

# 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

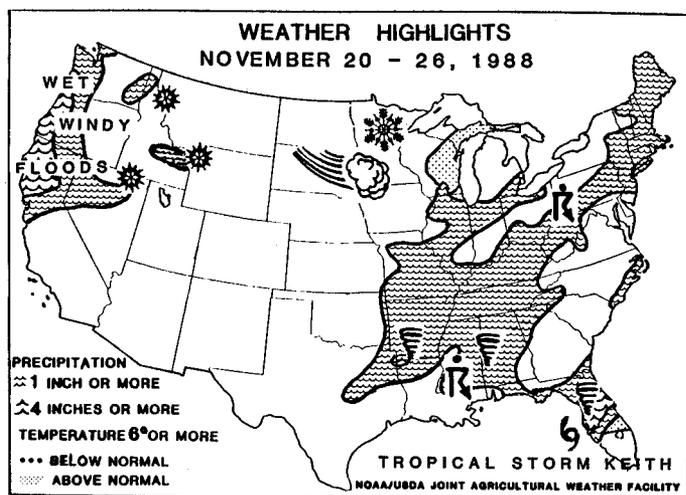
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## National Weather Summary

November 20-26, 1988



**MONDAY** High pressure systems brought pleasant weather to much of the Nation. Wet and windy conditions lingered over the Northeast, while a Pacific storm brought rain and gale winds into the Northwest. Tropical Storm Keith trekked northwest into the Gulf of Mexico.

**TUESDAY** Tropical Storm Keith veered northeast, causing tornadoes and torrential rain in central Florida. The storm in the West moved toward the Rockies. Heavy rains caused flooding along the north-central Pacific coast.

**WEDNESDAY** Tropical Storm Keith crossed central Florida with up to 65 m.p.h. winds. Rain covered the southern Atlantic Coast States. Wet and windy weather prevailed across the Western States.

**THURSDAY** Scattered rain, snow, and wind remained over the western portions of the country. The Central and Eastern United States enjoyed fair and mild weather for Thanksgiving Day.

**FRIDAY** A developing storm system produced severe weather from eastern Texas into southern Missouri. Rain spread over much of Central United States. The West remained wet and windy while the East continued to enjoy fair weather.

**SATURDAY** The storm system moved eastward as showers reached from the Great Plains to the Appalachians and Piedmont. Heavy snow fell over the upper Mississippi Valley, while thunderstorms produced heavy rain and hail and spawned tornadoes across the central Gulf Coast States.

**HIGHLIGHTS:** A frontal system brought widespread rain to the eastern third of the country at the beginning of the week. Severe thunderstorms produced hail and high winds in the upper Ohio Valley and spawned tornadoes in the Southeast. Late season Tropical Storm Keith drenched central Florida with heavy rain and triggered tornadoes during the middle of the week. Wet and windy conditions persisted in the West. Torrential rain caused flooding along the north-central Pacific coast. At week's end, a storm system triggered severe weather with heavy rain and tornadoes across the South-Central States and caused heavy snow in the upper Mississippi Valley.

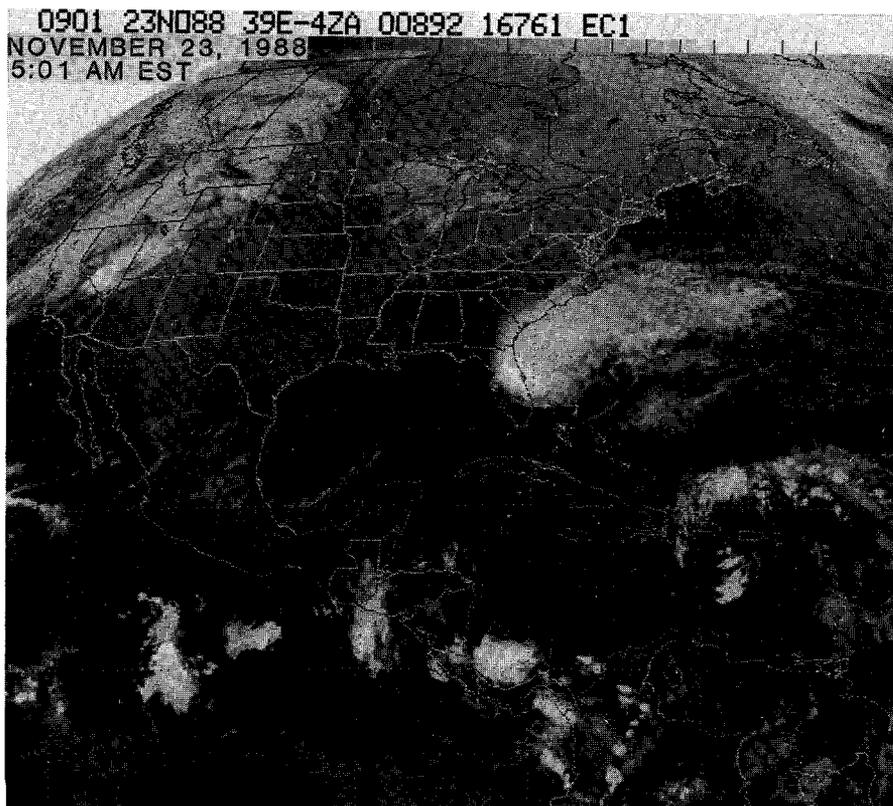
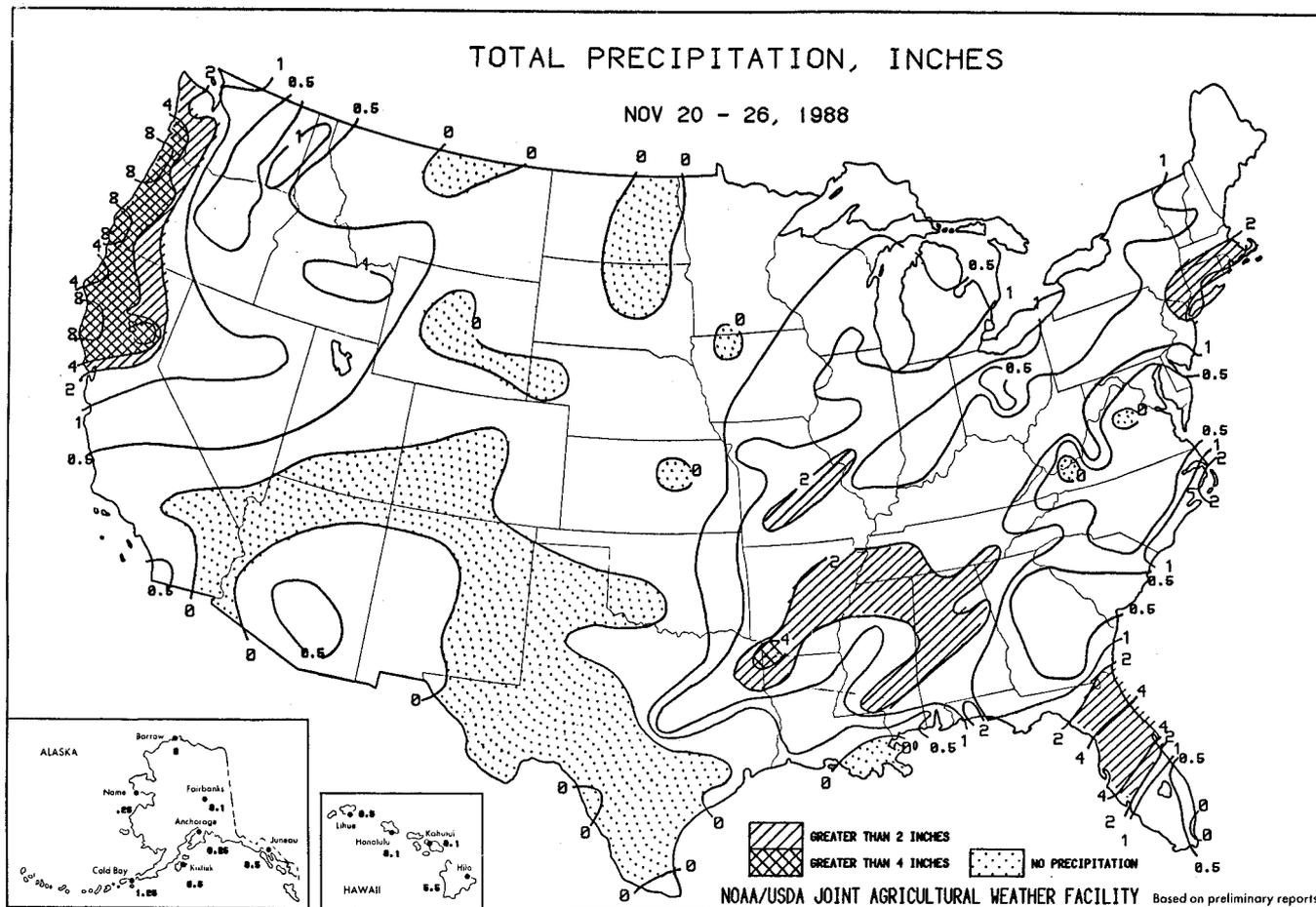
**SUNDAY** Extensive rain fell ahead of a strong cold front that crossed the eastern third of the Nation. Tornadoes continued to strike the Southeast, while thunderstorms produced hail and damaging winds in the upper Ohio Valley. Gusty southerly winds prevailed ahead of the front, while blustery north winds were behind it. A band of snow covered southeastern Kansas to western Illinois. Wet and windy weather continued in the Pacific Northwest. Tropical Storm Keith formed in the Caribbean, east of the Yucatan Peninsula.

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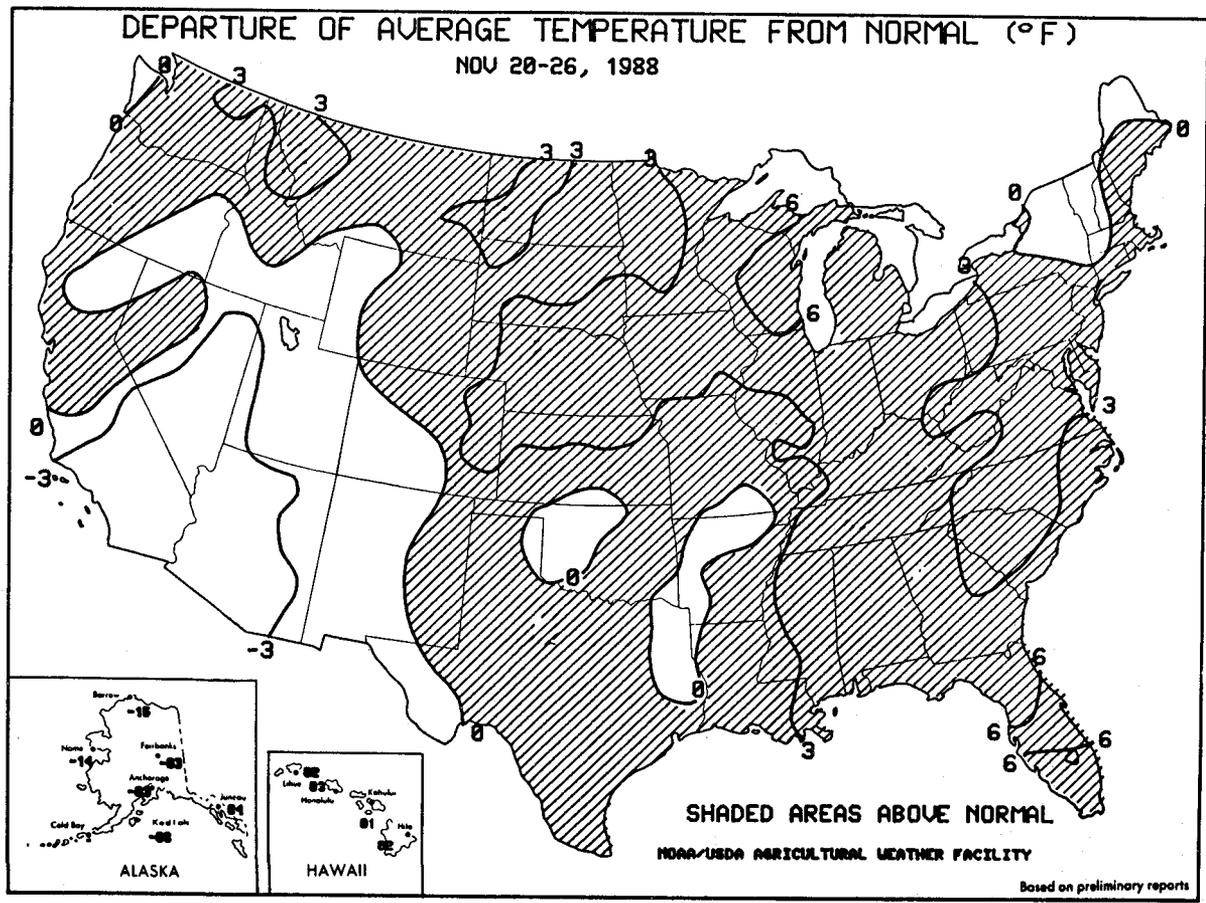
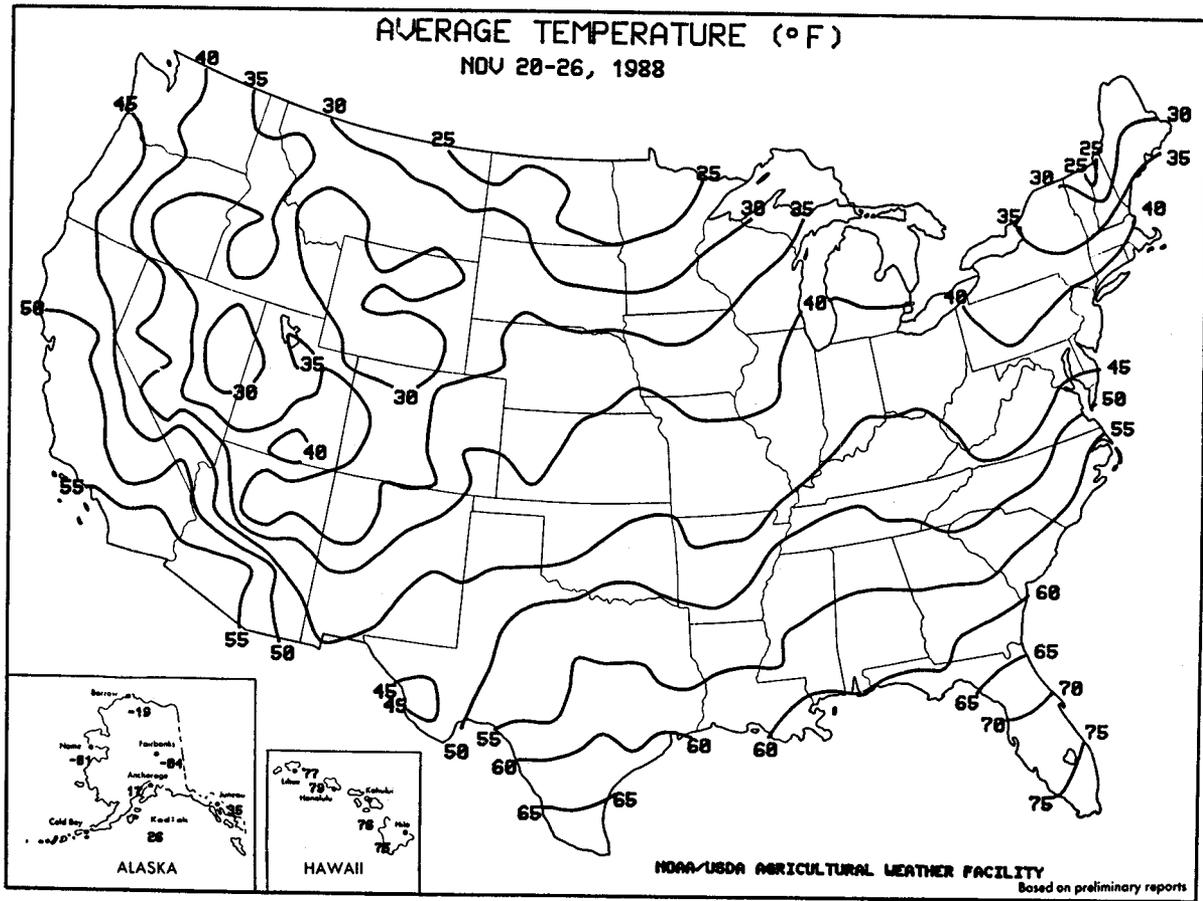
### PRICE INCREASE

Due to increased printing costs, the price of the Weekly Weather and Crop Bulletin will be increased to \$35 for domestic and \$50 for foreign subscriptions on December 1, 1988.



TROPICAL STORM KEITH CROSSES THE FLORIDA PENINSULA. TORRENTIAL RAIN DRENCHES THE EAST-CENTRAL COAST.

WIDESPREAD RAIN AND SNOW COVER THE WESTERN STATES.



# National Weather Data for Selected Cities

Weather Data for the Week Ending November 26, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	65	44	70	36	55	5	2.4	1.5	16.0	160	37.6	77	96	53	0	0	2	2		
MOBILE	71	48	77	39	59	3	.4	-.6	17.8	147	60.1	103	94	54	0	0	1	0		
MONTGOMERY	69	45	78	38	57	4	1.4	.5	17.9	191	57.9	132	95	52	0	0	1	1		
AK ANCHORAGE	23	10	34	4	17	-3	-.6	.3	4.8	97	12.4	91	88	65	0	0	7	0		
BARROW	-14	-25	-11	-28	-20	-15	T	T	.7	48	3.4	77	79	60	0	0	7	0		
FAIRBANKS	2	-11	13	-29	1	-3	T	T	1.7	98	5.8	102	84	63	0	0	7	0		
JUNEAU	39	30	46	20	35	4	.9	-.2	18.2	98	49.5	104	93	64	0	0	4	1		
KODIAK	30	21	40	10	26	-8	2.3	1.0	24.2	133	72.9	134	86	61	0	0	5	1		
NOME	8	-9	19	-27	-1	-14	T	T	1.9	44	11.6	84	79	60	0	0	7	0		
AZ PHOENIX	66	46	77	43	56	-1	.6	.5	3.2	190	7.1	117	62	27	0	0	3	0		
PRESOTT	53	25	65	19	39	-2	.4	0	1.0	27	13.8	81	76	29	0	0	6	2		
TUCSON	66	38	78	32	52	-4	.7	.5	3.6	137	11.6	116	62	23	0	0	1	3		
YUMA	71	46	79	44	59	-2	T	-.1	.5	74	2.8	132	56	22	0	0	0	0		
AR FORT SMITH	61	32	75	23	47	0	1.2	.4	1.1	12.7	134	33.4	91	98	49	0	0	5	3	
LITTLE ROCK	58	39	72	31	49	1	2.5	1.4	1.9	17.8	164	44.7	101	78	51	0	0	1	3	
CA BAKERSFIELD	63	39	74	30	51	-2	.3	.2	.2	.4	42	3.5	71	97	44	0	0	1	2	
EUREKA	57	47	62	42	52	2	3.2	1.7	2.1	8.9	102	24.8	79	89	68	0	0	0	2	
FRESNO	59	42	67	35	51	0	.6	.3	.4	1.4	87	7.0	81	94	54	0	0	6	0	
LOS ANGELES	65	48	73	45	56	-4	.4	0	.2	.8	48	5.5	54	96	43	0	0	2	0	
REDDING	52	39	58	33	46	-5	5.1	3.7	3.2	10.0	126	27.0	81	97	67	0	0	0	5	
SACRAMENTO	57	44	62	38	51	0	1.1	.5	.8	1.8	60	8.7	63	92	56	0	0	0	3	
SAN DIEGO	65	49	73	43	57	-3	.9	.6	.8	1.4	95	8.0	101	88	50	0	0	0	2	
SAN FRANCISCO	59	48	63	44	54	1	1.5	.8	.9	2.7	83	10.0	64	96	68	0	0	0	4	
CO DENVER	51	27	69	19	39	3	T	-.2	T	1.4	49	13.9	96	67	23	0	0	5	0	
GRAND JUNCTION	47	27	57	22	37	1	T	-.1	T	1.9	92	7.8	108	84	37	0	0	6	2	
PUEBLO	56	23	72	9	40	3	T	-.1	T	1.9	94	10.7	102	73	24	0	0	5	1	
CT BRIDGEPORT	51	33	61	28	42	0	2.4	1.5	2.4	11.8	120	35.9	97	76	46	0	0	4	1	
HARTFORD	49	27	57	20	38	0	2.9	1.9	2.9	10.9	100	37.4	94	82	41	0	0	5	1	
DC WASHINGTON	55	36	62	32	46	0	1.2	-.5	.2	7.1	84	28.6	81	86	47	0	0	1	1	
FL APALACHICOLA	71	55	80	49	63	4	1.3	.6	1.1	15.1	108	61.1	119	95	67	0	0	0	3	
DAYTONA BEACH	78	61	88	53	70	6	5.9	5.3	3.0	14.7	110	40.0	87	98	63	0	0	0	2	
JACKSONVILLE	74	56	86	46	65	5	2.3	1.9	2.2	22.9	199	59.4	122	97	62	0	0	0	3	
KEY WEST	82	75	84	69	78	4	.7	0	.5	5.0	35	36.3	97	87	70	0	0	0	4	
MIAMI	82	72	85	65	77	5	T	-.4	T	5.3	31	44.4	80	86	61	0	0	0	1	
ORLANDO	80	63	87	56	71	6	4.1	3.7	3.3	12.3	113	49.2	104	97	64	0	0	0	2	
TALLAHASSEE	71	51	80	47	61	4	.5	-.3	.4	8.0	65	44.8	75	97	61	0	0	0	2	
TAMPA	78	64	85	55	71	6	4.6	4.1	3.3	19.5	197	50.6	115	96	66	0	0	0	4	
WEST PALM BEACH	81	70	85	62	76	5	.3	-.3	.1	9.0	45	62.9	110	91	63	0	0	0	4	
GA ATLANTA	64	45	75	42	54	5	.2	-.7	.2	14.1	165	42.5	97	91	52	0	0	0	1	
AUGUSTA	65	42	78	34	53	2	.2	-.3	.2	12.3	171	39.8	101	97	50	0	0	0	1	
MACON	66	46	78	42	56	3	.1	-.5	.1	11.4	159	41.2	102	96	52	0	0	0	2	
SAVANNAH	69	51	82	40	60	5	.4	-.1	.3	13.8	154	47.1	101	96	57	0	0	0	2	
HI HILO	82	68	84	66	75	2	7.6	4.1	2.8	39.5	133	20.7	106	94	66	0	0	0	7	
HONOLULU	86	72	87	67	79	3	T	-.8	T	2.5	47	9.8	50	85	54	0	0	0	1	
KAHULUI	83	69	87	63	76	1	.1	-.5	0	3.0	100	15.9	105	90	60	0	0	0	2	
LIHUE	81	73	81	69	77	2	.4	-.9	.2	9.1	78	34.3	91	90	70	0	0	0	3	
ID BOISE	44	32	53	26	38	1	.9	-.6	.3	3.4	139	10.3	102	94	55	0	0	4	5	
LEWISTON	46	35	51	28	41	3	.1	-.2	0	1.4	51	8.3	73	84	56	0	0	2	2	
POCATELLO	38	23	48	18	30	-2	.8	-.6	.6	2.2	94	6.8	71	89	64	0	0	6	4	
IL CHICAGO	49	35	59	27	42	5	1.6	1.1	1.6	15.2	194	30.9	98	90	59	0	0	3	1	
MOLINE	47	31	60	20	39	4	1.1	.6	1.0	7.4	92	24.1	69	88	61	0	0	4	2	
PEORIA	48	32	59	25	40	4	.7	.2	.5	8.0	103	19.9	61	91	59	0	0	4	3	
QUINCY	48	30	61	18	39	1	.9	.4	.5	5.0	55	17.1	48	88	55	0	0	4	3	
ROCKFORD	46	32	58	26	39	6	.9	.4	.9	8.5	100	22.9	67	92	63	0	0	5	1	
SPRINGFIELD	49	33	60	21	41	2	1.3	.9	.8	8.8	118	22.0	69	88	60	0	0	4	3	
IN EVANSVILLE	57	34	66	25	45	3	.9	0	.8	12.0	149	35.7	94	94	54	0	0	4	2	
FORT WAYNE	49	33	58	25	41	5	1.1	.5	.8	7.9	107	30.7	97	93	63	0	0	3	2	
INDIANAPOLIS	51	34	62	28	43	4	.8	.1	.6	8.5	108	28.7	81	91	57	0	0	4	2	
SOUTH BEND	50	36	58	29	43	6	.9	.2	.7	16.4	186	35.3	102	87	57	0	0	3	2	
IA DES MOINES	48	29	63	14	38	4	.6	.3	.5	6.7	104	21.1	72	90	49	0	0	4	2	
SIoux CITY	45	28	57	18	37	5	.3	-.1	.3	6.9	139	22.3	91	93	61	0	0	5	1	
WATERLOO	44	28	59	19	36	5	.6	-.2	.6	4.6	64	18.2	58	92	59	0	0	4	1	
KS CONCORDIA	52	31	66	24	41	4	T	-.2	T	1.7	29	13.9	53	88	48	0	0	4	1	
DODGE CITY	55	27	77	19	41	2	T	-.1	T	3.5	94	14.9	75	92	36	0	0	6	1	
GOODLAND	54	24	72	16	39	4	.1	0	.1	2.6	93	20.4	130	80	28	0	0	6	1	
TOPEKA	53	31	66	18	42	-3	.3	0	.2	3.1	40	18.5	58	90	49	0	0	3	2	
WICHITA	50	32	64	24	41	1	.1	-.2	.1	2.2	31	16.6	60	90	57	0	0	4	2	
KY BOWLING GREEN	59	35	67	26	47	3	1.3	.3	.9	17.6	188	40.8	92	97	53	0	0	4	2	
LEXINGTON	58	35	69	28	47	5	1.6	.7	1.1	12.6	152	35.2	85	90	49	0	0	4	2	
LOUISVILLE	58	36	68	29	47	4	1.7	.9	.9	8.8	98	34.1	86	90	47	0	0	3	2	
LA ALEXANDRIA	68	43	80	35	56	1	.7	-.4	.7	9.1	96	38.7	82	86	47	0	0	0	1	
BATON ROUGE	70	46	78	37	58	2	.1	-1.0	.1	14.8	142	67.4	134	91	47	0	0	0	1	
LAKE CHARLES	70	47	79	38	58	1	.5	-.6	.5	14.0	108	54.2	112	90	45	0	0	0	1	
NEW ORLEANS	71	51	79	41	61	3	T	-1.1	T	9.9	84	69.8	130	94	55	0	0	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending November 26, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
SHREVEPORT	65	40	80	30	53	0	2.3	1.4	2.3	11.4	125	31.6	80	94	40	0	2	1	1	
ME CARIBOU	31	19	41	12	25	-2	1.2	.5	1.1	8.8	94	29.5	90	87	60	0	7	2	1	
PORTLAND	46	27	60	21	37	1	1.4	.2	1.2	12.9	115	41.5	108	83	39	0	6	2	1	
MD BALTIMORE	56	32	62	26	44	1	.4	-.4	.4	6.7	73	29.6	78	87	41	0	4	1	0	
SALISBURY	57	35	72	28	46	1	1.1	-.6	.1	8.8	86	41.4	100	89	49	0	3	1	0	
MA BOSTON	50	34	62	28	42	0	1.8	-.7	1.8	8.0	78	32.4	84	76	38	0	3	1	1	
CHATHAM	51	35	61	31	43	1	2.8	1.7	1.8	12.8	114	36.0	87	77	50	0	2	2	2	
MI ALPENA	44	30	54	25	37	5	2.2	-.3	1.1	7.9	112	25.4	95	86	69	0	5	2	0	
DETROIT	48	34	58	25	41	5	1.0	.5	1.0	11.4	180	24.8	89	87	58	0	3	2	1	
FLINT	47	35	58	26	41	6	.5	0	.4	10.5	165	26.1	98	88	62	0	3	2	0	
GRAND RAPIDS	47	35	56	29	41	6	.3	-.3	.3	17.2	207	34.0	111	90	60	0	3	2	0	
HOUGHTON LAKE	43	31	52	23	37	6	.4	-.2	.4	11.9	170	27.7	107	90	63	0	4	1	0	
LANSING	47	34	57	26	40	5	.6	0	.3	13.4	196	29.9	111	87	59	0	4	2	0	
MARQUETTE	38	26	48	19	32	6	.4	-.2	.4	15.9	163	38.1	110	93	74	0	7	2	0	
MUSKEGON	47	34	55	29	41	5	.7	0	.7	17.0	208	33.0	116	94	59	0	3	1	1	
SAULT ST. MARIE	42	33	49	29	37	9	1.0	.2	.9	14.2	150	32.2	106	95	70	0	2	3	1	
MN ALEXANDRIA	32	20	45	4	26	2	.5	-.3	.5	6.0	117	22.1	93	97	76	0	7	1	0	
DULUTH	33	23	42	13	28	4	.3	-.1	.3	10.1	148	30.5	109	97	72	0	7	1	0	
INT'L FALLS	30	17	38	8	24	4	.1	-.2	.1	6.2	105	24.0	104	99	77	0	7	1	0	
MINNEAPOLIS	39	25	52	9	32	3	.3	.1	.3	6.2	115	18.1	72	93	64	0	4	2	0	
ROCHESTER	38	25	53	9	32	3	.4	.1	.4	6.6	96	19.9	73	93	69	0	5	1	1	
MS GREENWOOD	66	42	76	33	54	3	1.4	.2	1.4	17.2	171	34.5	73	89	51	0	0	1	1	
JACKSON	68	43	77	34	56	3	1.0	0	1.0	14.1	152	39.2	85	97	51	0	0	1	1	
MERIDIAN	70	43	80	33	56	4	2.3	1.4	2.2	20.5	225	48.8	103	95	46	0	0	2	1	
MO CAPE GIRARDEAU	55	34	63	26	44	-	1.3	.4	1.3	16.3	175	35.4	87	96	56	0	5	2	1	
COLUMBIA	53	32	65	22	42	2	1.2	.7	.7	7.8	87	27.0	78	92	54	0	4	3	1	
KANSAS CITY	52	32	66	21	42	2	1.1	.8	1.0	10.7	119	23.4	68	87	48	0	3	3	1	
SAINT LOUIS	53	34	65	24	44	3	2.4	1.8	1.3	10.5	147	30.7	98	89	52	0	3	3	2	
SPRINGFIELD	56	31	68	18	43	2	2.3	1.6	1.0	12.6	127	45.4	124	89	49	0	4	3	2	
MT BILLINGS	42	25	56	15	34	2	.5	.3	.3	3.7	119	9.8	70	72	39	0	6	3	0	
GLASGOW	38	17	49	7	28	3	T	-.1	T	1.2	72	7.1	67	92	59	0	7	1	0	
GREAT FALLS	43	26	52	-2	34	3	T	-.1	T	3.3	135	10.8	76	73	41	0	5	1	0	
HAVRE	39	18	52	1	28	2	T	-.1	T	2.0	99	5.8	52	89	58	0	6	0	0	
HELENA	42	21	52	3	32	3	.2	0	.1	3.3	167	9.6	89	85	47	0	6	2	0	
KALISPELL	39	29	48	19	34	5	.2	-.1	.1	3.5	111	12.5	89	91	57	0	4	6	0	
MILES CITY	41	22	53	12	31	3	.2	.1	.2	2.3	93	4.7	35	77	49	0	6	1	0	
MISSOULA	42	27	50	20	35	6	.1	-.1	.1	1.7	64	10.3	87	92	55	0	6	3	0	
NE GRAND ISLAND	48	27	61	19	37	4	.1	-.1	.1	3.8	91	20.7	93	93	52	0	6	2	0	
LINCOLN	50	29	63	21	39	5	.2	0	.1	7.3	135	17.8	68	92	52	0	5	2	0	
NORFOLK	48	27	62	18	37	5	.3	.1	.2	6.3	159	23.6	103	93	52	0	6	2	0	
NORTH PLATTE	54	20	72	12	37	5	.2	.1	.1	2.0	87	18.8	100	94	31	0	7	2	0	
OMAHA	47	30	60	22	39	3	.2	-.1	.1	5.5	83	20.5	70	84	60	0	4	2	0	
SCOTTSBLUFF	49	18	62	10	34	1	0	-.1	0	1.5	67	14.9	106	85	33	0	7	0	0	
VALENTINE	52	20	70	10	36	5	.1	0	.1	2.1	80	19.5	117	80	33	0	7	1	0	
NV ELY	40	12	51	0	26	-5	.5	.4	.4	1.8	99	7.8	96	89	48	0	7	3	0	
LAS VEGAS	60	35	72	29	48	-3	T	-.1	T	T	0	2.2	60	55	22	0	2	0	0	
RENO	50	29	56	22	39	2	1.7	1.5	1.7	2.0	196	4.5	76	85	41	0	6	1	1	
WINNEMUCCA	47	28	57	21	37	2	.9	.7	.7	1.9	119	6.1	91	92	49	0	6	5	1	
NH CONCORD	44	24	59	15	34	1	1.2	.4	1.2	7.2	77	31.6	96	88	45	0	6	2	1	
NJ ATLANTIC CITY	56	30	65	24	43	-1	1.0	.1	1.0	9.5	104	31.9	84	89	44	0	5	1	1	
NM ALBUQUERQUE	52	27	61	21	39	-1	.1	.1	.1	3.2	162	13.1	178	75	24	0	7	1	0	
CLOVIS	59	29	71	22	44	0	0	-.1	0	2.8	69	19.5	119	70	22	0	5	0	0	
ROSWELL	64	30	78	20	47	3	0	-.1	0	1.6	53	13.2	130	57	16	0	5	0	0	
NY ALBANY	44	25	51	19	35	-1	1.2	.4	1.2	7.1	81	28.1	87	89	49	0	5	1	1	
BINGHAMTON	43	29	57	25	36	1	.8	0	.8	7.3	81	32.1	96	87	61	0	5	1	1	
BUFFALO	47	33	66	25	40	3	.9	.1	.9	11.0	118	35.9	107	87	56	0	4	1	1	
NEW YORK	54	39	64	35	46	2	2.9	2.0	2.9	12.2	123	38.1	99	75	41	0	0	1	1	
ROCHESTER	46	30	63	24	38	1	.7	0	.7	5.2	70	23.1	81	90	58	0	4	1	1	
SYRACUSE	44	29	57	21	36	-1	.8	0	.8	9.2	98	32.3	92	93	60	0	5	2	1	
NC ASHEVILLE	58	36	67	28	47	3	1.0	.3	.7	8.3	87	24.1	60	98	52	0	3	3	1	
CHARLOTTE	61	40	72	37	51	2	.3	-.4	.3	9.5	110	31.5	80	88	45	0	0	1	0	
GREENSBORO	58	36	70	30	47	1	.1	-.6	0	8.3	93	31.5	81	87	50	0	2	2	0	
HATTERAS	67	52	78	42	59	5	2.1	1.0	2.1	9.7	66	41.5	82	92	56	0	0	2	1	
NEW BERN	68	44	80	32	56	4	1.5	.8	1.1	7.1	61	47.1	96	89	50	0	1	2	1	
RALEIGH	61	38	78	31	50	2	.2	-.5	.2	12.9	153	35.6	93	90	46	0	1	2	0	
WILMINGTON	67	45	80	32	56	3	1.1	.3	1.0	7.1	63	56.7	114	92	48	0	1	2	1	
ND BISMARCK	35	16	40	9	26	1	T	-.1	T	1.3	50	9.4	65	97	70	0	7	0	0	
FARGO	30	18	37	9	24	0	T	-.2	T	4.8	127	13.4	71	97	81	0	7	1	0	
GRAND FORKS	29	18	37	10	23	2	T	-.2	T	2.8	74	11.8	67	97	82	0	7	0	0	
WILLISTON	34	13	44	2	24	0	.1	0	0	2.2	88	9.7	75	94	65	0	7	3	0	
OH AKRON-CANTON	49	33	63	26	41	4	.8	.1	.7	11.3	154	31.3	96	86	58	0	4	2	1	
CINCINNATI	56	34	69	27	45	5	1.6	.8	1.0	9.6	118	37.0	101	91	47	0	4	2	2	
CLEVELAND	50	34	65	24	42	3	1.2	.5	1.2	8.7	113	27.0	84	86	54	0	3	1	1	
COLUMBUS	54	33	68	24	44	5	.6	0	.6	8.7	127	34.0	100	89	47	0	4	2	1	

Weather Data for the Week Ending November 26, 1988

STATES AND STATIONS	TEMPERATURE °F					PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE SEP 1	PCT. NORMAL SINCE SEP 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	53	34	65	25	43	4	1.4	.7	.8	13.9	210	33.9	107	89	55	0	4	2	2
TOLEDO	49	32	61	22	40	4	1.0	.4	.8	10.4	160	26.6	93	89	58	0	4	2	1
YOUNGSTOWN	49	31	60	20	40	3	.8	.1	.7	9.0	111	29.6	87	90	56	0	4	2	1
OK OKLAHOMA CITY	56	35	72	28	46	0	T	.3	T	9.7	130	30.6	104	88	48	0	3	1	0
TULSA	58	36	73	25	47	2	.8	.6	.6	11.1	112	31.4	86	90	47	0	3	2	1
OR ASTORIA	50	40	56	35	45	0	4.1	1.5	1.2	15.6	85	47.0	83	96	72	0	0	7	4
BURNS	40	21	45	9	30	-2	.1	-.3	.1	1.1	46	6.0	70	87	61	0	5	1	0
MEDFORD	51	37	56	32	44	3	2.7	1.9	2.0	5.0	102	11.9	75	96	60	0	1	1	0
PENDLETON	49	35	62	31	42	3	.2	-.1	-.1	2.5	90	9.8	96	83	50	0	3	5	0
PORTLAND	50	40	57	33	45	2	2.6	1.3	.9	9.5	104	28.0	96	96	76	0	0	6	3
SALEM	51	41	57	33	46	3	3.8	2.4	1.5	9.8	99	28.6	88	94	77	0	0	6	4
PA ALLENTOWN	54	30	64	23	42	2	1.3	.4	1.3	8.3	81	36.4	91	88	42	0	5	1	1
ERIE	49	36	64	27	43	4	.8	-.1	.8	14.0	129	35.8	99	82	50	0	3	1	1
HARRISBURG	50	28	58	22	39	-1	.5	-.3	.5	7.2	79	32.3	91	92	49	0	5	1	1
PHILADELPHIA	55	33	64	28	44	1	1.1	.3	1.1	8.2	90	35.6	95	87	45	0	5	1	1
PITTSBURGH	53	32	68	22	43	4	.8	.3	.8	6.5	90	24.9	74	90	48	0	4	2	1
SCRANTON	47	30	59	25	39	1	1.4	.7	1.4	6.8	79	30.0	94	87	51	0	5	1	1
RI PROVIDENCE	53	31	63	25	42	2	2.5	1.5	2.5	10.4	95	36.0	89	79	39	0	5	1	1
SC CHARLESTON	68	50	80	38	59	5	.4	-.1	.3	11.4	120	41.8	87	95	56	0	0	2	0
COLUMBIA	65	43	81	33	54	3	.7	-.1	.7	12.8	144	42.6	94	89	45	0	0	2	1
FLORENCE	66	43	81	33	54	2	.3	-.3	.3	9.1	110	36.4	89	96	45	0	0	1	0
GREENVILLE	62	40	70	35	51	2	.5	-.3	.4	10.4	98	34.6	74	93	49	0	0	2	0
SD ABERDEEN	31	15	38	4	23	-3	T	-.1	T	6.3	214	17.8	104	96	77	0	7	0	0
HURON	40	21	52	10	31	3	T	-.1	T	4.7	143	18.5	104	94	66	0	6	0	0
RAPID CITY	47	20	68	13	34	2	T	-.1	T	2.0	92	10.4	67	86	44	0	7	1	0
SIOUX FALLS	43	24	55	15	33	3	.2	0	.2	5.9	116	18.2	79	95	56	0	6	1	0
TN CHATTANOOGA	63	39	70	31	51	5	2.0	.9	1.4	13.8	128	40.7	87	94	47	0	1	2	2
KNOXVILLE	63	36	74	31	50	4	.6	-.3	.6	8.1	91	29.9	71	94	45	0	2	2	1
MEMPHIS	62	41	75	33	52	3	3.0	2.0	3.0	19.2	202	44.7	97	93	52	0	1	1	1
NASHVILLE	63	40	71	31	52	6	1.7	-.8	1.0	9.4	102	27.4	63	92	46	0	2	2	2
TX ABILENE	67	40	82	24	54	3	0	-.3	0	2.8	43	15.4	69	69	19	0	2	2	0
AMARILLO	59	28	74	16	44	1	T	-.1	T	4.1	116	24.5	133	78	28	0	5	0	0
AUSTIN	71	47	86	35	59	3	T	-.5	T	2.4	28	18.1	62	88	36	0	0	0	0
BEAUMONT	70	46	80	35	58	0	T	-1.0	T	13.1	104	44.3	89	91	46	0	0	2	0
BROWNSVILLE	78	58	93	48	68	3	T	-.2	T	9.4	95	23.0	96	89	43	1	0	1	0
CORPUS CHRISTI	75	53	87	41	64	1	0	-.3	0	9.0	86	18.3	62	85	41	0	0	0	0
DEL RIO	70	42	79	35	56	0	0	-.1	0	4.8	86	15.2	91	72	32	0	0	0	0
EL PASO	62	31	72	22	47	-2	.2	.2	.2	10.2	10.6	148	60	19	0	4	2	0	0
FORT WORTH	66	40	77	30	53	1	.2	-.3	.1	8.0	97	22.6	78	87	39	0	2	2	0
GALVESTON	69	56	82	45	62	2	.1	-.7	.1	11.2	99	36.9	101	84	48	0	0	1	0
BEAUMONT	70	46	80	35	58	0	T	-1.0	T	13.1	104	44.3	89	91	46	0	0	2	0
BROWNSVILLE	78	58	93	48	68	3	T	-.2	T	9.4	95	23.0	96	89	43	1	0	0	0
CORPUS CHRISTI	75	53	87	41	64	1	0	-.3	0	9.0	86	18.3	62	85	41	0	0	0	0
DEL RIO	70	42	79	35	56	0	0	-.1	0	4.8	86	15.2	91	72	32	0	0	0	0
EL PASO	62	31	72	22	47	-2	.2	.2	.2	10.2	10.6	148	60	19	0	4	2	0	0
FORT WORTH	66	40	77	30	53	1	.2	-.3	.1	8.0	97	22.6	78	87	39	0	2	2	0
GALVESTON	69	56	82	45	62	2	.1	-.7	.1	11.2	99	36.9	101	84	48	0	0	1	0
HOUSTON	71	46	82	34	59	0	T	-.8	T	2.8	24	21.6	51	89	40	0	0	1	0
LUBBOCK	64	32	76	21	48	3	T	0	T	2.5	58	12.5	73	61	18	0	4	1	0
MIDLAND	67	31	80	22	49	0	0	-.1	0	5.1	129	17.7	137	77	18	0	4	0	0
SAN ANGELO	70	38	82	20	54	2	0	-.2	0	3.2	55	13.3	77	79	19	0	3	0	0
SAN ANTONIO	73	44	85	33	59	2	0	-.5	0	1.5	17	18.4	67	81	27	0	0	0	0
VICTORIA	74	48	88	36	61	1	T	-.5	T	3.7	32	13.7	40	88	40	0	0	0	0
WACO	67	44	79	33	55	1	1.0	.5	.8	8.3	101	22.7	79	94	47	0	0	2	1
WICHITA FALLS	65	35	82	27	50	1	T	-.3	T	8.3	116	22.4	89	87	31	0	4	0	0
UT CEDAR CITY	46	22	57	12	34	-3	T	-.2	T	1.7	71	12.0	126	90	38	0	7	0	0
SALT LAKE CITY	44	29	61	22	36	0	.6	.3	.3	2.2	72	8.6	63	90	42	0	5	5	0
VT BURLINGTON	40	25	50	19	32	-1	1.2	.6	1.1	7.6	90	25.3	82	89	52	0	5	2	1
VA NORFOLK	62	46	78	36	54	4	.1	-.6	.1	7.1	71	36.6	88	81	47	0	0	2	0
RICHMOND	60	36	76	28	48	2	.1	-.7	.1	7.7	77	35.4	88	87	43	0	1	1	0
ROANOKE	56	30	68	24	43	-1	1.8	1.2	1.8	7.8	89	29.8	83	95	47	0	6	2	1
WA QUILLAYUTE	47	36	53	29	42	-1	3.7	.3	.9	28.1	100	85.6	98	99	80	0	3	7	4
SEATTLE-TACOMA	48	39	52	34	43	0	1.9	.4	.7	12.2	118	29.2	93	96	73	0	0	6	1
SPOKANE	39	29	48	13	34	1	1.9	1.4	1.0	6.1	172	14.8	107	98	76	0	5	6	6
YAKIMA	48	27	55	19	38	2	.3	.1	.2	1.3	81	4.8	75	96	52	0	7	3	0
WV BECKLEY	56	31	69	23	44	4	.2	-.5	.2	10.1	116	31.0	80	85	38	0	4	2	0
CHARLESTON	59	30	74	25	45	2	1.0	.3	1.0	9.9	123	28.4	73	93	40	0	5	1	0
HUNTINGTON	59	32	72	26	45	2	1.3	.6	1.3	9.7	125	32.5	87	94	39	0	5	1	1
PARKERSBURG	57	31	71	24	44	2	1.4	.8	1.4	9.4	129	29.7	85	93	43	0	5	1	1
WI GREEN BAY	44	31	56	27	37	7	.6	.2	.6	9.9	147	22.5	86	96	64	0	6	1	1
LACROSSE	43	29	58	15	36	5	.6	.3	.4	8.8	131	25.2	88	86	56	0	3	2	0
MADISON	46	31	58	25	38	7	1.1	.7	1.1	8.3	122	22.8	79	89	60	0	4	1	1
MILWAUKEE	48	33	58	26	40	6	.7	.3	.7	12.9	190	28.8	101	91	60	0	5	1	1
WAUSAU	40	28	53	23	34	6	.5	.1	.5	8.4	110	22.0	73	98	67	0	7	1	0
WY CASPER	42	21	58	6	32	2	.2	0	.1	1.3	60	6.0	56	76	42	0	6	2	0
CHEYENNE	43	22	61	14	33	0	T	-.1	T	2.0	92	15.1	117	79	37	0	6	2	0
LANDER	44	18	56	11	31	4	T	-.1	T	1.0	37	6.9	56	72	27	0	6	1	0
SHERIDAN	43	16	67	4	30	0	.3	.1	.3	1.7	55	9.1	64	90	42	0	6	1	0
PR SAN JUAN	86	73	92	72	80	1	1.1	-.3	.5	14.2	84	55.3	112	92	68	1	0	6	1

## National Agricultural Summary

November 21-27, 1988

**HIGHLIGHTS:** Rain slowed harvest in the Delta and eastern Corn Belt. Moisture benefited fall sown grains in the Delta, Corn Belt, and Pacific Northwest. Precipitation limited fieldwork to less than 5 days in the Delta and eastern Corn Belt.

Recent rain and mild temperatures improved winter wheat condition in the Corn Belt. Moisture improved condition in Kansas. Soybean harvest was 95 percent (%) complete, 4 percentage points behind 1987 but 3 points ahead of the 5-year average. Rain slowed harvest in the Delta and the eastern Corn Belt. Cotton harvest was 76% finished, 2 points and 5 points ahead of last year and normal, respectively. Rain slowed harvest in the Delta and portions of the Southeast. Sorghum harvest was ahead of normal in Oklahoma and Texas. Florida's citrus area benefited from heavy rainfall. Rain and cold weather slowed vegetable harvest in portions of California. Livestock was in mostly good condition.

**SMALL GRAINS:** In Kansas, moisture improved winter wheat condition. Ninety-eight percent of the crop was emerged and development was good. The number of fields being used for grazing increased. Greenbug infestations continued to be a problem. In Washington, cool temperatures reduced Russian aphid activity. In the Corn Belt, recent rainfall and mild temperatures benefited the crop. In the Texas Blacklands, rain early in the week improved condition. Central and southern areas remained dry and showed little or no growth. Greenbugs were a problem. Snow provided some moisture in the Texas Plains. Rust and greenbugs were a problem. Irrigated fields were providing some grazing. In South Dakota, snow covered most of the crop. Some areas remained critically dry with less than normal growth.

**CORN:** Harvest was complete or nearly complete in all major producing States except Michigan and Pennsylvania. Michigan's harvest advanced 5 points and was 85% complete, 5 points behind the average. Rain slowed harvest. Pennsylvania's harvest was 8 points behind the 84% normal.

**SOYBEANS:** Harvest was 95% complete, 4 points behind 1987 but 3 points ahead of normal. In the Delta and eastern Corn Belt, rain slowed harvest. Alabama's harvest advanced 5 points and was 79% finished, 7 points behind normal. Michigan's harvest was 80% finished, 20 points behind 1987 and 16 points behind the average. Mississippi's harvest was 10 points behind the 86% normal. Harvest progressed well in the Southeast. North Carolina's harvest advanced 16 points and was 63% complete, 8 points ahead of normal. South Carolina's harvest advanced 17 points and was 11 points ahead of the 54% average. Georgia's harvest was 85% finished, 8 points ahead of normal.

**COTTON:** Harvest was 75% complete, 2 points ahead of 1987 and 5 points ahead of normal. Harvest was ahead of normal except in Arizona, Georgia, and North Carolina. Arizona's harvest was 80% finished, 7 points behind normal. Harvest was

slowed by rain in the central and eastern areas late in the week. Georgia's harvest was 3 points behind the 89% average. Rain slowed harvest. North Carolina's harvest was 83% finished, 3 points behind normal. Snow delayed harvest in the Texas Plains. Cold temperatures aided defoliation. Harvest was active in the Trans-Pecos. Harvest was 57% complete, 8 points ahead of normal.

**OTHER FIELD CROPS:** In the Texas Plains, snow early in the week slowed sorghum harvest. Harvest was 98% complete, 4 points ahead of normal. Oklahoma's harvest was 85% complete, 10 points ahead of 1987 but equal to the average.

In Texas, peanut harvest was 91% finished, 12 points ahead of normal. Yields and quality in dry land fields have been poor. Oklahoma's harvest was 95% complete, 5 points ahead of normal.

Burley tobacco stripping continued in Kentucky and Tennessee. Quality of the marketed crop in Kentucky was good.

**FRUIT AND NUTS:** In central and northern Florida, citrus groves benefited from heavy rainfall. Producers in the southern area continued to irrigate to maintain surface moisture. Fresh fruit harvest continued active. Harvest activities included oranges, grapefruit, tangerines, and tangelos. Growers were preparing groves for cold weather. In Arizona, harvest and packing of lemons, tangerines, and grapefruit continued. Pecan harvest was active in the central area. Apple packing steadily continued in the east. In the Rio Grande Valley of Texas, citrus harvest remained active. Pecan harvest continued. In California, table grape harvest was nearly complete. Avocado and date harvests continued. Tangerine harvest was just beginning. Producers were pruning and spraying orchards and vineyards as weather permitted.

**VEGETABLES:** In Florida, winter planting and fall harvest were delayed slightly by rain. Main harvest activities included tomatoes, cucumbers, peppers, and celery. Iceberg lettuce harvest started in the Belle Grade area. In Arizona, lettuce harvest was active. In the San Antonio-Winter Garden area of Texas, asparagus harvest was complete. Carrot, broccoli, and cucumber harvests continued. Harvest of winter vegetables began in the Rio Grande Valley. Chili and bell pepper harvests were nearly complete in the Trans-Pecos area. A few carrots remained for harvest in the High Plains. In California, rain and cold weather slowed broccoli and cauliflower harvests. Celery harvest was nearly complete. Potato harvest continued in the Riverside area. Quality of the crop was good. Recent cool weather damaged some late planted potatoes. Other harvest activities included onions, spinach, and cabbage.

**PASTURES & LIVESTOCK:** Pastures were mostly fair to good. Livestock was mostly good. In Florida, warm temperatures and rainfall stimulated forage growth. In most of Montana, snow cover made grazing difficult.

## 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 mostly under 0.33 in. extreme south, 1.00 to 2.00 in. common northwest. Temperatures 3 to 6° above normal.

Days suitable for fieldwork 3.9. Soil moisture 5% short, 70% adequate, 25% surplus. Wet conditions slowed most field activities. Soybeans 97% mature, 100% 1987, 100% avg.; 79% harvested, 97% 1987, 86% avg. Cotton 95% harvested, 100% 1987, 94% avg. Winter wheat 75% seeding, 82% 1987, 77% avg. Pastures, livestock mostly good. Primary activities: Harvesting soybeans, cotton, fall vegetables, pecans; seeding, fertilizing small grains; turning harvested cropland; soil testing; cleaning, repairing equipment; routine care of livestock, poultry.

**ARIZONA:** Sunshine, warming trend 20th to 23rd. Abrupt change, colder air, strong gusty winds with 2 to 5 in. snow central mountains, rain below 6,500 ft. Thanksgiving day. Rain, snow all day 25th; snow level dropped to 4,000 ft. Precipitation gradually ending morning 26th. Rainfall amounts between 0.25 to 1.00 in., except very little west. Total snowfall 1 to 4 in. central basins; 3 to 10 in. mountains. Temperatures normal to 9° below normal.

Cotton harvest progressed statewide; activity slowed central, eastern areas with weekend rain. First pick 80%, 90% 1987, 87% avg. Upland, american-pima harvest continued steady west; stalk shredding, disking, plowing following. First pick nearly complete Graham County. Alfalfa hay harvest tapered off west, sheeping off increased. New, renovated stands mostly good statewide. Sheeping off not underway central areas. Early plantings wheat, barley good Yuma, Maricopa Counties. Seedbed preparation, planting, stand establishment continued normal. Harvest, packing lemons, tangerines, grapefruit continued west. Boston, leaf, romaine lettuce; cabbage, kale, napa, escarole, bok choy, endive harvested Yuma. Asparagus harvest finished. Honeydews shipped out of cold storage Parker-Poston area. Lettuce harvest active Parker area. Harvest, packing pecans all areas. Harvest, packing lemons, grapefruit, navels, tangerines made steady progress central areas. Harvest, packing pecan crop continued. Harvest fall lettuce continued in Aguila, Tolleson, Scottsdale, Sacaton, Maricopa, Marana-Eloy areas. Cantaloups packed Aguila area. Greens, leaf lettuce, broccoli, cabbage, bok choy, rapini, green onions, parsley harvest continued Salt River Valley. Fall lettuce harvest completed east. Apple packing continued steady pace. Harvest, packing of pecans active.

**ARKANSAS:** Temperatures warmer near end of week. Temperature extremes 20°; 77°. Heavy rainfall across State late week. Rainfall 1.18 to 6.36 in.

Days suitable for fieldwork 4.0. Soil moisture 41% adequate, 59% surplus. Major farming activities: Soybean, cotton harvest; small grain seeding; preparing cattle for winter. Soybeans 97% mature, 100% 1987, 98% avg. Oats 95% planted, 95% 1987, 91% avg. Wheat 88% planted, 96% 1987, 83% avg. Hay, roughage 3% very short, 63% short, 32% adequate, 2% surplus. Pasture, range mostly fair. Livestock mostly good.

**CALIFORNIA:** High pressure gave way to several weather storms producing significant valley rainfall, good snow pack in mountains.

Temperatures cooled to below normal behind systems. Valley fog began towards weekend.

Rain stopped most field activities. Little or no rice stubble burned. Cotton harvest slow. Shredding, disking, weather permitted. Seeding winter grains slow. Alfalfa, sugarbeet harvests slowed. Southern seed corn continued drying; harvest about 1 week. Table grape harvest neared completion. Harvesting of hass avocados progressed. Deglet noor date harvest continued. Kiwifruit, olive, pomegranate, persimmon harvests winding down. Harvesting of new crop navel oranges slowed. Tangerine harvest started. Pruning, pulling, spraying of orchards, vineyards active as weather permitted. Broccoli, cauliflower moderate, fairly light supply, variable quality Salinas-Santa Maria, due to rain, cold weather. Celery decreasing supplies season draws to close. Lettuce harvest continued Kingsburg-Dinuba, reduced volume, good quality. Potato harvest ongoing Riverside area, good quality. Recent cool weather damaged late planted potatoes. Other activities include harvesting onion, spinach, cabbage, lettuce, broccoli, melons. Livestock fair to good statewide. Range, pasture poor to fair. Supplemental feeding active. Water supplies low all areas. Fall calving, lambing continued.

**COLORADO:** Dry statewide 21st, 22nd. Strong winds 23rd preceded cold front on 24th, 25th. Northern, central mountains 3 to 6 in. new snow, while southern mountains up to 2 ft. new snow. West of Continental Divide less than .2 in. new moisture while east side trace to .1 in. Cold front 27th brought cooler temperatures, but very little moisture. Temperatures 2 to 4° above normal northeast, 2 to 4° below normal San Luis Valley. Within 1° of normal elsewhere.

**FLORIDA:** Band of 5.00 to 7.00 in. rains, spots up to 10.00 in., wind gusts 60 mph portions central Peninsula with Tropical Storm Keith. Unseasonably warm prior to storm, warming again during weekend. Rains northwest area 27th, advance of cold front. South remained dry.

Tropical Storm Keith affected only central, northeastern Peninsula, where soil moisture adequate to surplus after storm's passage; short to adequate elsewhere. Cotton, soybean, sugarcane harvests active. Planting winter wheat underway. Planting other small grains continued. Warm temperatures, heavy rains over much of upper Peninsula with mostly light, variable showers elsewhere stimulated forage growth, slowed seasonal decline of pastures. Some winter pastures northern areas nearly ready for grazing. Hay being fed few areas where grazing short. Pastures poor to fair Panhandle, upper Peninsula, east coast; generally good elsewhere. Cattle, calves continued fair to mostly good or better. Heavy rains northern, central citrus areas as Tropical Storm Keith moved across State; amounts 4.00 to 6.00 in. generally from Polk County northward. Areas farther south only light amounts. Harvest for fresh shipments heavy with early, navel oranges; seedless grapefruit, robinson, dancy tangerines; tangelos being shipped. Growers prepared groves for cold weather, irrigated extreme southern areas. Vegetable producing areas mostly unscathed by storm. Planting, harvest delayed slightly some crops, some areas. Good volume available tomatoes, cucumbers, peppers, squash, snap beans, sweet corn, celery. Lighter supply radishes, eggplant, lettuce, escarole, endive, cabbage, carrots,

available. First iceberg lettuce harvested Belle Glade area.

**GEORGIA:** Warm temperatures 3 to 6° above normal. Lows around 30s mountains, low and mid 40s central, south. Highs upper 60s mountains to low 80s extreme south. Midweek rain tropical storm Keith. Cold front produced showers weekend 26th, 27th. Rain 2 to 4 days most stations. Amounts under 0.50 in. southeast, heavier amounts over 1.00 in. along coast. Northwest half 1.00 to 2.00 in. common.

Days suitable for fieldwork 4.7. Soil moisture 3% very short, 26% short, 68% adequate, 3% surplus. Cotton harvest delayed by showers, some bolls not opening. Soybean harvest excellent progress, despite rain. Weekend showers will delay harvest. Small grains mostly good, seeding near average. Pecan harvest full swing; 57% harvested, 62% avg. Pastures fair to good. Cattle, hogs good.

**HAWAII:** Fair weather. Windward areas mostly cloudy with daily showers. Leeward areas mainly dry with above normal temperatures. All areas gusty winds. Temperatures upper 60s to upper 80s. Winds 5 to 30 mph. Rainfall heavy none to 7.60 in.

Days suitable for fieldwork 7.0. Crops varied fair to good. Chinese cabbage production steady, moderate volume. Head cabbage output steady, good quality. Cucumber production steady. Tomato supplies expected to increase. Banana production remained seasonally heavy. Papaya production expected to decline. Coffee 75% harvested by this weekend.

**IDAHO:** Above normal rain, snow most of State. Temperatures near normal except below east weekend.

Winter wheat fair, good. Fieldwork stopped most areas. Primary activities included feeding livestock, marketing, shipping livestock and products, shop work, cleaning yards. Livestock good. Hay, roughage mostly adequate.

**ILLINOIS:** Temperature lows 2 to 8° above normal central, north; normal to 3° above normal south. Highs 1 to 5° above normal central, north; 1 to 3° above normal south. Precipitation 0.50 to 1.00 in. Heavier amounts concentrated far north, south.

Winter wheat mostly good aided by recent rainfall, mild temperatures. Livestock good to excellent; gaining good, resisting diseases aided by mild weather conditions.

**INDIANA:** Temperatures 2 to 6° above normal. Lows low to mid 20s; highs upper 50s, 60s. Precipitation below normal; totals 0.30 to 0.80 in.

Days suitable for fieldwork 2.7. Topsoil moisture 1% short, 66% adequate, 33% surplus. Subsoil moisture 41% short, 54% adequate, 5% surplus. Corn 96% harvested, 100% 1987, 93% avg. Wheat 97% emerged, 94% 1987, 95% avg.; 1% poor, 33% fair, 63% good, 3% excellent. Pastures 6% very poor, 24% poor, 47% fair, 22% good, 1% excellent. Spring cropland 52% plowed, 45% avg. Hay, roughage for feeding 5% very short, 32% short, 63% adequate. Wet soils slowed fieldwork.

**IOWA:** Temperatures 3 to 6° above normal despite turn to very cold weather weekend. Temperature extremes afternoon high of 64° Lamoni 24th to morning low of 6° Spencer 28th. Precipitation, mainly 25th to 27th, near normal northwest to above normal elsewhere; weekly totals 0.16 to 1.14 in.

High winds, blowing snow over weekend stopped most field activities. Livestock mostly good. Major activities feeding, care of livestock, machinery repair, spreading manure. Good rains helped replenish soil moisture.

**KANSAS:** Temperatures above normal. Southeast warmest 45°, 3° above normal. Rest of State 40 to

42°, 5° above normal; 1.00 to 2.00 in. moisture across southeast corner. Amounts 50 to 100 mile band Kansas City to Coffeyville, 0.25 in. or less over rest.

Days suitable for fieldwork 5.0. Topsoil moisture 69% short, 24% adequate, 7% surplus. Subsoil moisture 76% short, 24% adequate. Harvest fall crops virtually complete except southeastern area. Rain, snow weekend improved soil moisture. Wheat emergence reached 98%, development good. Grazing increased. Greenbug infestation continued problem. Pasture conditions poor to fair. Cattle continued movement corn, sorghum stubble fields. Feed grains, forage supplies adequate. Supplemental feeding increased.

**KENTUCKY:** Near normal precipitation, but warmer than normal. Lows mid 30s, 2 to 3° above normal. Highs near 60s, 5° above normal. Rain 1.00 to 1.50 in. west, 0.50 in. east.

Several beautiful days, some harvesting soybeans, seeding wheat where soils dry enough to support machinery. Early seeded wheat generally green, lush. Burley 50% stripped. Sale prices slightly above 1987. Burley marketed mostly good quality. Fertilized pastures still green. Cattle gleaning fields, many receiving some hay.

**LOUISIANA:** Temperatures 1 to 2° below normal. Temperature extremes 27°; 80°. Rainfall 1.75 in. north, 0.25 to 0.75 in. central, south.

Days suitable for fieldwork 4.4. Soil moisture 4% short, 82% adequate, 14% surplus. Sweetpotatoes 99% harvested. Sugarcane good; 67% harvested. Winter wheat fair to good; 75% planted, 62% emerged, both higher than average. Pecans 50% harvested, below average. Hay, roughage 41% short, 54% adequate, 5% surplus. Pastures, vegetables fair to good. Livestock good. Main activities: Harvesting cotton, pecans, soybeans, sugarcane, sweetpotatoes, vegetables; planting wheat, winter pastures; fertilizing pastures.

**MARYLAND & DELAWARE:** MARYLAND: Precipitation 1.17 in. Temperature 43°, normal 44°. Temperature extremes 17°; 73°.

Topsoil moisture 75% adequate, 25% surplus. Subsoil moisture 100% adequate. Hay 15% short, 85% adequate. Corn grain 99% harvested, 99% avg. Soybeans 95% harvested, 85% avg.

DELAWARE: Precipitation 0.77 in. Temperature 45°, normal 44°. Temperature extremes 26°; 72°.

Topsoil moisture 100% adequate. Subsoil moisture 100% adequate. Hay 100% adequate. Soybeans 95% harvested, 85% avg. Winter wheat 95% seeded, 95% avg.

**MICHIGAN:** Temperatures 5 to 8° above normal. Temperature extremes 22°; 61°. Precipitation 0.24 to 1.31 in.

Days suitable for fieldwork 3.5. Soil moisture 20% adequate, 80% surplus. Corn 85% harvested, 100% 1987, 90% avg. Soybeans 80% harvested, 100% 1987, 96% avg. Major activities: Corn for grain, soybean harvests; sugarbeet harvest, repairing, winterizing equipment.

**MINNESOTA:** Temperatures 2 to 6° above normal. Temperature extremes -1°; 56°. Precipitation 0.03 to 0.37 in. Greatest weekly total 1.06 in. Snowfall 3 to 10 in. Snow depth 1 to 11 in. Another winter storm brought rain, snow.

Early winter conditions will increase feed, bedding requirements for livestock farmers.

**MISSISSIPPI:** Tornadoes, thunderstorms, high winds over western half of State 26th. Maximum daily rainfall 4.02 in. Temperature extremes 27°; 80°.

Days suitable for fieldwork 3.5, 3.1 1987, 2.3 avg. Soil moisture 25% adequate, 50% surplus, 25% excessive. Cotton 96% harvested, 100% 1987, 93% avg. Soybeans 76% harvested, 99% 1987, 86% avg. Wheat good; 78% planted, 78% 1987, 70% avg. Wet conditions prevented farmers from planting some fields. Pecans fair; 50% harvested, 53% 1987, 55% avg. Pastures good. Livestock good. Hay, roughage 15% short, 75% adequate, 10% surplus. Activities: Wheat planting, soybean, pecan harvest.

**MISSOURI:** Temperatures near normal. Rain 0.50 to 1.00 in. north, heavier south; over 2.00 in. Bootheel.

Soil moisture improved with rain, some northern counties still short. More rain needed for livestock water supplies. Surplus moisture southeast delaying completion of soybean, cotton harvest.

**MONTANA:** Temperatures above normal. Precipitation few hundredths in. central, northeast to 2.50 in. southwest.

Snow cover protection improved. Most soils frozen. Livestock grazing difficult much of State. Supplemental feeding increased.

**NEBRASKA:** Temperatures normal Panhandle, 4° below to normal for rest of State. Extremes 10°; 72°. Precipitation varied across State only traces west, up to 0.10 in.

Topsoil moisture 79% short, 21% adequate. Subsoil moisture 87% short, 13% adequate. Wheat fair to good. Pasture, range feed mostly adequate. Hay being moved to areas of need.

**NEVADA:** Strong upper level low pressure trough approached west coast 22nd, then moved very slowly eastward remainder of week. Storm produced heavy precipitation north, much of central, light to locally moderate south. Front started as rain then mainly in form of snow later. Temperatures generally above normal first half, below normal latter half. Temperature extremes none; 75°.

Main ranch activities feeding, caring for livestock. First storm of season hard on newborn calves, lambs. Feedlots muddy most areas. Good progress marketing potatoes. Prices holding steady.

**NEW ENGLAND:** Precipitation (rainfall, water equivalent of snow) 2.00 to 2.50 in. over southern sections, 1.00 to 1.50 in. over northern area. Temperatures upper 20s near Canadian border to low 40s along south coast. Near normal for season.

Major farm activities: Normal seasonal activities including moving Christmas trees, wreaths to markets.

**NEW JERSEY:** Temperatures near normal, 40° north, 43° south, 46° coastal. Extremes 13°; 69°. Precipitation above normal; 1.05 in. north, 1.65 in. south, 1.29 in. coastal. Heaviest 24-hour total 2.09 in. on 27th, 28th.

Excessive soil moisture continued to slow combining of soybeans, corn for grain. Farmers busy meeting consumers Thanksgiving needs for turkeys, sweetpotatoes, squash, turnips, apples, cider, other stored items.

**NEW MEXICO:** Temperatures generally below normal over southeastern plains; precipitation over most of State.

Days suitable for fieldwork 6.2. Soil moisture 71% short, 29% adequate. Some heavy freeze damage. Cotton 70% harvested; 17% fair, 83% good. Wheat 85% fair, 15% good; 100% emerged, but moisture still needed. Cattle 43% fair, 57% good. Sheep 33% fair, 67% good. Ranges 71% fair, 29% good.

**NEW YORK:** Rainfall 0.50 to 1.00 in. Some snow, freezing rain Adirondacks 20th. Temperatures near normal. Lower 50s early week, highs 40s; 35 to 45° latter part. Extremes 5°; 67°.

Growers planting cover crops, cleaning up orchards, general winter preparation.

**NORTH CAROLINA:** Temperatures 1 to 5° above normal statewide. Temperature extremes 22°; 81°. Precipitation 0.11 to 3.94 in.

Days suitable for fieldwork 4.5. Soil moisture 11% short, 79% adequate, 10% surplus. Pasture 2% very poor, 5% poor, 42% fair, 50% good, 1% excellent. Oat 92% planted, 91% 1987, 88% avg.; 20% fair, 78% good, 2% excellent. Barley 95% planted, 93% 1987, 90% avg.; 20% fair, 78% good, 2% excellent. Rye 90% planted, 83% 1987, 84% avg.; 13% fair, 83% good, 4% excellent. Wheat 95% planted, 85% 1987, 81% avg.; 21% fair, 77% good, 2% excellent. Feed grains 5% short, 93% adequate, 2% surplus. Hay, roughage 6% short, 86% adequate, 8% surplus. Major farm activities: Harvesting soybeans, seeding small grains. Other activities: Harvesting cotton; tobacco plantbed preparation; grading, marketing tobacco; harvesting Christmas trees; tending livestock, general farm maintenance.

**NORTH DAKOTA:** Temperatures 1 to 6° above normal. Light precipitation statewide, 0.06 in. southwest to 0.48 in. north central.

Soil moisture below average. Mostly adequate hay, feed supplies. Some calves weaned. Very little fall fieldwork; some herbicide, anhydrous application being done. Working cattle, moving hay other activities.

**OHIO:** Temperatures 3 to 7° above normal. Extremes upper teens to 60s. Precipitation below normal 0.10 to 0.80 in.

Soil temperatures low 30s to low 60s.

**OKLAHOMA:** Temperatures 5° below normal north central to 4° above normal southwest. Precipitation none west central, southwest to 1.01 in. south central.

Days suitable for fieldwork 4.5. Topsoil moisture 30% short, 60% adequate, 10% surplus. Subsoil moisture 30% short, 70% adequate. Wheat 49% fair, 50% good, 1% excellent; 95% emerged, 97% 1987, 80% avg. Cotton 55% harvested, 40% 1987, 30% avg. Sorghum 85% harvested, 75% 1987, 85% avg. Soybeans 85% harvested, 75% 1987, 75% avg. Peanuts 95% harvested, 95% 1987, 90% avg. Pastures fair, livestock good. Cattle marketings average, prices stable.

**OREGON:** Temperatures normal or above west, north central areas. Northeast, southeast below normal. All areas precipitation. Much snow higher elevations, including coastal mountains. Precipitation total well above normal.

Soil moisture surplus west, short to adequate east of Cascades. Little fall grain seeding remained to be completed when fields dry out Willamette Valley. Rains improved conditions east. Carrots for processing still in some fields Willamette Valley. Livestock mostly good. Range, pasture good to excellent west; fair to good east.

**PENNSYLVANIA:** Temperature 40°, normal 40°. Temperature extremes 14°; 68°. Precipitation 0.82 in., 0.05 in. above normal.

Days suitable for fieldwork 4.0. Soil moisture 10% short, 73% adequate, 17% surplus. Corn 76% harvested, 94% 1987, 84% avg.; 15% very poor, 29% poor, 38% fair, 17% good, 1% excellent. Soybean 79% harvested, 96% 1987, 90% avg.; 5% very poor, 20% poor, 36% fair, 30% good, 9% excellent. Fourth cutting alfalfa 96%, 98% 1987. Hay fair. Amount of feed being obtained from pastures average.

Activities: Harvesting corn grain, soybeans, hay, haylage; baling fodder; fall plowing; spreading manure, fertilizer; caring for livestock; maintaining machinery, fixing fence.

**PUERTO RICO:** Climatological report not available. San Juan WSFO mean temperature 79<sup>o</sup>, 1<sup>o</sup> above normal. Total rainfall 0.93 in., 0.35 in. below normal.

**SOUTH CAROLINA:** Scattered showers.

Days suitable for fieldwork 4.9. Soil moisture 3% very short, 41% short, 56% adequate. Cotton 93% harvested, 100% 1987, 89% avg.; 1% very poor, 6% poor, 91% fair, 2% good. Soybeans 65% harvested, 76% 1987, 54% avg.; 6% poor, 62% fair, 32% good. Peanuts fair; 98% harvested, 100% 1987, 100% avg. Sorghum fair to good; 82% harvested, 91% 1987, 85% avg. Pastures fair to good. Livestock good.

**SOUTH DAKOTA:** Temperatures -3<sup>o</sup> below to 9<sup>o</sup> above normal. Extremes -3<sup>o</sup>; 72<sup>o</sup>. Light precipitation late week mostly southeast. Snow across State less than 2 in. most places. Greatest snow cover north central, northeast.

Winter wheat mostly good to fair. Most of State 1 to 4 in. snow cover. Some areas could use more moisture going into winter, some critically dry. These areas crop appears to be essentially out of moisture, growth less than normal, fields quite open. Insects, diseases not problem yet.

**TENNESSEE:** Dry 21st though 25th, weekend quite wet. High pressure 21st dominated State through 25th. Cold front brought rain weekend. Temperatures 5<sup>o</sup> above normal statewide. Cool early week, warmed to mid 70s over western half 25th. Memphis warmest 75<sup>o</sup>. Rainfall general over weekend. Heaviest Memphis 3.00 in., Plateau 1.50 in. Lower elevations eastern half generally less than 1.00 in.

Days suitable for fieldwork 4.5. Soil moisture mostly adequate. Pastures normal. Tobacco marketing, livestock chores, general maintenance main activities.

**TEXAS:** Fair, cool weather early week, ridge of high pressure built over area. Couple cold fronts moved through State late week. First touched off showers, thunderstorms Panhandle through northeastern. Light showers persisted Panhandle, far east, but fair, warm conditions present ahead of next cold front. Temperatures near or below normal after cooler air moved into State. Temperatures south central 4<sup>o</sup> above normal. Most area below normal precipitation. Northeast slightly above normal.

**Crops:** Early week snow slowed grain sorghum harvest Plains; midweek many producers finishing up remaining fields. Yields remained good despite snow. Sorghum 98% harvested for grain, 93%, 1987, 94% avg. Cotton harvest also slowed some early week, increased midweek to good pace. Cold temperatures continued aid harvest preparations. Snow only minor problems to cotton ready for harvest. Harvest very active Trans-Pecos. Cotton 100% open bolls, 95% 1987, 95% avg. Small grains central, south remained very dry, showed little or no growth. Growth improved some Blacklands, early week rains helped conditions. Greenbugs increased both areas, treatment underway. Conditions improved east. Dryland fields need moisture Plains, recent snow provided little moisture. Rust, greenbugs increased Plains with treatment beginning. Irrigated fields providing some grazing. Wheat 99% emerged, 96%, 1987, 89% avg. Peanut harvest moved ahead last week with dryland fields poor yields, grades. Irrigated fields fair to good yields. Most harvest completed Plains. Soybean harvest winding down Plains drying conditions occurred.

Upper Coast producers continued harvesting. Sugarbeet harvest continued, drying occurred Plains; average yields. Sugarcane harvest continued Valley. Other Field Crops: Peanuts 91% harvested, 82% 1987, 79% avg. Pecans 55% harvested, 53% 1987, 54% avg. Soybeans 95% harvested, 91% 1987, 82% avg. Sugarbeets 85% harvested, 89% 1987, 79% avg. Sunflowers 94% harvested, 94% 1987, 88% avg. Oats 92% planted, 95% 1987, 92% avg.

**Commercial Vegetables:** Rio Grande Valley harvest fall vegetables continued with winter vegetables beginning. Quality, yield good. Citrus harvest remained steady. San Antonio-Winter Garden harvest carrots, broccoli, cucumbers continued, good yields. Spinach good progress. High Plains few carrots remained for harvest. Trans-Pecos chili, bell pepper harvest about over. Onions showing good growth, some weed problems.

**Range and Pasture:** Range, pasture grasses remained short central. Small grains providing very little grazing. Supplemental feeding steady. Hill Country pastures providing some grazing, regrowth slow. Drying conditions continued Plains, small grains providing less forage. Cold temperatures hurt some young stockers. Overall, livestock good.

**UTAH:** Precipitation light to heavy. Temperatures 4<sup>o</sup> below to 3<sup>o</sup> above normal.

Livestock fair to good. Winter range feed poor to fair. Major farm activities: Winterizing equipment, shipping calves, lambs; livestock chores, attending seminars, organizational meetings, summarizing tax records, hauling manure.

**VIRGINIA:** Above normal temperatures; windy, sparse rainfall. Temperatures 5<sup>o</sup> above normal. Range 18 to 78<sup>o</sup>. Rainfall 0.01 to 1.12 in.

Days suitable for fieldwork 4.1. Topsoil moisture 13% short, 87% adequate. Grain corn 95% harvested, 99% 1987, 94% avg. Soybeans 74% harvested, 85% 1987, 71% avg. Graded burley tobacco. Wheat 91% seeded, 93% 1987, 89% avg. Treated tobacco plantbeds. Fall plowing, pruning fruit trees. Pastures 24% poor, 31% fair, 52% good. Winter grains, grazing crops 15% poor, 33% fair, 52% good.

**WASHINGTON:** Moist Pacific air continued across State producing precipitation. Cold polar air aloft kept snow levels low in mountains. Precipitation 4 in. coast, 7 in. Cascades. Temperatures remained near normal.

Rain showers continued improving soil moisture conditions, irrigation storage. Dormant seeding hay, pasture continued. All livestock moved to lower elevations for winter. Late fall pastures low on forage. Cattle in winter feeding programs most areas. Pruning started concord vineyards. Orchard herbicide, rodenticide applications continued. Recent rain showers reduced concern over winter injury to fruit tree roots. Cool temperatures reduced Russian wheat aphid activity.

**WEST VIRGINIA:** Temperature 44<sup>o</sup>, 1<sup>o</sup> above normal. Extremes 17<sup>o</sup> Elkins, Greenbank; 74<sup>o</sup> Creston. Precipitation 0.38 in., 0.09 to 0.51 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 55% short, 45% adequate. Corn fair to good; 92% harvested. Livestock good to fair. Feed 45% short, 55% adequate. Farm activities: Corn picking, livestock care.

**WISCONSIN:** Temperatures 36<sup>o</sup>, above average. Extremes 9<sup>o</sup>; 60<sup>o</sup>. Precipitation 0.35 to 1.07 in. Snow north 3 to 8 in. 26th, 27th. More near Lake Superior.

Farmers ready for winter.

**WYOMING:** Temperatures slightly above normal except far west. Precipitation mostly below normal.

Topsoil moisture short most areas. Snowpack starting higher elevations. Winter wheat fair to good. Corn for grain harvest continued. Livestock fair to good. Mild weather reducing stress, feed requirements. Movement to winter pastures, market continued.

**Crop Progress 1/**

FOR WEEK ENDING NOVEMBER 27, 1988

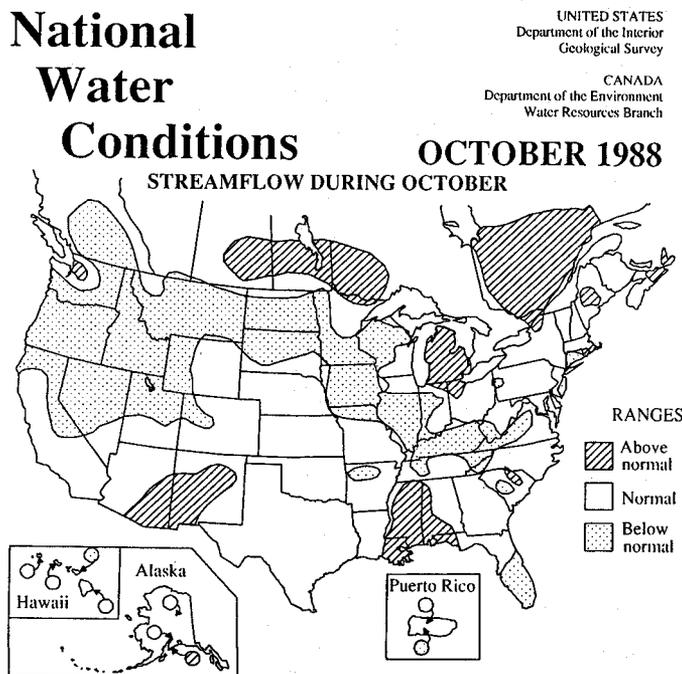
SOYBEANS % HARVESTED				COTTON % HARVESTED			
	1988	1987	AVG.		1988	1987	AVG.
ALA	79	97	86	ALA	95	100	94
ARK	88	97	84	ARIZ	80	90	87
GA	85	91	77	ARK	96	100	95
ILL	100	100	97	CALIF	97	97	92
IND	98	100	97	GA	86	97	89
IOWA	100	100	99	LA	98	100	96
KANS	99	99	90	MISS	96	100	93
KY	92	99	85	MO	96	100	96
LA	91	99	93	N MEX	70	59	60
MICH	80	100	96	N C	83	96	86
MINN	99	99	99	OKLA	55	40	30
MISS	76	99	86	S C	93	100	89
MO	98	100	83	TENN	100	100	93
NEBR	100	100	100	TEX	57	49	49
N C	63	77	55				
OHIO	99	100	97	14 STATES	76	74	71
S C	65	76	54				
S DAK	100	100	100				
TENN	100	100	83				
19 STATES	95	99	92				

THESE 19 STATES PRODUCED 96% OF THE 1987 SOYBEANS CROP.

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

1/ AVERAGES FOR THESE SUMMARIES ARE FOR THE YEARS 1983 - 1987.

PUBLICATION OF CROP CONDITION TABLES WILL RESUME IN APRIL, 1989.



## International Weather and Crop Summary

November 20-26, 1988

### HIGHLIGHTS

**WESTERN USSR** ... Winter grains remain dormant. A sufficient snow cover protects winter grains from extreme cold.

**EUROPE** ... Much colder-than-normal temperatures cover much of the continent.

**SOUTH ASIA** ... Dry, seasonably warm weather covers most of South Asia, favoring summer crop harvesting and fall grain planting activities.

**EASTERN ASIA** ... Favorably dry weather allows progress in late double crop rice harvest across the southeast.

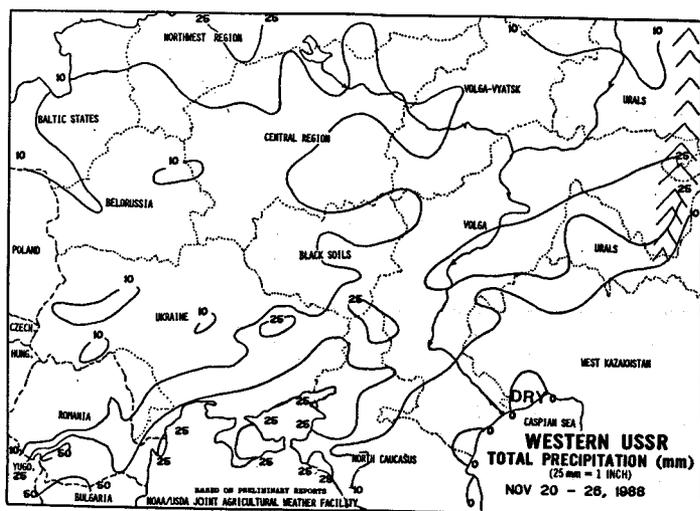
**SOUTHEAST ASIA** ... Dry weather benefits maturing Thai crops north of Bangkok, but inundating rain persists in peninsular Thailand.

**SOUTH AMERICA** ... Beneficial rain helps corn and soybean plantings in Argentina and south-central Brazil, but moisture is limited in numerous areas.

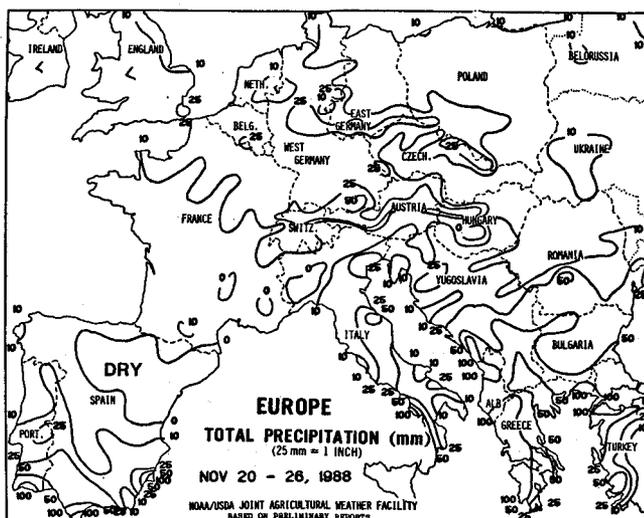
**AUSTRALIA** ... Moderate to heavy rain continues winter grain harvest delays in sections of the south and east.

**SOUTH AFRICA** ... Scattered, light rain covers the Maize Triangle. Seasonably warm weather favors early corn growth.

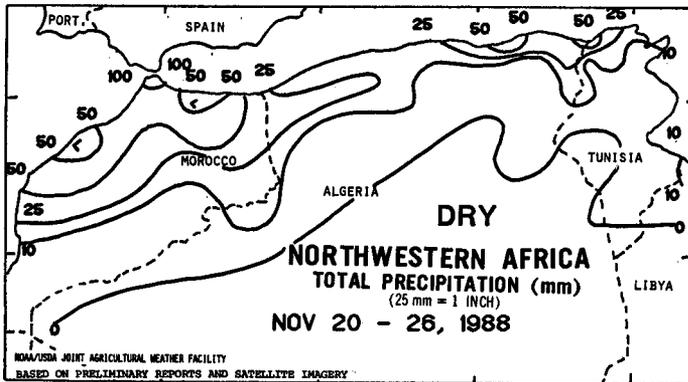
**NORTHWESTERN AFRICA** ... Widespread rain covers Moroccan winter grain areas, providing excellent planting moisture. More rain is needed in Algeria and Tunisia for planting.



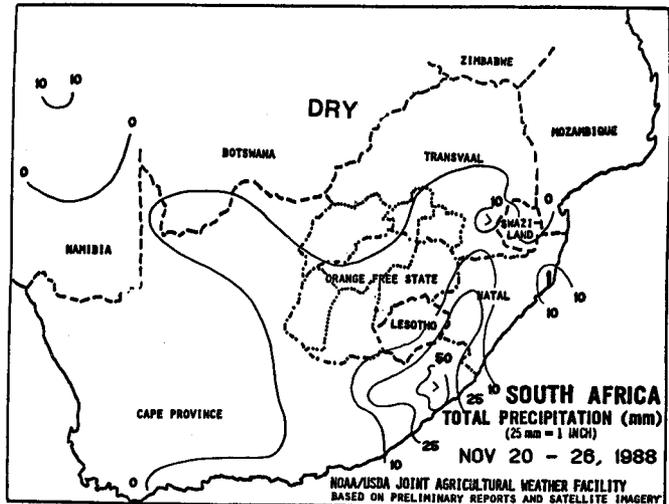
**WESTERN USSR** ... Unseasonable cold weather continued over most winter grain areas with average weekly temperatures ranging from 4 to 6 degrees Celsius (C) below normal. Slightly warmer-than-normal weather covered winter grain areas in the North Caucasus, where temperatures averaged 1-3 degrees C above normal. Winter grains remained dormant. Widespread light precipitation (5-12mm), mainly snow, covered the Baltic States, Belarusia, the western and northern Ukraine, the Black Soils Region, the Central Region, Volga Vyatsk Region, and the upper Volga, increasing snow cover. Mixed rain and snow covered the southern and eastern Ukraine, the North Caucasus, and the lower Volga, where precipitation amounts ranged from 17mm to 41mm. Lowest temperatures (less than -15 degrees C) covered winter grain areas as far south as the northern Ukraine. A sufficient snow cover in these areas protected winter grains from potential winterkill.



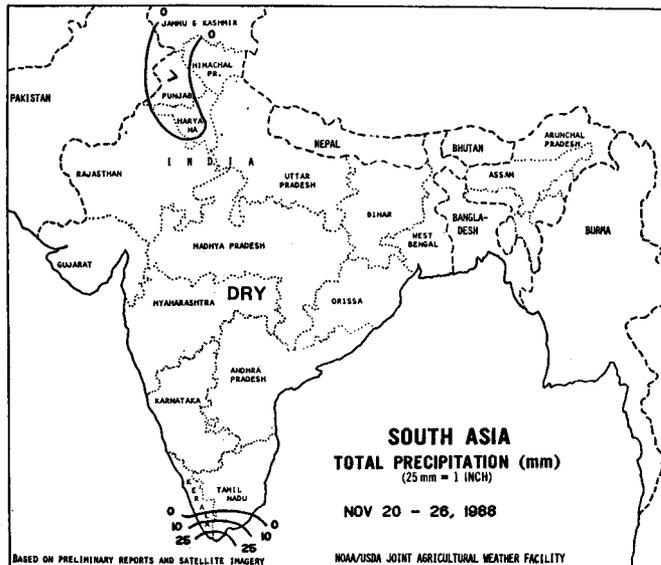
**EUROPE** ... A strong cold front brought colder-than-normal weather to nearly all of the continent early in the week. Mean weekly temperatures ranged from as much as 9 degrees C below normal in the east to near normal in the extreme south. Minimum temperatures in the 0 to -5 degrees C range may have caused damage to fruit and vegetable crops in eastern sections of Spain. Moderate to heavy snow (15-30mm, with isolated amounts greater than 20mm) from southern West Germany to Bulgaria provided insulating protection to dormant winter grains from midweek minimum temperatures as low as -5 to -20 degrees C. Scattered, very heavy rain (50-100mm, with isolated rainfall in excess of 100mm) may have caused localized flooding across sections of Greece, Albania, and southern Yugoslavia. Light to moderate rain and snow (5-20mm) favored hardening winter grains in the northwest, while scattered light showers (less than 15mm) offered only little moisture for establishing winter crops in the southwest.



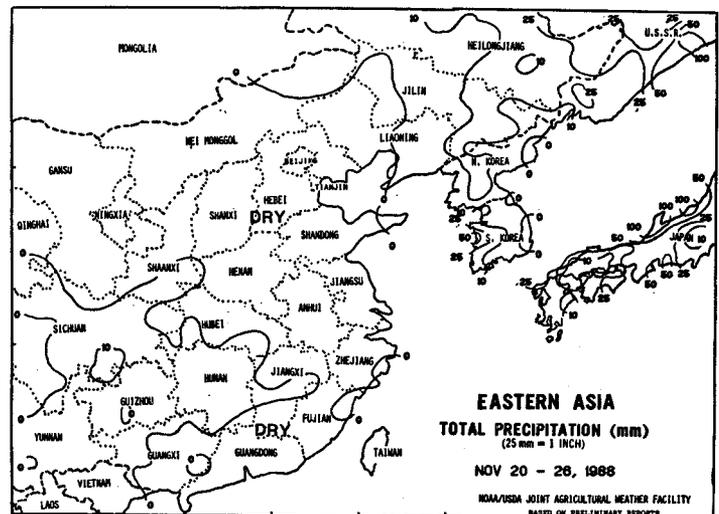
**NORTHWESTERN AFRICA** ... Widespread moderate rain (25-75mm) covered Moroccan winter grain areas, providing excellent topsoil moisture for winter grain emergence and early plant establishment. The first substantial rain of the growing season covered northwestern Algeria. Precipitation amounts ranging from 15 to 30mm were sufficient to initiate planting. Moderate rain (25-50mm) over northern winter grain areas in northeastern Algeria and Tunisia continued to increase topsoil moisture for planting. However, southern crop areas received meager amounts of precipitation (less than 10mm) and conditions likely remained too dry for planting.



**SOUTH AFRICA** ... Scattered, light rain (less than 10mm) covered the Maize Triangle with heavier rain (10-60mm) over crop regions of Natal and the eastern Cape Province. Temperatures across South Africa were warmer than in recent weeks, ranging from 1 to 4 degrees C above normal. The warm weather benefited early corn growth. Corn planting usually lasts until mid-December.



**SOUTH ASIA** ... Light rain (1-8mm) fell from northeastern Pakistan to India's Punjab State, but elsewhere, dry, seasonably warm weather favored summer crop harvesting. Winter wheat planting progressed across the north, with much of the early planted crop in or entering the jointing stage. Summer rice planting progressed in southern coastal areas following 2 weeks of showers that boosted irrigation supplies.



**EASTERN ASIA** ... Mostly dry and seasonably cool weather covered hardening winter crops across the North China Plain. Light to moderate snow and rain (5-20mm) fell over crop areas in Manchuria and the Korean Peninsula, while heavy rain (20-75mm, with isolated amounts in excess of 100mm) kept soils saturated in much of northern Japan. Favorably dry weather allowed progress in late double crop rice harvesting across southeastern China and Taiwan, while scattered mostly light showers (less than 10mm) benefited establishing to hardening winter crops in sections of Sichuan, Yunnan, Guizhou, and Hunan. Mean temperatures ranged from normal to above normal over much of China to below normal over the Korean Peninsula and Japan.



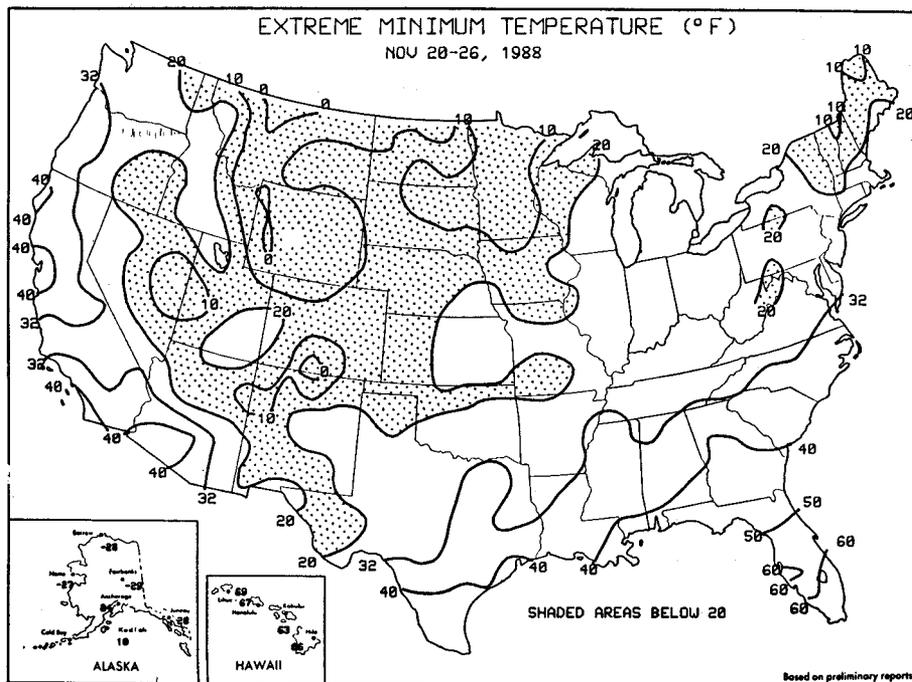
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