

WEEKLY WEATHER AND CROP BULLETIN

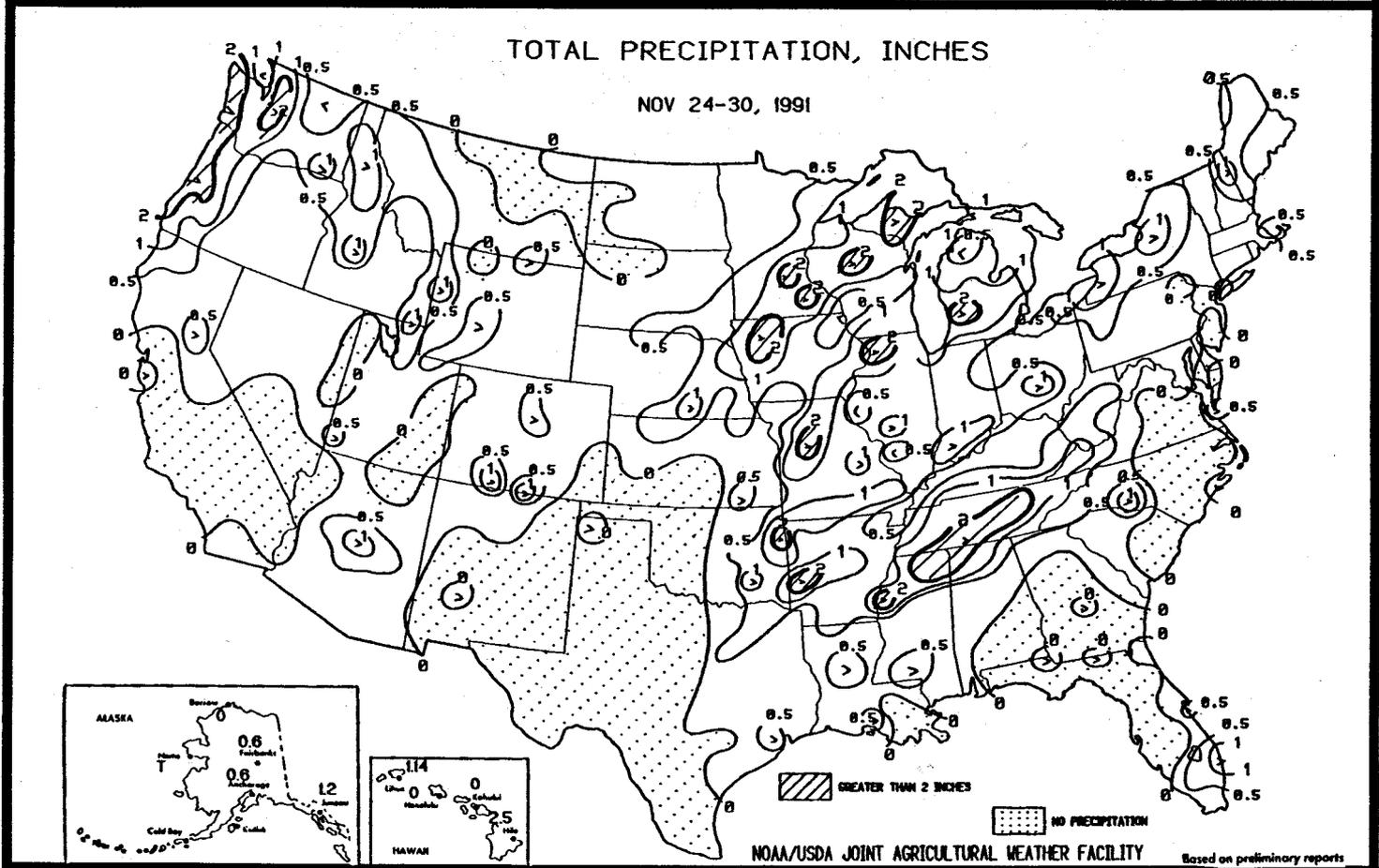
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration,
National Weather Service

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HIGHLIGHTS

November 24 - 30, 1991

A barrage of late-week storms ended a short-lived quiet spell. The storms brought heavy snow, high winds, and cold weather to the **Western and North Central States**, and heavy rain, strong thunderstorms, and temporary warmth to parts of the **Central and Southeastern United States**. Early in the week, cold air spilled deep into the **South and East** behind a departing storm, setting a dozen daily record lows. Temperatures dropped to 29° F in **Corpus Christi, TX**, tying their November record low, and to 25° F in **Tallahassee, FL**. Closer to the core of the cold airmass, **Webster City, IA**, noted a -3° F reading. Snow squalls lingered downwind of the Great Lakes, with local accumulations topping a foot from **Michigan** to **western New York**. By midweek, a disturbance coated the **upper Mississippi Valley** with a mixture of ice and snow. Meanwhile, the first of two intense winter storms entered

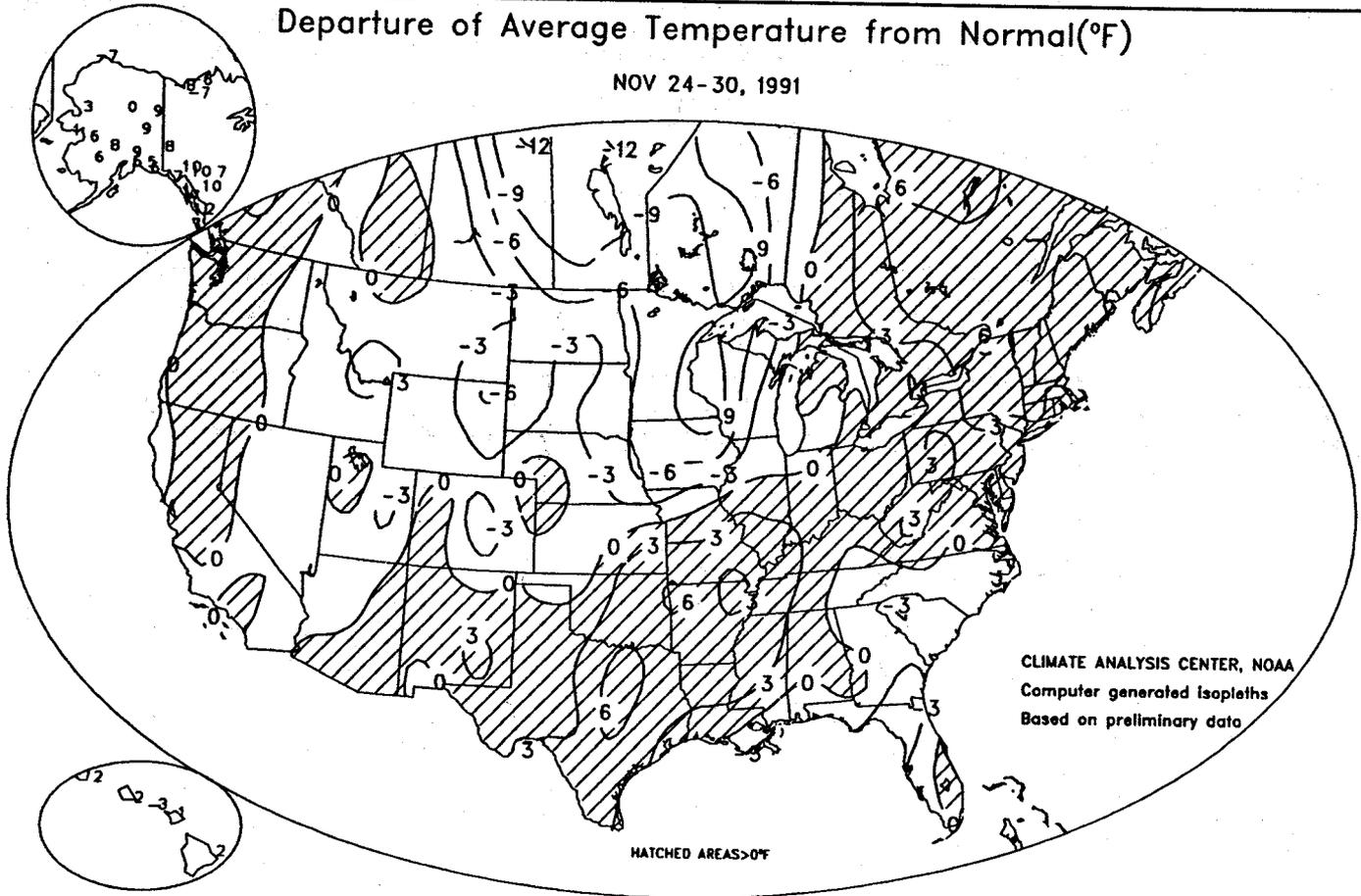
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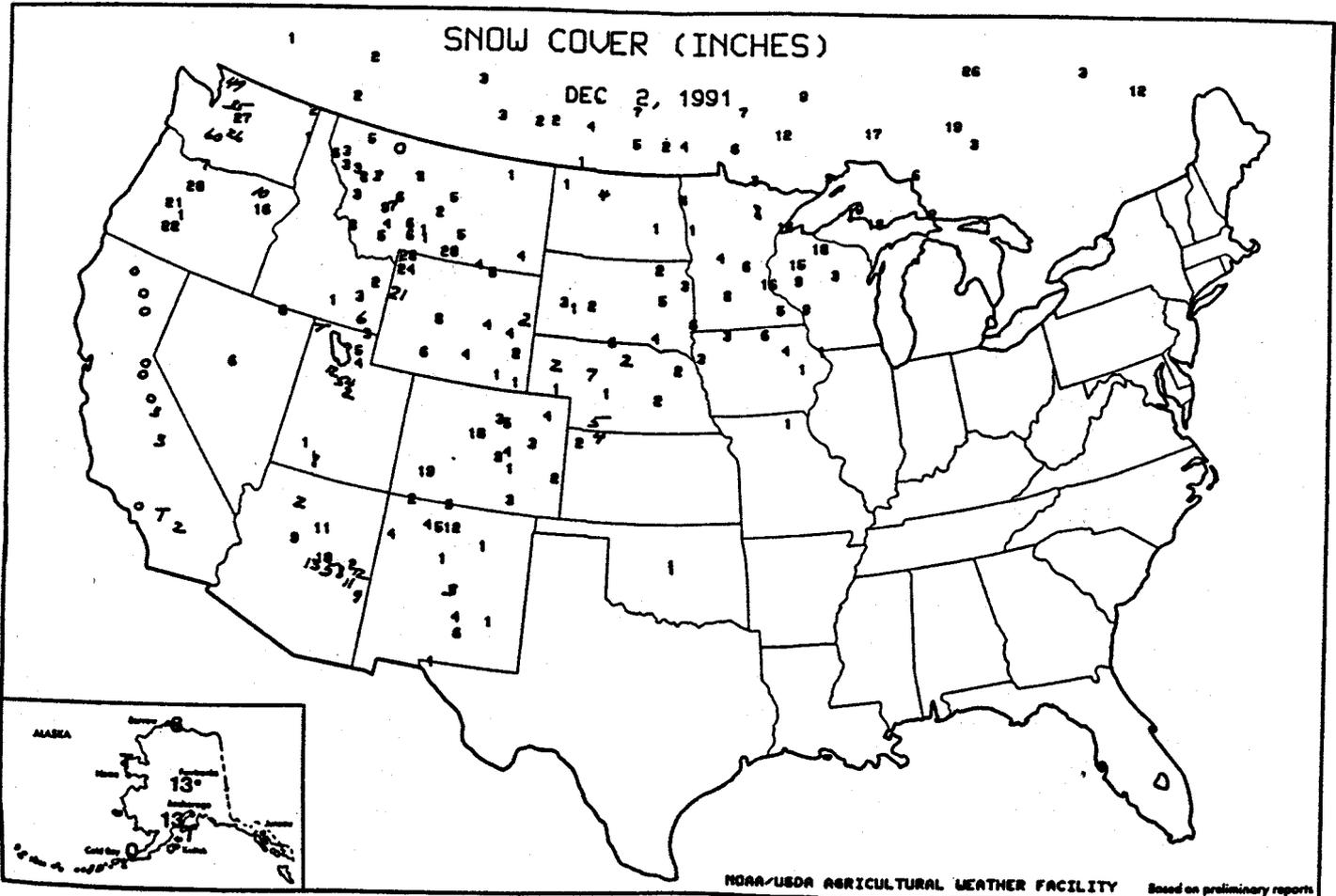
Departure of Average Temperature from Normal(°F)

NOV 24-30, 1991



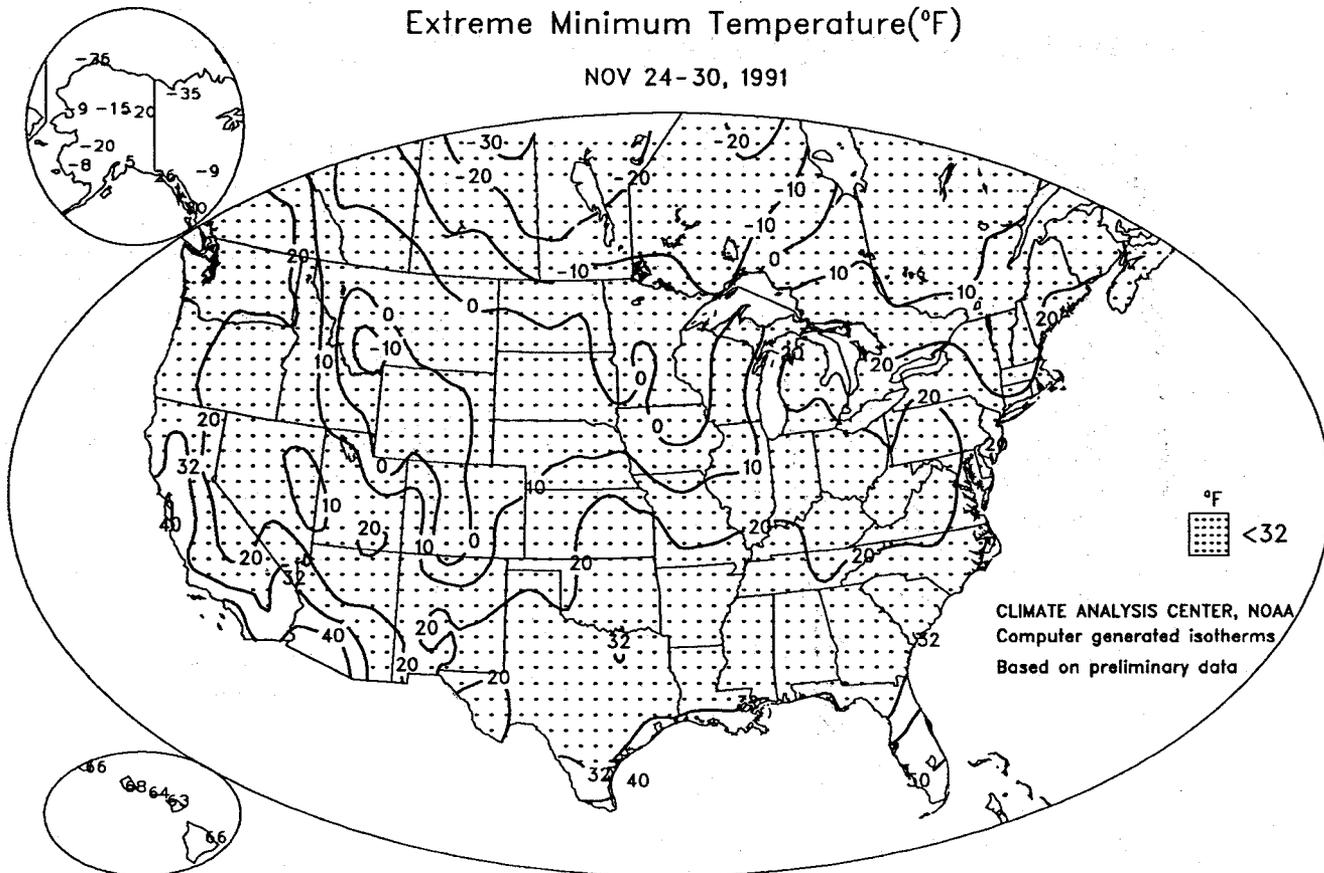
SNOW COVER (INCHES)

DEC 2, 1991



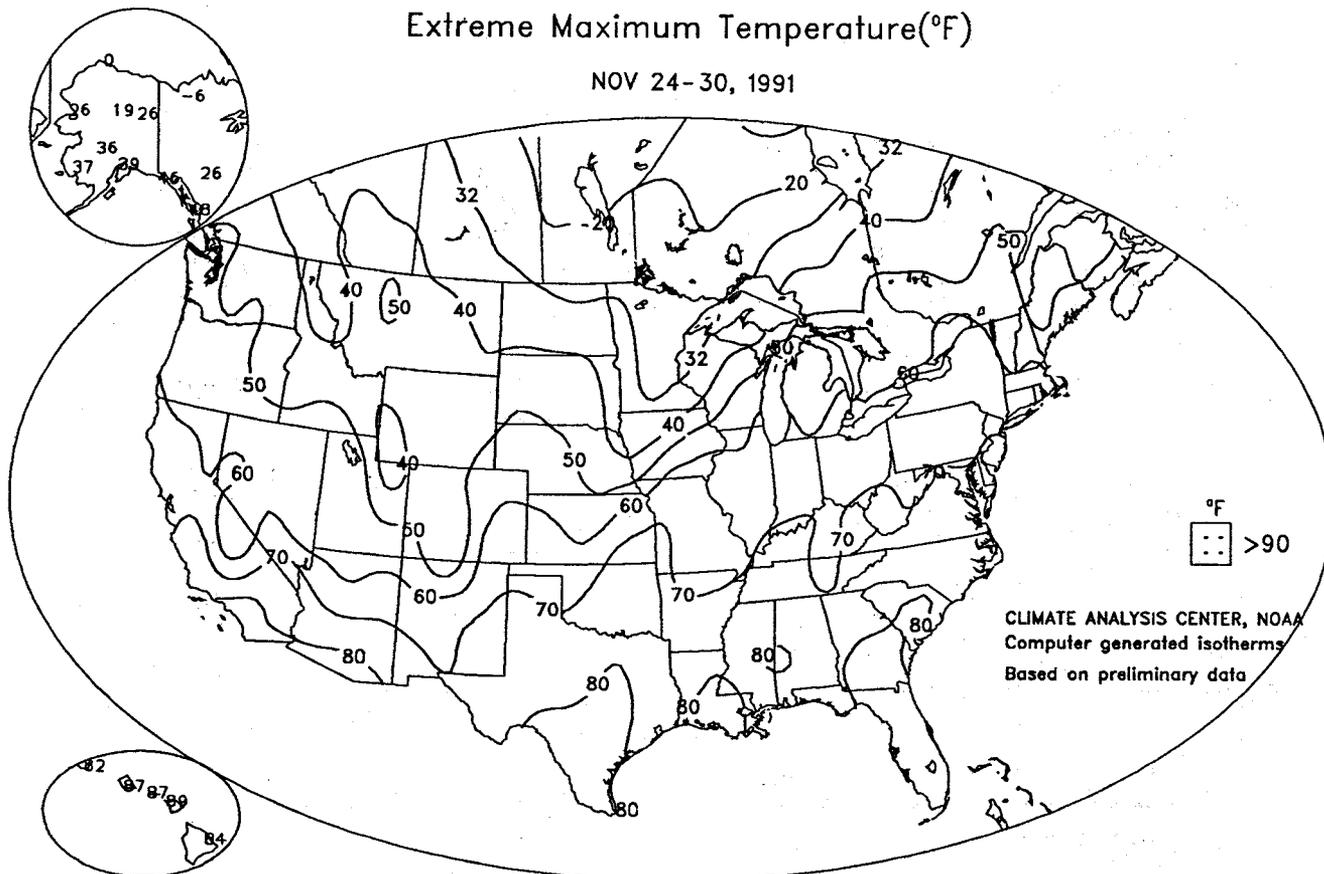
Extreme Minimum Temperature(°F)

NOV 24-30, 1991



Extreme Maximum Temperature(°F)

NOV 24-30, 1991



National Weather Data for Selected Cities

Weather Data for the Week Ending November 30, 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	92 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE		
AL BIRMINGHAM	63	38	76	25	50	1								83	36	0	3	2	2	0	
MOBILE	66	42	77	30	54	2								95	48	0	2	1	1	0	
MONTGOMERY	65	36	80	25	50	2								91	35	0	4	0	0	0	
AK ANCHORAGE	31	18	40	5	25	5								95	76	0	7	2	2	0	
BARROW	1	-20	1	-36	-14	8								81	70	0	7	0	0	0	
FAIRBANKS	13	1	31	-7	7	10								87	64	0	7	5	5	0	
JUNEAU	41	34	45	29	37	7								98	82	0	2	6	6	1	
KODIAK	42	31	45	26	37	4								164	69	0	3	6	2	2	
NOME	20	6	30	-5	13	2								89	55	0	7	2	2	0	
AZ PHOENIX	72	47	77	40	58	1								110	48	0	0	1	0	0	
PRESCOTT	54	25	67	19	40	1								99	89	0	7	2	2	0	
TUCSON	71	42	81	35	56	1								74	31	0	7	1	1	1	
YUMA	72	49	80	42	61	1								93	50	0	0	1	0	0	
AR FORT SMITH	61	42	73	29	52	4								108	38	0	0	1	0	0	
LITTLE ROCK	61	43	72	31	52	4								114	90	0	3	2	1	1	
CA BAKERSFIELD	61	38	69	30	50	3								122	76	0	3	1	1	1	
FRESNO	56	43	62	35	50	0								100	74	0	1	0	0	0	
BUREKA	63	36	69	31	49	0								65	86	0	0	1	1	1	
FRESNO	63	36	69	31	49	0								106	85	0	2	0	0	0	
LOS ANGELES	70	51	80	45	60	1								79	64	0	0	0	0	0	
REDDING	61	39	67	36	50	0								60	84	0	0	1	0	0	
SACRAMENTO	64	41	67	33	52	3								101	78	0	0	0	0	0	
SAN DIEGO	70	47	77	43	59	-1								152	80	0	0	0	0	0	
SAN FRANCISCO	62	48	66	46	55	3								83	85	0	0	0	0	0	
CO DENVER	42	20	58	3	31	-4								139	89	0	7	3	0	0	
GRAND JUNCTION	43	26	50	19	34	0								120	92	0	6	2	0	0	
FUERO	45	19	63	6	32	-4								129	91	0	7	2	0	0	
CT BRIDGEPORT	50	37	60	24	44	3								96	82	0	2	1	0	0	
HARTFORD	48	33	60	21	40	3								111	82	0	3	1	0	0	
DC WASHINGTON	55	37	74	26	46	1								69	79	0	3	1	0	0	
FL APALACHICOLA	67	45	73	31	56	-2								173	85	0	1	0	0	0	
DAYTONA BEACH	72	54	81	41	63	1								142	85	0	0	1	0	0	
JACKSONVILLE	66	43	84	29	55	-1								161	93	0	2	1	0	0	
KEY WEST	76	69	81	62	72	-1								108	90	0	0	1	0	0	
MIAMI	78	65	83	55	72	1								128	89	0	0	4	0	0	
ORLANDO	74	54	84	42	64	-1								128	91	0	0	1	0	0	
TALLAHASSEE	68	39	81	25	54	-2								118	88	0	3	0	0	0	
TAMPA	74	53	87	40	64	-1								96	91	0	0	0	0	0	
WEST PALM BEACH	77	64	82	51	71	1								132	90	0	0	3	1	0	
GA ATLANTA	59	37	73	27	48	-1								120	74	0	4	0	0	1	
AUGUSTA	65	32	81	23	48	-2								136	90	0	4	1	0	0	
MACON	65	34	80	26	50	-3								120	84	0	5	0	0	0	
SAVANNAH	65	40	79	28	52	-2								142	82	0	2	1	0	0	
HI HILO	83	68	84	66	76	3								119	95	0	0	5	2	2	
HONOLULU	86	71	87	68	79	3								84	82	0	0	1	1	0	
KAHULUI	86	65	89	63	76	1								69	90	0	0	0	0	0	
LIHUE	81	71	83	67	76	2								82	89	0	0	1	1	0	
ID BOISE	41	28	47	16	34	-2								90	97	0	5	4	0	0	
LEWISTON	40	34	45	26	37	0								95	93	0	3	5	1	0	
POCATELLO	37	21	49	-2	29	-2								139	93	0	6	5	0	0	
IL CHICAGO	42	24	61	8	33	-2								106	92	0	5	4	2	2	
MOLINE	41	21	63	8	31	-3								93	90	0	4	4	2	2	
PEORIA	45	26	63	7	35	1								93	90	0	4	4	0	0	
QUINCY	47	29	67	12	38	1								104	93	0	4	5	0	0	
ROCKFORD	40	21	59	7	30	-2								97	88	0	4	3	0	0	
SPRINGFIELD	47	31	62	13	39	2								88	90	0	5	3	2	0	
IN EVANSVILLE	52	36	69	20	44	3								114	91	0	4	3	0	0	
FORT WAYNE	43	29	64	10	36	1								76	79	0	3	2	1	1	
INDIANAPOLIS	48	31	67	14	39	2								134	89	0	4	5	0	0	
SOUTH BEND	41	27	62	10	34	-1								100	88	0	4	4	0	0	
IA DES MOINES	36	20	57	2	28	-5								99	93	0	3	5	0	0	
STOUK CITY	32	18	38	6	25	-5								127	92	0	7	3	0	0	
WATERLOO	33	12	50	-4	23	-7								103	91	0	7	4	1	0	
KS CONCORDIA	42	28	51	22	35	-2								131	93	0	7	3	0	0	
DODGE CITY	45	26	61	17	36	-2								69	90	0	6	1	0	0	
GOODLAND	45	25	60	13	35	1								48	92	0	7	0	0	0	
TOPEKA	50	28	65	20	39	1								140	87	0	7	2	0	0	
WICHITA	52	31	70	26	42	2								83	92	0	5	1	0	0	
KY BOWLING GREEN	54	35	71	20	44	2								89	89	0	5	0	0	0	
LEXINGTON	50	33	69	16	42	1								93	79	0	3	1	1	1	
LOUISVILLE	53	35	71	19	44	2								82	80	0	4	2	0	0	
LA ALEXANDRIA	68	46	78	29	57	4								83	75	0	4	3	0	0	
BATON ROUGE	71	46	84	30	58	2								146	89	0	3	2	1	1	
LAKE CHARLES	68	48	80	32	58	1								135	89	0	2	0	0	0	
NEW ORLEANS	69	45	82	31	57	0								139	96	0	1	3	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending November 30, 1991

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	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	
SHREVEPORT	68	44	77	29	56	4	.3	-.6	.3	11.0	114	74.5	187	90	45	0	2	3	0	0	
ME CARIBOU	35	24	40	13	30	4	.5	-.3	.5	9.5	97	33.2	100	79	61	0	6	1	1	0	
PORTLAND	45	30	51	18	38	4	.5	-.7	.4	12.6	107	53.1	137	86	52	0	4	3	0	0	
MD BALTIMORE	54	30	71	18	42	0	.5	-.7	.4	8.0	83	26.2	68	86	40	0	5	1	0	0	
SALISBURY	57	32	73	17	45	1	.1	-.6	.1	7.7	72	40.1	96	88	40	0	4	1	0	0	
MA BOSTON	48	36	63	28	42	1	.2	-.8	.2	14.8	135	39.7	102	80	52	0	2	2	0	0	
CHATHAM	51	38	56	28	44	3	.8	-.3	.8	13.4	112	35.6	85	79	57	0	2	1	1	0	
MI ALPENA	38	26	57	19	32	1	.5	.0	.3	10.3	140	32.3	120	91	63	0	7	6	0	0	
DETROIT	42	31	63	21	37	2	.7	.1	.3	7.6	115	27.8	98	86	57	0	4	6	0	0	
FLINT	40	28	59	18	34	0	1.3	.7	.6	7.2	107	29.5	109	89	56	0	6	5	1	0	
GRAND RAPIDS	40	28	60	23	34	0	2.1	1.4	.8	15.0	171	42.3	137	92	64	0	6	7	2	0	
HOUGHTON LAKE	35	26	53	22	30	0	.9	.4	.3	15.1	206	36.0	138	87	67	0	7	6	0	0	
LANSING	41	28	60	22	34	0	1.4	.8	.8	7.9	109	28.7	105	90	65	0	6	5	1	0	
MARQUETTE	28	12	34	4	20	-5	2.6	2.0	1.0	13.7	136	35.6	102	93	77	0	7	7	3	0	
MUSKOGON	41	29	59	25	35	0	1.3	.6	.5	14.9	175	39.5	138	90	68	0	7	5	1	0	
SAULT ST. MARIE	34	23	51	21	29	1	1.8	1.0	.7	13.4	135	30.7	100	88	75	0	7	5	2	0	
MN ALEXANDRIA	25	8	31	2	16	-6	.2	.0	.2	5.9	112	27.8	116	90	60	0	7	2	0	0	
DULUTH	22	3	26	-6	13	-10	.5	.2	.3	17.1	241	42.8	152	88	66	0	7	4	0	0	
INT'L FALLS	20	4	27	-3	12	-6	.1	-.1	.1	8.3	134	26.9	116	91	68	0	7	2	0	0	
MINNEAPOLIS	27	9	32	-1	18	-9	1.7	1.4	1.4	13.2	237	35.6	141	88	59	0	7	3	1	0	
ROCHESTER	26	6	33	-5	16	-11	1.8	1.6	1.6	10.2	143	35.5	129	94	72	0	7	3	1	0	
MS GREENWOOD	66	44	77	27	55	5	.1	-1.1	.1	8.7	81	58.2	122	82	40	0	2	2	0	0	
JACKSON	68	42	77	26	55	3	.4	-.6	.4	8.8	89	57.8	124	90	44	0	3	2	0	0	
MERIDIAN	65	39	79	27	52	1	.7	-1.0	.7	12.2	126	66.7	140	90	41	0	4	1	0	0	
MO CAPE GIRARDEAU	55	39	68	23	47	-1	1.1	.1	.6	15.1	153	43.1	106	85	45	0	3	2	0	0	
COLUMBIA	51	33	67	13	42	3	.6	.1	.3	10.3	110	32.1	92	80	50	0	4	3	1	0	
KANSAS CITY	47	27	66	15	37	-2	.5	.2	.4	7.9	86	26.7	77	87	54	0	5	3	0	0	
SAINT LOUIS	52	37	64	18	44	4	.5	-.1	.4	11.9	159	31.4	100	80	49	0	3	3	0	0	
SPRINGFIELD	55	38	70	19	47	6	.6	-.1	.6	11.2	109	34.2	93	82	47	0	4	1	0	0	
MT BILLINGS	38	19	50	1	28	-3	.3	.2	.3	5.4	166	20.4	145	79	45	0	7	1	1	0	
GLASGOW	33	15	41	1	24	0	.0	.0	.7	1.2	66	10.8	103	92	62	0	7	1	0	0	
GREAT FALLS	39	21	53	7	30	0	.1	.0	.1	2.6	102	14.0	98	83	49	0	7	0	0	0	
HAVRE	38	16	47	12	27	2	.7	-.1	.1	.5	26	9.0	80	91	56	0	7	2	0	0	
HELENA	36	14	49	-9	25	-3	.6	.5	.6	2.8	139	11.2	104	93	60	0	7	3	1	0	
KALISPELL	33	20	38	4	27	-1	.6	.3	.2	3.7	111	14.5	103	96	72	0	7	4	0	0	
MILES CITY	36	20	45	13	28	1	.7	-.1	.7	4.6	180	19.9	147	88	60	0	7	1	0	0	
MISSOULA	32	22	36	0	27	-2	.9	.7	.4	2.3	83	10.7	90	95	75	0	7	1	0	0	
NE GRAND ISLAND	37	23	47	11	30	-2	.6	.4	.6	4.1	94	27.8	124	95	70	0	7	3	1	0	
LINCOLN	37	23	46	16	30	-3	.4	.2	.3	4.7	83	22.8	87	94	67	0	7	3	0	0	
NORFOLK	34	19	40	4	26	-4	.8	.7	.7	5.8	140	28.4	124	92	66	0	7	4	1	0	
NORTH PLATTE	41	21	54	9	31	0	.1	.0	.1	4.8	155	19.8	105	93	57	0	7	1	0	0	
OMAHA	33	21	39	13	27	-7	.7	.4	.4	6.8	99	35.5	120	91	71	0	7	4	0	0	
SCOTTSBLUFF	39	20	54	8	29	-2	.1	-.1	.0	2.8	119	14.3	102	91	52	0	7	3	0	0	
VALENTINE	34	18	49	0	26	-3	.6	.6	.6	3.3	126	21.9	130	95	67	0	7	2	1	0	
NV ELY	43	18	56	9	30	0	.0	-.1	.1	2.8	152	9.7	120	89	44	0	7	2	0	0	
LAS VEGAS	60	39	74	35	49	0	.0	-.1	.0	.5	53	3.8	104	47	18	0	0	0	0	0	
RENO	51	26	65	15	38	2	.1	-.1	.1	1.7	145	5.0	82	86	31	0	7	1	0	0	
WINNEMUCCA	44	23	59	11	34	-1	.3	.2	.3	2.3	139	7.2	105	88	45	0	7	2	0	0	
NH CONCORD	45	30	61	13	37	5	.3	-.6	.3	13.7	138	35.9	108	87	56	0	3	2	0	0	
NJ ATLANTIC CITY	56	30	72	16	43	1	.1	-.8	.7	4.8	50	30.7	81	89	44	0	4	2	0	0	
NM ALBUQUERQUE	54	30	65	23	42	2	.7	-.1	.7	3.6	177	10.1	137	66	26	0	6	0	0	0	
CLOVIS	58	29	72	21	44	1	.7	-.1	.7	5.1	123	21.4	130	77	26	0	6	0	0	0	
ROSWELL	63	31	75	23	47	4	.0	-.1	.0	5.2	165	18.6	181	72	20	0	4	0	0	0	
NY ALBANY	45	31	62	17	38	4	.3	-.5	.2	11.9	131	32.9	101	90	51	0	3	3	0	0	
BINGHAMTON	44	32	60	22	38	4	.3	-.4	.2	8.8	94	30.7	91	88	59	0	4	6	0	0	
BUFFALO	45	31	66	22	38	2	1.8	-.9	.8	10.3	105	36.4	107	92	62	0	5	6	2	0	
NEW YORK	53	39	70	32	46	3	.7	-.9	.8	6.5	62	34.7	89	74	44	0	1	1	0	0	
ROCHESTER	44	31	68	24	38	1	.9	-.3	.4	6.9	88	26.3	92	94	63	0	5	5	0	0	
SYRACUSE	46	33	66	24	40	4	1.0	-.2	.4	9.5	97	33.9	95	92	57	0	3	6	0	0	
NC ASHEVILLE	54	31	66	22	42	-1	.7	.0	.7	4.8	48	38.8	96	84	37	0	6	1	1	0	
CHARLOTTE	59	35	76	25	47	0	1.1	-.4	1.1	5.0	55	42.2	107	76	29	0	4	1	1	0	
GREENSBORO	58	31	74	20	44	-1	.0	-.6	.0	7.2	77	39.0	100	77	29	0	5	0	0	0	
HATTERAS	62	46	77	41	54	1	.7	-.1	.7	10.4	67	60.0	117	83	44	0	0	1	0	0	
NEW BERN	64	35	78	29	50	-1	.1	-.8	.8	9.8	80	46.8	95	95	34	0	4	0	0	0	
RALEIGH	59	32	76	20	46	-1	.7	-.7	.7	5.3	60	32.8	85	84	30	0	4	0	0	0	
WILMINGTON	64	36	77	29	50	-2	.0	-.8	.0	7.2	61	55.3	111	90	35	0	3	0	0	0	
ND BISMARCK	29	13	36	-2	21	-2	.7	-.1	.7	5.5	211	16.6	113	89	66	0	7	2	0	0	
FARGO	23	9	34	-4	16	-4	.1	.0	.1	2.5	63	20.5	109	88	64	0	7	2	0	0	
GRAND FORKS	23	9	32	-1	16	-4	.1	-.1	.1	5.9	150	21.3	121	89	62	0	7	2	0	0	
WILLISTON	30	12	35	0	21	-1	.7	-.1	.7	3.6	142	17.5	134	89	66	0	7	1	0	0	
OH AKRON-CANTON	44	30	63	16	37	1	.3	-.3	.2	6.0	78	20.8	63	84	54	0	4	3	0	0	
CINCINNATI	49	31	69	14	40	1	.9	-.2	.8	5.9	69	35.0	95	88	48	0	4	3	1	0	
CLEVELAND	45	32	67	23	39	1	.3	-.4	.2	9.0	111	30.4	94	82	55	0	4	4	0	0	
COLUMBUS	48	32	68	16	40	2	.7	-.1	.4	7.1	98	29.0	85	80	47	0	4	3	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending November 30, 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	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	46	29	66	12	38	0	.8	.1	.4	6.9	99	33.5	105	85	51	0	4	4	4	0	
TOLEDO	43	30	63	17	36	2	.2	.4	.1	8.5	123	25.8	89	89	60	0	4	4	3	0	
YOUNGSTOWN	46	31	65	21	38	3	.2	.5	.1	5.5	65	22.7	66	83	53	0	4	3	0	0	
OK OKLAHOMA CITY	59	39	74	27	49	5	.5	.3	.1	17.8	232	37.8	128	86	44	0	3	0	0	0	
TULSA	59	41	75	30	50	1	.1	.5	.1	13.3	129	29.0	79	79	49	0	2	1	0	0	
OR ASTORIA	50	39	55	29	44	1	2.7	.1	1.1	12.9	66	50.6	87	98	76	0	2	6	2	0	
BURNS	40	26	50	11	33	1	.6	.3	.5	.9	37	5.3	62	91	60	0	7	2	0	0	
MEDFORD	47	34	52	22	41	0	.6	.2	.3	2.8	53	13.4	83	99	74	0	3	3	0	0	
PENDLETON	44	33	51	24	38	0	.9	.5	.3	3.5	120	12.8	123	91	64	0	3	6	0	0	
PORTLAND	49	38	55	30	44	1	1.4	.0	.5	7.9	81	29.3	95	96	76	0	1	6	1	0	
SALEM	51	38	59	27	45	2	1.4	.1	.6	7.7	73	29.7	90	93	69	0	2	4	2	0	
PA ALLENTOWN	50	31	64	21	40	2	.1	.9	.7	8.4	78	30.9	76	86	50	0	4	1	0	0	
ERIE	45	31	67	19	38	1	1.2	.3	.7	9.4	83	28.5	78	88	57	0	4	6	1	0	
HARRISBURG	50	32	66	19	41	1	.1	.8	.7	6.7	70	28.4	79	82	46	0	4	1	0	0	
PHILADELPHIA	53	35	71	25	44	2	.2	.8	.7	6.7	71	32.3	86	79	46	0	3	0	0	0	
PITTSBURGH	48	32	68	19	40	3	.2	.3	.2	6.0	79	28.4	84	83	55	0	4	3	0	0	
SCRANTON	47	33	63	22	40	4	.7	.7	.8	8.8	98	27.5	85	79	52	0	5	0	0	0	
RI PROVIDENCE	50	33	63	22	42	3	.4	.4	.4	12.4	108	42.6	105	86	49	0	3	1	0	0	
SC CHARLESTON	65	39	80	31	52	2	.0	.0	.0	4.7	47	48.1	100	79	33	0	1	0	0	0	
COLUMBIA	64	32	82	22	48	3	.0	.0	.0	4.5	48	59.8	131	93	29	0	4	0	0	0	
FLORENCE	63	36	81	26	50	2	.0	.0	.0	6.1	70	42.7	104	84	36	0	4	0	0	0	
GREENVILLE	59	30	73	21	44	3	.0	.7	.0	3.1	27	44.4	95	82	30	0	5	1	0	0	
SD ABERDEEN	30	14	42	0	22	2	.1	.0	.1	2.0	64	23.0	134	91	62	0	7	1	0	0	
HURON	31	15	44	5	23	3	.4	.3	.3	3.7	110	23.3	130	90	61	0	7	4	0	0	
RAPID CITY	34	16	48	6	25	6	.1	.2	.1	2.3	101	17.2	110	93	65	0	7	4	0	0	
SIoux FALLS	30	14	36	-1	22	-5	.7	.5	.4	7.4	141	27.3	117	93	65	0	7	4	0	0	
TN CHATTANOOGA	57	32	70	22	45	-1	.8	.4	.8	7.5	65	47.9	101	89	38	0	5	1	1	0	
KNOXVILLE	56	31	75	21	44	-1	1.0	.0	1.0	9.5	100	48.1	113	86	41	0	5	1	1	0	
MEMPHIS	61	42	75	28	51	4	1.5	.4	1.5	11.3	112	54.0	116	70	39	0	3	2	1	0	
NASHVILLE	56	37	73	22	46	1	1.7	.7	1.7	12.2	126	39.1	90	89	57	0	3	2	1	0	
TX ABILENE	64	42	76	28	53	3	.0	.0	.0	8.8	131	27.1	121	81	36	0	1	0	0	0	
AMARILLO	56	27	71	21	42	0	.0	.0	.0	2.8	76	13.1	71	83	29	0	6	0	0	0	
AUSTIN	72	51	84	31	62	6	.0	.0	.0	6.2	68	38.1	130	89	42	0	1	1	0	0	
BEAUMONT	70	50	80	31	60	3	.3	.8	.2	14.7	111	69.9	139	94	56	0	2	2	0	0	
BROWNSVILLE	76	59	83	43	67	2	.2	.2	.2	9.1	89	29.5	122	91	59	0	0	0	0	0	
CORPUS CHRISTI	75	56	83	29	66	4	.0	.3	.0	10.5	98	38.3	129	91	55	0	1	0	0	0	
DEL RIO	72	47	83	29	60	4	.0	.1	.0	8.7	150	19.0	114	72	34	0	1	1	0	0	
EL PASO	64	31	71	22	48	0	.0	.0	.0	2.5	104	8.9	123	60	16	0	5	0	0	0	
FORT WORTH	67	47	79	29	57	6	.1	.3	.1	15.0	176	44.8	153	84	43	0	1	1	0	0	
GALVESTON	67	57	73	39	62	2	.1	.7	.1	11.8	100	56.7	154	86	61	0	0	2	0	0	
HOUSTON	70	53	79	31	61	4	.1	.7	.1	10.4	83	51.7	122	95	55	0	2	3	0	0	
LUBBOCK	62	33	74	27	47	3	.0	.1	.0	8.4	191	21.8	127	84	26	0	5	0	0	0	
MIDLAND	64	35	75	25	49	1	.0	.1	.0	5.3	130	21.4	164	82	24	0	2	0	0	0	
SAN ANGELO	65	39	75	23	52	1	.0	.0	.0	8.4	139	20.4	117	86	41	0	2	0	0	0	
SAN ANTONIO	74	51	84	27	62	6	.0	.5	.0	2.8	31	28.8	105	89	44	0	2	0	0	0	
VICTORIA	74	51	80	31	62	3	.1	.4	.0	7.1	60	50.5	145	92	57	0	1	3	0	0	
WACO	70	49	83	29	60	6	.0	.5	.0	9.1	108	37.2	129	87	45	0	2	1	0	0	
WICHITA FALLS	64	38	78	25	51	3	.0	.3	.0	13.0	177	29.0	115	85	36	0	6	0	0	0	
UT CEDAR CITY	43	22	61	11	33	-2	.2	.0	.2	3.9	152	11.8	123	85	44	0	6	3	0	0	
SALT LAKE CITY	44	28	56	12	36	1	.4	.1	.3	6.8	213	17.4	127	88	44	0	5	3	0	0	
VT BURLINGTON	43	30	60	17	36	0	.3	.3	.2	11.8	135	31.2	101	86	55	0	4	2	0	0	
VA NORFOLK	60	37	76	27	49	0	.1	.6	.1	8.4	80	40.4	97	86	37	0	2	1	0	0	
RICHMOND	60	33	76	20	47	1	.0	.7	.0	5.8	56	31.3	77	87	45	0	4	0	0	0	
ROANOKE	56	31	73	17	43	0	.5	.1	.5	2.7	30	33.3	92	74	32	0	4	1	0	0	
WA QUILLAYUTE	49	37	53	27	43	0	2.7	.7	1.9	21.3	72	88.4	99	100	79	0	2	5	1	0	
SEATTLE-TACOMA	48	40	53	32	44	1	1.6	.1	.7	6.6	60	32.1	100	95	76	0	1	5	2	0	
SPOKANE	36	26	40	18	31	-1	1.0	.5	.4	3.4	90	13.1	94	96	77	0	5	5	0	0	
YAKIMA	45	27	53	20	36	1	.7	.4	.5	2.0	117	7.3	113	98	67	0	6	3	1	0	
WV BECKLEY	52	34	69	19	43	5	.6	.1	.6	7.4	81	33.8	86	70	37	0	4	2	1	0	
CHARLESTON	53	37	75	22	45	3	.7	.1	.6	11.6	137	36.6	94	80	41	0	4	4	1	0	
HUNTINGTON	51	35	71	16	43	1	.3	.4	.3	6.4	78	33.3	89	78	42	0	4	3	0	0	
PARKERSBURG	50	34	69	19	42	1	.3	.3	.2	9.4	122	39.6	113	84	46	0	4	4	0	0	
WI GREEN BAY	35	17	52	10	26	-3	.8	.4	.4	8.8	126	25.1	95	92	67	0	7	6	0	0	
LACROSSE	28	11	39	-1	20	-10	.2	.1	.2	9.4	134	34.9	121	92	65	0	7	1	0	0	
MADISON	37	19	56	8	28	-2	1.1	.7	.4	13.3	188	37.4	129	90	63	0	7	6	0	0	
MILWAUKEE	41	24	60	13	33	0	1.5	1.0	1.0	14.8	209	37.4	130	87	59	0	6	4	1	0	
WAUSAU	29	12	46	6	21	-6	1.0	.7	.7	11.9	150	37.5	123	97	78	0	7	3	1	0	
WY CASPER	35	20	46	-3	27	-2	.4	.3	.2	2.1	96	12.1	113	87	54	0	7	4	0	0	
CHYENNE	37	20	53	4	29	-3	.1	.0	.1	3.2	141	18.6	143	84	47	0	7	4	0	0	
LANDER	34	15	48	-3	24	-2	.6	.4	.2	3.8	135	14.4	116	89	55	0	7	3	0	0	
SHERIDAN	34	17	47	1	26	-3	.8	.6	.5	4.7	151	15.4	108	90	67	0	7	4	0	0	

Based on 1951-80 normals

HEATING DEGREE DAYS (Base 65° F) November 1991

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL BIRMINGHAM	453	66	NEW ORLEANS	312	126	CINCINNATI	700	52
MOBILE	344	126	SHREVEPORT	401	108	DAYTON	765	78
MONTGOMERY	421	114	ME CARIBOU	959	-58	TOLEDO	806	35
AK ANCHORAGE	1193	-106	PORTLAND	730	-68	YOUNGSTOWN	766	22
BARROW	2194	214	MD BALTIMORE	570	9	OK OKLAHOMA CITY	594	108
FAIRBANKS	1935	102	SALISBURY	496	-23	TULSA	570	96
JUNEAU	854	-115	MA BOSTON	586	-8	OR ASTORIA	523	-29
KODIAK	816	-93	CHATHAM	579	-15	BURNS	880	-2
NOME	1415	-49	MI ALPENA	927	30	MEDFORD	541	-101
AZ FLAGSTAFF	835	-26	DETROIT	788	23	PENDLETON	702	-10
PHOENIX	107	-52	FLINT	855	69	PORTLAND	517	-68
PRESCOTT	597	-33	GRAND RAPIDS	871	76	SALEM	524	-85
TUCSON	195	-9	HOUGHTON LAKE	939	36	PA ALLENTOWN	631	-44
WINSLOW	704	41	LANSING	877	82	ERIE	704	-25
YUMA	64	-28	MARQUETTE	1133	86	HARRISBURG	634	1
AR FORT SMITH	541	85	MUSKOGON	855	81	PHILADELPHIA	527	-49
LITTLE ROCK	491	77	SAULT STE MARIE	976	10	PITTSBURGH	698	4
CA BAKERSFIELD	271	3	MN ALEXANDRIA	1258	181	SCRANTON	699	-24
EUREKA	401	-7	DULUTH	1284	180	RI PROVIDENCE	581	-67
FRESNO	276	-78	INT'L FALLS	1338	135	SC CHARLESTON	281	19
LOS ANGELES	79	-60	MINNEAPOLIS	1206	252	COLUMBIA	392	53
REDDING	314	-34	ROCHESTER	1225	253	FLORENCE	357	42
SACRAMENTO	269	-91	SAINT CLOUD	1278	222	GREENVILLE	471	48
SAN DIEGO	96	-22	MS GREENWOOD	418	59	SD ABERDEEN	1195	151
SAN FRANCISCO	223	-92	JACKSON	404	88	HURON	1131	147
STOCKTON	258	-93	MERIDIAN	414	79	RAPID CITY	1045	142
CO DENVER	902	113	MO CAPE GIRARDEAU	606	39	STOUX FALLS	1171	211
GRAND JUNCTION	815	53	COLUMBIA	771	126	TN CHATTANOOGA	513	30
PUEBLO	932	188	KANSAS CITY	841	184	KNOXVILLE	538	52
CT BRIDGEPORT	566	-19	SAINT LOUIS	674	62	MEMPHIS	483	68
HARTFORD	663	-39	SPRINGFIELD	670	73	NASHVILLE	535	43
DE WILMINGTON	541	-41	MT BILLINGS	963	63	TX ABILENE	448	87
DC WASHINGTON	486	-3	GLASGOW	1114	40	AMARILLO	709	121
FL APALACHICOLA	236	82	GREAT FALLS	992	62	AUSTIN	280	59
DAYTONA BEACH	110	27	HAVRE	1078	19	BEAUMONT	287	97
FORT MYERS	35	10	HELENA	1053	45	BROWNSVILLE	121	66
JACKSONVILLE	221	57	KALISPELL	1052	29	CORPUS CHRISTI	170	54
KEY WEST	0	0	MILES CITY	1023	33	DEL RIO	247	44
MIAMI	7	3	MISSOULA	1031	35	EL PASO	434	26
ORLANDO	85	36	NE GRAND ISLAND	994	172	FORT WORTH	405	110
TALLAHASSEE	292	82	LINCOLN	994	199	GALVESTON	193	54
TAMPA	93	28	NORFOLK	1080	210	HOUSTON	289	88
WEST PALM BEACH	23	14	NORTH PLATTE	977	77	LUBBOCK	587	92
GA ATLANTA	419	25	OMAHA	1027	262	MIDLAND ODESSA	513	128
AUGUSTA	404	66	SCOTTSBLUFF	965	92	SAN ANGELO	443	117
MACON	359	60	VALENTINE	1076	146	SAN ANTONIO	271	72
SAVANNAH	270	30	NV ELY	924	-9	VICTORIA	204	54
ID BOISE	822	63	LAS VEGAS	297	-49	WACO	350	85
LEWISTON	739	-8	RENO	642	-117	WICHITA FALLS	496	100
POCATELLO	960	66	WINNEMUCCA	777	-42	UT BLANDING	763	-35
IL CHICAGO	887	131	NH CONCORD	754	-77	CEDAR CITY	818	41
MOLINE	927	147	NJ ATLANTIC CITY	550	-32	SALT LAKE CITY	742	-17
PEORIA	863	107	NM ALBUQUERQUE	645	15	VT BURLINGTON	813	-39
QUINCY	839	137	CLOVIS	682	115	VA LYNCHBURG	546	6
ROCKFORD	940	115	ROSWELL	541	64	NORFOLK	377	-16
SPRINGFIELD	787	100	NY ALBANY	740	-31	RICHMOND	458	-25
IN EVANSVILLE	647	50	BINGHAMTON	767	-46	ROANOKE	539	4
FORT WAYNE	816	69	BUFFALO	762	21	WA COLVILLE	949	13
INDIANAPOLIS	739	40	NEW YORK	482	-55	QUILLAYUTE	575	-61
SOUTH BEND	844	103	ROCHESTER	776	44	SEATTLE-TACOMA	526	-80
IA DES MOINES	1019	227	SYRACUSE	743	11	SPOKANE	918	15
DUBUQUE	1033	157	NC ASHEVILLE	578	20	YAKIMA	795	-9
SIOUX CITY	1092	234	CAPE HATTERAS	248	-28	WV BECKLEY	655	-29
WATERLOO	1078	184	CHARLOTTE	410	-19	CHARLESTON	576	-15
KS CONCORDIA	909	192	GREENSBORO	495	0	HUNTINGTON	597	15
DODGE CITY	853	178	NEW BERN	329	-9	PARKERSBURG	653	47
GOODLAND	878	71	RALEIGH-DURHAM	451	1	WI GREEN BAY	1038	114
TOPEKA	808	139	WILMINGTON	336	41	LA CROSSE	1123	232
WICHITA	759	138	ND BISMARCK	1247	155	MADISON	1002	105
KY BOWLING GREEN	581	20	FARGO	1284	180	MILWAUKEE	889	58
LEXINGTON	642	39	GRAND FORKS	1311	156	WAUSAU	1149	159
LOUISVILLE	590	23	WILLISTON	1188	66	WY CASPER	1031	68
LA ALEXANDRIA	371	126	OH AKRON-CANTON	783	63	CHEYENNE	993	87
BATON ROUGE	332	114	CLEVELAND	738	42	LANDER	1143	117
LAKE CHARLES	317	113	COLUMBUS	714	27	SHERIDAN	1055	80

Based on 1951-80 normals

National Agricultural Summary

November 25 - December 1, 1991

HIGHLIGHTS: Mostly dry weather in California, Texas, and the Southeast allowed late-season harvests to progress. Significant rainfall fell from the Delta northeastward through the Tennessee Valley and Kentucky, alleviating immediate concerns over soil moisture. Snow across the North Central States contributed to record snowfalls for November in Iowa and Minnesota, while contributing protective cover to fall-seeded grains.

SMALL GRAINS: Small grain seeding continued in the Southeast under mostly dry conditions, while wet field conditions prevented the completion of seeding in Kansas and Missouri. Seeding was completed in the Pacific Northwest. Additional moisture benefited fall-seeded grains in most major producing States, and protecting snow cover was welcomed in the North Central States. Winter wheat seeding was 54 percent (%) complete in Georgia, 77% complete in Alabama, 88% complete in North Carolina, and over 90% complete in all other major States.

CORN: Corn harvest remained active in Missouri, New York, Oregon, Pennsylvania, and Washington. Harvest was completed in California, while some Iowa producers fear it may be spring before they can harvest the relatively few remaining fields.

SOYBEANS: Rains delayed harvest in the northern Delta, while mostly dry weather was conducive to progress in the extreme Southeast. Harvest was approaching completion in the Atlantic Coast and South Central States and remained active as far north as Missouri and Pennsylvania.

COTTON: Cotton harvest was in full swing in New Mexico, Oklahoma, and Texas and nearing completion in the Southeast, Arizona, and California. Shredding and discing were active in Arizona and California to meet plowdown compliance deadlines and control pink bollworm. Pre-irrigation and herbicide applications for next year's crop continued in California.

GRAIN SORGHUM: Sorghum harvest was nearly completed in the southern Atlantic Coast States and southern Great Plains. Harvest surpassed the midway point in New Mexico, with crop condition mostly good.

OTHER FIELD CROPS: Peanut digging resumed in Oklahoma and Texas, with progress approaching completion. Potato harvest was completed in Oregon and Washington, and shipments from storages were increasing in California and Idaho. Sugarcane harvest and planting continued in Florida and Louisiana. Hawaii sugar plantations were under water restrictions

on Maui, and sugarcane burning was banned on Hawaii island. Sweetpotato digging was nearing completion in South Carolina and Louisiana. Burley stripping was active in Kentucky.

FRUIT AND NUTS: Pecan harvest remained in full swing across the Southern States, with crop condition mostly fair in the Southeast and South Central States and fair to good in the Southwest. An early freeze caused many Texas pecan trees to shed nutlets early, and nut quality and yields remain variable. Lemons, grapefruit, oranges, and tangerines were being picked in central and western Arizona. Apple and pistachio harvests were nearing completion in eastern Arizona. Kiwifruit, persimmons, late variety walnuts, apples, and navel oranges were being picked in California. Florida citrus groves remained in good condition, but lack of rain made irrigation necessary. Early orange harvest was active, and grapefruit movement was strong on Florida's lower east coast. Florida tangelo harvest was increasing.

VEGETABLES: Lettuce harvest was completed in eastern Arizona but remained active in the West. Broccoli, cauliflower, and celery packing continued in California. Lettuce harvest was finished in California's Salinas-Watsonville area, and supplies were limited in the Santa Maria area. Fall quarter fresh market tomato harvest remained active in the State's Westside district. Fall vegetable harvests were near complete in Florida's central areas and increasing in the southern areas. Volume leaders in Florida were tomatoes, peppers, cucumbers, squash, sweet corn, and snap beans. Onion planting continued in Georgia. New Mexico's chile harvest was slowing, with the remaining crop in fair to good shape. Pepper harvest continued in the Texas Rio Grande Valley, as did the harvesting of onions and tomatoes.

PASTURES AND LIVESTOCK: Snow cover over the North Central States increased supplemental feeding of range livestock. Feed supplies remained short in Kansas, while grazing conditions improved in Texas due to recent rains. Wheat grazing increased in New Mexico.

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 7.00 to 9.00 in. northwest; near 12.00 in. local areas northwest; 2.00 to 4.00 in. northeast; mostly under 0.25 in. elsewhere; near 0.50 in. isolated areas. Most precipitation occurred at week's end. Temperatures 4 to 7° above normal.

Days suitable for fieldwork 4.9. Soil moisture 7% short, 90% adequate, 3% surplus. Recent moisture improved conditions for planting; boosted small grain development. Soybeans 98% harvested, 97% 1990, 91% avg. Winter wheat 77% seeded, 81% 1990, 80% avg. Pastures 6% very poor, 20% poor, 50% fair, 21% good, 3% excellent. Livestock 41% fair, 56% good, 3% excellent. Activities: Harvesting soybeans, fall vegetables, pecans; shredding cotton stalks; seeding, fertilizing small grains, winter annuals; marketing livestock; general care of livestock, poultry, catfish.

ARIZONA: Mostly sunny 25th and 26th; cloudy, 27th. Cold front moved into State 28th, temperatures dropped 5 to 15° from previous day. Light showers, snow central, north; mostly sunny, south. Clear skies, 29th, minimum temperatures teens, mountains, 30s to 40s lower deserts. Evening 29th, winter storm moved into State, moderate rain, heavy snow central, east. By 30th, 1 to 3 in. snow at 3,000 ft. level; 4 to 14 in. higher elevations. Temperatures 5° below to 2° above normal. Extremes 25°, 81° lower elevations; 11°, 78° deserts.

Cotton harvested 97%, 98% 1990, 91% avg.; stalk shredding, plowdown, active. Alfalfa harvest, light, good; sheepling off, light. Small grains seeded 35%, 32% 1990, 18% avg.; small grains established, 24%, 24% 1990. Lemons, grapefruit, oranges, tangerines, mixed vegetables harvested central, west. Peanuts harvested west. Pecans harvested, central. Lettuce harvested west; completed east. Apple, pistachio harvests nearing completion, east. Range, pasture 54% of normal. Statewide, cattle, calves fair to good, stockwater short to adequate, soil moisture short. Range, feed supplies below average, insect damage light. Range, pasture poor north, central; poor to fair, southeast. Livestock fair north, central; good southeast. Stockwater, soil moisture short to adequate north, short central, southeast. Feed supply below average central, below average to average central, southeast. Little or no insect damage, statewide.

ARKANSAS: Temperatures slightly above normal, with heavy showers by the weekend. Temperature extremes 20°; 78°. Rainfall ranged from 0.75 in. to 4.02 in.

Less than 5% of the soybeans remain to be harvested. Producers in southeast were still planting the remaining acres to wheat. Cotton gins continued to gin modules. Livestock good.

CALIFORNIA: More weak systems moved through the State during the first part of the week followed by a very strong high pressure ridge building offshore the latter part of the week. The strong northerly jet stream brought cold temperatures, very gusty winds both in the valleys and mountain areas.

Field activities progressed despite light rain north. Cotton harvest virtually complete. Shredding, discing active to meet plowdown compliance deadlines, pink bollworm control. Pre-irrigation, herbicide applications next year's crop continued. Seeding new alfalfa progressed. Growth, emergence slowed; cool temperatures, lack of moisture. Corn harvest complete. Ground preparation, seeding small grains continued. Irrigation started some areas, low soil moisture. Broadleaf herbicide applications ongoing. 1992 sugarbeets treated weed control. Kiwifruit, persimmons, late variety walnuts, apples harvested. Orchard floor work continued. Vineyards pulled, fumigated. Navel orange harvest progressed. Mandarins picked, Selma area. Desert citrus harvest continued. Broccoli moderate Salinas Watsonville, Santa Maria areas; good quality. Fall packing continued Fresno, Patterson Newman, Kern Tulare. Cauliflower fairly light Salinas Watsonville, moderate Santa Maria, variable quality. Harvest active Patterson Newman. Celery moderate Salinas Watsonville, light Santa Maria, good quality. Lettuce harvest finished Salinas Watsonville, continued very light supplies Santa Maria variable quality. Westside, spring acreage planted while fall harvest nearing completion good quality. Late peppers being picked Delta. Fall potato movement from storages Tulelake Butte Valley continued. Fall quarter fresh market tomato harvest active Westside. Other vegetables harvested: Cabbage, spinach, squash, yams, various oriental vegetables. Range conditions poor to good. Supplemental feeding continued. Pastures improved. Fall calving active.

COLORADO: A series of week upper level systems brought light snow to the mountains, strong winds to the northern foothills on 25th, 26th. On the 28th, a Pacific front dropped into the east bringing periods of light snow, drizzle, freezing drizzle which persisted through the 29th. A strong winter storm on 30th, 1st brought significant snowfall to southern mountains. Temperatures during the period ranged from near normal to 5° below normal.

FLORIDA: Temperatures 2 to 5° above normal. However, early-week temperatures 10 to 15° below normal. Freezing temperatures, frost common, north, north central. Lowest temperatures, mid 20s to low 30s north, north central; mid 30s to mid 40s central, interior south; upper 40s to mid 50s rest of south. Weekend temperatures 10 to 15° above normal. Weekend highs low to mid 80s common, except mid, upper 70s Panhandle. Scattered showers, mostly 0.50 in. or less, east central, south. Local totals 1.00 to 2.00 in. Very little rain north, central. Several areas reported no rain.

Soil moisture short to adequate throughout State. Sugarcane planting, harvest active. Rain delayed cotton harvest western counties of Panhandle. States pastures poor to good. Pasture ratings 35% poor, 10% fair, 55% good. Moisture levels short to adequate. States cattle herds mostly fair to good. Citrus groves, trees good. Rain needed, irrigation being applied all areas. Fruit good. Early orange harvest active,

grapefruit movement strong on lower east coast. Tangelo harvest increasing. Caretakers cutting cover crops, spraying, preparing for winter season. Cool weather warmed to above normal over major vegetable producing areas. Rainfall limited. Fall harvest near complete central areas, increasing southern areas. Volume leaders: Tomatoes, peppers, cucumbers, squash, sweet corn, snap beans. Also available: Carrots, celery, eggplant, escarole, lettuce, radishes, strawberries. Harvest regular carrots, Zellwood area underway.

GEORGIA: Warm week. Temperatures 2 to 8° above normal. Extreme highs around 70 north, lower 80s central, south. Coldest lows middle 20s north, upper teens colder locations, middle 20s central, upper 20s south. Rain recorded on 1 to 2 days north, zero or 1 day central, south. Totals across northern quarter of State between 1.00 to 2.00 in.; under 0.10 in. elsewhere.

Days suitable for fieldwork 5.9. Soil moisture 31% very short, 40% short, 28% adequate, 1% surplus. Cotton 3% poor, 25% fair, 45% good, 27% excellent; 96% harvested, 97% 1990, 93% avg. Sorghum 98% harvested for grain, 98% 1990, 98% avg. Soybeans 6% poor, 58% fair, 36% good; 97% harvested, 93% 1990, 87% avg. Wheat 6% very poor, 34% poor, 50% fair, 10% good; 54% planted, 76% 1990, 72% avg.; 30% emerged, 54% 1990, 50% avg. Rye 10% very poor, 36% poor, 45% fair, 9% good; 85% planted, 94% 1990, 93% avg. Other small grains 9% very poor, 32% poor, 51% fair, 8% good; 76% planted, 87% 1990, 88% avg. Pecans 23% poor, 62% fair, 15% good; 87% harvested, 85% 1990, 74% avg. Onions 13% fair, 87% good; 57% planted, 79% 1990. Pasture 2% very poor, 23% poor, 54% fair, 21% good. Cattle, hogs fair to good, mostly good.

HAWAII: Generally warm, sunny with weekend showers, heavy some areas. Cold front brought rain, relieving dry areas and restoring reservoir levels. Muddy conditions, minor flooding slowed farm activities. UpCountry Maui continued 10% water restrictions, affecting normal planting schedules. Irrigation water restrictions lifted Hawaii island as showers replenished reservoirs. Temperatures mid 60s to high 80s. Record-matching high 87° recorded on Thanksgiving in Honolulu. Cooler evening temperatures slowed progress some crops, benefited others. Weather fair for crop development. Rainfall none to 10.50 in.

Days suitable for fieldwork 7.0. Insect spraying normal. Banana harvesting moderate to heavy. Cucumber, tomato plantings, harvesting active. Moderate papaya production. Sugar plantations under water restrictions on Maui. Sugarcane burning banned Hawaii island.

IDAHO: Temperatures 2° below normal to 2° above normal. Precipitation covered State.

Soil moisture mostly adequate. Some potatoes being moved out of storage. Movement of wheat, barley to market. Winter wheat mostly good. Hay, roughage supplies adequate. Some hay being fed. Livestock good.

ILLINOIS: Temperatures 3 to 6° above normal in the south, close to normal in the north. Precipitation was moderate to heavy, with 1.00 to 2.00 in. falling across most of the State.

INDIANA: Temperatures 0 to 6° above normal. Highs low 40s to low 50s. Lows upper 20s to upper 30s. Extremes, upper single digits to near 70. Precipitation 0.50 to 2.00 in., except heavier south.

Very little field activity due to rain, wet soils. Activities included hauling manure, hauling grain, cleaning, repairing machinery, fixing fence, care of livestock, building repairs, winterizing the farmstead, book work. Tobacco producers are marketing their processed tobacco.

IOWA: Temperatures 1 to 7° below normal. Extremes -9° Decorah 26th; 64° Burlington 29th. Precipitation 0.42 in. Grinnell to 2.75 in. Little Sioux; average 1.22 in.; normal 0.30 in. Heavy snow, ice northwest 29th. Snowiest November in 105 years of State records.

Snow, ice, mud halted remaining fieldwork for the week. In some areas farmers may be forced to wait until spring to complete corn harvest. Changing temperatures, muddy feedlots extremely stressful to livestock.

KANSAS: Weather data not available.

Days suitable for fieldwork 2.5. Topsoil 13% short, 84% adequate, 3% surplus. Subsoil 84% short, 16% adequate. Wet conditions have kept farmers out of the field. Wheat seeding, fall harvest almost complete, stalled due to muddy field conditions. Wheat seeding 99% complete, compared to 100% 1990, 98% avg. Fall crops harvest complete except sorghum which is 99% complete. Ranges, pasture short; producers providing increasing amounts of supplemental feed. Feed grain generally adequate. Hay, forage supplies short to adequate, generally short.

KENTUCKY: Mild week. Highs low to mid 50s, 3° above normal. Lows upper 30s, 5° above normal. Precipitation above normal, 1.00 in. overall. Extreme east 2.00 in.

Soil moisture adequate. Mild weather beneficial to fall seeded grains. Pasture fair. Burley stripping active. Burley tobacco sales for first 3 days totaled 68.6 million lbs.; avg. price \$182.37 per cwt.

LOUISIANA: Temperatures 2° below to 4° above normal. Extremes 23°; 86°. Rainfall 0.05 in. south central to 1.58 in. northeast.

Days suitable for fieldwork 4.7. Soil moisture 7% short, 74% adequate, 19% surplus. Cotton 100% harvested, 100% 1990, 100% avg. Scrapping, shredding stalks was ending. Pecans 5% very poor, 27% poor, 47% fair, 21% good; 72% harvested, 65% 1990, 71% avg. Soybeans 98% harvested, 99% 1990, 97% avg. Sugarcane 80% harvested, 72% 1990, 76% avg. Sweet potatoes 98% harvested, 97% 1990, 99% avg. Wheat 47% fair, 46% good, 7% excellent; 88% planted, 84% 1990, 85% avg.; 83% emerged, 77% 1990, 76% avg. Top dressing becoming active. Vegetables 4% very poor, 20% poor, 44% fair, 28% good, 4% excellent. Pastures 11% very poor, 14% poor, 13% fair, 15% good, 47% excellent. Top dressing becoming active. Livestock 33% fair, 52% good, 15% excellent. Feeding hay to cattle. Crawfish harvesting, management active.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.19 in. Temperature 44.6°, normal 42.3°. Extremes 7°; 74°.

Activities for the week: Completing soybean harvest; stripping tobacco; fall vegetable harvest; gleaning fields; liming, fertilizer applications; marketing, caring for livestock.

DELAWARE: Precipitation 0.07 in. Temperature 47.0°, normal 43.3°. Extremes 17°; 74°.

Activities: Completing soybean harvest; cleaning, storing equipment; cleaning seed for next year; marketing, caring for livestock.

MICHIGAN: Temperatures 4° below to 4° above normal. Extremes 3°; 63°. Precipitation 0.31 to 2.34 in. On Thanksgiving day snow fell throughout the State.

Fieldwork limited due to the wet conditions. Feed supplies in very good condition. Activities included wood cutting; pruning orchards, vineyards; repairing, storing equipment; deer hunting.

MINNESOTA: Another major snow storm moved through the State on 29th, 30th establishing monthly snowfall records in many areas. Temperatures 6 to 9° below normal. Extremes -20°; 47°. Precipitation 0.19 to 2.84 in. (at Waseca) which is near normal to 2.46 in. above normal. Snowfall amounts for the week averaged 2 to 16 in. for the State. Snow depth on 1st averaged 1 to 3 in. in the northwest, north central, 6 to 19 in. elsewhere.

MISSISSIPPI: Temperature 52°, 0.3° above normal. Extremes 19°; 82°. Northern half of State received heavy rainfall while the southern half received little or none. Rainfall 1.20 to 2.36 in. above normal north. Soil temperature 50°.

Days suitable for fieldwork 3.4, 3.8 1990, 2.7 avg. Soil moisture 3% very short, 3% short, 37% adequate, 24% surplus, 33% excessive. Soybeans 95% harvested, 97% 1990, 92% avg.; 6% poor, 34% fair, 57% good, 3% excellent. Wheat planted 90%, 86% 1990, 85% avg.; 78% emerged, 73% 1990, 78% avg.; 4% very poor, 1% poor, 45% fair, 50% good. Pecans 76% harvest, 54% 1990, 64% avg.; 2% very poor, 10% poor, 32% fair, 38% good, 18% excellent. Livestock 21% fair, 66% good, 13% excellent. Pasture 81% of normal. Activities: Finishing harvest, feeding cattle.

MISSOURI: Temperatures slightly above normal except northwest below normal. Statewide precipitation 0.90; 0.34 in. northwest to 1.50 in. south central, southeast.

Topsoil 9% short, 59% adequate, 32% surplus, wettest areas southeastern, north central, northeastern districts. Subsoil 33% short, 60% adequate, 7% surplus. Soybeans harvested 96%, 99% 1990, 95% avg. Wheat 1% very poor, 11% poor, 67% fair, 21% good. Pasture 13% very poor, 28% poor, 38% fair, 21% good. Hay supply 1% very short, 24% short, 65% adequate, 10% surplus. Livestock water supply 1% critically short, 24% short, 75% adequate. General condition of livestock 38% fair, 60% good, 2% excellent.

MONTANA: Temperatures 2° above normal north, 5° below normal south. Heavy snow in west, southwest, central, south central. Light snow elsewhere. Precipitation amounts over 0.50 in. in heavy snow areas.

Snowcover protection on winter wheat improved. Hay feeding increased. Grazing difficult. Livestock good.

NEBRASKA: Temperatures near normal in the southwest to 9° below normal in the northwest. Light precipitation fell throughout the week ranging from a trace up to 0.80 in.

Days suitable for fieldwork 2.1. Topsoil 24% short, 71% adequate, 5% surplus. Subsoil 68% short, 32% adequate. Wheat 3% very poor, 18% poor, 47% fair, 32% good. Cattle gleaning stalk fields with some supplemental feed.

NEVADA: Temperatures near to a little below normal. Extremes 3°; 74°. Precipitation trace to 0.70. A cold front crossed the State midweek

bringing high winds, rain, snow showers to northwest areas. Cold temperatures, gusty winds covered the State by weekend.

Cold, wet conditions brought needed moisture to cropland. Fall seeded crops benefited from moisture, a few days of snow cover. Livestock remain in mostly good condition. Activities: Tending, feeding livestock, general maintenance.

NEW ENGLAND: Precipitation none to 0.55 in. Temperatures high 20s to low 30s northern Maine, low to high 30s elsewhere north, mid 30s to mid 40s south. Maximum temperatures mid 40s north to mid 60s south; minimum temperatures 10° to mid 20s.

Major farm activities: Tending livestock, cutting firewood, making general repairs.

NEW JERSEY: Temperatures above normal; 40° north, 45° south, 47° coastal. Extremes 14°; 73°. Precipitation below normal; 0.17 in. north, 0.48 in. south, 0.55 in. coastal. Heaviest 24 hour total 0.69 in. on 1st, 2nd.

Farmers busy deer hunting; cutting, digging, selling Christmas trees; pruning fruit, caring for livestock.

NEW MEXICO: Temperatures 2° above normal to 5° below normal. Precipitation from snowstorm none to 0.57 in.

Days suitable for fieldwork 5.2. Soil moisture 23% short, 77% adequate. Crop conditions: Cotton, 8% very poor, 17% poor, 33% fair, 42% good with harvest 75% complete. Irrigated sorghum 29% fair, 71% good, with harvest 61% complete. Dryland sorghum 20% fair, 80% good, with harvest 49% complete. Irrigated wheat 33% fair, 67% good, with 73% being grazed. Dryland wheat 30% fair, 70% good, with 69% being grazed. Pecans 67% fair, 33% good, with harvest active across State interrupted by some windy, wet weather. Chile harvest slowing down, with the remaining crop in fair to good shape. Cattle, sheep fair to good. Range condition 87% of normal.

NEW YORK: Temperatures slightly above normal. Mild at beginning, weekend, cool at midweek. Extremes 5°; 70°. Precipitation above normal in west, central areas where 0.75 to 1.50 in. of rain fell. Heavy snow fell in the snowbelt at beginning of week. Elsewhere 0.25 to 0.50 in. of rain fell.

Major activities: Caring for livestock, hauling manure, machinery maintenance. Corn harvest still active. Cider making continued. Many farmers took time off for deer hunting. Firewood being readied for upcoming winter.

NORTH CAROLINA: Temperatures near normal. Precipitation none to 0.15 in.

Days suitable for fieldwork 5.9. Soil moisture 2% very short, 49% short, 47% adequate, 2% surplus. Crop condition: Wheat 3% poor, 44% fair, 53% good; oats 2% poor, 47% fair, 51% good; barley 3% poor, 55% fair, 42% good; rye 2% poor, 40% fair, 58% good; Pasture 18% poor, 51% fair, 31% good. Cotton harvested 93%, 97% 1990, 91% avg.; soybeans harvested 78%, 83% 1990, 69% avg.; wheat emerged 71%, 61% 1990, 70% avg. Wheat planted 88%, 86% 1990, 86% avg. Livestock feed from pastures 44%. Hay, roughage supplies 2% short, 88% adequate, 10% surplus. Feed grain supplies 4% short, 90% adequate, 6% surplus. Activities: Harvesting cotton, sorghum, soybeans; planting small grains. Other activities: Land preparation; cutting wood; tending livestock; preparing tobacco plant beds; harvesting Christmas trees; equipment repair; general farm maintenance.

NORTH DAKOTA: Temperatures 2 to 8° below normal. Extremes -24° west central; 57° west, southeast. Precipitation 0.26 in. southwest to 0.66 in. west central.

Average snow depth 1.8 in. Winter wheat seedings 2% very poor, 2% poor, 55% fair, 38% good, 3% excellent. Rye seedings 1% very poor, 3% poor, 55% fair, 39% good, 2% excellent. Snow cover protection: winter wheat 29% sufficient, rye 37%, alfalfa 42%. Hay supplies 83% adequate, 17% plentiful. Pastures open for grazing 44%.

OHIO: Milder than normal weather was over State for the week. A frontal system brought persistent clouds, damp weather over the weekend. Daily high temperatures for most of the week averaged in the mid to upper 40s except in the south where temperatures were in the 50s; lows averaged in the 30s. Precipitation averaged 0.15 in. to 0.30 in. in the north; 0.50 in. to 1.25 in. in the central, south.

Days suitable for fieldwork 3.0. Soil moisture 45% short, 50% adequate, 5% surplus. Pastures 10% very poor, 20% poor, 40% fair, 25% good, 5% excellent. Activities: Winterizing, repairing machinery, working with livestock. Subsoil moisture for next spring is still a major concern among farmers. Hay supplies for livestock are still in short supply.

OKLAHOMA: Temperatures 2° below normal north central to 4° above normal southeast, east central. Precipitation 0.04 in. north central to 2.10 in. east central.

Days suitable for fieldwork 4.3. Topsoil 81% adequate, 19% surplus. Subsoil 3% short, 97% adequate. Wheat 98% planted, 100% 1990, 98% avg.; 88% emerged, 95% 1990, 91% avg.; 22% grazed, 15% 1990, 33% avg. Wheat good to fair. Cotton 36% harvested, 75% 1990, 46% avg. Cotton fair to good. Sorghum 91% harvested, 96% 1990, 84% avg. Soybeans 88% harvested, 94% 1990, 74% avg. Peanuts 94% harvested, 99% 1990, 92% avg. Pasture 90%. Cattle good condition; marketings average; price information unavailable.

OREGON: Temperatures normal, precipitation abundant statewide. Precipitation 2.00 to 4.00 in., coastal areas; Willamette Valley, 1.50 to 3.00 in.; southwestern valleys, 0.50 to 2.50 in.; Cascades, 5.00 in.; eastern areas 0.50 in.

Soil moisture mostly adequate. Winter wheat condition good to excellent. Most wheat emerged, 94%. Orchard clean up, hazelnut pruning continued. Christmas tree harvest full swing. Livestock mostly good to excellent. Calf weanings, sales, continued. Supplementary feeding underway, pastures going dormant east. Pasture regrowth continuing west. Range, pasture, fair to good east, good west.

PENNSYLVANIA: Seasonable temperatures and dry conditions. Temperature 39°, 1° below normal. Extremes 9°; 71°. Precipitation 0.18 in., 0.59 in. below normal.

Corn 95% harvested, 83% 1990, 88% avg. Soybean harvest 93% complete, 91% 1990, 91% avg. Activities: Harvesting corn, soybeans; repairing fence; hauling manure; maintaining machinery; caring for livestock.

PUERTO RICO: Island rainfall 1.39 in. was 0.16 in. above normal. Highest rainfall 3.63 in. at Patillas, 3.24 in. Canovanas, 3.19 in. at Maunabo. Highest 24 hour total 1.73 in. Maunabo. Divisional temperatures 79 to 81° on the coasts, 69 to 72° interior with mean station temperatures 61.7° at Cerro Maravilla to 83.9° at Vieques. Extremes 56°, 91°.

SOUTH CAROLINA: Temperatures 7 to 9° above normal. Rainfall 0.10 in. south to 2.60 in. mountains.

Days suitable for fieldwork 6.0. Soil moisture 3% very short, 64% short, 33% adequate. Cotton 22% fair, 78% good; 96% harvested, 98% 1990, 93% avg. Sorghum fair; 87% harvested, 90% 1990, 84% avg. Soybeans 45% fair, 55% good; 86% harvested, 71% 1990, 70% avg. Sweet potatoes fair to good; 91% harvested, 90% 1990, 89% avg. Winter grazing fair to good; 92% planted, 95% 1990, 96% avg; 82% emerged, 89% 1990, 91% avg.

SOUTH DAKOTA: Temperatures 1 to 8° below normal. Extremes -11°; 49°. Several days of rain, freezing rain, snow brought 0.50 to 1.00 in. south, 0.25 to 0.50 in. central, northeast, none to 0.10 in. north. Snowcover 3 to 6 in. south, east, 1 to 3 in. central, northeast, less than 1 in. northwest, north central. For the year, precipitation 4.00 in. below normal in the northwest to 11.00 in. above normal in the northeast.

TENNESSEE: Week began cool, dry. Blustery south winds raised temperatures well above normal midweek through 29th. Weekend very wet as slow moving front brought cooler air west, heavy rains statewide. Temperatures averaged below normal northeast, northern Cumberland Plateau; above normal elsewhere. High temperatures 60° southern half of State, 55° northern half. Low temperatures 40° west, 32° east. Dyersburg was the only recording station with rainfall deficit, total 0.63 in. Very heavy rains elsewhere. Representative totals: Crossville 4.59 in., Knoxville 3.87 in. All sections, except northwest corner, averaged more than 1.00 in. above normal.

Soil moisture adequate to surplus statewide. Spotty emergence of wheat due to previous dry conditions. Supplementary feeding underway, pastures going dormant. Major activities: Repairing barns, fences, equipment; hauling manure; land preparation; seeding wheat, pastures; tending livestock; shearing, cutting Christmas trees; storing crops; winterizing; general farm maintenance. Livestock mostly good condition.

TEXAS: Upper level flow pushed southward, guided powerful storm systems into northwestern Texas. First half of week, strong southerly flow ahead of systems pulled warm, moist air over State. Late 28th, first system passed, pushing Canadian air southeastward. Collision of cold dry, tropical air provided plenty precipitation to several areas of State. Cold air pushed into Gulf, producing damp conditions across Texas Coastal Plains during weekend. Wintery conditions ended the week in western areas, parts of North Texas. Readings reflected slow movement of cold air into State during the week. Below normal temperatures for week in High Plains, Trans Pecos. Negative departures -4° in South Plains to -1° in West Texas. Entire state cold at week's end, overall temperature for week above normal in North, South Texas. Positive departures +3° in Edwards Plateau, Lower Valley to +7° across south central, Southwest Texas. Most locations had some precipitation during week. East Texas had the most rain, a positive departure of 0.42 in. All other areas of State had below normal; -0.06 in. Trans Pecos to -0.30 in. south central Texas.

Crops: Sorghum harvest virtually completed, open weather conditions allowed harvest to continue. With ideal weather, cotton harvest full swing on Plains much of week. Early morning

dew, high winds caused some delays, however. Overall yields, qualities remained fair, some acreage may be abandoned. Small grain fields made good progress under warmer temperatures. Oat stands looked good following moisture received over past weeks. Soil moisture adequate on Plains; however, additional moisture needed in Trans-Pecos, South Texas. Soybean harvest nearing completion throughout State. Peanut harvest resumed after recent wet conditions. Harvest activities winding down in South Texas. Yields on late planted fields down, grades slightly above average. Statewide peanut condition is rated at 71% of normal. Peanuts harvested 81% 1991, 81% 1990, 86% avg.

Commercial Vegetables: Trans-Pecos, land preparation continued for spring planting. Rio Grande Valley, pepper harvest continued. Onions, tomatoes progressing well. Irrigation continued on most winter vegetables. Pecan harvest made good progress last week. Early freeze damage caused many trees to shed nutlets early. Quality, yields remained variable.

Range and Livestock: Range, pasture conditions began to show signs of improvement from recent moisture. Forage growth remained steady, additional moisture would help. Supplemental hay feeding increased because of poor hay quality in some areas.

UTAH: Temperature maximums 2° below normal, minimums normal. Moderate precipitation in mountainous areas, light elsewhere, except no precipitation in Dixie region.

Snow cover for most of the State good for fall seeded crops. Some fall tillage reported along with lamb marketing activities. Winter range, pasture in good condition.

VIRGINIA: Temperatures above normal at the beginning, weekend, below normal the middle of the week. Precipitation was above normal in the far eastern part of the State the beginning of the week, but otherwise below normal.

Days suitable for fieldwork 5.4. Topsoil 7% very short, 50% short, 33% adequate, 10% surplus. Soybeans 88% harvested, 88% 1990, 76% avg. Cotton harvest progressing. Pasture 16% very poor, 44% poor, 30% fair, 10% good. Winter grain, grazing crops 16% very poor, 39% poor, 29% fair, 16% good. Livestock mostly fair to good. Forage from pastures, winter grains dairy cattle 16%, beef cattle 40%, sheep 44%. Prepared

dark fired, burley tobacco for market, applied lime, fertilizer, fall plowing.

WASHINGTON: Temperatures normal to 3° above normal, west; 3° below normal to 1° above normal, east. Precipitation 1.21 to 2.32 in. west; 0.51 to 1.91 in. east.

Days suitable for fieldwork 1.9. Soil moisture 37% short, 63% adequate. Hay, other roughage 9% short, 79% adequate, 12% surplus. Range, pasture 13% very poor, 12% poor, 27% fair, 48% good. Winter wheat, 3% poor, 14% fair, 83% good. Winter wheat 100% planted, 96% emerged. Potatoes 100% harvested. Corn for grain 65% harvested. The continued rainfall across the state improved soil moisture conditions in eastern areas. Heavy rainfall of 1.00 to 2.00 in., scattered snow, cool temperatures wrapped up most fieldwork for the fall/winter of 1991. Wheat, barley have not emerged; however, most has sprouted, grown some beneath the surface, should be in good shape going into winter. Livestock were grazing on homestead fields, going into winter feeding programs.

WEST VIRGINIA: Temperature 42°. Extremes 9°; 75°. Precipitation 0.99 in.

Days suitable for fieldwork 3.8. Soil moisture, 25% very short, 8% short, 54% adequate, 13% surplus. Corn, 100% harvested. Hay, 100% third cutting. Wheat, 97% sown. Pastures, 33% very poor, 39% poor, 22% fair, 5% good, 1% excellent; 44% of normal. Cattle, good. Sheep, good. Farm activities: General maintenance, fencing, marketing livestock.

WISCONSIN: Temperature 22°. Extremes -6°; 60°. Snow fell somewhere in the State every day of the week. Snowfall on 26th with rain, snow mixture in the southeast; accumulations generally in the 2 to 5 in. range. Snow, sleet on 28th in southern, central areas; accumulations 1 to 4 in. Big storm on 29th with 10 to 19 in. falling mainly in the northwest, north central districts. Early December frost depth, 0.80 in., 1.80 in. avg. Snow depth 4.2 in., 2.6 in. avg. as of 29th.

WYOMING: Temperatures 1 to 6° below normal. Precipitation above normal statewide.

1992 winter wheat mostly fair to good, beneficial precipitation last week. Livestock mostly good, preparations for calving, lambing continuing. Supplemental feeding reported.

November 1991

MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA

*** = DATA NOT AVAILABLE

International Weather and Crop Summary
HIGHLIGHTS

November 24-30, 1991

WESTERN USSR ... Mild weather continues to provide favorable overwintering conditions for dormant winter grains.

EUROPE ... Drier weather favors late harvest activities across northern and central regions.

EASTERN ASIA ... Unfavorably dry conditions continue over northern winter wheat, while southern China receives beneficial widespread rain.

SOUTHEAST ASIA ... Widespread showers cover Malaysia and Indonesia. Rain benefits Philippine fall grains, but some flooding hits Luzon.

SOUTH ASIA ... Dry, warm weather favors maturing summer crops and fieldwork for winter plantings.

SOUTH AMERICA ... Widespread rain aids germinating summer crops but delays fieldwork.

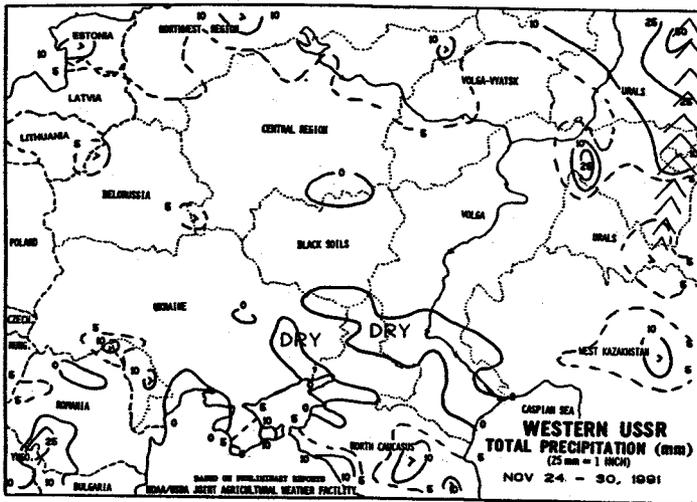
AUSTRALIA ... Continued dry weather favors winter wheat harvesting. Scattered showers aid summer crops in Queensland.

NORTHWESTERN AFRICA ... Light showers in southern Morocco ease persistent dryness, moistening topsoils for winter grain planting. Beneficial rain covers Algeria and Tunisia.

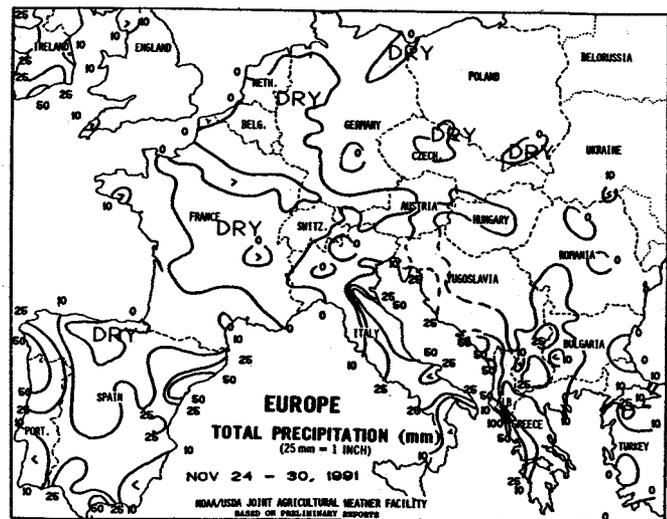
SOUTH AFRICA ... Dry, warm weather reduces moisture for newly planted corn.

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	DPART F/NRM	
NORWAY	OSLO	3	-2	9	-14	1	2.0	126	34
SWEDEN	STOCKHOLM	5	2	9	-7	4	0.9	40	-11
FINLND	HELSINKI	5	2	9	-5	3	2.7	111	44
U KING	GLASGOW	9	3	13	-6	6	-0.5	175	62
	EDINBURGH	9	3	13	-6	6	0.4	45	-19
	BIRMINGHAM	9	4	15	-4	7	0.3	69	7
	LONDON	10	4	15	-3	7	0.7	71	-12
IRELND	DUBLIN	10	5	13	0	7	0.3	50	-19
ICELND	REYKJAVIK	2	-1	7	-10	0	-1.3	100	21
DENMRK	COPENHAGEN	7	4	11	-7	5	-0.1	48	0
LUXEMB	LUXEMBOURG	6	2	13	-2	4	-0.3	92	18
SWITZL	ZURICH	6	3	17	-2	4	0.5	133	53
	GENEVA	8	4	18	-2	6	0.9	91	-6
FRANCE	PARIS	10	4	20	-2	7	0.6	62	7
	STRASBOURG	8	3	18	-3	6	0.6	43	-5
	BOURGES	10	4	20	-3	7	0.4	93	31
	BORDEAUX	13	7	22	-4	10	1.3	189	93
	TOULOUSE	12	7	20	-1	9	1.3	86	31
	MARSEILLE	15	8	20	1	11	0.7	21	-42
SPAIN	VALLADOLID	12	4	21	-4	8	0.9	14	-37
	MADRID	14	4	21	-6	9	0.2	12	-54
GERMNY	LEIPZIG	7	2	15	-6	5	0.1	27	-10
	DRESDEN	7	3	14	-4	5	0.5	40	-2
	HAMBURG	7	3	14	-5	5	-0.2	85	21
	BERLIN	7	3	16	-4	5	0.3	51	3
	DUSSELDORF	9	4	15	-2	7	0.3	90	27
	STUTTGART	7	1	17	-5	4	0.0	44	-4
	NURNBERG	6	2	16	-5	4	0.2	43	2
	MUNICH	6	1	18	-5	3	-0.1	96	39
AUSTRI	VIENNA	8	3	14	-4	5	0.7	73	31
	INNSBRUCK	7	0	17	-4	4	0.2	74	15
CZECH	PRAGUE	5	0	14	-8	3	-0.4	52	25
POLAND	WARSAW	6	2	12	-5	4	0.9	59	20
	LODZ	6	1	11	-4	4	1.3	66	27
	KATOWICE	6	1	13	-6	4	1.3	88	47
	PRZEMYSL	7	3	13	-6	5	1.2	28	-16
HUNGAR	BUDAPEST	9	4	14	-3	6	0.9	76	22
YUGOSL	SARAJEVO	10	3	17	-5	6	0.2	168	57
ROMANI	BUCHAREST	8	1	19	-9	5	-1.0	31	-17
BULGAR	SOFIA	10	3	17	-6	7	0.3	57	7
ITALY	MILAN	10	3	16	-1	7	0.1	46	-65
	VERONA	10	4	15	-2	7	-0.3	83	3
	VENICE	11	5	15	0	8	-0.2	102	5
	GENOA	15	10	20	6	12	-0.5	69	-90
	ROME	17	9	22	3	13	0.5	78	-28
	NAPLES	17	9	21	4	13	0.8	201	48
GREECE	THESSALONIKA	16	9	21	-1	12	0.8	38	-14
	LARISSA	15	7	20	-2	11	-0.3	48	-6
	ATHENS	18	12	23	7	15	-0.5	15	-41
TURKEY	ISTANBUL	15	10	19	5	12	0.6	34	-54
	ANKARA	12	-1	17	-5	6	-0.2	13	-12
CYPRUS	LARNACA	23	13	25	9	18	0.1	72	34
USSR	TALLINN	6	2	9	-5	4	2.8	130	73
	LENINGRAD	5	2	8	-4	3	3.4	68	15
	KAUNAS	5	1	10	-7	3	1.2	51	1
	MINSK	4	1	8	-4	2	1.6	50	2
	KAZAN	-1	-4	2	-15	-3	1.0	41	5
	MOSCOW	3	-1	7	-11	1	2.7	40	-9
	SVERDLOVSK	0	-7	5	-27	-4	1.5	24	-3
	OMSK	-2	-9	5	-32	-6	2.2	31	8
	KUSTANAY	-2	-10	2	-26	-6	-0.1	14	-7
	KRASNOYARSK	-3	-8	5	-25	-5	3.2	20	-15
	NOVOSIBIRSK	-4	-9	6	-32	-6	3.5	18	-10
	BARNAUL	-3	-8	5	-20	-6	1.7	24	-13
	KHABAROVSK	-3	-11	9	-18	-7	0.9	17	1
	VLADIVOSTOK	4	-2	10	-10	1	2.1	6	-28
	KIEV	4	1	12	-8	3	0.6	16	-36
	LVOV	7	2	14	-6	4	1.7	33	-15
	KIROVOGRAD	4	0	9	-11	2	0.0	23	-13
	ODESSA	8	4	12	-3	6	0.0	0	-49

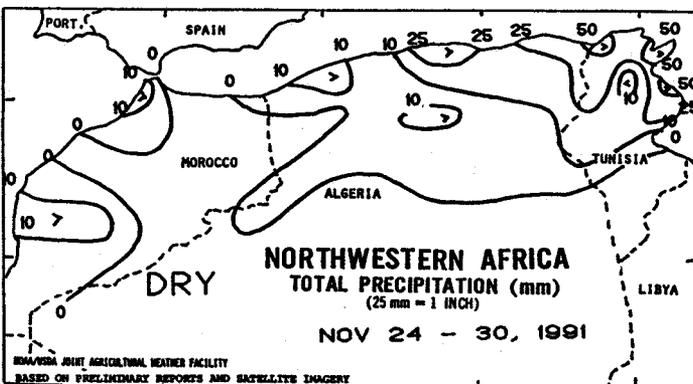
Based on Preliminary Reports



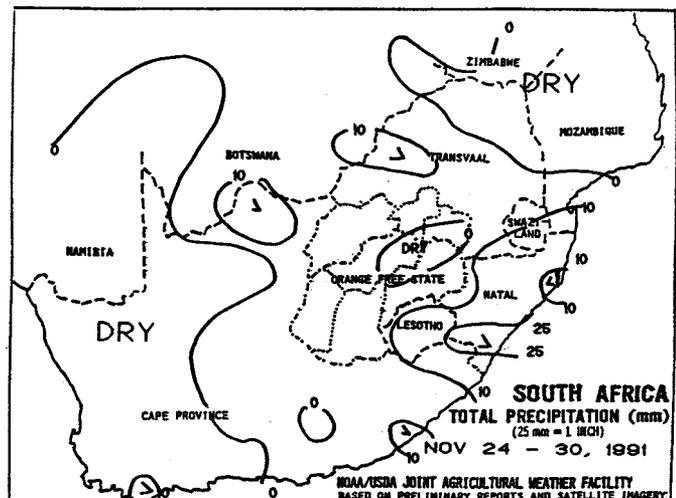
WESTERN USSR ... Unseasonably warm weather continued to provide favorable overwintering conditions for dormant winter grains. However, the mild weather has left most winter grain areas without a protective snow cover, leaving crops vulnerable to potential bitter cold. Weekly average temperatures were 4-6 degrees Celsius (C) above normal in the north and 1-3 degrees C above normal in the south. Although cloudy weather and foggy conditions prevailed over the region during the week, rainfall was less than 5mm, falling mainly as drizzle and freezing drizzle.



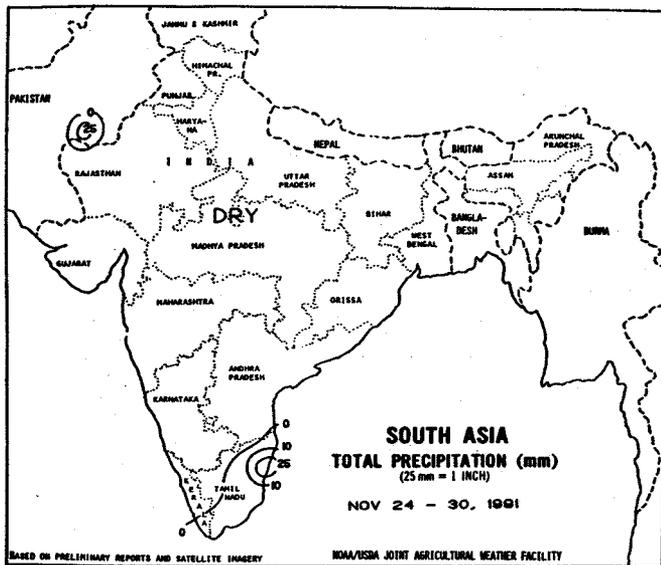
EUROPE ... Drier weather covered most of the region, favoring late sugarbeet harvesting across northern and central areas and final corn harvesting in the south. Weekly rainfall totals averaged 5mm or less from southern England and northern Spain in the west to Poland and Romania in the east. While soil moisture is adequate for winter crops in most areas, moisture supplies are marginal in scattered portions of eastern Europe and Spain. In southern Europe, locally heavy showers (50-88mm) were scattered across coastal portions of the Iberian peninsula, and were more widespread throughout the Adriatic region of Italy, Yugoslavia, and Albania. Weekly temperatures averaged 1-5 degrees C above normal in the northeast, 3-10 degrees above normal in the southeast, and near normal in the west.



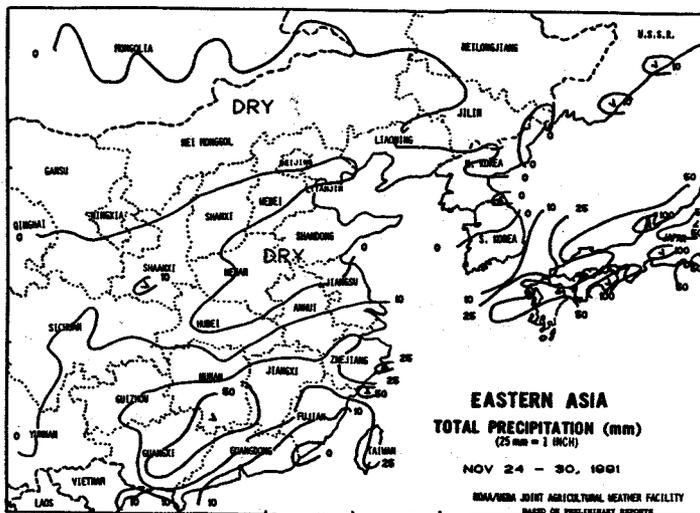
NORTHWESTERN AFRICA ... Following 5 consecutive weeks of unfavorable dryness, light showers (10-18mm) covered southernmost winter grain areas in Morocco, moistening topsoils for winter grain planting. In contrast, adverse dryness persisted over northernmost crop areas in Morocco where planting, off to an early start in October, has likely been slowed considerably. Further east, while soaking rain (20-55mm) interrupted winter grain planting in central and eastern Algeria and Tunisia, it provided abundant moisture for crop emergence and plant establishment.



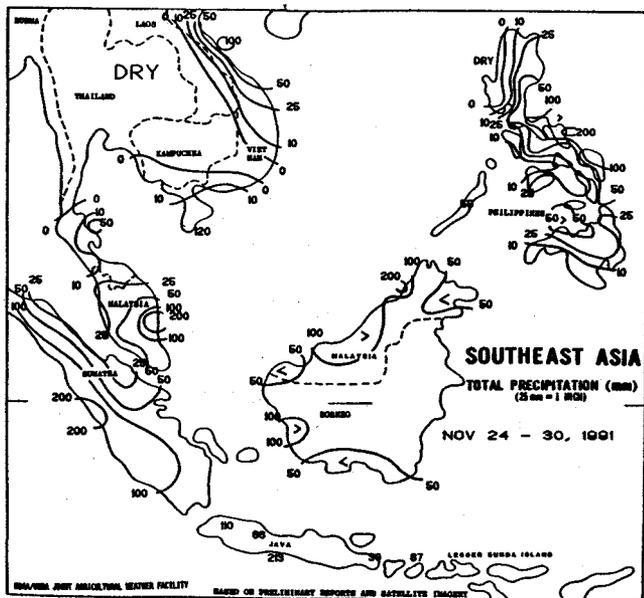
SOUTH AFRICA ... Drier- and warmer-than-normal weather dominated the primary corn areas, further reducing moisture for crop establishment. Rainfall has been below normal in western corn areas (Orange Free State and southwestern Transvaal) since late October, necessitating more moisture soon for normal development. Elsewhere, light to moderate rain (3-32mm) benefited most crop areas of the eastern Cape Province and Natal.



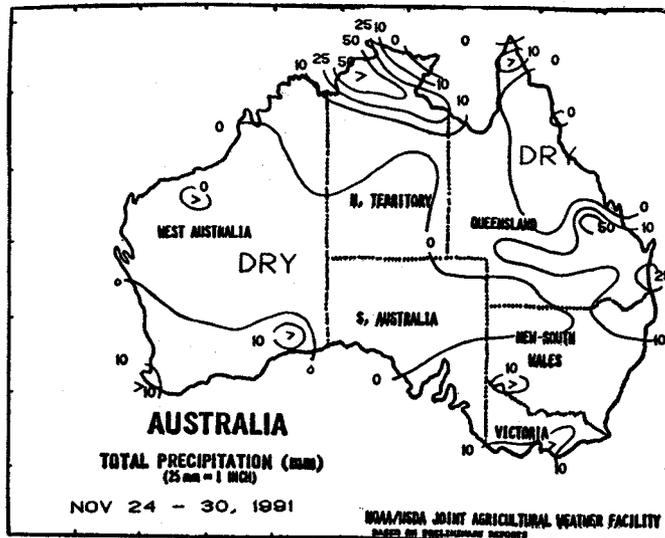
SOUTH ASIA ... Dry, seasonably warm weather dominated the region, favoring summer crop harvests and winter grain and oilseed planting. The dryness was welcome in rice areas along India's southeastern coast, where recent weeks of excessive rain have caused flooding and impeded dry season plantings.



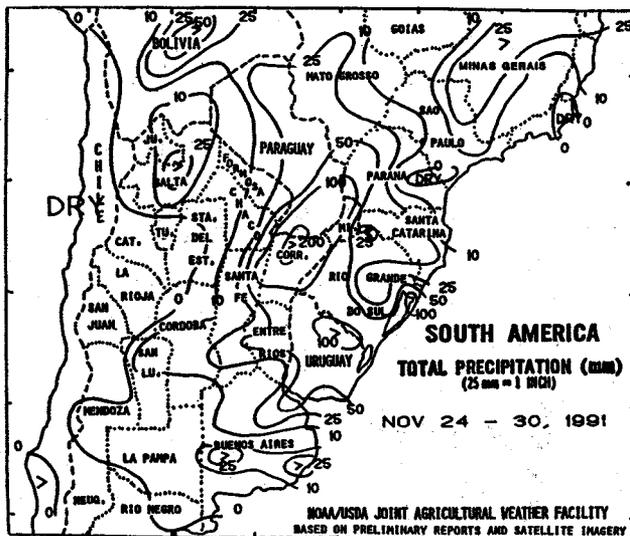
EASTERN ASIA ... Unfavorably dry conditions continued across the North China Plain wheat belt, stressing semi-dormant winter wheat. The far western wheat areas of Shaanxi and Gansu received 5-13mm, aiding wheat germination. Widespread rain (14-42mm) covered southern China, with the heaviest amounts (55-89mm) concentrated in Hunan and Guangxi, replenishing reservoir levels. Weekly temperatures averaged 1-2 degrees C above normal across the North China Plain and near normal elsewhere throughout the country.



SOUTHEAST ASIA ... Widespread showers (25-50mm or more) continued over primary crop areas of Malaysia and Indonesia. However, rainfall totaled 100-225mm in much of eastern Malaysia, Sumatra, and Java, causing some local flooding. Further north, mostly light rain (25mm or less) covered peninsular Thailand and most of Vietnam, although local heavy showers (50-119mm) fell in the region. In the Philippines, beneficial showers (25-50mm or more) helped fall grain establishment, although continuing heavy showers (50-212mm) caused some flooding in southeastern Luzon.



AUSTRALIA ... Winter wheat harvesting progressed across southern Australia despite light rains (less than 10mm). Scattered rains (8-57mm) fell across southern Queensland, favoring soil moisture for summer crops and pasture lands. Weekly temperatures averaged near normal in the west and 1-3 degrees C above normal in the east.



SOUTH AMERICA ... In southern Brazil, widespread rain (30-74mm) covered the previously dry summer crop areas of Rio Grande do Sul, Santa Catarina, and Parana, aiding developing corn and germinating soybeans. Moderate rains fell over western Mato Grosso do Sul and eastern Minas Gerais, keeping soil moisture levels adequate for summer crops. However, eastern Mato Grosso do Sul, Goias, and most of Sao Paulo received only light rains (5-20mm), with weekly temperatures averaging 2-5 degrees C above normal. Moisture is needed in these areas for adequate crop germination and development. Light to moderate rain (8-51mm) kept soils moist across the eastern crop areas of Argentina, aiding summer crop germination while delaying winter wheat harvesting and summer crop planting. Southern Paraguay, which has tended dry, and extreme northeastern Argentina received heavier rain (120-241mm), delaying cotton and soybean planting and causing local flooding. Temperatures for the week averaged near normal across Argentina.

U.S. Winter Outlook

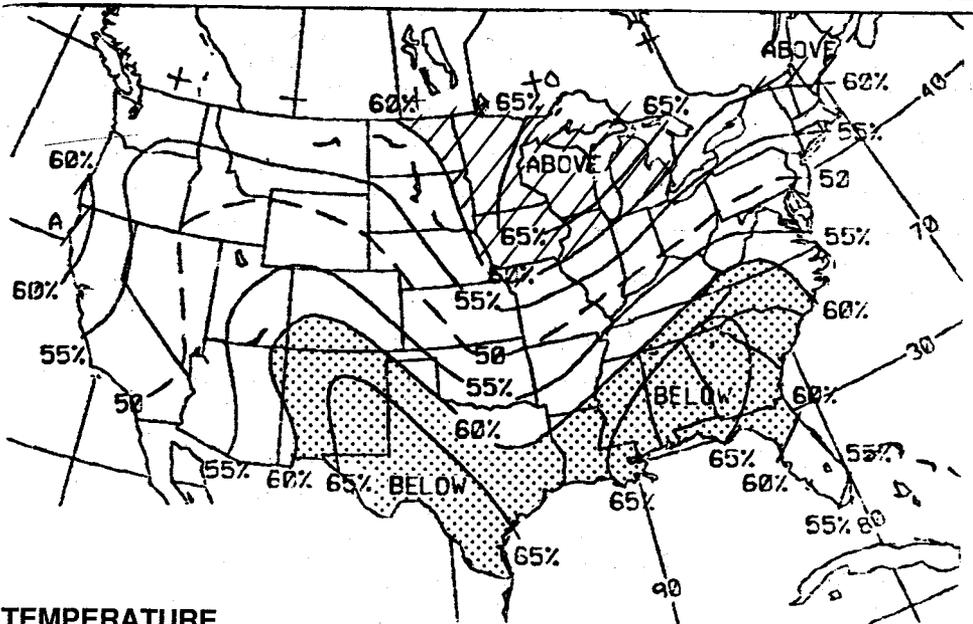
The National Weather Service's outlook for December 1991 to February 1992 calls for above-normal temperatures across the northern tier of States and below-normal temperatures across the South. Precipitation will tend to be below normal in the north and above normal in the south, with the greatest likelihood for wetness in northern Florida and southern Georgia.

The agricultural impacts suggested by the outlook are mainly neutral. The precipitation outlook is uncertain for California, currently going into its sixth year of drought. The 50-percent probability line goes through key watershed areas. An optimistic appraisal would be that there is no indication that the next 3 months will be drier than normal, while the pessimists can point to lack of evidence for above-normal precipitation. Mild weather in the northern Plains would benefit livestock, while above-normal rainfall would benefit winter grains in the South, provided rains are not excessive. Cold weather in Florida would not necessarily harm the citrus crop, as forecasts of a damaging freeze would be premature at this point.

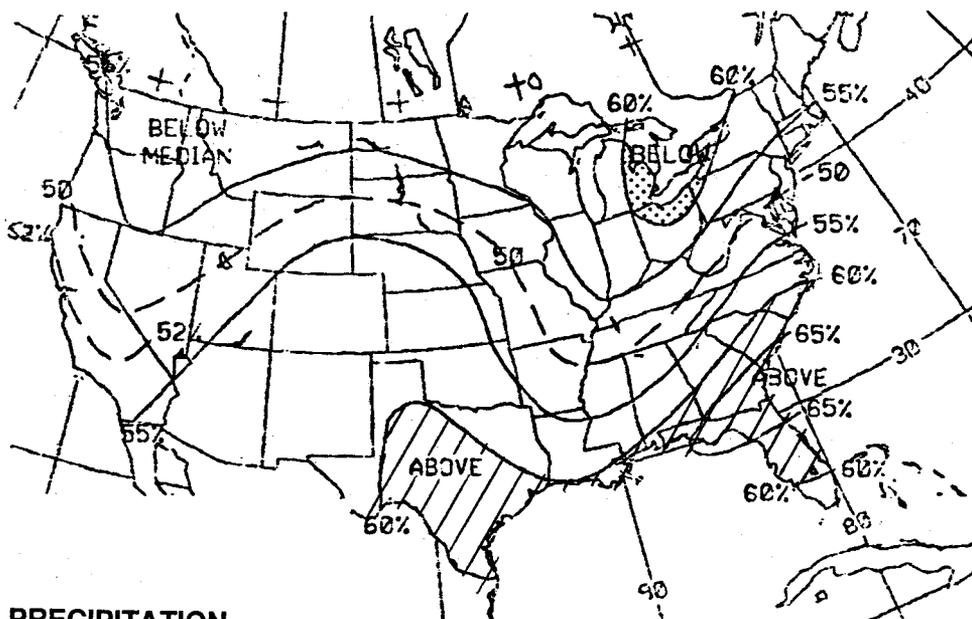
The cold, wet pattern forecast for the Gulf States as well as the mild temperatures forecast for New England are consistent with the continuation of the weak El Niño that began earlier this year in the Pacific. Since colder weather in Florida is expected during El Niños, there have been questions about the increased chances of a damaging freeze this winter. Looking back at the past 10 El Niños, starting with the 1940-41 episode, there were just two occurrences of major citrus freezes in the winter following the onset of an El Niño. These occurred in December 1957 and January 1977. With nine major freezes in the past 50 years, two freezes in 10 years appears to be near normal, so an El Niño provides no meaningful forecast skill for a damaging Florida freeze.

--Douglas Le Comte

90 DAY OUTLOOK FOR DECEMBER 1991 THROUGH FEBRUARY 1992



TEMPERATURE
PROBABILITY



PRECIPITATION
PROBABILITY

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(Continued from front cover)
the **Northwest**. Significant mountain snow fell as far south as **northern California** and **Colorado**. Strong winds, gusting above 60 mph, whistled across parts of **California**, sharply restricting visibility in blowing dust. The storm tracked into the **central Plains** by Friday, sparking severe thunderstorm activity from **Oklahoma** to **Indiana** (100 reports of large hail or damaging winds). Another major snowfall buried portions of the **North Central States**. Storm totals reached 10 inches in **Hooker, NE**, and 14 inches in **Minneapolis, MN** (autumn snowfall totaled 55 inches). In advance of the system, strong southerly winds pushed temperatures to daily record levels at 50 locations in the **East**. **Baltimore, MD**, rebounded from a daily record low of 18° F on Wednesday to establish a daily record high of 71° F on Friday. In the **West**, the second storm took aim farther south, depositing 14 inches of snow in **Prescott, AZ**, and creating blizzard conditions in **southern Colorado**. Winds calmed in **California** on Saturday, allowing the mercury to reach 30° F in **Bakersfield**, a record low for the 30th. Meanwhile in the **East**, the first storm crept eastward, fueling downpours from the **Tennessee Valley** to the **central Appalachians**.

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