	0
IA DES MOINES	46	33	61	26	39	2	2.4	2.1	1.4	9.3	148	30.1	103	94	71	0	4	3	2	0	0
SIOUX CITY	42	32	57	29	37	3	.4	-.2	.4	7.5	154	29.2	119	96	69	0	5	2	0	0	0
WATERLOO	46	31	54	24	38	4	2.2	1.8	1.1	7.6	110	28.4	91	99	74	0	4	3	2	0	0
KS CONCORDIA	46	36	63	32	41	1	1.0	.8	.9	9.4	169	39.5	151	94	71	0	1	3	1	1	1
DODGE CITY	47	33	67	30	40	-1	.4	-.2	.3	2.0	56	20.0	101	97	73	0	3	3	0	0	0
GOODLAND	47	30	69	31	45	2	.3	-.2	.2	5.1	190	25.4	163	93	64	0	4	2	0	0	0
TOPEKA	52	38	71	31	48	4	2.4	2.1	2.0	9.8	131	33.1	105	97	71	0	1	2	1	1	1
WICHITA	54	41	65	33	48	4	2.4	2.0	1.1	9.4	135	32.6	119	95	79	0	0	4	2	0	0
KY BOWLING GREEN	63	37	72	25	50	5	.5	-.8	-.2	4.8	101	34.7	80	93	49	0	2	2	0	0	0
LEXINGTON	59	40	71	24	49	6	.6	-.5	.5	6.9	89	46.6	114	85	47	0	2	2	1	1	1
LOUISVILLE	62	42	72	27	52	7	.7	-.9	.0	7.8	94	37.8	97	90	48	0	2	2	1	1	1
LA BATON ROUGE	74	50	80	38	62	4	2.4	1.4	1.4	10.3	106	65.0	131	98	58	0	0	3	2	2	2
LAKE CHARLES	74	52	78	40	63	4	2.0	1.0	1.9	12.3	102	57.9	121	100	61	0	0	2	1	1	1
NEW ORLEANS	72	52	79	39	62	3	2.0	1.0	2.0	18.0	162	71.9	136	97	62	0	0	1	1	1	1
SHREVEPORT	71	47	74	37	59	5	2.1	1.2	1.1	13.7	161	45.3	117	97	57	0	0	3	2	2	2

Based on 1951-80 normals.

Weather Data for the Week Ending November 21, 1992

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	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	28	11	36	1	19	-10	.2	-.6	.1	6.1	70	34.3	106	87	59	0	7	2	0
PORTLAND	39	24	50	16	32	.2	.2	-.9	.1	7.7	74	34.1	91	89	48	0	7	2	0
MD BALTIMORE	52	35	68	24	43	.2	.0	-.6	.1	10.8	124	32.9	88	92	56	0	2	3	0
SALISBURY	55	34	70	24	44	.0	.0	-.7	.0	10.5	108	39.3	86	93	51	0	3	0	0
MA BOSTON	43	31	60	26	37	.2	.2	-.8	.1	6.7	70	30.9	82	80	49	0	4	3	0
CHATHAM	44	33	53	30	39	.5	.3	-.8	.2	5.3	50	32.2	79	86	62	0	4	3	0
MI ALPENA	39	21	56	9	30	.4	.4	-.2	.2	7.9	119	24.2	92	96	63	0	5	3	0
DETROIT	46	34	64	23	40	.2	.1	-.4	.1	11.0	187	34.1	124	87	60	0	3	2	0
FLINT	45	30	61	23	37	0	.2	-.4	.1	7.8	130	33.6	128	90	61	0	4	3	0
GRAND RAPIDS	44	31	58	25	38	0	.3	-.4	.3	12.4	158	37.7	125	91	54	0	4	1	0
HOUGHTON LAKE	37	25	53	13	31	-.2	.6	-.0	.2	9.9	150	26.2	103	97	76	0	6	4	0
LANSING	44	29	58	20	36	.1	.1	-.5	.0	8.4	130	31.8	120	91	60	0	5	2	0
MARQUETTE	34	18	40	9	26	-.2	2.2	1.5	1.1	9.6	104	28.8	85	93	76	0	7	5	2
MUSKEGON	45	32	57	25	38	0	.6	-.1	.3	11.1	144	25.9	93	92	57	0	4	4	0
SAULT ST. MARIE	33	19	45	8	26	-.5	1.2	-.5	.9	13.6	152	31.9	107	90	66	0	6	3	1
MN ALEXANDRIA	32	26	33	14	29	.2	.3	-.0	.2	2.1	42	17.5	74	95	71	0	7	3	0
DULUTH	31	23	34	10	27	1	.7	-.3	.2	6.8	104	27.4	99	92	71	0	7	4	0
INT'L FALLS	29	22	34	7	26	3	.4	-.1	.1	3.7	63	21.8	95	95	74	0	7	4	0
MINNEAPOLIS	37	29	39	16	33	.2	.4	-.1	.2	9.2	177	28.6	114	90	64	0	6	3	0
ROCHESTER	38	28	44	15	33	.2	1.7	1.3	1.0	10.3	153	25.8	95	96	70	0	6	3	2
MS GREENWOOD	72	46	79	37	59	7	1.0	-.1	1.0	8.4	91	39.8	86	87	42	0	0	1	1
JACKSON	72	43	79	35	58	4	2.2	1.2	1.5	10.8	128	41.3	91	97	43	0	0	2	2
MERIDIAN	72	46	78	36	59	6	.8	-.1	.4	11.0	131	56.9	122	94	43	0	0	2	0
MO CAPE GIRARDEAU	62	45	70	26	54	4	.8	-.1	.7	13.1	152	36.0	91	84	52	0	1	2	1
COLUMBIA	54	39	67	24	47	4	1.9	1.4	1.4	11.4	132	29.8	87	95	68	0	1	3	1
KANSAS CITY	53	38	66	30	46	3	2.0	1.7	1.6	11.2	129	45.9	134	97	72	0	1	3	1
SAINT LOUIS	58	43	66	28	50	7	1.0	-.4	.9	9.2	137	28.5	92	90	59	0	1	4	1
SPRINGFIELD	60	44	67	30	52	9	3.0	2.4	1.9	16.1	170	42.6	118	89	63	0	1	4	2
MT BILLINGS	50	29	63	22	40	6	T	-.2	T	1.4	45	11.0	79	82	40	0	6	0	0
GLASGOW	39	30	47	25	35	7	1	-.0	.1	1.7	106	8.9	85	97	81	0	6	3	0
GREAT FALLS	47	31	58	24	39	6	T	-.2	T	3.1	133	14.1	100	82	46	0	5	1	0
HAVRE	40	29	52	21	34	6	T	-.1	T	2.4	126	8.6	78	96	78	0	4	0	0
HELENA	43	26	47	19	35	4	T	-.1	T	2.1	112	8.7	82	94	55	0	7	1	0
KALISPELL	40	31	42	25	36	6	1	-.2	.1	3.0	103	14.8	108	100	78	0	3	4	0
MILES CITY	45	31	61	28	38	8	T	-.1	T	3.0	124	14.2	106	96	67	0	6	0	0
MISSOULA	38	29	42	24	33	3	1	-.1	.1	1.5	61	10.1	86	99	75	0	7	2	0
NE GRAND ISLAND	44	31	69	26	38	2	.6	-.4	.5	5.0	124	30.3	136	95	73	0	5	2	0
LINCOLN	44	33	63	26	38	2	.7	-.5	.7	5.7	108	24.8	95	96	72	0	3	2	1
NORFOLK	42	31	64	27	37	3	.7	-.5	.7	7.3	187	28.1	123	95	71	0	4	1	1
NORTH PLATTE	47	28	66	20	37	4	T	-.1	T	1.2	43	22.6	121	96	63	0	6	1	0
OMAHA	43	34	61	32	39	1	.7	-.4	.7	9.6	149	33.9	116	93	77	0	1	2	1
SCOTTSBLUFF	48	25	65	20	37	2	1	-.0	.1	1.4	66	14.3	102	95	58	0	7	1	0
VALENTINE	43	26	64	20	35	3	T	-.1	T	2.0	80	17.8	107	93	65	0	7	1	0
NV ELY	48	20	65	3	34	2	1	-.1	.1	1.6	96	8.8	110	73	32	0	7	2	0
LAS VEGAS	65	44	72	43	55	3	.0	-.1	.0	1.2	144	8.2	227	52	23	0	0	0	0
RENO	54	26	64	20	40	1	T	-.1	T	.5	53	3.5	60	72	30	0	7	1	0
WINNEMUCCA	49	23	63	16	36	0	.1	-.1	.1	.8	53	2.7	41	82	44	0	7	2	0
NH CONCORD	40	19	56	10	30	-.6	.2	-.7	.1	6.9	79	26.0	81	95	51	0	7	2	0
NJ ATLANTIC CITY	50	30	63	20	40	-.5	-.1	-.8	.1	8.8	103	32.3	87	88	52	0	4	1	0
NM ALBUQUERQUE	56	32	64	24	44	2	.8	-.7	.5	2.7	141	11.0	150	82	34	0	3	2	1
CLOVIS	59	33	73	28	46	1	T	-.1	T	1.4	34	19.5	119	82	39	0	3	1	0
ROSWELL	64	35	76	29	50	4	1	-.0	.1	.7	23	12.6	125	85	33	0	3	1	0
NY ALBANY	39	25	53	18	32	-.6	.5	-.3	.3	7.7	94	27.2	86	94	55	0	7	2	0
BINGHAMTON	36	23	51	18	30	-.7	.5	-.2	.3	9.6	114	36.9	112	95	66	0	6	3	0
BUFFALO	42	29	58	17	36	-.3	.7	-.1	.5	12.3	141	42.8	130	94	63	0	5	4	0
NEW YORK	46	35	60	31	41	-.5	T	-.9	T	6.6	71	29.7	78	73	50	0	2	0	0
ROCHESTER	40	28	58	22	34	-.5	.4	-.2	.3	6.8	96	32.4	116	99	70	0	6	4	0
SYRACUSE	42	27	59	20	34	-.5	.5	-.4	.3	9.7	111	39.8	115	95	57	0	6	4	0
NC ASHEVILLE	57	30	68	22	43	-.2	.8	-.1	.7	11.6	128	47.3	119	94	48	0	5	2	1
CHARLOTTE	60	37	74	29	49	-.1	.6	-.1	.5	17.7	216	48.4	125	87	43	0	3	2	1
GREENSBORO	56	34	70	25	45	-.3	.3	-.3	.2	11.2	131	40.0	105	89	50	0	3	2	0
HATTERAS	62	48	74	36	55	0	1	-.1	.1	12.9	92	54.2	109	90	53	0	0	1	0
NEW BERN	65	39	76	28	52	-.1	T	-.7	T	5.5	49	43.7	90	96	40	0	3	0	0
RALEIGH	61	36	73	26	48	-.1	1	-.6	.1	9.1	115	38.9	103	92	45	0	3	2	0
WILMINGTON	67	41	76	29	54	0	1	-.6	.1	8.8	82	58.0	118	89	38	0	1	1	0
ND BISMARCK	36	30	41	26	33	6	1	-.1	.0	2.3	95	12.1	83	95	75	0	7	3	0
FARGO	33	28	35	15	30	4	.6	-.4	.4	4.5	124	19.9	107	92	74	0	7	3	0
GRAND FORKS	32	26	34	11	29	5	.2	-.0	.2	2.5	67	16.3	94	95	78	0	7	2	0
WILLISTON	34	26	39	13	30	4	1	-.0	.1	2.0	82	12.0	93	98	80	0	7	3	0
OH AKRON-CANTON	45	31	56	20	38	-.1	.4	-.3	.3	9.7	141	41.7	129	90	58	0	4	3	0
CINCINNATI	54	40	69	23	47	5	.6	-.1	.6	7.4	97	34.8	97	87	54	0	2	1	1
CLEVELAND	47	32	60	19	40	-.1	.4	-.3	.3	10.6	147	42.8	135	90	54	0	4	3	0
COLUMBUS	51	37	65	22	44	3	.4	-.2	.4	6.3	99	37.1	111	92	62	0	2	2	0
DAYTON	51	37	66	23	44	3	.4	-.2	.3	7.5	122	37.7	121	91	58	0	2	2	0

Based on 1951-80 normals.

Weather Data for the Week Ending November 21, 1992

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
													90 AND ABOVE				32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	48	34	64	25	41	3	.1	-.5	.1	9.1	151	32.4	115	88	57	0	4	1	0
YOUNGSTOWN	44	29	56	19	37	-2	.6	-.1	.3	10.1	133	38.0	113	93	64	0	4	2	0
OK OKLAHOMA CITY	60	44	71	37	52	5	5.4	5.1	4.6	11.1	154	39.3	134	93	71	0	0	3	0
TULSA	60	45	71	33	53	5	1.3	.8	.7	9.8	102	37.0	102	91	68	0	0	3	2
OR ASTORIA	52	43	54	40	48	1	3.8	1.3	2.0	13.6	82	39.4	72	99	75	0	0	7	3
BURNS	39	23	45	17	31	-3	.3	.1	.2	2.2	105	8.2	99	89	18	0	7	2	0
MEDFORD	51	35	58	30	43	1	.9	.2	.5	4.0	91	11.5	75	100	75	0	3	3	0
PENDLETON	47	36	52	31	42	2	.3	.0	.3	2.6	102	7.7	77	88	62	0	1	3	0
PORTLAND	53	41	57	35	47	3	2.3	1.0	1.6	7.3	89	22.9	78	99	77	0	0	4	1
SALEM	52	43	58	39	47	3	2.6	1.2	1.7	7.5	85	24.0	77	93	77	0	0	5	2
PA ALLENTOWN	44	29	50	23	36	-5	.2	-.7	.2	8.1	85	33.2	84	87	55	0	5	5	0
ERIE	44	34	59	28	39	-1	.5	-.4	.3	14.8	146	39.4	111	89	57	0	3	4	0
HARRISBURG	44	34	49	24	39	-4	.4	-.4	.4	10.2	119	28.8	82	79	54	0	3	1	0
PHILADELPHIA	50	35	65	28	43	-2	.7	-.8	.8	6.1	72	24.4	66	78	48	0	2	2	0
PITTSBURGH	47	33	58	19	40	0	.9	-.3	.8	7.0	102	33.1	100	93	57	0	2	3	1
SCRANTON	42	29	56	24	35	-4	.5	-.2	.4	7.1	88	25.6	81	90	56	0	5	3	0
RI PROVIDENCE	45	29	60	24	37	-5	.5	-.1	.0	8.9	88	37.9	96	87	47	0	6	1	0
SC CHARLESTON	67	45	76	35	56	0	.3	-.2	.3	10.1	110	48.9	103	82	44	0	0	2	0
COLUMBIA	64	35	76	28	50	-3	.6	-.0	.6	12.0	142	45.9	102	95	45	0	4	1	1
FLORENCE	66	40	76	28	53	-1	.2	-.3	.2	11.1	141	43.5	108	91	37	0	2	2	0
GREENVILLE	59	35	74	26	47	-3	.9	-.2	.9	15.5	153	52.5	114	92	47	0	4	2	1
SD ABERDEEN	36	30	41	25	33	5	.3	-.1	.2	3.6	124	16.6	97	96	79	0	7	2	0
HURON	38	30	48	25	34	4	.1	-.1	.1	3.9	121	22.2	124	92	71	0	5	2	0
RAPID CITY	43	28	65	21	36	2	.4	-.1	.4	1.4	64	12.8	83	96	69	0	7	1	0
SIoux FALLS	39	30	53	24	34	3	.4	-.2	.4	6.8	139	31.7	138	93	71	0	5	2	0
TN CHATTANOOGA	63	35	71	29	49	1	.8	-.2	.6	12.9	129	48.1	104	97	46	0	3	2	1
KNOXVILLE	62	35	73	27	49	1	.4	-.5	.4	7.6	92	36.0	87	97	42	0	3	1	0
MEMPHIS	68	46	75	33	57	7	1.2	-.2	.9	10.7	122	42.2	93	81	41	0	0	2	1
NASHVILLE	65	41	73	29	53	6	.4	-.4	.3	8.0	93	35.4	83	88	43	0	2	2	0
TX ABILENE	65	48	74	33	56	4	2.4	2.1	1.6	5.5	87	26.8	121	91	59	0	0	3	2
AMARILLO	53	34	73	29	44	0	.6	-.4	.3	1.1	31	19.9	109	90	60	0	3	3	0
AUSTIN	71	52	77	40	61	4	2.1	1.7	2.0	7.0	82	42.6	149	96	57	0	0	4	1
BEAUMONT	73	53	76	40	63	4	2.5	1.5	1.1	11.8	99	58.6	120	99	65	0	0	3	3
BROWNSVILLE	78	60	83	56	69	2	2.8	2.5	1.7	8.6	88	29.5	124	96	66	0	0	4	2
CORPUS CHRISTI	77	60	83	54	68	4	2.0	1.7	1.8	9.7	95	40.4	137	98	56	0	0	3	1
DEL RIO	71	52	76	43	61	3	.6	-.5	.4	1.9	34	20.1	122	83	47	0	0	2	0
EL PASO	67	40	73	34	53	3	.2	-.1	.2	.7	29	10.0	140	68	24	0	0	1	0
FORT WORTH	65	50	72	41	58	4	1.9	1.4	1.3	9.5	120	37.6	130	94	64	0	0	3	2
GALVESTON	70	60	74	56	65	3	2.0	1.3	1.4	12.4	116	48.8	136	96	73	0	0	3	2
HOUSTON	71	53	77	41	62	3	3.1	2.2	2.1	8.0	70	48.8	118	96	63	0	0	3	3
LUBBOCK	61	39	75	31	50	3	1.4	1.3	.9	2.1	49	21.0	123	91	54	0	1	3	1
MIDLAND	65	41	77	32	53	2	.7	-.6	.4	.9	22	20.8	161	96	47	0	1	3	0
SAN ANGELO	66	48	74	36	57	4	.6	-.4	.6	2.4	42	20.1	117	93	54	0	0	1	1
SAN ANTONIO	72	53	77	40	63	5	2.5	2.0	2.2	5.5	66	44.3	164	95	54	0	0	4	1
VICTORIA	74	56	78	52	65	4	2.0	1.5	1.8	8.6	78	49.2	144	98	67	0	0	4	1
WACO	69	49	77	37	59	4	3.2	2.7	2.9	7.5	96	35.1	124	96	59	0	0	3	1
WICHITA FALLS	65	45	75	36	55	5	3.9	3.6	1.8	5.9	84	26.2	105	94	60	0	0	3	3
UT CEDAR CITY	53	27	64	23	40	3	.7	-.2	.7	1.8	79	10.3	110	84	36	0	7	0	0
SALT LAKE CITY	46	28	54	16	37	-1	.7	-.5	.7	3.5	124	10.6	78	97	57	0	7	2	1
VT BURLINGTON	38	24	53	14	31	-5	.2	-.5	.1	10.0	126	28.5	94	91	57	0	6	3	0
VA NORFOLK	58	40	73	29	49	-2	.7	-.6	.7	6.8	70	41.7	102	91	51	0	2	0	0
RICHMOND	58	35	75	23	47	-1	.7	-.7	.7	5.7	60	37.7	95	87	47	0	3	1	0
ROANOKE	54	34	69	20	44	-2	.3	-.3	.3	6.6	79	37.4	106	84	54	0	3	2	0
WA QUILLAYUTE	49	42	52	37	46	2	3.4	-.2	1.0	25.9	101	78.1	92	98	84	0	0	7	3
SEATTLE-TACOMA	50	42	54	37	46	2	2.2	-.9	.9	8.5	91	28.1	92	97	75	0	0	6	2
SPOKANE	40	34	43	31	37	4	.9	-.4	.6	3.9	122	12.1	90	98	79	0	3	5	1
YAKIMA	47	35	52	22	41	4	.7	-.5	.7	1.8	127	5.8	94	98	66	0	3	2	1
WV BECKLEY	52	35	67	16	44	3	.4	-.3	.3	4.6	55	33.6	88	83	53	0	2	3	0
CHARLESTON	55	38	64	18	46	2	.6	-.1	.4	4.8	63	35.8	94	92	54	0	2	4	0
HUNTINGTON	56	38	68	19	47	2	.7	-.0	.6	4.5	62	33.7	92	90	52	0	2	2	1
PARKERSBURG	53	37	67	18	45	1	.8	-.2	.7	5.7	83	32.0	93	94	55	0	2	3	1
WI GREEN BAY	39	27	49	20	33	1	2.5	2.1	1.5	11.7	181	27.9	107	94	68	0	5	5	2
LACROSSE	40	30	47	20	35	1	2.3	1.9	1.2	10.2	157	29.4	103	89	65	0	5	2	2
MADISON	44	31	54	22	37	4	2.2	1.8	1.6	10.9	167	28.8	100	89	67	0	5	3	1
MILWAUKEE	45	34	56	26	39	4	1.0	.5	.4	10.3	159	30.8	109	88	62	0	2	5	0
WAUSAU	36	25	44	18	31	1	1.8	1.4	1.1	13.3	181	31.2	104	97	75	0	6	4	1
WY CASPER	50	27	63	19	39	7	.7	-.1	.7	.9	44	8.0	76	82	41	0	5	1	0
CHEYENNE	47	27	61	16	37	4	.3	-.2	.2	1.4	67	11.7	92	80	45	0	6	3	0
LANDER	46	27	60	15	37	8	.1	-.0	.1	1.0	38	11.2	91	77	39	0	6	1	0
SHERIDAN	50	27	67	20	39	8	.7	-.2	.7	2.1	71	13.2	94	89	47	0	5	0	0

Based on 1951-80 normals.

## HEATING DEGREE DAYS (Base 65° F) November 15 - 21, 1992

(Cumulative totals and departures from normal are for the period July 1 - November 21, 1992)

STATES AND STATIONS	WEEKLY		CUMULATIVE		STATES AND STATIONS	WEEKLY		CUMULATIVE		STATES AND STATIONS	WEEKLY		CUMULATIVE				
	TOTAL	DEPARTURE	TOTAL	DEPARTURE		TOTAL	DEPARTURE	TOTAL	DEPARTURE		TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP. from '91		
AL BIRMINGHAM	65	-31	366	-23	-56	SHREVEPORT	40	-33	217	-41	-135	DAYTON	145	-23	962	105	20
MOBILE	39	-17	175	-13	-97	ME CARIBOU	318	75	1985	96	235	TOLEDO	165	-22	1145	96	99
MONTGOMERY	61	-15	260	-18	-64	PORTLAND	232	41	1443	131	242	YOUNGSTOWN	198	18	1287	213	210
AK ANCHORAGE	306	-4	3029	220	321	MD BALTIMORE	150	13	779	130	74	OK OKLAHOMA CITY	88	-34	434	-30	-188
BARROW	492	21	5677	85	49	SALISBURY	143	17	747	140	101	BURNS	87	-32	483	22	-90
FAIRBANKS	436	-5	3924	442	394	MA BOSTON	194	51	1050	255	254	OR ASTORIA	121	-12	1245	-2	43
JUNEAU	206	-26	2368	-92	-42	CHATHAM	181	39	1030	125	226	BURNS	235	22	1611	214	231
KODIAK	203	-12	2553	76	231	MI ALPENA	242	26	1846	305	297	MEDFORD	153	-3	644	-232	82
NOME	403	55	4141	413	1056	DETROIT	174	-12	1176	130	150	PENDLETON	162	-12	946	-75	21
AZ FLAGSTAFF	195	-12	1306	-160	141	FLINT	192	2	1348	191	130	PORTLAND	125	-18	728	-191	80
PHOENIX	18	-21	38	-63	-45	GRAND RAPIDS	190	-3	1347	225	108	SALEM	121	-26	772	-250	27
PRESCOTT	146	-8	592	-193	12	HOUGHTON LAKE	238	20	1699	174	179	PA ALLENTOWN	198	35	1100	206	205
TUCSON	48	-3	122	-25	-49	LANSING	198	6	1455	315	166	ERIE	181	5	1054	-16	129
WINSLOW	156	-6	728	22	08	MARQUETTE	272	18	2251	382	178	HARRISBURG	183	29	971	183	149
YUMA	11	-13	15	-42	-10	MUSKEGON	187	-1	1323	202	120	PHILADELPHIA	155	15	746	71	109
AR FORT SMITH	68	-46	385	-57	-164	SAULT ST MARIE	271	38	2113	339	336	PITTSBURGH	172	2	1070	107	125
LITTLE ROCK	55	-49	337	-63	-145	MN ALEXANDRIA	248	-15	1727	167	-27	SCRANTON	205	30	1163	127	119
CA BAKERSFIELD	74	5	162	-44	-49	DULUTH	263	-5	2155	267	44	RI PROVIDENCE	193	37	1024	140	226
EUREKA	103	5	998	-380	-140	INT'L FALLS	272	-21	2231	210	52	SC CHARLESTON	66	2	219	-19	-18
FRESNO	86	-4	209	-97	-13	MINNEAPOLIS	224	-9	1489	196	-99	COLUMBIA	107	24	385	49	24
LOS ANGELES	16	-19	21	-176	-52	ROCHESTER	219	-18	1673	296	-44	FLORENCE	86	10	341	38	15
REDDING	91	2	235	-69	00	SAINT CLOUD	245	-12	1784	229	06	GREENVILLE	124	20	573	135	97
SACRAMENTO	88	-3	227	-81	02	MS GREENWOOD	38	-50	253	-112	-154	SD ABERDEEN	220	-35	1661	217	42
SAN DIEGO	15	-13	18	-94	-39	JACKSON	50	-27	251	-48	-118	HURON	213	-27	1538	182	06
SAN FRANCISCO	64	-13	278	-343	-111	MERIDIAN	50	-31	250	-86	-106	RAPID CITY	203	-18	1408	93	-33
STOCKTON	80	-9	193	-97	-20	MO CAPE GIRARDEAU	79	-60	611	12	-87	SIoux FALLS	213	-23	1452	150	-108
CO DENVER	171	-22	989	-84	-163	COLUMBIA	126	-33	822	86	-100	TN CHATTANOOGA	109	-10	539	28	23
GRAND JCT.	171	-16	791	-89	-74	KANSAS CITY	135	-27	836	117	-119	KNOXVILLE	112	-7	581	53	03
PUEBLO	197	15	1058	134	-16	SAINT LOUIS	101	-50	641	-49	-111	MEMPHIS	54	-49	336	-72	-129
CT BRIDGEPORT	181	39	917	210	180	SPRINGFIELD	89	-58	643	-25	-153	NASHVILLE	84	-37	487	-40	-90
HARTFORD	213	44	1206	253	270	MT BILLINGS	177	-43	1306	-31	-105	TX ABILENE	59	-30	228	-94	-239
DE WILMINGTON	160	18	824	133	129	GLASGOW	211	-51	1652	25	-20	AMARILLO	147	0	637	14	-181
DC WASHINGTON	140	21	687	168	131	GREAT FALLS	181	-46	1645	132	37	AUSTIN	31	-27	125	-48	-131
FL APALACHICOLA	27	-13	93	-23	-85	HAVRE	213	-45	1736	81	08	BEAUMONT	21	-27	122	-29	-95
DAYTONA BEACH	10	-11	30	-14	-44	HELENA	212	-33	1609	-103	48	BROWNSVILLE	1	-13	21	-10	-74
FORT MYERS	0	-6	0	-12	-20	KALISPELL	203	-43	1823	-104	-55	CORPUS CHRISTI	1	-28	46	-36	-92
JACKSONVILLE	38	-3	111	-8	-44	MILES CITY	185	-57	1343	-81	-179	DEL RIO	24	-29	115	-34	-108
KEY WEST	0	0	0	0	00	MISSOULA	219	-21	1633	-79	113	EL PASO	80	-23	290	-60	-76
MIAMI	0	0	0	0	-8	NE GRAND ISLAND	190	-12	1164	118	-71	FORT WORTH	51	-22	196	-45	-119
ORLANDO	5	-8	15	-9	-38	LINCOLN	185	-10	1044	83	-127	GALVESTON	6	-30	66	-29	-115
TALLAHASSEE	32	-22	146	-18	-89	NORFOLK	196	-17	1231	92	-125	HOUSTON	24	-27	123	-37	-115
TAMPA	8	-7	26	-10	-33	NORTH PLATTE	191	-30	1265	41	-63	LUBBOCK	105	-19	393	-93	-254
W. PALM BEACH	0	0	0	0	-19	OMAHA	183	-4	1072	166	-136	MIDLAND-ODESSA	83	-14	277	-69	-241
GA ATLANTA	91	-7	380	7	11	SCOTTSBLUFF	197	-16	1254	32	-45	SAN ANGELO	54	-27	218	-61	-225
AUGUSTA	93	9	328	10	-30	VALENTINE	210	-18	1402	127	-71	SAN ANTONIO	22	-30	122	-42	-118
MACON	83	9	310	38	08	NV ELY	214	-12	1421	-122	-29	VICTORIA	8	-31	80	-32	-89
SAVANNAH	57	-2	185	-20	-34	LAS VEGAS	71	-17	206	-65	-22	WACO	42	-26	171	-37	-170
ID BOISE	196	12	1054	-10	59	RENO	175	-8	818	-390	114	WICHITA FALLS	68	-31	282	-85	-218
LEWISTON	161	-20	944	-114	-21	WINNEMUCCA	199	1	1176	-108	208	UT BLANDING	169	-26	865	-176	60
POCATELLO	222	5	1292	-65	-36	NH CONCORD	248	48	1563	252	325	CEDAR CITY	172	-17	917	-110	-41
IL CHICAGO	173	-11	1166	227	23	NJ ATLANTIC CITY	172	32	921	222	144	SALT LAKE CITY	193	8	900	-68	14
MOLINE	168	-23	1126	175	-24	NM ALBUQUERQUE	145	-10	578	-81	-48	VT BURLINGTON	239	34	1536	178	239
PEORIA	150	-35	991	73	-106	CLOVIS	131	-9	562	-63	-229	VA LYNCHBURG	149	18	701	63	66
QUINCY	150	-22	972	150	-62	ROSWELL	105	-14	374	-81	-208	NORFOLK	107	11	455	54	32
ROCKFORD	180	-21	1271	193	32	NY ALBANY	229	43	1375	256	269	RICHMOND	126	8	644	90	92
SPRINGFIELD	129	-40	825	29	-152	BINGHAMTON	246	50	1604	352	394	ROANOK	146	14	763	107	124
IN EVANSVILLE	84	-63	616	-66	-163	BUFFALO	203	24	1283	206	197	WA COLVILLE	201	-25	1492	-62	71
FORT WAYNE	156	-26	1068	95	23	NEW YORK	168	37	770	149	192	QUILLAYUTE	134	-19	1383	-138	09
INDIANAPOLIS	126	-44	881	39	02	ROCHESTER	216	39	1381	323	231	SEATTLE-TACOMA	132	-14	889	-249	49
SOUTH BEND	162	-19	1100	128	26	SYRACUSE	214	38	1352	285	243	SPOKANE	192	-27	1354	-80	57
IA DES MOINES	181	-13	1096	151	-126	NC ASHEVILLE	149	13	758	51	48	YAKIMA	167	-28	1123	-104	29
DUBUQUE	200	-15	1421	250	52	CAPE HATTERAS	73	6	236	-9	19	WV BECKLEY	148	-18	---	---	---
SIoux CITY	194	-18	1263	207	-117	CHARLOTTE	112	7	449	2	52	CHARLESTON	129	-15	765	28	25
WATERLOO	188	-31	1300	86	-118	GREENSBORO	141	20	657	106	111	HUNTINGTON	125	-17	734	1	03
KS CONCORDIA	167	-11	946	142	-80	NEW BERN	89	6	344	7	33	PARKERSBURG	140	-7	852	101	00
DODGE CITY	175	7	851	122	-102	RALIGH-DURHAM	116	6	545	62	47	WI GREEN BAY	223	-1	1541	175	27
GOODLAND	185	-13	1098	59	12	WILMINGTON	80	8	315	38	01	LA CROSSE	209	-10	1361	174	-94
TOPEKA	138	-27	820	48	-99	ND BISMARCK	224	-44	1805	174	-38	MADISON	192	-27	1368	90	-42
WICHITA	118	-37	639	-15	-210	FARGO	243	-27	1771	180	-13	MILWAUKEE	177	-25	1229	86	59
KY BOWLING GREEN	104	-34	633	-1	-47	GRAND FORKS	248	-33	1886	122	-39	WAUSAU	238	-3	1742	253	-3
LEXINGTON	109	-38	731	15	-33	WILLISTON	242	-33	1870	156	52	WY CASPER	182	-53	1264	-213	-187
LOUISVILLE	90	-50	587	-62	-51	OH AKRON-CANTON	187	12	1207	229	169	CHEYENNE	192	-28	1421	-27	-64
LA BATON ROUGE	28	-29	149	-33	-120	CLEVELAND	176	8	1101	149	143	LANDER	195	-56	1315	-233	-200
LAKE CHARLES	22	-29	128	-42	-119	COLUMBUS	144	-23	939	55	20	SHERIDAN	181	-57	1459	-84	-73
NEW ORLEANS	28	-19	123	-20	-118	CINCINNATI	126	-32	876	87	58						

Based on 1951-80 normals.

## National Agricultural Summary

November 16 - 22, 1992

**HIGHLIGHTS:** Above normal temperatures and dry conditions the first half of the week allowed fields to dry and crop harvests to continue. By midweek, the first of three major weather systems brought snow to the Rocky Mountains and rain across the central part of the Nation, which hindered harvest. Precipitation continued through the end of the week, which finally brought harvest activities to a halt in many areas.

**SMALL GRAINS:** Winter wheat crop emergence in the 19 major producing States was 89 percent (%) complete. This was 2 percentage points better than last year's pace but behind the 5-year average of 92%. Above normal temperatures and adequate soil moisture allowed crop condition to improve slightly from last week. Seeding of oats, barley, and rye was nearly complete in the Southeast.

**CORN:** Corn harvest advanced during the early part of the week, but was delayed in the major producing areas by rain and wet snows by week's end. High grain moisture content continued to be a problem in some States. Harvest was 69% complete in the 17 major producing States, compared with last year's 98% and the 5-year average of 97%. Good progress was made in Minnesota, South Dakota, and Nebraska, while little to no progress was made in Colorado, Kansas, and Missouri.

**SOYBEANS:** Soybean harvest was 94% completed in the 19 major producing States. This progress was 2 points behind last year and the 5-year average. Favorable conditions in the Southeast allowed harvest to advance rapidly.

**COTTON:** Cotton harvest was 75% complete nationally, 1% ahead of last year and equal to the 5-year average. Texas and the Western States continued ahead of their average pace, while weather conditions hampered harvest in the Gulf States.

**SORGHUM:** Sorghum harvest made good progress in the major producing areas, although it still is well behind normal. Progress was 31 points behind average in Kansas and 20 points behind average in Colorado. Harvest in the 12 major producing States was 83% complete, compared to 96% last year and the 5-year average of 97%.

**OTHER FIELD CROPS:** Hay harvest was active in Arizona and California. The crop was in good condition in Arizona. Peanut harvest neared completion in Oklahoma and advanced in Texas with progress in both areas ahead of schedule. Sugarcane harvest and planting remained active in Florida, while

harvesting continued in Louisiana. Sugarbeet harvest was completed in Michigan and in Malheur County, OR. The crop was sprayed for aphids in California. Sunflower harvest progressed slowly in North Dakota and remained behind schedule in South Dakota. Christmas tree harvest continued in Washington and was in full swing in Oregon.

**FRUIT AND NUTS:** The citrus harvests continued active in Arizona, Florida and California. Cool weather in the San Joaquin Valley of California was helpful in toughening rinds and increasing color in the naval orange crop. Although rain in Florida delayed citrus grove work in some areas, the crop remained in good condition in most areas. Apples were harvested in eastern Arizona and late apple varieties were packed in California. Pistachio harvest advanced in Arizona. Pecan harvest advanced in the south with harvesting delays caused by wet weather.

**VEGETABLES:** Broccoli harvest was active in Arizona and California. The fall asparagus harvest was completed in the desert area of California. Lettuce harvest started in the Trans-Pecos area of Texas; advanced in Arizona, Florida, and California; and ended in New Mexico. Spring crop lettuce was planted in the westside area of California. Cabbage harvest advanced in Arizona and in the High Plains region of Texas. Carrot harvest continued in California, Texas, Washington, and Oregon. Sweet corn planting was active in southern Florida. Celery harvest advanced in Florida and California. Cauliflower harvest was moderate in Salinas-Watsonville and light in Santa Maria areas. Tomato harvest ended in Kern-Tulare area of California and continued in other areas of California and in Florida.

**PASTURES AND LIVESTOCK:** Pastures in California were rated poor to fair. Pastures elsewhere in the Nation remained in fair to good condition. Livestock was also reported in good condition, except in Iowa, where cattle have experienced respiratory problems. Supplemental feeding continued in California, Utah, and parts of Texas. Feed supplies were generally adequate.

**Crop Progress**

for the Week Ending November 22, 1992

**CORN**  
(Percent Harvested)

	Current	Last Wk	1991	Avg.
CO	80	76	93	92
GA	100	100	100	100
IL	75	70	100	100
IN	63	53	100	94
IA	74	60	96	99
KS	90	90	100	99
KY	96	91	99	97
MI	20	15	98	91
MN	73	55	99	99
MO	78	73	99	99
NE	69	57	100	99
NC	99	96	100	100
OH	47	37	100	90
PA	49	45	91	77
SD	51	37	100	99
TX	100	100	100	100
WI	48	36	91	93
17 States	69	59	98	97

These 17 States produced 94% of the 1991 corn crop.

**GRAIN SORGHUM**  
(Percent Harvested)

	Current	Last Wk	1991	Avg.
AR	100	100	100	100
CO	69	63	94	89
IL	88	85	100	99
KS	65	55	98	96
LA	100	100	100	100
MS	100	100	100	100
MO	87	84	95	98
NE	84	75	100	100
NM	95	80	25	NA
OK	92	81	83	78
SD	88	82	100	99
TX	98	92	93	93
12 States	83	76	96	NA
Excl. States with NA	83	76	96	95

These 12 States produced 98% of the 1991 grain sorghum crop.

**COTTON**  
(Percent Harvested)

	Current	Last Wk	1991	Avg.
AL	81	71	98	96
AZ	97	93	89	84
AR	93	86	98	98
CA	98	97	97	96
GA	67	57	93	93
LA	99	98	99	99
MS	96	92	99	98
MO	91	80	99	99
NM	60	55	54	48
NC	60	49	87	85
OK	51	45	31	42
SC	79	67	89	92
TN	89	79	94	95
TX	58	46	50	53
14 States	75	67	74	75

These 14 States produced 99% of the 1991 cotton crop.

**WINTER WHEAT**  
(Percent Emerged)

	Current	Last Wk	1991	Avg.
AR	78	70	81	79
CA	20	10	15	23
CO	100	99	99	99
GA	23	19	22	29
ID	96	93	83	95
IL	97	95	100	100
IN	95	91	99	93
KS	97	95	85	97
MI	85	80	100	98
MO	83	78	86	96
MT	100	98	91	95
NE	100	100	100	100
NC	59	51	51	54
OH	93	90	100	92
OK	78	77	83	91
OR	99	98	87	87
SD	100	100	100	100
TX	75	69	86	89
WA	99	98	92	95
19 States	89	86	87	92

These 19 States produced 92% of the 1991 winter wheat crop.

**SOYBEANS**  
(Percent Harvested)

	Current	Last Wk	1991	Avg.
AL	76	65	90	86
AR	95	87	89	91
GA	67	56	88	86
IL	98	97	100	100
IN	99	97	100	99
IA	100	100	100	100
KS	95	90	99	95
KY	85	77	94	89
LA	97	93	96	96
MI	80	75	100	95
MN	99	99	100	100
MS	89	81	90	90
MO	93	92	93	98
NE	100	100	100	100
NC	58	38	60	60
OH	99	98	100	100
SC	45	29	60	55
SD	99	99	100	100
TN	80	65	89	93
19 States	94	91	96	96

These 19 States produced 95% of the 1991 soybean crop.

**Crop Condition**  
(Percent)

for the Week Ending Nov. 22, 1992

**WINTER WHEAT**

State	VP	P	F	G	EX
AR	0	0	6	74	20
CA	0	0	5	90	5
CO	3	6	25	51	15
GA	0	0	4	96	0
ID	0	4	20	71	5
IL	0	2	11	68	19
IN	0	1	30	64	5
KS	2	0	13	42	43
MI	2	8	30	50	10
MO	0	0	33	64	3
MT	0	1	23	57	19
NE	0	0	32	59	9
NC	0	0	10	90	0
OH	1	5	27	55	12
OK	0	14	55	31	0
OR	0	0	4	76	20
SD	0	0	35	54	11
TX	4	24	44	24	4
WA	0	0	73	27	0
19 State	1	6	31	46	16
Prev Week	2	8	32	43	15
Prev Year	3	11	38	43	5

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 0.35 to 2.69 in. north; 0.89 to 3.78 in. central; 0.31 to 1.14 in. south. Temperatures 2 to 10° above normal north; 3 to 10° above normal central; 3 to 8° normal south. Lows 28 to 40° north; 29 to 38° central; 33 to 44° south. Highs 70 to 76° north; 74 to 79° central; 77 to 81° south.

Days suitable for fieldwork 5.2. Soil moisture 84% adequate, 16% surplus. Winter wheat 73% seeded, 64% 1991, 70% avg. Pasture 8% poor, 35% fair, 47% good, 10% excellent. Livestock 16% fair, 69% good, 15% excellent. Primary activities: Harvesting vegetables, hay, cotton, pecans; plowing fields for small grain seeding; planting small grains, marketing cattle; repairing machinery; general care of livestock, poultry, catfish.

**ARIZONA:** Numerous cold fronts cooled temperatures. Snow, upper elevations; scattered showers north, central accompanied cold front 20th. Temperatures 3° below normal to 5° above normal. Extremes 12°; 75° higher elevations, 24°; 85° deserts.

Cotton harvested 97%, 89% 1991, 84% avg.; stalk shredding, plowdown active statewide except complete Yuma. Alfalfa good; harvest, light all areas. Small grains planted 10%, 12% 1992, 6% avg.; field preparation active. Fruit, vegetable harvest active. West; lettuce, broccoli lemons, oranges, tangerines, grapefruit available. Central: sweet corn, squash, broccoli, cabbage, green onions, leeks, lettuce, assorted greens. Navel oranges, grapefruit, lemons also available. Eastern; Apples, pistachios, chili peppers, squash, tomatoes. Pecan harvest underway.

**ARKANSAS:** Temperatures above normal, widespread rainfall, later part of week, heaviest northwest. Extremes 28°; 77°. Rainfall 0.96 to 4.36 in.

Days suitable for fieldwork 5. Soil moisture 6% short, 56% adequate, 38% surplus. Main farming: Wheat seedbed preparation, harvesting soybeans, cotton, planting wheat, oats, marketing calves, working cattle. Wheat planted 90%, 88% 1991, 91% avg. Cotton harvest nearing completion. Cotton gins catching up on modules. As of November 19th, the cotton classing office reported 1,206,003 bales of Arkansas cotton had been classed. Rice, sorghum harvests completed. Livestock good. Pastures mostly fair. Rainfall helped pastures in northwest. Pastures were supplying average forage for herds.

**CALIFORNIA:** High pressure dominated first half of the week. Low pressure moved in midweek, brought scattered rain, showers north portion of State, snow to Sierra Nevada on 19th. Field activities slowed; light rain weekend. Rice harvest complete. Stubble burning where conditions, air quality regulations allowed. Cotton harvest nearing completion. Harvested fields shredded, disced for pink bollworm control. Ground preparation 1993 crop. Corn harvest grain, silage winding down. New sugarbeets treated aphids. Seedbed preparation small grains, forage crops. Alfalfa, barley, oats, wheat seeded. Emerged fields good growth. Grain sorghum, sugarbeets harvested. Alfalfa hay harvest normal; some green

chopped. Orchard floor work slowed. Tree pruning active. Late season varieties apples, table grapes, kiwifruit, persimmons packed San Joaquin Valley. Avocado, date picking active southern areas. Navel orange picking active San Joaquin Valley. Cool temperatures helpful toughening rind, increasing color. Lemon, grapefruit, tangerine picking active. Fall asparagus harvest finished desert area. Broccoli fairly heavy, variable quality Salinas-Watsonville; good quality Santa Maria. Cauliflower moderate, variable quality Salinas-Watsonville; light, good quality Santa Maria. Broccoli, cauliflower packing on going Westside, Kern-Tulare. Broccoli, spinach, carrot, sweet corn, leaf lettuce harvests active Coachella Valley, Perris-Hemet. Celery fairly heavy good quality Salinas-Watsonville; moderate, variable quality Santa Maria. Iceberg, leaf, Romaine lettuce harvests light to fairly light, variable quality central coast. Fall iceberg, leaf lettuce harvest neared completion; Spring 1993 crop being planted Westside. Fall melon, lettuce harvests increased Imperial Valley. Sweet potato harvest winding down Atwater-Livingston. Fall potato harvest active Perris-Hemet, movement from storages Tulalake-Butte Valley moderate. Fresh market tomato harvest moved toward completion Kern-Tulare, late harvesting continued other areas. Rangeland, pasture only slight improvement. Few Northern areas conditions good, remainder fair to poor. New forage showing signs of stress, lack of moisture. Colder temperatures reduced growth. Stockwater supplies light. Supplemental feeding active. Sheep moved into Imperial Valley.

**COLORADO:** Generally above normal temperatures on 16th, 17th were followed on 18th by colder temperatures, widespread light rain, snow showers over the mountains, east. Precipitation increased on 19th, mostly at higher elevations of the State, by 20th a winter storm was affected most of State.

Snowfall 4 to 8 in. near the eastern foothills with lesser amounts on eastern plains, western valleys. Snow up to 2 ft. on Sangre De Cristo mountains before the storm moved out on 22nd.

**FLORIDA:** Temperatures 4 to 7° above normal. Highs low, mid 80s, except upper 70s Panhandle. Lows upper 30s, low 40s Panhandle to mid to upper 60s lower southeast coast. Nearly all State received rain. East central, southeast areas 5.00 to 10.00 in. Elsewhere, 0.50 to locally 1.50 in.

Soil moisture Panhandle, southern Peninsula adequate to surplus; northern, central Peninsula short to adequate. Some flooding lower east coast from heavy rains. Cotton, soybean harvest delayed by wet weather. Sugarcane harvest, planting active. Winter wheat for grain planting started. Rain several days coast part of State, too wet for citrus grove work some areas. Fruit good most areas. Fruit drop not excessive at this time. Harvest for fresh use increasing for most early fruit. Process use picking up as more plants open. Caretakers cutting cover crops, deep plowing for drainage in wet areas. Temperatures 4 to 7° above normal over major vegetable producing areas. East coast, southeast received 2.00 to 9.00 in. rain. Most central, west locations received under 0.50 in. rain. Sweet corn planting started

at Dade. Volume leaders; tomatoes, cucumbers, peppers, squash, sweet corn. Also available; Snap beans, cabbage, carrots, cherry tomatoes, celery, eggplant, escarole, iceberg, specialty lettuce, radishes, strawberries. State's pastures fair to excellent. Pasture ratings, 30% fair, 65% good, 5% excellent. Moisture levels mostly adequate. State's cattle herds mostly good.

**GEORGIA:** Precipitation 1.00 to 4.00 in. Rain 2 to 3 days, most 21st, 22nd. Some locations southeast 4 days of rain. Temperatures 3 to 6° above normal north, 2 to 4° above normal central, 3 to 8° above normal south. Warmest low 70s north, mostly upper 70s south. Coolest 20s northeast mountains, low to mid 30s elsewhere, except upper 30s south, southeast.

Days suitable for fieldwork 5.4. Soil moisture 1% very short, 8% short, 86% adequate, 5% surplus. Cotton 20% fair, 62% good, 18% excellent. Harvest continues slow. Sorghum 11% fair, 89% good; 88% harvested for grain, 97% 1991, 97% avg. Farmers concentrating on soybeans, cotton. Soybeans 20% fair, 72% good, 8% excellent; Harvest over a week later than normal. Wheat 37% planted, 42% 1991, 46% avg. Rye 91% planted, 80% 1991, 84% avg. Other small grains 2% fair, 95% good, 3% excellent; 77% planted, 70% 1991, 69% avg. Onions 100% good; 51% planted, 38% 1991, 38% avg. Other vegetables 2% very poor, 68% fair, 30% good. Pecans 28% poor, 45% fair, 16% good; 62% harvested, 73% 1991, 62% avg. Quality good to excellent, yields low. Pasture 3% poor, 37% fair, 60% good. Cattle, hogs good. Activities: Overseeding pastures, seedbed preparation for small grains, cleaning up after 22th tornadoes, harvesting greens, sweetpotatoes, marketing Christmas trees.

**HAWAII:** Flooding in areas of east highlighted weather in the State. Storm on 19th brought drenching rain to Hilo, Hamakua, Puna, causing flooding to low lying areas. Weather for the remaining islands was variable. Over the weekend, a frontal band brought heavy showers to some areas of the State also flooding low lying areas. Temperatures mid 60s to low 90s. Rainfall 0.02 to 11.10 in.

Days suitable for fieldwork 7.0. Heavy rain over East Hawaii, Maui, windward Oahu was unfavorable for some crops, slowed farming activities. No major damage. After intense showers, growers are expected to spray their orchards to maintain normal development. Banana, papaya shipments continued at high levels. Sweet corn production moderate to heavy, scheduled for the Thanksgiving holiday.

**IDAHO:** Temperatures 4° below normal to 6° above normal throughout State. Precipitation fell throughout State.

Soil moisture varied across State. Adequate amount north, southwest; short amount southeast, south central. Activities: Repairing farm machinery, fall fieldwork. Winter wheat mostly good. Hay, roughage supplies adequate. Livestock activities: Marketing cattle, cattle on winter hay. Livestock good.

**ILLINOIS:** Abundant rains, up to 3.25 in., fell over the State last week accompanied by southerly winds. Temperatures 5 to 10° above normal. Extremes 35°; 70°.

Wet conditions in fields continue to slow corn harvest, as the northern quarter of the State has not reached the half way point.

**INDIANA:** Temperatures 2 to 10° above normal. Highs in 50s with some 60s south. Lows, upper 20s to low 30s. Precipitation 0.55 to 2.06 in.

Days suitable for fieldwork 3.7. Topsoil 1% short, 32% adequate, 67% surplus. Subsoil 5% short, 48% adequate, 47% surplus. Pasture 85%, 85% last week. Tobacco processed 35%. Corn moisture content 23%, same as last week. Hay supplies 9% short, 87% adequate, 4% surplus. Wet fields are still a problem.

**IOWA:** Temperatures 2 to 5° above normal. Extremes 23°; 65°. Very wet statewide; unusually heavy rains southeast half of State. Precipitation 0.33 to 4.34 in.; average 1.89 in.

Days suitable for fieldwork 4.3. Topsoil 26% adequate, 74% surplus. Subsoil 72% adequate, 28% surplus. Fall tillage completed for next year's row crop acreage 25%, 37% 1991, 59% avg. Row crop acreage fall fertilized 20%, 29% 1991, 46% avg. Lack of grain storage space has become a growing problem. Corn lodging 11% none, 76% light, 13% moderate. Corn ear droppage 14% none, 80% light, 6% moderate. Cool, wet conditions continue to cause respiratory problems livestock.

**KANSAS:** Temperatures 1 to 8° above normal over State. Precipitation received all districts. Significant precipitation fell central, eastern districts. Rainfall 0.69 to 2.42 in.

Days suitable for fieldwork 2.5. Surface moisture 7% short, 48% adequate, 45% surplus. Subsurface moisture 9% short, 74% adequate, 17% surplus. Harvest progress behind normal for corn, sorghum because of wet fields and grain. Harvest hampered by avg. of only 2.5 days suitable for fieldwork per week the past 3 weeks. Wheat planting mostly complete. Pastures good. Stockmen moving cattle off pastures. Cattle grazing corn, sorghum stubble, wheat pasture. Supplemental feeding becoming common.

**KENTUCKY:** Warm, fairly wet. Maximum temperatures 10 to 15° above normal, while minimum temperatures 8 to 12° above normal. Rainfall widespread, most locations 0.80 to 2.00 in.

Some harvesting corn, soybeans, seeding wheat where soils dry enough to support machinery. Early seeded wheat generally green, making good growth. Burley stripping active, approaching half stripped. Pastures mostly good. Cattle good condition, ample feed supplies.

**LOUISIANA:** Temperatures 1.9 to 4.4° above normal. Extremes 33°; 80°. Rainfall 1.79 in. southeast to 3.44 in. central.

Days suitable for fieldwork 4.0. Soil moisture 50% adequate, 50% surplus. Pecans 68% very poor, 24% poor, 6% fair, 2% good; 72% harvested, 63% 1991, 61% avg. Wheat 70% planted, 82% 1991, 81% avg.; 62% emerged, 71% 1991, 68% avg. Planting slow, wet fields. Sugarcane 39% fair, 61% good; 57% harvested, 71% 1991, 66% avg. Tonnage increased somewhat, more first stubble, plant cane harvested. Sweetpotatoes 96% harvested, 97% 1991, 97% avg. Livestock 31% fair, 64% good, 5% excellent. Pastures 1% very poor, 9% poor, 9% fair, 80% good, 1% excellent. Vegetables 3% very poor, 6% poor, 56% fair, 35% good. Spraying strawberries for diseases. Harvesting satsumas beginning.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 0.10 in. Temperature 41.6°, normal 44.7°. Extremes 12°; 66°.

Days suitable for fieldwork 4.6. Topsoil 5% short, 75% adequate, 20% surplus. Subsoil 5% short, 84% adequate, 11% surplus. Corn good; grain harvested: 82%, 97% 1991, 96% avg. Soybeans fair to good; 68% harvested, 91% 1991, 85% avg. Sorghum good; 95% harvested, 100% 1991. Pastures, cattle, mostly excellent. Alfalfa fifth cutting 76%, other hay fourth

cutting 93%, supplies mostly adequate. Small grain seeding: wheat 84% complete, barley 95%, rye 89%, oats 100%; all emerging well, good. Final progress report until spring.

**DELAWARE:** Precipitation 0.06 in. Temperature 40.4°, normal 46.1°. Extremes 23°; 62°.

Days suitable for fieldwork 5.3. Topsoil 63% adequate, 37% surplus. Subsoil 100% adequate. Soybeans good; 81% harvested, 95% 1991, 83% avg. Corn harvest virtually complete. Sorghum good; 83% harvested, 99% 1991. Hay supplies adequate. Pastures, livestock in mostly excellent. Small grain seeding: wheat 90% complete, barley 99%, rye 93%; seedlings emerging well. Final progress report until spring.

**MICHIGAN:** Temperatures 0 to 7° above normal. Extremes 23°; 50°. Precipitation 0.55 to 2.50 in. across the State.

Days suitable for fieldwork 2.5. Soil moisture 10% adequate, 90% surplus. Corn silage 98% harvested, 100% 1991, 100% avg. Sugarbeets 99% harvested, 100% 1991, 99% avg. Pasture 70% of normal. Major activities: Harvesting, repairing machinery, spreading fertilizer, manure, hunting.

**MINNESOTA:** Temperatures 1 to 4° above normal. Extremes 5°; 51°. Precipitation 0.33 to 1.00 in., 0.06 to 0.65 in. above normal. Greatest weekly total 2.12 in.

Days suitable for fieldwork 4.1. Topsoil 1% very short, 7% short, 55% adequate, 37% surplus. Corn 73% harvested 99% 1991, 99% avg.; 26% moisture content 16% 1991, 17% avg.; 38% stubble plowed, 91% 1991, 94% avg.

**MISSISSIPPI:** Temperatures 56°, 2.9° above normal. Extremes 27°; 80°. Entire State received above normal rainfall. Average 2.16 in., 1.11 in. above normal. Soil temperatures 56°.

Days suitable for fieldwork 4.4, 2.7 1991, 3.4 avg. Soil moisture 3% short, 84% adequate, 13% surplus. Cotton 96% harvested, 99% 1991, 98% avg.; 21% poor, 30% fair, 49% good. Soybeans 89% harvested, 90% 1991, 90% avg.; 18% fair, 56% good, 26% excellent. Sweetpotatoes harvested 97%, 100% 1991, 99% avg.; 48% fair, 35% good, 17% excellent. Wheat planted 83%, 77% 1991, 82% avg.; 73% emerged, 63% 1991, 65% avg.; 4% poor, 23% fair, 69% good, 4% excellent. Pecans 41% harvested, 59% 1991, 49% avg.; 54% very poor, 40% poor, 6% fair. Livestock 7% fair, 86% good, 7% excellent. Pasture 93% of normal. Activities: Planting wheat, harvesting cotton, soybeans.

**MISSOURI:** Temperatures 3 to 8° above normal. Precipitation 3.39 in., 2.00 to 3.00 in. northwestern, east central, south central, southeastern districts, to over 4.00 in. west central, central, southwest. Rivers, streams overflowing.

Days suitable for fieldwork 2.1. Topsoil 34% adequate, 66% surplus. Harvest stopped by wet weather, considerable drying needed before fields can be entered unless ground freezes. Corn harvest latest since 1985. Corn harvesting varies from 61% north central, 66% northwest, 71% northeast, around 90% central districts, complete in southern districts. Soybean all other districts. Sorghum harvest less than 75% north central, northeast, southwest, 80% or above all other districts, virtually complete southeast. Wet weather may prevent some intended wheat acres from being seeded. Pasture 5% poor, 38% fair, 54% good, 3% excellent.

**MONTANA:** Temperatures 3 to 14° above normal. Precipitation below normal across the State with the western third,

northeast receiving some moisture while elsewhere it was mostly dry.

Grazing open. Most livestock moved from summer pasture.

**NEBRASKA:** Temperatures 1 to 2° above normals. Precipitation occurred midweek varying from traces west to 0.75 in. east.

Days suitable for fieldwork 4.5. Topsoil 13% short, 54% adequate, 33% surplus. Subsoil 9% short, 82% adequate, 9% surplus. Winter wheat 32% fair, 59% good, 9% excellent. Corn, grain sorghum harvest 4 1/2 behind normal. Corn 69% harvested, 100% 1991, 99% avg. Sorghum 84% harvested, 100% 1991, 100% avg. Harvest delays due to weather, high grain moisture content. Pasture, range 97% of normal. Cattle gleaning stalks as available. Some supplemental hay feeding.

**NEVADA:** General westerly flow first half of week without any precipitation. Second half brought two stronger systems from southern gulf of Alaska which resulted in some light rain or snow across northern areas. Southern areas remained dry. Temperatures mild first of week, cooled substantially second half of week.

Fall seeded crops benefited from a little moisture. Main farm/ranch activities: feeding, caring for livestock, general maintenance.

**NEW ENGLAND:** Precipitation 0.24 to 0.58 in. Massachusetts, 0.05 to 0.81 in. elsewhere. Temperatures low 20s to high 30s. Maximum temperatures mid 30s to high 50s. Minimums single digits to mid teens north, low teens to high 20s south.

Major farm activities: Finishing harvest of corn silage, late apple varieties, planting winter rye for cover crop.

**NEW JERSEY:** Temperatures below normal, 39° north, 45° south, 47° coastal. Extremes 16°; 67°. Precipitation above normal north, south, below normal coast; averaged 2.20 in. north, 1.01 in. south, 0.38 in. coastal. Heaviest 24 hour total 2.58 in. on 22nd, 23rd. Heaviest 24 hour snowfall was a trace on 16th, 17th at numerous locations.

Fall variety apple harvest nearly complete. Harvesting sweetpotatoes. Harvest of corn for grain, soybeans declining. Planting cover crops.

**NEW MEXICO:** Most intense winter storm of the season affected State during the latter half of the week. All parts of the State except lower elevations southwest received snow or rain. Higher water equivalents included 1.11 in. at Des Moines, 0.96 in. at Gran Quivira, 0.79 in. at Albuquerque. Temperatures within a few degrees of normal statewide.

Days suitable for fieldwork 5.8. Soil moisture 83% short, 17% adequate. Crop conditions: Cotton 23% poor, 23% fair, 54% good. Irrigated sorghum 22% fair, 78% good. Dryland sorghum 10% poor, 20% fair, 70% good. Irrigated wheat 16% fair, 84% good. Dryland wheat 30% very poor, 40% poor, 20% fair, 10% good. Chile 11% poor, 11% fair, 78% good; red harvest progressing. Lettuce harvest finishing up good. Pecans 13% poor, 49% fair, 38% good. Cattle, sheep mostly fair to good, 3% excellent due to supplemental feeding. Range, pasture 75% of normal.

**NEW YORK:** Early week was dry, lows in teens, 20s, highs in 30s on 16th, 50s on 17th. Light rain fell on 18th as warm front moved through with seasonable temperatures. Light rain, very mild on 19th. Highs in 60s. Powerful cold front moved through on 20th. Highs 5 to 20° lower on 20th. Rain changed to snow in

the west. Cold on 21st, locally heavy snow south of Buffalo. Extremes 8°; 67°.

Major activities: Tending livestock, getting ready for winter, orchard clean-up, cider making, moving onions into storage. Some producers took advantage of a good week for hunting.

**NORTH CAROLINA:** Temperatures 1 to 3° below normal. Precipitation 1.78 in. at Highland to none at several locations.

Days suitable for fieldwork 4.5. Soil moisture 2% short, 79% adequate, 19% surplus. Crop condition: Pasture 34% fair, 66% good. Cotton 4% very poor, 4% poor, 63% fair, 29% good. Soybeans 3% poor, 40% fair, 57% good. Winter wheat 10% fair, 90% good. Oats 6% fair, 94% good. Barley 8% fair, 92% good. Rye 6% fair, 94% good. Wheat 59% emerged, 51% 1991, 54% avg. Sorghum for grain harvested 84%, 92% 1991, 90% avg. Cotton harvested 60%, 87% 1991, 85% avg. Soybeans harvested 53%, 60% 1991, 72% avg. Oats planted 83%, 86% 1991, 87% avg. Barley planted 84%, 96% 1991, 92% avg. Rye planted 79%, 87% 1991, 82% avg. Hay, roughage supplies 93% adequate, 7% surplus. Feed grain supplies 3% short, 90% adequate, 7% surplus. Major activities: Harvesting soybeans, cotton. Other activities: Completing corn harvest; harvesting sorghum; seeding small grains; planting winter cover crops; tending livestock; equipment repair, general farm maintenance.

**NORTH DAKOTA:** Temperatures 4° above normal northeast, east central to 7° above normal northwest. Extremes 0° northeast; 59° southwest. Precipitation 0.07 in. south central to 0.48 in. southeast.

Soil moisture mostly adequate. Corn, sunflower harvest progressing slowly. Reports of 30% moisture content were common. Ranchers are busy weaning calves, moving hay.

**OHIO:** High temperatures were mostly in the 50s, exceeding normal by 2 to 6°. Warmest days produced highs into the 60s across nearly all of the State. Lows in the mid 30s to the mid 40s exceeded normal by 10° or more in many areas. Lowest readings were at or below freezing in most sections with some readings into the teens at Wooster, Canfield, Caldwell, Jackson on the 17th. Precipitation exceeded normal by 0.25 to 0.50 in. Totals were generally between 0.50 to 1.00 in. More than 1 in. reported at Hoytville, Findlay, Fremont, Dayton, Cleveland.

Days suitable for fieldwork 4.4. Topsoil 53% adequate, 47% surplus. Moisture content of harvested soybeans 14.7%. Moisture content of harvested corn 25.5%. Last time harvest of corn for grain was this slow was 1972 when almost 40% was harvested. The continuing precipitation prevented farmers from completing harvest as many have to combine around wet spots as some fields will not support the weight of the machinery.

**OKLAHOMA:** Temperatures 3° below normal Panhandle to 4° above normal east central, southeast. Precipitation 0.34 in. Panhandle to 3.99 in west central.

Days suitable for fieldwork 5.1. Topsoil 29% short, 62% adequate, 9% surplus. Subsoil 25% short, 75% adequate. Wheat 14% poor, 55% fair, 31% good; 78% emerged, 83% 1991, 91% avg.; 12% grazed, 15% 1991, 25% avg. Cotton 37% fair, 63% good; 51% harvested, 31% 1991, 42% avg. Sorghum 92% harvested, 83% 1991, 78% avg. Soybeans 80% harvested, 85% 1991, 70% avg. Peanuts 94% harvested, 90% 1991, 91% avg. Pastures 97%. Cattle good; marketings average, prices higher.

**OREGON:** Above normal temperatures western, northeastern areas; 1 to 3° western areas, 1 to 5° northeastern areas. Elsewhere 1 to 3° below normal. Substantial rainfall statewide. Northern Coastal Range over 6.00 in., northern coast 3.50 in., southern coast, Willamette Valley. 2.00 in., elsewhere 0.10 to 0.50 in. precipitation. Strong winds western areas, especially near coast 70 mph. Substantial snow in Cascades, northeastern mountains.

Soil moisture mostly short to adequate. Winter wheat 100% planted, 99% emerged; 20% excellent, 76% good, 4% fair. Sugarbeet harvest mostly complete, Malheur Co. Fruit, nut orchard winter activities continue. Cole crops, carrot harvests continue, Willamette Valley. Christmas tree harvest in full swing. Livestock good. Western pastures continue improvement. Rains, snows have improved eastern pastures, ranges, continued supplemental feeding. Fall weanings, shipments concluding. BLM warning producers of possible delays in spring range turnout. Range, pasture 70% of normal.

**PENNSYLVANIA:** Slightly below normal temperatures, precipitation. Temperature 40°, 2° below normal. Extremes 10°; 65°. Precipitation 0.56 in., 0.20 in. below normal.

Days suitable for fieldwork 4. Soil moisture 5% short, 62% adequate, 33% surplus. Ensilage corn harvested 99% complete, 100% 1991. Soybean harvest 75% complete, 88% 1991. Fall plowing 92% complete, 99% 1991. Fourth cutting alfalfa 92% complete, 94% 1991. Quality of hay made 56% poor, 44% fair. Feed from pastures 13% very poor, 21% poor, 45% fair; 21% good. Activities: Hauling manure; maintaining machinery; cutting, baling hay; making corn silage; harvesting soybeans, grain corn; fall plowing; fixing fence; preparing for winter; caring for livestock.

**PUERTO RICO:** Island rainfall of 2.47 in. was 1.15 in. above normal. Highest weekly total 7.81 in. at Pico Del Este Luquillo, 7.51 in. at Maricao 2 SSW, 6.17 in. Paraiso. Highest 24-hour total 5.57 in. at Maricao 2 SSW on 17th. Island temperatures 78 to 79° on coasts, 72 to 74° Interior with mean station temperature 64.4° at Pico Del Este Luquillo to 82.5° at Guayama. Extremes 58°; 92°.

**SOUTH CAROLINA:** Temperatures were near normal Midlands, Upstate to above normal Coast. Average rainfall 1.00 in.

Days suitable for fieldwork 4.9. Soil moisture 19% short, 74% adequate, 7% surplus. Cotton fair; 79% harvested, 89% 1991, 92% avg. Soybeans fair to good; 98% shedding leaves, 99% 1991, 98% avg.; 96% mature, 97% 1991, 97% avg.; 45% harvested, 60% 1991, 55% avg. Sorghum fair to good; 95% harvested, 85% 1991, 83% avg. Oats fair to good; 83% planted, 74% 1991, 76% avg.; 73% emerged, 62% 1991, 61% avg. Rye fair to good; 87% planted, 71% 1991, 74% avg.; 77% emerged, 63% 1991, 62% avg. Winter grazing fair to good; 93% planted, 87% 1991, 92% avg.; 88% emerged, 76% 1991, 82% avg. Barley fair to good; 85% planted, 80% 1991, 77% avg.; 78% emerged, 68% 1991, 63% avg. Wheat fair to good; 41% planted, 40% 1991, 46% avg.; 27% emerged, 23% 1991, 28% avg. Soybean, cotton harvesting, small grain planting continued on dry fields.

**SOUTH DAKOTA:** Temperatures near normal. Extremes 9°; 65°. Light precipitation fell with amounts generally less than 0.50 in.

Days suitable for fieldwork 3. Topsoil 3% very short, 22% short, 57% adequate, 18% surplus. Subsoil 10% very short, 32% short, 47% adequate, 11% surplus. Corn 3% very poor, 10% poor, 28% fair, 47% good, 12% excellent. Winter rye 24% fair, 74%

good, 2% excellent. Sunflowers harvest 90% completed, 100% 1991, 100% avg. Wet, muddy field conditions combined with high moisture corn has slowed the corn harvest considerably in most areas. Livestock 4% fair, 77% good, 19% excellent. Pasture 81% of normal.

**TENNESSEE:** Despite dry conditions 16th to 19th, nearly all of the State had above normal rainfall. Only the upper east corner measured less than normal amounts. Chattanooga and Jackson were the wettest with just over 1.00 in. above the usual weekly total. After getting off to a chilly start on the 16th, temperatures continued to climb, all areas enjoyed warmer than normal weather for the balance of the week.

Cotton 89% harvested, 94% 1991, 95% avg. Soybeans 80% harvested, 89% 1991, 93% avg. Wheat 84% seeded, 89% 1991, 91% avg. Cotton and soybean harvests made good gains, still remain over a week behind normal. Majority of tobacco has been stripped, graded as burley markets open on the 23rd. Pastures, cattle are in mostly good.

**TEXAS:** Series upper air disturbances, cold front triggered showers, thunderstorms across State latter half. First part generally dry, pleasant temperatures. Cold surge in West Texas midweek, spread across rest State latter part. Precipitation near, above normal, amounts greatest Low Plains, Southeast Texas. Temperatures variable across State, departures from normal -7° Southern High Plains, +5° south central.

**Crops:** Western areas, cotton harvest progressed until mid week, when activity slowed by wet conditions. Blacklands, harvest nearing completion. Grain sorghum harvest Plains nearing completion, delays due to weather. Small grain stands improved with moisture, planting should resume as fields dry. Some fields Low Plains were replanted. Peanut harvest continued across State. Hill Country, some damage occurred from frost, rain. South Texas, rain damaged some dug peanuts waiting for harvest. Statewide peanut 58% normal, 74% 1991; 83% harvested, 72% 1991, 77% avg. Soybean harvest continued; some loss from rain occurring along Upper Coast.

**Commercial Vegetables:** Rio Grande Valley, peppers, onions progressing well. Insect damage evident some peppers. High Plains, cabbage, carrot harvest continued. East Texas, some spinach, sweetpotatoes harvested. Trans-Pecos, limited lettuce harvest beginning. Pecan harvest continued, several delays caused by weather. Cross Timbers, quality some harvested nuts low due dry summer. Severe scab damage occurred East Texas. Hill Country most harvest by hand, nut drop has been slow.

**Range and Livestock:** Showers improved range, pasture conditions, stock tank levels improved some areas. Livestock remained fair, good, supplemental feeding necessary most areas. Movement cull cows, calves market continued.

**UTAH:** Maximum temperatures 3° above normal, minimum 2° above normal. Light precipitation was reported in all areas except the Dixie Division where none was reported.

Winter range reported in below average condition. Livestock movement, fall marketings nearly complete. Major farming activities: Winterizing equipment, supplementing livestock feed, caring for livestock.

**VIRGINIA:** Temperatures, precipitation below normal. Over the State, 2 to 3° below normal except in the West which was near normal. Extreme high 74°.

Days suitable for fieldwork 5.0. Topsoil 16% short, 77% adequate, 7% surplus. Pasture 44% fair, 56% good. Corn harvested for grain 94%, 99% 1991, 95% avg. Soybeans harvested 63%, 83% 1991, 77% avg. Cotton harvested 45%, 86% 1991, 86% avg. Oats seeded 99%, 99% 1991, 99% avg. Barley seeded 97%, 100% 1991, 97% avg. Winter wheat seeded 74%, 85% 1991, 84% avg. Winter grains, grazing crops 6% poor, 47% fair, 47% good. Forage from pastures, grazing crops dairy cattle 17%, beef cattle 75%, sheep 78%. Livestock 12% fair, 85% good, 3% excellent. Preparing dark-fired burley tobacco for market. Soybean, cotton harvest progressing at a slow pace. Some plowing.

**WASHINGTON:** Temperatures 1 to 4° above normal west; 2 to 11° above normal, east. Rainfall 0.79 to 1.86 in. west; 0.02 to 0.64 in. east.

Days suitable for fieldwork 3.6. Soil moisture 35% short, 64% adequate, 1% surplus. Hay, other roughage 16% short, 69% adequate, 15% surplus. Range, pasture 14% very poor, 51% poor, 21% fair, 14% good. Winter wheat emerged 99%, 92% 1991, 95% avg.; 73% fair, 27% good. Potatoes 99% harvested, 97% 1991, 99% avg. Corn grain harvested 90%, 60% 1991, 75% avg.; 100% good. Mild, damp weather continued east, some snow; heavy rains west, standing water evident some fields. Limited winter wheat replanting finished up Douglas county. Carrots dug, corn grain harvested some central areas. Record low reservoir levels have producers concerned about 1993 irrigation season. Christmas tree harvest continued, International shipments winding down. Cattle grazing alfalfa, corn aftermath.

**WEST VIRGINIA:** Temperature 47°. Extremes 11°; 73°. Precipitation 0.88 in.

Days suitable for fieldwork 3.4. Soil moisture, 22% short, 72% adequate, 6% surplus. Corn, 86% harvested. Pastures, 18% poor, 21% fair, 55% good, 6% excellent; 81% of normal. Cattle, good. Sheep, good. Soybeans, 90% harvested. Wheat, 93% sown. Farm activities: General maintenance; chopping silage; harvesting corn, soybeans; sowing wheat.

**WISCONSIN:** Temperature 33°; at normal. Extremes -2°; 57°. Precipitation 0.70 to 2.80. Rain toward the end of the week brought a halt to most fieldwork. A hard frost is needed in the southern two-thirds of the state to allow the soil to hold up the machinery.

Days suitable for fieldwork 3.6. Soil moisture 63% adequate, 37% surplus. Corn for grain 48% harvested, 91% 1991, 93% avg. Moisture levels are still running high. A concern over the amount of gas available for drying down corn has arisen. There will probably be a lot of corn left in the fields until spring. Soybeans 91% harvested, 99% 1991, 99% avg. Intended fall tillage 42% complete. Winter wheat 9% fair, 69% good, 22% excellent. Hay fields that were cut late are not looking as well as those that weren't cut.

**WYOMING:** Warm, dry weather across State last week. Temperatures above normal across State. Most areas 3 to 9° above normal. Precipitation amounts continued below normal for most of the State. Few areas in the southeast, northwest received up to 0.03 in. above normal.

1993 Winter wheat fair to good, additional moisture needed. Livestock mostly good, culling, marketing, supplemental feeding continuing. Preparation for calving, lambing season.

## International Weather and Crop Summary HIGHLIGHTS

November 15 - 21, 1992

**FSU:** Widespread precipitation accompanied unseasonably warm weather, providing favorable conditions for winter grains.

**EUROPE:** Periodic showers covered most crop areas, slowing late autumn harvesting but favoring winter grain establishment.

**NORTHWESTERN AFRICA:** Light showers moistened topsoils in northern Morocco and western Algeria, increasing moisture for planting. Conditions remained too dry for planting in southern Morocco.

**SOUTH AFRICA:** Beneficial showers continued over most corn areas, necessitating drier weather for planting.

**EASTERN ASIA:** Seasonably dry weather favored late summer crop harvesting.

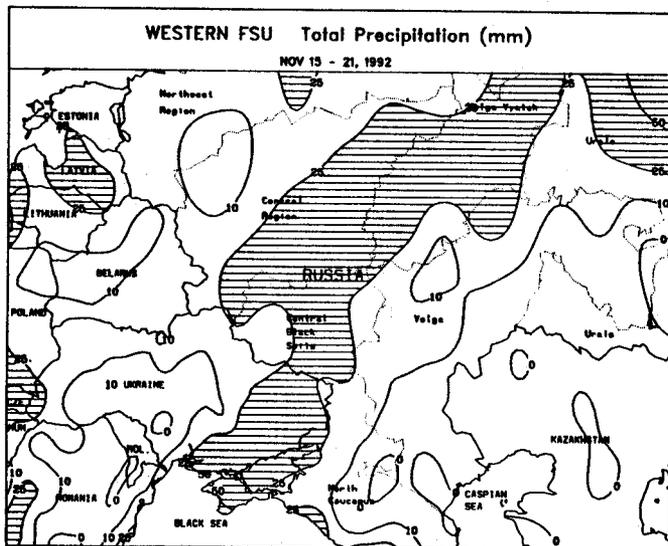
**SOUTH ASIA:** Cyclones made landfall in southern India and northwestern Myanmar (Burma), causing coastal flooding.

**SOUTHEAST ASIA:** Heavy showers, with localized flooding, covered a broad area of Indonesia and Malaysia.

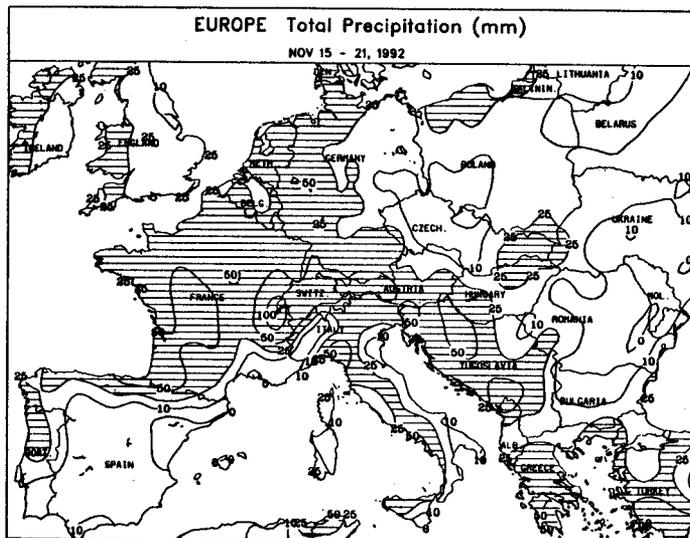
**AUSTRALIA:** Rains delayed wheat harvesting across Queensland but benefited topsoil moisture for summer crops.

**SOUTH AMERICA:** Widespread rain favored filling wheat and germinating summer crops in Argentina. Soil moisture conditions remained favorable across southern Brazil.

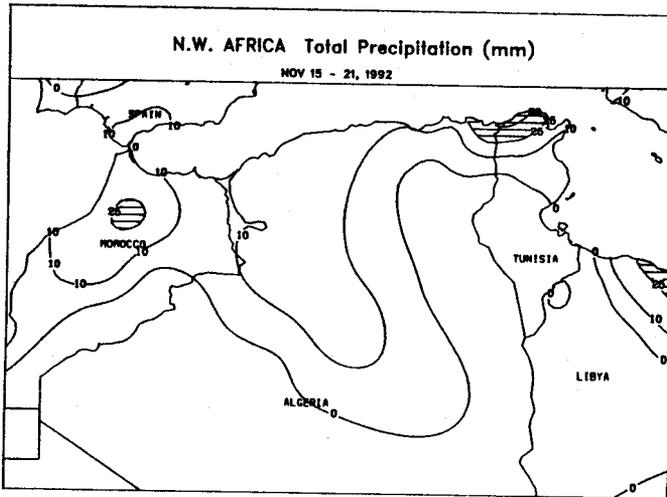
**MEXICO:** Corn harvesting continued across central Mexico.



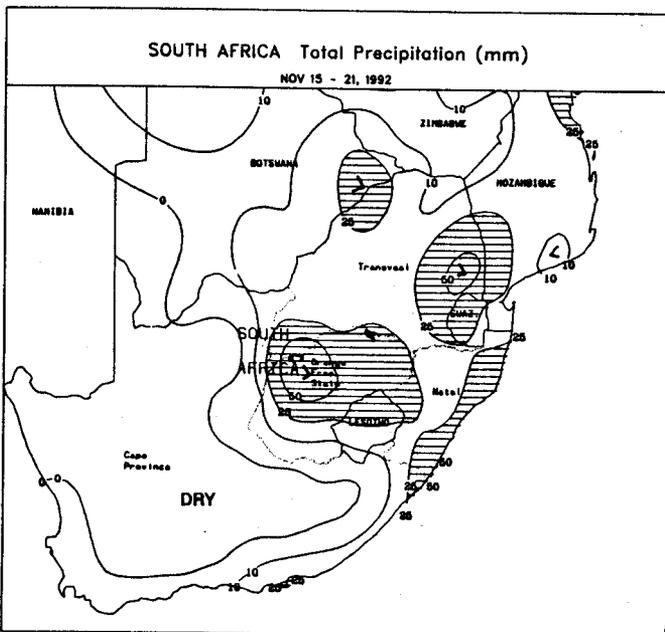
**FSU-WESTERN:** Two storm systems crossed the region during the week, producing widespread precipitation. Greatest amounts of moisture (25-50 mm) covered Latvia and a narrow band that stretched northeastward from eastern Ukraine, through Central Black Soils Region, eastern Central Region, and Volga Vyatsk. The precipitation in the south was mostly rain. Snow changed to rain in the north. Light precipitation (less than 25 mm) covered remaining areas. Weekly average temperatures were 3 to 5 degrees Celsius (C) above normal over the region, providing favorable conditions for winter grains. Winter grains remained dormant over the northern two-thirds of the region, but vegetative growth continued in the extreme south. Most winter grain areas lack a protective snow cover, leaving crops vulnerable to potential extreme cold. In south-central cotton growing areas of the former Soviet Union, little, if any, precipitation accompanied above-normal temperatures, helping cotton harvest.



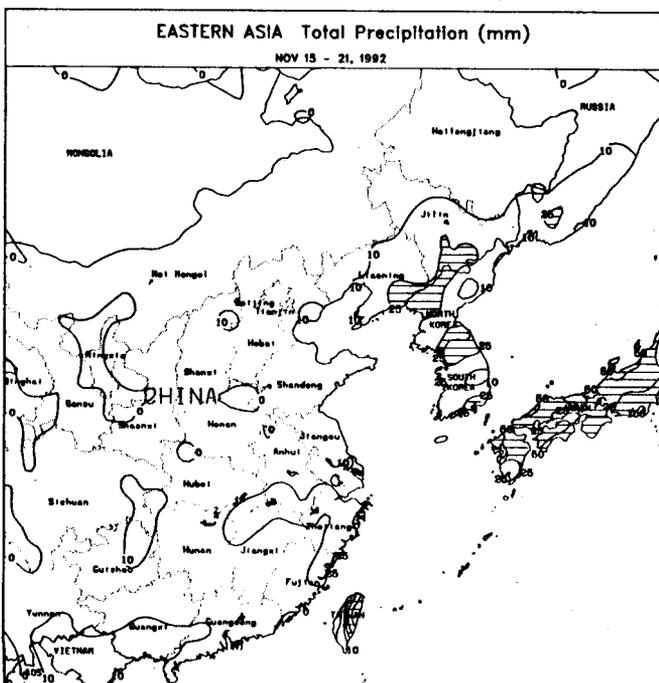
**EUROPE:** Frequent light to moderate showers (12-60 mm) across northern crop areas slowed sugar beet harvesting, but these showers continued to improve topsoil moisture for winter crop establishment. Rain returned to Italy's Po Valley, following dry weather the previous week. Beneficial moisture for emerging winter grains covered southeastern Europe, where long-term dryness prior to last week caused potential problems for winter crops in Bulgaria and Greece. Moisture is generally favorable in east-central Europe. Wetness has interfered with late corn harvesting in France. However, dry weather prevailed again this week over much of Spain. Earlier rains conditioned topsoils for the beginning of the winter grain planting season in Spain.



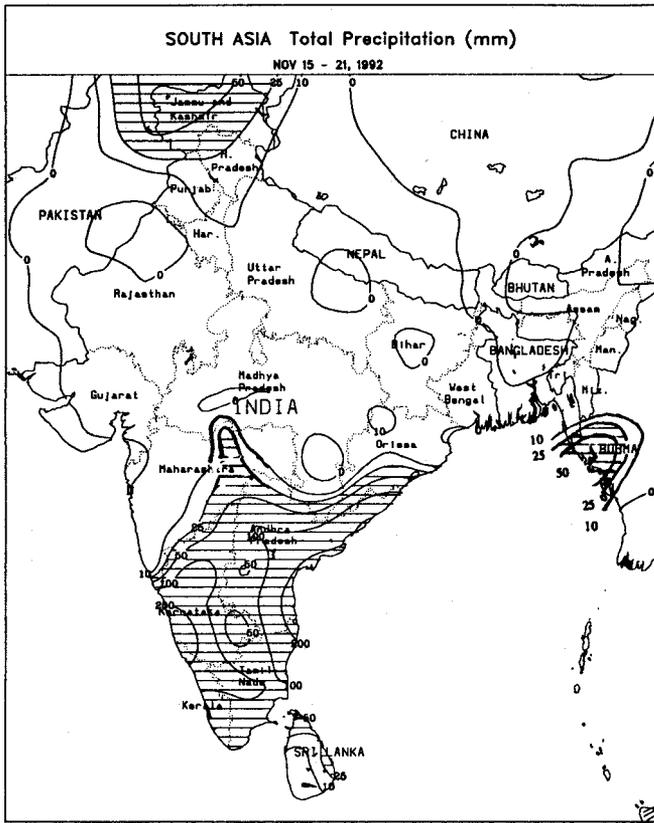
**NORTHWESTERN AFRICA:** Light showers (10-25 mm) moistened topsoils in northern Morocco and western Algeria, increasing moisture for planting. Winter grain areas in southern Morocco received meager amounts of precipitation (less than 10 mm) and conditions likely remained too dry for planting. Light to moderate rain (10-25 mm, with local amounts in excess of 50 mm) in northeastern Algeria and northern Tunisia maintained adequate moisture for winter grain planting.



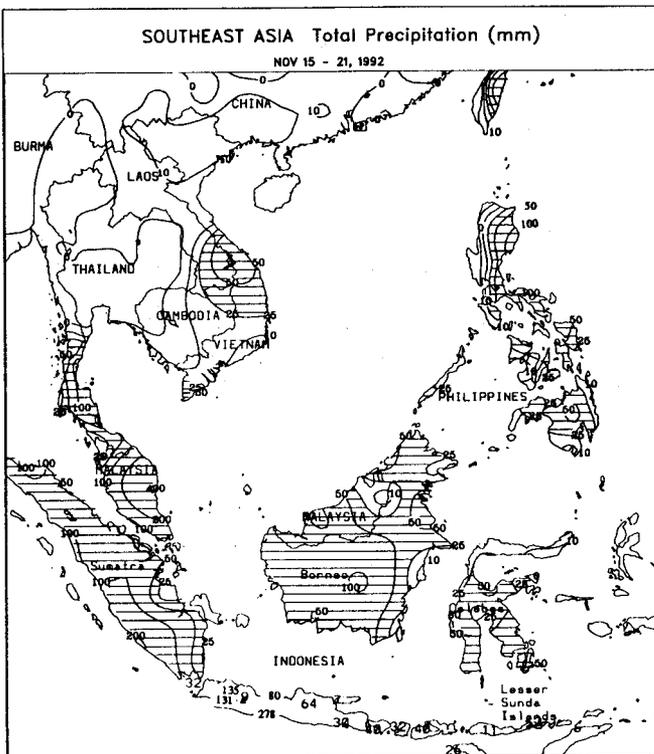
**SOUTH AFRICA:** Moderate to heavy showers (25-106 mm) continued over primary corn regions of Orange Free State, southeastern Transvaal and Natal, helping to recharge subsoil moisture. Rainfall tapered off over southwestern Transvaal, with most areas reporting 10-23 mm. Following 3 weeks of beneficial showers, drier weather is needed for planting. November is usually the peak planting month, but fieldwork, initially delayed by drought, is now being hampered by wetness and will continue into December.



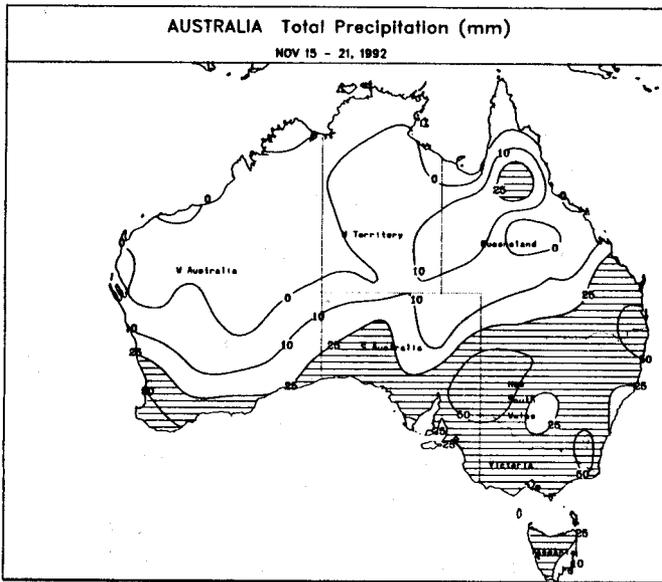
**EASTERN ASIA:** Seasonably light rain (4-13 mm) fell across most of China, allowing late summer crop harvesting to continue. Soil moisture should be adequate for germinating winter wheat in the North China Plain. Temperatures averaged slightly above normal across central and southern China, and 1-3 degrees C below normal across the north.



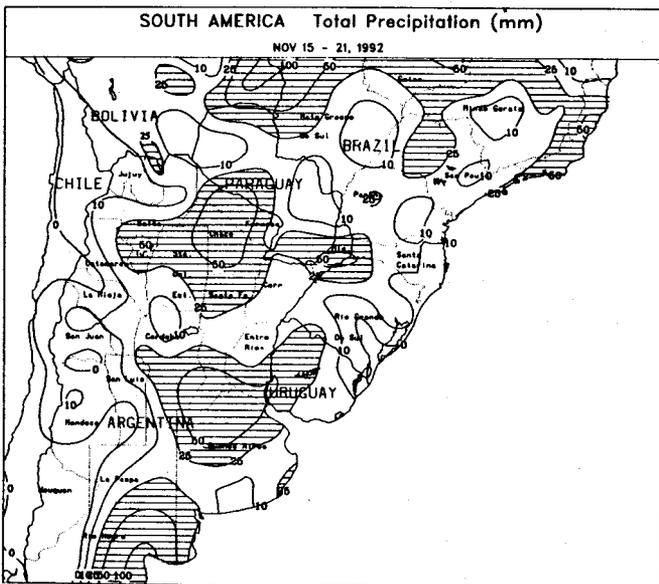
**SOUTH ASIA:** The cyclone that struck Sri Lanka and southern India late last week turned northward into India's southwestern coast, then moved inland over the southern interior. Rainfall was heaviest (100-300 mm or more) at coastal locations, causing flooding and likely damaging rice at varying stages of development. Showers (30-112 mm) from the storm were generally beneficial for immature fall planted crops from central Maharashtra southward. Typhoon Forrest, which reintensified early in the week in the Bay of Bengal, made landfall near the Bangladesh-Myanmar (Burma) border with sustained winds of about 100 knots (110 mph). Although wind damage occurred along the coast, major agricultural areas were spared the brunt of the storm. In central and northwestern India, dry, warm weather favored summer harvests and winter wheat plantings. Moderate showers (10-52 mm) in northern India and Pakistan boosted reservoirs for winter wheat establishment.



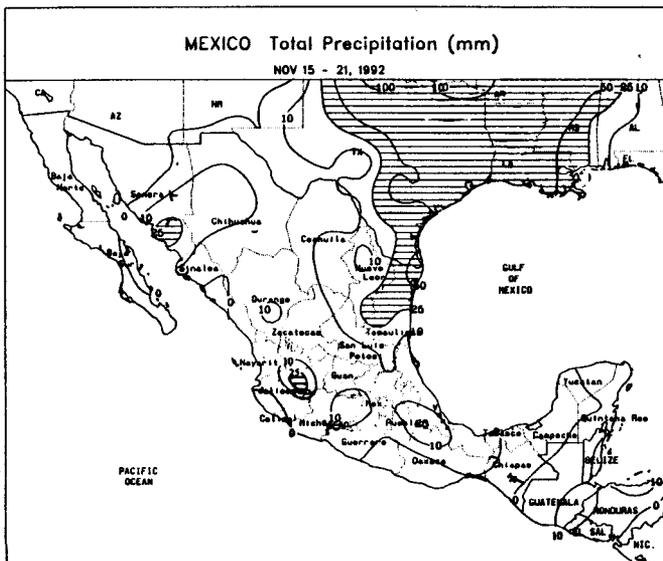
**SOUTHEAST ASIA:** Moderate to heavy showers (50-100 mm or more, with isolated amounts exceeding 200 mm) fell from peninsular Thailand southward to Java, with flooding occurring in many coastal locations. Rainfall exceeded 100 mm over primary oil palm areas of western Malaysia as well as the western third of Java's rice regions. Rainfall also picked up over the Philippines, with moderate to heavy showers (25-50 mm or more) reported over most crop areas.



**AUSTRALIA:** Light to moderate rain (10-30 mm) fell across southeastern Queensland and northern New South Wales, delaying winter wheat harvesting, but favoring topsoil moisture for cotton and sorghum planting. Elsewhere, widespread moderate rain (15-40 mm) aided filling winter wheat. Wheat usually mature's across the southern wheat areas in upcoming weeks, and drier weather will be needed to prevent disease problems, especially in South Australia. Temperatures averaged near normal in the east and 3-5 degrees C below normal in the west.



**SOUTH AMERICA:** Widespread rain (15-60 mm) covered most crop areas of Argentina. The rain benefited filling winter wheat across southern and central Buenos Aires, La Pampa, and southern Cordoba. Soil moisture reserves were increased for summer crops. Wetness still plagued the northern cotton areas, where drier weather is needed. Across most of southern Brazil, scattered showers (7-45 mm) increased soil moisture for summer crops. Drier weather (5-25 mm) relieved flooding concerns in eastern Minas Gerais. However, southern Mato Grosso do Sul could use additional moisture because rainfall has been less than normal the past few weeks. Tropical showers (25-75 mm) were prevalent across the center-west soybean areas (Mato Grosso and Goias), aiding vegetative soybeans. Temperatures averaged 1-2 degrees above normal across western Argentina and southern Brazil and 1-3 degrees below normal in eastern Argentina.



**MEXICO:** Light to moderate rain (5-15 mm) fell across the main corn belt, slightly delaying late corn harvesting. Drier weather prevailed over the Yucatan peninsula, aiding early maturing corn. The northwestern wheat areas received 10-25 mm of rain, favoring germinating wheat. Temperatures averaged 1-3 degrees C below normal across the corn belt.

## Cyclones Strike India, Burma, and Guam

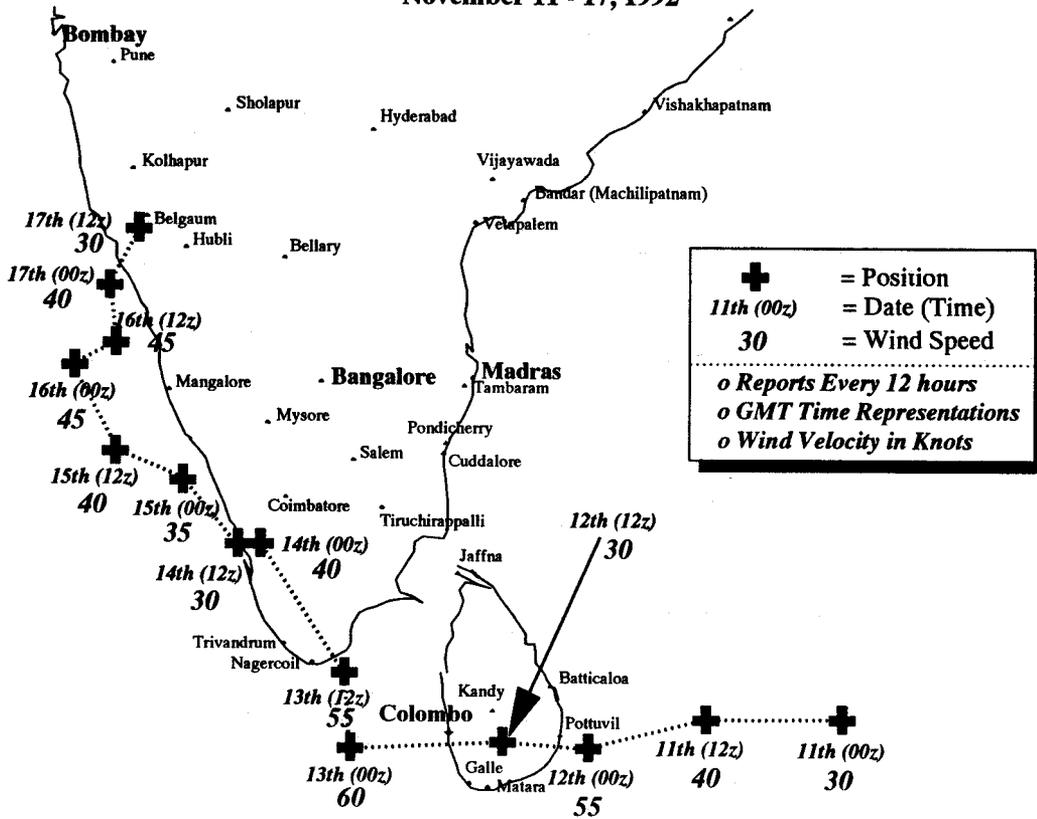
The past fortnight has been an active one for tropical cyclones in the western Pacific and Indian Ocean tropical regions. In the Pacific, the island of Guam, site of the Joint Typhoon Warning Center, has seemed to be a magnet for cyclones this year. Typhoon Gay crossed Guam on November 23, just five days after Typhoon Hunt struck the island. Gay brought 120 mph winds, but only minor injuries and damage have been reported. Thankfully, Gay weakened before hitting land. A few days before, the cyclone had reached super typhoon strength while about 1000 miles to the east, with winds exceeding 150 mph. Indeed, satellite-estimated winds on November 20 reached incredible sustained speeds of 185 mph and gusts to 225 mph, making this one of the most powerful storms of the century. Guam had already sustained major damage from Typhoon Omar on August 28, when winds to 155 mph injured 200 people and caused \$487 million in damage (according to press reports). Gay was at least the fifth storm to strike Guam in the past three months.

Residents of Sri Lanka and southern India were not as lucky when Tropical Cyclone 10B struck both countries on November 12-17. The Bay of Bengal storm strengthened to 55 knots (65 mph) before hitting Sri Lanka on November 12 (Figure 1). After crossing Sri Lanka, the storm tracked northward and hit southern India on November 13, exiting the west coast on the 14th and returning in a weakened state to strike again farther north on the 17th. Though not especially intense, the cyclone brought huge tidal waves, torrential rains, and flash floods to southern India from November 13 to 17, according to press accounts. The reported death toll exceeded 250 in India and reached 13 in Sri Lanka.

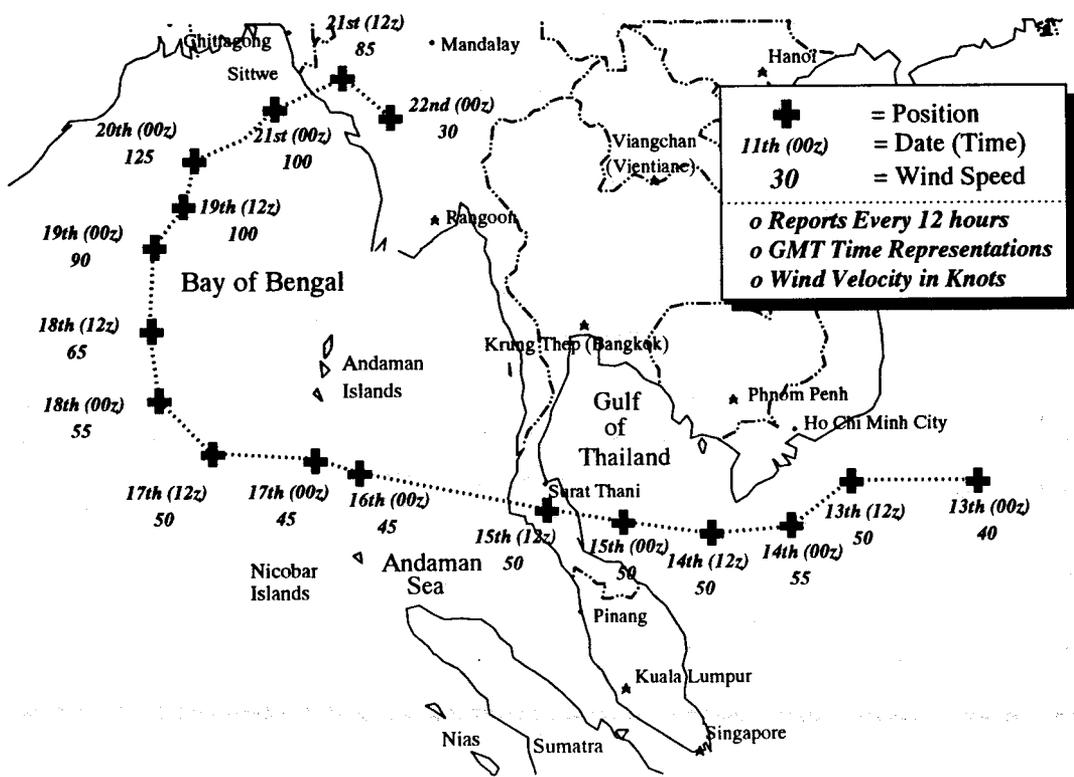
Typhoon Forrest (Figure 2) crossed the Thai peninsula on November 15 and curved northward in the Bay of Bengal around November 18, when the storm rapidly gained strength. On November 20, packing winds of 125 knots (145 mph), Forrest appeared headed for southeastern Bangladesh, the same region hit by the catastrophic cyclone of April, 1991. However, the storm weakened somewhat and took a more easterly course, making landfall around 0900 GMT on the 21st in northwestern Burma near the Bangladesh border. News reports indicate that heavy rains and tidal waves left at least five dead and scores injured in southeastern Bangladesh. No reports have been received from Burma.

--Douglas Le Comte

**Figure 1 TROPICAL CYCLONE 10B**  
November 11 - 17, 1992



**Figure 2 TYPHOON FORREST**  
November 13 - 22, 1992



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(Continued from front cover)

**southern Plains.** Heavy rain developed in Texas and spread northward as the storm tracked into Wisconsin. By Thursday, 2-day rainfall topped 10 inches in Poth, TX, near San Antonio, and flood warnings were posted for the Frio, Atascoda, and San Antonio Rivers in south-central Texas. Precipitation was lighter in northern Texas, but the weekly total of 0.56 inches in Amarillo was more than had been received in the previous 75 days. The moisture aided the southern Plains' winter wheat crop, but caused some cotton harvest delays. In the Corn Belt, a few favorable days for fieldwork were followed by late-week rains. Heavy rain (greater than 2 inches) fell from Missouri to Wisconsin. The second storm entered the Pacific Northwest on Thursday, traversed the Rockies on Friday, and reached Texas by Saturday. Up to 20 inches of snow fell in northern Utah, and 3 inches of wet snow fell as far south as Abilene, TX. But farther east, tornadoes caused local destruction in a corridor from near Houston, TX, to Alabama. Four dozen twisters were reported during the 24-hour period ending at 5 a.m. EST on Sunday morning, including 23 in Texas, 15 in Louisiana, and 9 in Mississippi. Press reports indicated that there were 24 fatalities, 15 of which occurred in Mississippi. Heavy rain drenched Oklahoma and eastern Texas, but became more scattered as it spread into the Southeast. Late on Saturday, the third storm neared the northern Pacific coast, spreading heavy snow into the Cascades. Stampede Pass, WA, gained 30 inches of snow cover from the three storms.

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