

# 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

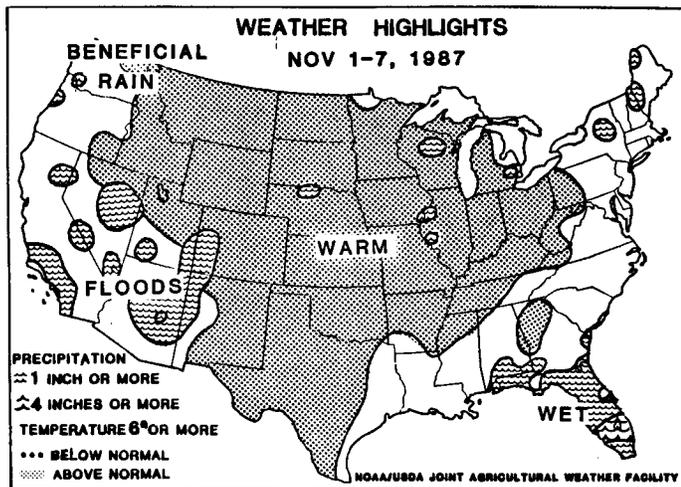
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## National Weather Summary

November 1-7, 1987



**HIGHLIGHTS:** Unseasonably mild weather covered most of the Nation. Record-high temperatures for this time of year were commonplace. Early in the week, light rain fell over parched regions of the Pacific Northwest. Severe weather continued to plague the Southwest. A tropical depression brought soaking rains to the Florida peninsula. Late in the week, snow fell in New York and New England, and smoke spread northeastward from forest fires in central Appalachia.

**SUNDAY...**Parts of Washington and Oregon received their first significant precipitation of the autumn season. Severe thunderstorms developed in the Southwest, causing local flooding in Arizona as moisture from tropical storm Selma continued to pour into the region. Rain showers were scattered across the Mississippi Valley and the Great Lakes. Unseasonably warm weather covered the Southeast and the lower Mississippi Valley. A tropical depression caused increasing showers over the Florida Peninsula.

**MONDAY...**Spotty light rain continued from the Rockies to the Pacific coast. Showers and thunderstorms dotted southern California and Nevada. An area of heavy showers and thunderstorms moved through eastern New Mexico into west Texas, while snow fell in the central Rockies. Warm weather covered the Nation east of the Mississippi River. Showers and thunderstorms continued to soak southern Florida.

**TUESDAY...**Scattered thunderstorms developed along a cold front crossing the upper Mississippi Valley. Precipitation ended west of the Continental Divide but continued over Florida. Many records for high temperatures were broken in the East, mostly in the Ohio and Tennessee Valleys.

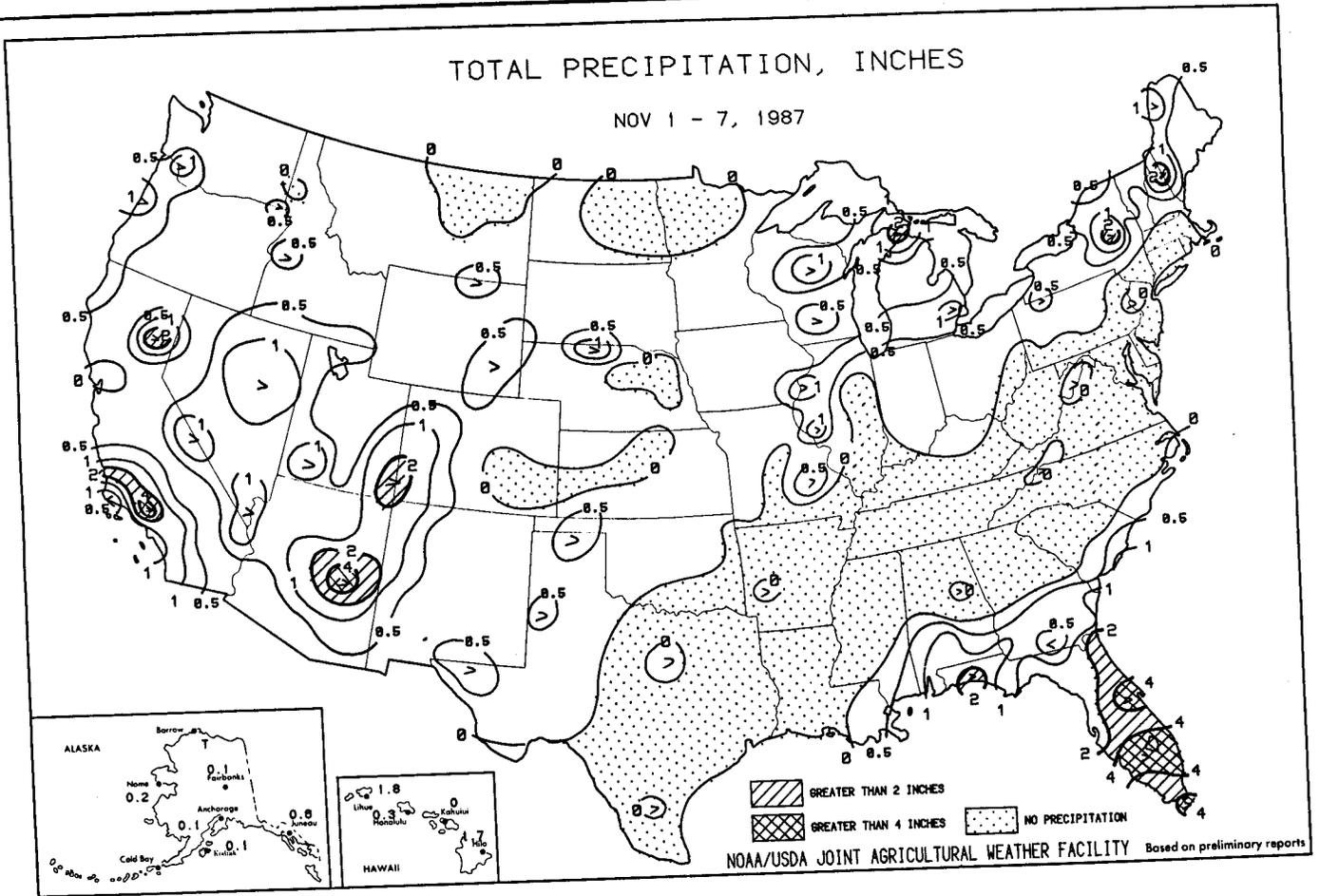
**WEDNESDAY...**Mild weather prevailed across most of the Nation, with many locations from New England to Texas experiencing record-high temperatures. Cooler air began spreading southeastward from the northern Great Plains. Rainshowers and thunderstorms returned to southern California. A tropical depression moved northward over the Florida peninsula, spreading rain as far north as south Georgia.

**THURSDAY...**A cold front swept across the Appalachians to the eastern seaboard but was accompanied by very little rain from Maryland southward. There was some snowfall across the Great Lakes and in the mountains of northern Pennsylvania. Rainshowers and thunderstorms increased in aerial coverage and intensity in the Southwest. Local flooding occurred in the San Joaquin Valley and in Death Valley. Showers and thunderstorms continued in Florida.

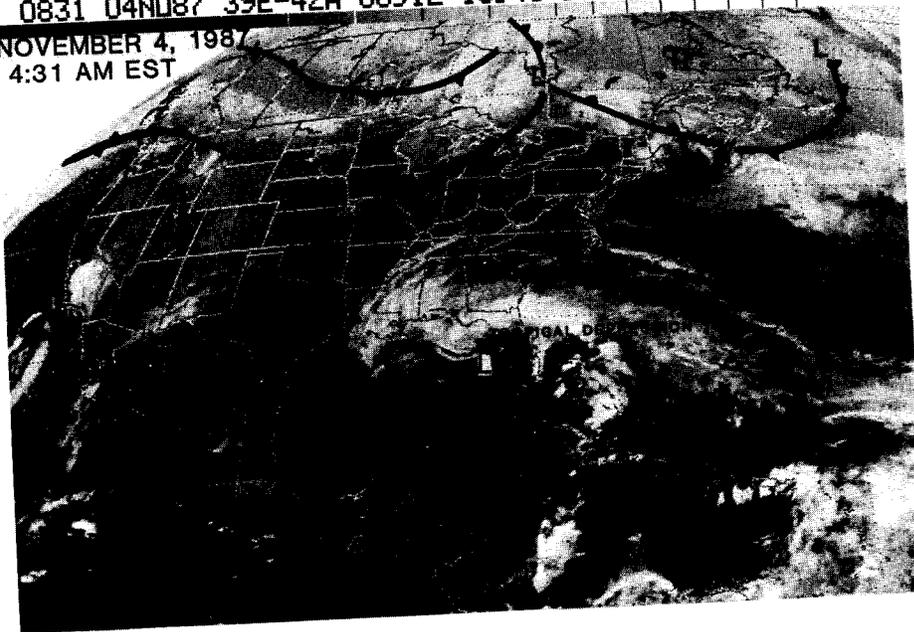
**FRIDAY...**Snow fell at higher elevations in Wyoming, Colorado, Utah, Arizona, and New Mexico. Rain fell at lower elevations. Snow squalls moved across New York State and New England, and snow continued to fall in western Pennsylvania and in Michigan. High winds swept across the Great Lakes, New York, and New England. Skies were generally clear in the Mississippi Valley. Forest fires began in the central Appalachians.

**SATURDAY...**Northwesterly gales raked the North Atlantic States, as half a foot of snow accumulated in parts of New York State. A storm centered over the central Rockies spread snow across higher elevations of northeastern Nevada, Utah, Colorado, and southern Wyoming. Forest fires in Kentucky and West Virginia spread smoke into Pennsylvania, Ohio, North Carolina, and Virginia. By evening, rainshowers covered much of the Ohio Valley, the upper Midwest, and much of the central and northern Great Plains.

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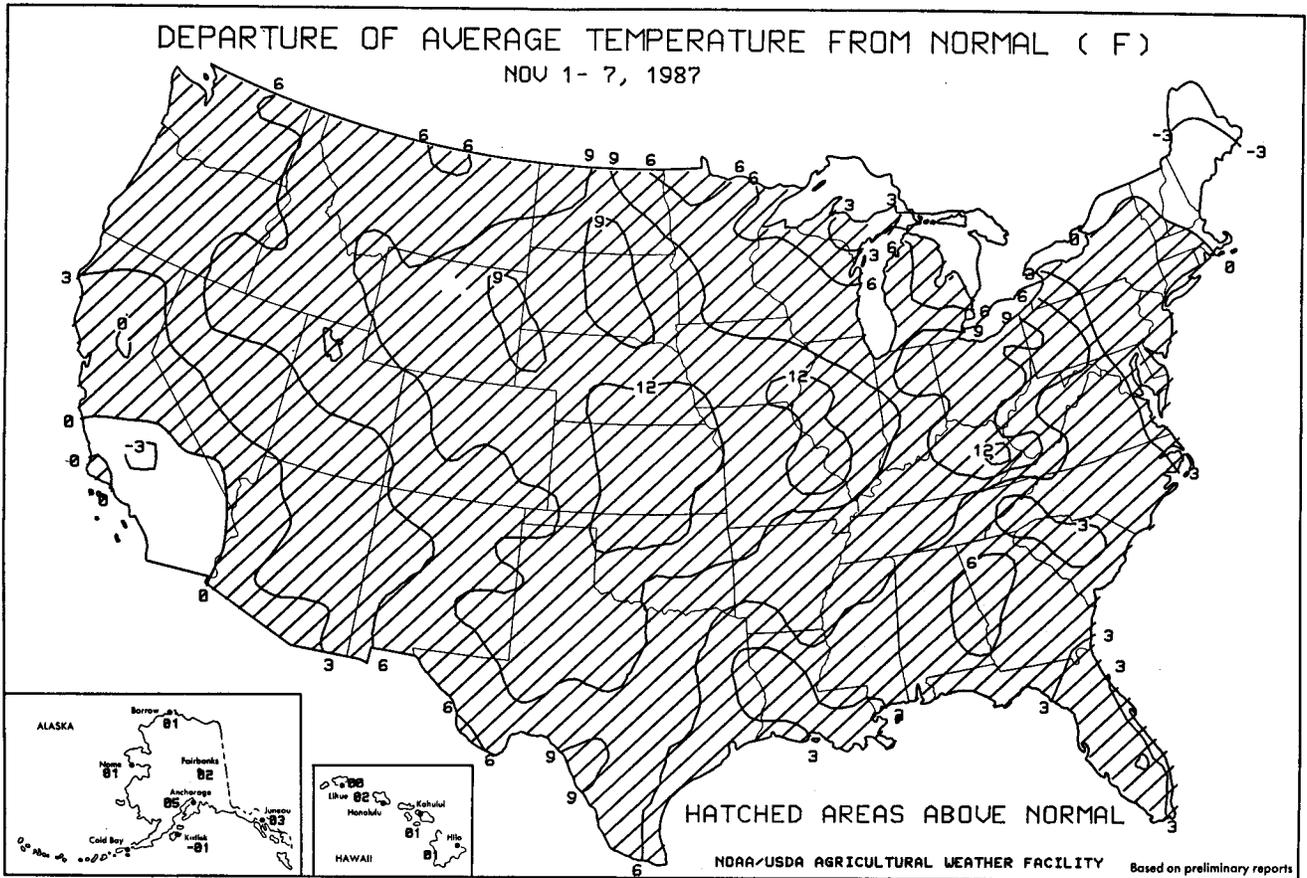
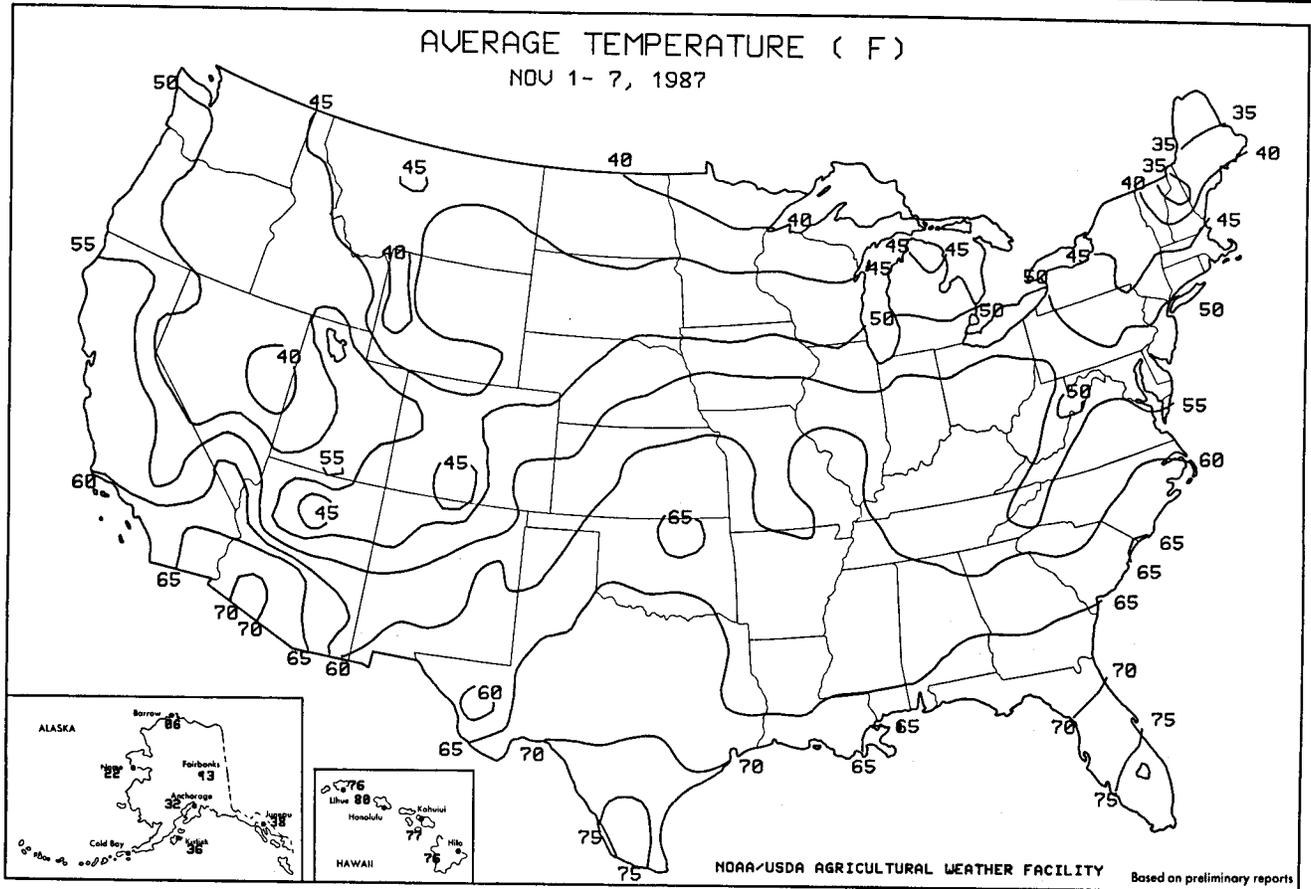


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 NOVEMBER 4, 1987  
 4:31 AM EST



A SLOW MOVING NORTHWARD TROPICAL DEPRESSION BRINGS HEAVY RAIN TO THE EASTERN GULF COAST.

A LOW-PRESSURE SYSTEM OFF THE COAST OF NORTHERN BAJA CALIFORNIA BRINGS MORE RAIN TO SOUTHERN CALIFORNIA.



# National Weather Data for Selected Cities

Weather Data for the Week Ending November 7, 1987

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	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	75	48	80	37	62	6	0	-0.7	0	4.5	59	34.3	74	79	29	0	0	0	0
MOBILE	76	53	83	45	65	3	0	-0.2	0	4.5	46	59.1	106	88	43	0	0	2	1
MONTGOMERY	80	49	85	33	64	6	0	-0.5	0	4.4	59	45.7	110	86	27	0	0	0	0
AK ANCHORAGE	36	28	40	25	32	5	0	-0.2	0	4.6	104	11.8	91	94	70	0	7	3	0
BARROW	8	3	14	-2	6	1	0	-0.1	0	1.6	131	4.8	114	90	81	0	7	1	0
FAIRBANKS	21	5	27	-2	13	2	0	-0.1	0	1.1	52	5.4	59	96	77	0	3	5	2
JUNEAU	44	33	46	29	39	3	0	-0.7	0	21.5	139	49.1	110	96	77	0	7	2	0
KODIAK	43	29	48	26	36	-1	0	-1.4	0	15.1	103	62.9	124	94	61	0	7	6	0
NOME	28	17	33	3	23	1	0	0	0	4.5	117	10.3	78	89	68	0	0	0	1
AZ PHOENIX	78	60	87	54	69	5	0	0	0	2.1	153	6.8	119	84	39	0	0	3	2
PRESCOTT	59	41	69	34	50	2	0	1.5	0	1.0	196	15.2	94	84	47	0	0	0	0
TUCSON	77	52	85	46	65	2	0	0	0	3.1	134	11.1	115	91	31	0	0	2	0
YUMA	76	60	80	55	68	0	0	-0.2	0	4	348	3.0	152	77	41	0	0	1	0
AR FORT SMITH	80	46	86	40	63	9	0	-0.8	0	1.9	54	29.8	87	90	27	0	0	0	0
LITTLE ROCK	75	52	81	44	63	8	0	-0.9	0	6.7	83	30.9	75	58	37	0	0	0	0
CA BAKERSFIELD	65	49	69	41	57	-4	0	1.1	0	1.4	255	5.4	124	98	62	0	0	3	1
EUREKA	62	52	70	47	57	4	0	-0.6	0	1.7	36	19.7	72	89	75	0	0	3	0
FRESNO	67	50	70	43	58	1	0	-0.1	0	1.0	120	7.6	60	94	50	0	0	3	0
LOS ANGELES	67	56	70	53	62	-2	0	-0.3	0	2.4	365	5.4	60	95	65	0	0	3	0
REDDING	68	50	83	45	59	1	0	-0.9	0	1.6	14	19.9	68	89	50	0	0	2	0
SACRAMENTO	66	48	72	43	57	0	0	-0.4	0	6.3	82	10.0	82	96	56	0	0	4	1
SAN DIEGO	68	58	70	54	63	-1	0	1.0	0	3.7	521	8.8	127	87	66	0	0	0	0
SAN FRANCISCO	67	53	70	49	60	3	0	-0.4	0	0.9	56	9.4	67	91	52	0	0	0	0
CO DENVER	64	40	70	32	52	9	0	0	0	2.2	94	17.4	125	89	34	0	1	2	0
GRAND JUNCTION	62	43	68	38	53	7	0	1.2	0	2.1	123	10.1	148	93	46	0	4	5	1
PUEBLO	70	34	74	28	52	8	0	-0.1	0	0.3	20	9.4	93	88	26	0	0	0	0
CT BRIDGEPORT	58	42	70	33	50	0	0	-0.9	0	4.9	66	28.0	81	83	47	0	0	0	0
HARTFORD	58	35	78	28	47	1	0	-0.9	0	10.9	131	39.6	108	88	39	0	4	0	0
DC WASHINGTON	67	45	77	35	56	3	0	-0.6	0	7.6	113	29.6	88	89	40	0	0	0	0
FL APALACHICOLA	78	60	85	46	69	5	0	0.9	0	6.3	50	42.4	86	86	51	0	0	2	1
DAYTONA BEACH	77	66	83	58	72	4	0	1.6	0	10.7	89	41.8	94	93	72	0	0	4	2
JACKSONVILLE	76	60	82	46	68	3	0	2.3	0	10.4	97	41.2	86	95	63	0	0	3	1
KEY WEST	82	74	85	73	78	1	0	2.9	0	19.0	157	44.1	125	96	75	0	0	6	3
MIAMI	83	74	88	71	79	4	0	3.6	0	1.6	117	45.4	84	92	68	0	0	3	1
ORLANDO	78	67	85	61	73	3	0	4.2	0	1.8	18.9	50.0	109	94	70	0	0	3	1
TALLAHASSEE	77	57	84	39	67	3	0	3.5	0	16.2	163	61.7	108	86	45	0	0	3	1
TAMPA	79	66	81	58	73	5	0	0.7	0	5.3	52	46.2	108	92	68	0	0	2	1
WEST PALM BEACH	82	71	89	69	77	3	0	1.9	0	8.2	92	54.1	98	93	67	0	0	6	3
GA ATLANTA	75	51	78	44	63	7	0	5.1	0	22.9	126	54.1	98	72	32	0	0	0	0
AUGUSTA	79	45	86	29	62	4	0	-0.7	0	3.7	59	39.8	96	91	30	0	1	0	0
MACON	78	48	84	32	63	4	0	2.2	0	0	2.2	37	35.7	94	90	30	0	0	0
SAVANNAH	75	56	82	38	65	4	0	1.6	0	1.6	27	32.9	85	90	30	0	0	1	1
HI HILO	83	68	84	66	76	1	0	9.8	0	8	125	54.2	119	86	47	0	0	0	0
HONOLULU	87	72	89	69	80	2	0	138	0	1.7	52	5.2	30	88	54	0	0	3	0
KAHULUI	85	69	90	66	77	0	0	0.5	0	1.4	108	14.5	106	87	57	1	0	0	0
LIHUE	81	72	82	65	76	0	0	1.7	0	2.2	119	24.3	71	91	70	0	0	5	1
ID BOISE	59	41	61	36	50	6	0	1.0	0	9.5	119	6.7	73	94	56	0	0	2	0
LEWISTON	59	41	64	35	50	7	0	0.2	0	0.2	12	8.0	75	78	50	0	0	0	0
POCATELLO	56	40	64	26	48	8	0	-0.3	0	0	0	8.8	98	97	66	0	1	4	0
IL CHICAGO	62	44	75	29	53	7	0	0	0	2.6	38	30.7	91	82	51	0	0	0	0
MOLINE	63	47	76	32	55	10	0	0.4	0	0.6	36	20.4	65	80	42	0	0	1	3
PEORIA	66	48	78	35	57	12	0	3.0	0	2.4	36	20.4	65	80	42	0	0	0	0
QUINCY	67	49	77	36	58	11	0	2.8	0	2.8	35	23.2	67	82	40	0	0	2	3
ROCKFORD	60	40	75	25	50	7	0	0.1	0	1.1	3.3	46	98	91	61	0	3	3	0
SPRINGFIELD	66	50	78	33	58	11	0	-0.5	0	0.1	2.3	37	70	69	37	0	0	2	0
IN EVANSVILLE	73	42	82	28	58	8	0	1.1	0	1.1	3.2	55	72	81	26	0	2	0	0
FORT WAYNE	64	43	77	30	55	9	0	-0.7	0	2.8	58	27.3	91	89	44	0	2	2	0
INDIANAPOLIS	65	46	77	30	55	9	0	-1.6	0	0	48	26.2	78	78	38	0	2	1	0
SOUTH BEND	63	46	76	28	54	9	0	0	0	7.0	99	28.6	87	77	44	0	1	3	0
IA DES MOINES	64	47	73	31	55	11	0	0.2	0	0.2	47	31.3	110	89	53	0	1	1	0
SIoux CITY	62	43	69	26	53	10	0	-0.2	0	2.6	47	31.3	110	89	53	0	1	1	0
WATERLOO	61	43	71	31	52	10	0	0	0	1.9	42	23.1	93	91	56	0	2	2	0
KS CONCORDIA	69	50	76	37	59	13	0	0.4	0	3.1	50	28.2	93	93	44	0	0	0	0
DODGE CITY	73	46	78	37	59	12	0	-0.3	0	3.5	68	32.7	128	83	38	0	0	1	0
GOODLAND	67	40	71	35	54	11	0	2.2	0	2.2	66	22.7	117	90	37	0	0	1	0
TOPEKA	70	51	78	36	61	13	0	-0.1	0	1.8	74	18.6	121	90	37	0	0	1	0
WICHITA	72	52	79	43	62	13	0	3.7	0	3.7	55	33.3	108	85	43	0	0	1	0
KY BOWLING GREEN	73	40	81	28	56	6	0	0	0	3.0	48	34.9	131	85	41	0	0	0	0
LEXINGTON	72	45	83	28	59	10	0	0	0	3.8	56	33.0	80	85	31	0	1	0	0
LOUISVILLE	73	45	83	31	59	9	0	1.5	0	2.4	24	27.8	71	69	26	0	1	1	0
LA ALEXANDRIA	80	45	84	35	62	2	0	-0.7	0	1.6	24	25.4	68	73	25	0	0	0	0
BATON ROUGE	81	50	85	39	66	4	0	0	0	2.8	40	41.2	93	85	30	0	0	0	0
LAKE CHARLES	81	52	85	43	67	3	0	-0.9	0	2.3	30	54.3	114	90	32	0	0	0	0
NEW ORLEANS	76	53	81	43	65	2	0	0	0	7.0	68	51.0	112	91	34	0	0	0	0

Based on 1951-80 normals.

Weather Data for the Week Ending November 7, 1987

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	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	79	46	84	38	63	3	0	-8	0	6.4	96	36.4	99	92	31	0	0	0	0
ME CARIBOU	39	27	53	16	33	-3	.4	-3	.4	7.1	97	24.4	79	87	62	0	5	3	0
PORTLAND	52	31	74	21	42	-1	.1	-9	.1	7.3	90	35.1	100	88	45	0	5	2	0
MD BALTIMORE	65	40	77	31	53	2	0	-7	0	9.6	132	33.9	94	89	42	0	2	0	0
SALISBURY	66	40	77	28	53	2	0	-7	0	6.9	82	32.0	81	90	37	0	2	0	0
MA BOSTON	58	40	78	30	49	0	0	-9	T	10.0	131	40.0	111	79	38	0	2	1	0
CHATHAM	54	41	61	32	48	-1	.1	-9	T	10.6	126	42.6	111	84	55	0	2	4	0
MI ALPENA	53	36	70	26	45	5	.5	0	.2	5.8	102	20.8	82	94	59	0	4	1	0
DETROIT	59	43	75	29	51	7	.6	.1	.6	5.3	109	31.1	118	89	53	0	2	3	1
FLINT	59	40	75	26	50	6	.4	-1	.2	8.1	163	24.1	96	91	50	0	2	4	0
GRAND RAPIDS	58	42	73	28	50	6	.6	-1	.3	7.4	113	27.9	97	86	53	0	2	4	0
HOUGHTON LAKE	51	38	67	28	45	5	.2	-3	.1	6.8	122	21.1	87	94	62	0	3	4	0
LANSING	58	41	74	25	49	6	.6	.1	.6	7.3	136	25.1	99	85	50	0	3	1	1
MARQUETTE	49	30	59	16	40	0	.2	-4	.1	7.2	102	29.0	108	97	61	0	5	4	0
MUSKEGON	56	45	66	30	50	6	.7	.1	.4	8.0	125	28.5	107	82	56	0	1	3	0
SAULT ST. MARIE	47	33	56	21	40	2	1.1	.4	.4	8.0	107	25.5	90	97	66	0	3	5	0
MN ALEXANDRIA	52	36	57	26	44	5	.2	-2	.1	3.2	72	15.6	68	92	58	0	4	1	0
DULUTH	48	32	54	21	40	8	.5	-2	.2	4.1	70	18.0	67	88	56	0	4	3	0
INT'L FALLS	48	30	58	14	39	7	T	-3	T	2.0	39	18.5	83	91	53	0	5	0	0
MINNEAPOLIS	55	40	63	30	47	6	.2	-2	.2	2.0	43	29.0	119	89	56	0	2	3	0
ROCHESTER	53	38	62	26	46	6	.2	-2	.2	3.9	63	24.5	93	94	67	0	3	2	0
MS GREENWOOD	80	46	86	33	63	6	5	T	-9	1.5	21	32.0	73	81	22	0	0	0	0
JACKSON	81	45	86	37	63	5	0	-7	0	1.8	27	39.6	91	88	25	0	0	0	0
MERIDIAN	78	44	84	32	61	4	0	-7	0	4.4	65	46.7	104	92	29	0	1	0	0
MO CAPE GIRARDEAU	74	46	82	33	60	4	-	-8	0	4.8	69	30.2	80	73	25	0	0	0	0
COLUMBIA	69	49	79	36	59	11	T	-6	T	4.7	61	24.8	75	71	36	0	0	1	0
KANSAS CITY	69	52	77	37	60	11	.2	-3	.2	5.2	64	30.2	90	81	43	0	0	1	0
SAINT LOUIS	72	54	82	43	63	14	.1	-5	.1	3.5	63	27.0	91	61	27	0	0	3	0
SPRINGFIELD	70	49	78	36	59	10	T	-7	T	7.4	90	39.0	112	73	37	0	0	2	0
MT BILLINGS	59	37	69	28	48	8	8	T	-2	T	27	11.8	87	83	39	0	2	1	0
GLASGOW	55	31	63	26	43	7	0	-1	0	.7	46	9.2	90	82	40	0	5	0	0
GREAT FALLS	57	34	62	25	46	7	.1	-1	.1	1.5	74	13.6	99	83	43	0	4	2	0
HAVRE	54	27	65	17	41	5	T	-1	T	.8	46	7.8	72	84	45	0	6	0	0
HELENA	56	32	60	22	44	8	T	-1	T	.9	54	9.5	92	90	44	0	2	1	0
KALISPELL	53	34	58	20	43	8	T	-3	T	.7	28	13.4	102	94	59	0	4	1	0
MILES CITY	59	35	70	26	47	9	.1	-1	.1	.9	43	12.0	92	81	42	0	4	1	0
MISSOULA	55	32	59	20	44	8	T	-2	T	.1	6	8.8	79	89	47	0	3	1	0
NE GRAND ISLAND	66	44	76	30	55	12	T	-2	T	2.0	53	23.8	109	93	51	0	1	1	0
LINCOLN	68	46	74	28	57	13	T	-3	T	4.3	89	30.1	117	89	51	0	1	0	0
NORFOLK	63	43	72	28	53	11	T	-2	T	4.3	119	26.5	118	93	53	0	1	0	0
NORTH PLATTE	65	39	76	28	52	12	.3	-2	.3	3.1	117	18.7	101	97	48	0	2	1	0
OMAHA	65	48	72	31	56	11	.1	-3	.1	3.3	56	30.9	108	81	62	0	1	2	0
SCOTTSBLUFF	61	33	73	26	47	7	.3	.1	.2	1.9	96	22.1	161	95	47	0	3	3	0
VALENTINE	60	37	66	26	49	9	.4	.2	.3	1.3	53	19.2	117	90	49	0	2	2	0
WY ELY	50	34	56	28	42	4	1.2	1.1	.6	2.7	188	11.3	146	97	69	0	2	6	1
LAS VEGAS	67	51	76	48	59	1	1.8	1.8	.8	2.3	363	5.7	171	92	53	0	0	3	2
RENO	59	33	64	29	46	3	.1	0	.1	.6	100	6.7	122	95	44	0	0	3	0
WINNEMUCCA	58	39	65	33	49	7	.5	.3	.3	1.0	95	8.0	127	94	54	0	0	3	0
NH CONCORD	54	27	75	19	41	-1	.1	-7	.1	8.2	117	32.8	108	93	39	0	5	2	0
NJ ATLANTIC CITY	64	39	75	27	51	1	0	-8	0	6.0	89	36.9	105	90	42	0	2	0	0
NM ALBUQUERQUE	65	44	71	39	55	6	.3	-2	.3	.9	53	7.9	111	87	38	0	0	2	0
CLOVIS	70	47	75	39	59	8	.2	.1	.1	4.1	105	22.8	141	90	38	0	0	3	0
ROSWELL	72	50	79	46	61	10	.4	.3	.4	1.5	52	14.6	147	95	40	0	0	1	0
NY ALBANY	55	35	76	25	45	1	T	-7	T	13.9	204	35.9	119	93	47	0	4	3	0
BINGHAMTON	54	35	72	24	44	2	.2	-6	.1	7.4	104	30.8	98	95	59	0	3	4	0
BUFFALO	57	41	67	30	49	4	.1	-7	.1	8.1	115	35.0	112	89	49	0	2	2	0
NEW YORK	61	46	76	37	53	2	T	-8	T	7.7	103	39.4	109	77	46	0	0	0	0
ROCHESTER	57	37	70	26	47	2	.2	-4	.1	6.5	111	28.9	108	93	53	0	5	4	0
SYRACUSE	56	35	75	25	46	1	.5	-3	.2	9.6	134	29.2	88	94	52	0	5	4	0
NC ASHEVILLE	69	36	77	25	53	3	0	-7	0	7.2	93	37.9	99	89	30	0	2	0	0
CHARLOTTE	73	46	79	34	60	5	0	-6	0	7.7	111	32.0	86	84	30	0	0	0	0
GREENSBORO	71	41	79	29	56	4	0	-6	0	7.9	107	40.8	110	86	32	0	2	0	0
HATTERAS	69	53	78	36	61	2	.1	-1.0	.1	8.9	76	53.8	113	88	51	0	0	1	0
NEW BERN	76	48	83	32	62	4	T	-7	T	3.4	35	45.0	96	94	33	0	1	0	0
RALEIGH	71	43	79	30	57	3	0	-6	0	7.4	112	37.9	105	92	34	0	1	0	0
WILMINGTON	75	50	81	33	62	3	.3	-4	.2	7.2	77	44.5	94	90	37	0	0	2	0
ND BISMARCK	56	29	62	16	43	8	T	-1	T	.4	17	17.1	119	95	54	0	4	0	0
FARGO	53	34	58	18	43	8	T	-2	T	1.9	57	13.9	76	86	51	0	3	0	0
GRAND FORKS	52	29	61	18	41	7	T	-2	T	2.0	60	18.1	106	88	49	0	4	0	0
WILLISTON	55	28	66	19	42	7	T	-1	T	.8	36	11.5	91	92	45	0	5	1	0
OH AKRON-CANTON	64	44	75	29	54	8	T	-6	T	4.1	72	25.8	83	81	42	0	2	1	0
CINCINNATI	69	44	81	24	56	8	.1	-6	.1	2.9	47	27.6	80	75	29	0	2	1	0
CLEVELAND	64	47	77	38	55	9	T	-6	T	5.5	92	34.1	112	80	44	0	0	1	0
COLUMBUS	69	43	80	28	56	10	.1	-5	.1	3.2	61	22.4	70	79	32	0	2	1	0

Based on 1951-80 normals.

Weather Data for the Week Ending November 7, 1987

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	TEMPERATURE °F			
																90 AND ABOVE	72 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	67	45	77	27	56	10	.1	-.5	.1	1.6	33	20.1	67	74	33	0	2	2	0
TOLEDO	64	44	78	25	54	10	T	-.5	T	4.6	92	24.4	90	87	44	0	2	2	0
YOUNGSTOWN	63	44	77	29	54	9	.1	-.5	.1	6.5	103	34.3	107	87	43	0	2	2	0
OK OKLAHOMA CITY	73	54	79	46	64	10	.1	-.3	.1	6.5	99	39.0	137	83	36	0	0	1	0
TULSA	74	55	83	46	65	11	.2	-.6	T	4.8	57	35.0	100	74	36	0	0	2	0
OR ASTORIA	61	46	69	38	53	4	.2	-1.9	.2	1.7	15	34.4	69	97	74	0	0	0	0
BURNS	59	33	63	26	46	6	0	-.3	T	1	8.0	93	***	***	0	0	0	0	
MEDFORD	63	41	73	31	52	5	0	-.6	T	1	9.4	68	92	49	0	1	1	0	
PENDLETON	58	39	62	33	49	4	.2	-.1	.2	.3	14	5.9	64	92	59	0	0	0	
PORTLAND	60	47	68	40	53	5	.6	-.4	.6	1.2	20	20.7	78	96	71	0	0	1	
SALEM	59	44	63	37	51	4	.5	-.5	.5	1.1	19	23.0	81	98	67	0	0	1	
PA ALLENTOWN	59	37	73	29	48	1	.3	-.8	T	11.4	146	41.1	110	93	46	0	3	1	
ERIE	60	45	74	36	52	7	T	-.6	.1	11.5	137	39.5	117	81	49	0	0	5	
HARRISBURG	61	38	76	31	50	2	T	-.7	T	10.8	153	32.4	97	87	44	0	1	0	
PHILADELPHIA	63	42	74	33	52	2	T	-.7	T	5.4	77	29.7	84	88	45	0	0	0	
PITTSBURGH	66	44	75	30	55	9	T	-.6	T	5.0	86	34.9	109	82	35	0	1	0	
SCRANTON	57	36	72	30	46	1	T	-.7	T	10.9	162	36.3	121	88	46	0	3	0	
RI PROVIDENCE	59	37	77	29	48	0	0	-.9	T	9.7	118	34.9	93	87	39	0	3	0	
SC CHARLESTON	75	53	81	38	64	4	1.0	.5	1.0	16.1	193	51.9	111	88	42	0	1	1	
COLUMBIA	77	42	82	30	60	2	0	-.5	0	6.2	85	48.1	110	96	30	0	1	0	
FLORENCE	77	48	83	33	63	4	0	-.5	T	5.1	73	32.5	83	90	30	0	0	0	
GREENVILLE	73	43	77	31	58	4	0	-.7	0	3.6	41	37.3	84	84	31	0	4	1	
SD ABERDEEN	57	33	61	17	45	8	0	-.1	T	1.6	59	11.4	68	92	52	0	0	0	
HURON	58	37	67	22	47	9	.3	-.1	.3	2.1	71	17.7	101	96	60	0	3	1	
RAPID CITY	62	37	69	29	49	10	.2	-.1	.2	1.2	61	12.0	79	90	44	0	2	2	
SIoux FALLS	58	39	61	24	48	9	T	-.2	T	2.4	53	15.6	69	93	61	0	1	1	
TN CHATTANOOGA	74	42	81	32	58	5	0	-.9	0	5.2	64	41.0	93	95	27	0	1	0	
KNOXVILLE	72	38	80	29	55	3	0	-.8	0	2.5	39	30.0	76	93	27	0	2	0	
MEMPHIS	77	49	84	41	63	8	0	-.8	0	3.0	44	30.4	71	68	25	0	0	0	
NASHVILLE	75	44	83	36	60	7	0	-.7	0	2.2	31	21.2	52	77	26	0	0	0	
TX ABILENE	79	57	87	52	68	10	T	-.4	T	2.4	41	21.4	100	78	37	0	0	0	
AMARILLO	70	49	79	42	60	10	.4	.2	.2	4.9	150	20.2	112	89	39	0	0	2	
AUSTIN	82	57	87	50	70	7	0	-.6	0	5.3	71	32.3	117	89	39	0	0	0	
BEAUMONT	81	53	85	46	67	3	0	-.9	0	11.7	117	52.2	111	93	36	0	0	0	
BROWNSVILLE	84	63	87	61	73	3	0	-.5	0	9.1	99	24.5	106	98	50	0	0	0	
CORPUS CHRISTI	83	62	88	59	73	5	0	-.4	0	2.4	25	28.0	98	95	47	0	0	0	
DEL RIO	81	61	86	56	71	8	0	-.3	0	.4	7	21.7	135	77	37	0	0	3	
EL PASO	75	52	81	48	64	8	.3	-.2	-.1	1.3	60	8.0	115	92	36	0	0	0	
FORT WORTH	79	55	88	48	67	8	T	-.6	T	1.5	22	20.2	73	80	32	0	0	0	
GALVESTON	79	64	83	56	71	5	0	-.6	0	4.5	49	30.5	89	86	45	0	0	0	
HOUSTON	83	52	88	44	67	4	0	-.8	0	3.6	37	32.8	82	95	37	0	0	0	
LUBBOCK	75	52	84	48	64	11	.1	-.1	.1	3.5	87	17.9	107	94	42	0	0	2	
MIDLAND	79	52	87	47	66	9	T	-.2	T	1.8	50	13.9	110	92	36	0	0	1	
SAN ANGELO	81	53	88	47	67	8	T	-.3	T	4.2	79	29.1	174	88	38	0	0	1	
SAN ANTONIO	83	59	88	53	71	8	T	-.6	T	2.7	37	33.2	129	90	39	0	0	0	
VICTORIA	85	58	89	51	71	5	0	-.6	0	3.5	35	35.3	107	97	41	0	0	0	
WACO	81	54	88	47	67	6	T	-.6	T	6.9	101	27.4	101	86	34	0	0	0	
WICHITA FALLS	80	53	88	44	67	10	T	-.4	T	2.3	36	28.2	116	84	34	0	0	0	
UT BLANDING	56	40	65	34	48	5	2.6	2.4	1.0	5.6	216	19.0	195	98	69	0	0	6	
CEDAR CITY	55	39	64	34	47	4	1.2	.9	.9	3.6	189	11.0	124	99	67	0	0	5	
SALT LAKE CITY	60	44	66	37	52	8	.4	-.1	.2	1.6	72	10.6	83	89	48	0	0	5	
VT BURLINGTON	51	33	69	23	42	1	.6	-.1	.3	7.5	112	24.6	85	93	46	0	0	3	
VA NORFOLK	69	46	80	33	57	2	0	-.7	0	8.8	105	38.9	98	90	42	0	0	0	
RICHMOND	71	41	81	27	56	3	0	-.8	0	5.7	71	34.3	90	90	33	0	2	0	
ROANOKE	70	43	78	36	56	6	0	-.7	0	12.2	169	44.5	130	80	32	0	0	0	
WA COLVILLE	50	46	50	43	47	7	.4	0	.4	1.1	43	13.6	101	100	96	0	0	2	
QUILLAYUTE	59	41	64	34	50	4	.1	-2.6	0	3.2	16	58.0	74	99	72	0	0	3	
SEATTLE-TACOMA	56	47	61	44	52	4	.1	-1.1	.1	1.3	20	20.8	75	98	77	0	0	1	
SPOKANE	51	38	56	29	45	6	.3	-.2	.3	.3	13	11.6	93	100	72	0	1	1	
YAKIMA	60	35	64	28	47	5	.3	-.1	.3	.3	32	4.6	80	99	61	0	4	2	
WV BECKLEY	65	43	76	27	54	9	0	-.6	0	4.1	59	32.6	88	64	28	0	1	0	
CHARLESTON	69	42	81	29	56	6	T	-.6	T	4.8	76	30.4	83	80	29	0	1	0	
HUNTINGTON	71	44	81	27	58	8	0	-.6	0	2.6	44	26.2	74	77	29	0	1	0	
PARKERSBURG	70	44	80	31	57	8	T	-.5	T	3.3	57	21.0	63	77	31	0	3	4	
WI GREEN BAY	54	38	69	23	46	6	.2	-.2	-.2	3.6	63	18.3	73	92	61	0	0	1	
LACROSSE	56	42	66	29	49	8	.2	-.2	-.1	2.9	49	29.3	106	87	57	0	2	3	
MADISON	58	41	72	26	49	8	.7	-.2	.4	5.5	96	26.7	96	91	56	0	3	3	
MILWAUKEE	57	43	73	29	50	7	.3	-.1	.2	3.6	65	31.4	115	89	58	0	2	3	
WAUSAU	51	37	60	25	44	6	1.4	1.0	1.0	5.7	87	22.2	77	91	62	0	3	3	
WY CASPER	59	34	67	25	47	9	.4	-.3	.3	1.6	90	12.2	119	90	44	0	2	3	
CHEYENNE	60	35	67	28	47	9	.3	-.1	.1	1.5	79	13.9	111	88	36	0	1	3	
LANDER	58	36	66	28	47	10	.1	-.1	.1	1.4	62	13.4	112	82	38	0	2	2	
SHERIDAN	57	36	70	28	47	9	.7	-.5	.7	2.8	110	13.6	99	91	40	0	2	2	
PR SAN JUAN	87	76	90	75	82	1	T	-1.4	T	4.5	34	46.5	102	89	77	1	0	2	

Based on 1951-80 normals.

Heating Degree Days Summary

CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NEADS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 11-7-1987

ACCUMULATIONS ARE FROM JULY 1

\*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL WEEK, WEEK TOTAL, WEEK DEV, WEEK FROM NORM, CUM TOTAL, CUM DEV FROM NORM, CUM DEV FROM L YR, CUM DEV FROM NORM L YR, CUM DEV FROM L YR, CUM DEV FROM L YR. Rows list various cities and their corresponding heating degree day data.

## October Weather and Crop Summary

**HIGHLIGHTS:** In the western third of the Nation, temperatures were generally above normal (averages were more than 6 degrees above normal at many locations). In the eastern two-thirds of the Nation, temperatures were generally below normal (many stations reported the coolest October on record). Above-normal thunderstorm and shower activity resulted in generally wet conditions over much of the Southwest. The Pacific Northwest was very dry. In the eastern two-thirds of the Nation, precipitation was mostly below normal (notable exceptions being Florida, parts of the Midwest, the Mississippi Delta, the Great Lakes region, and parts of the Northeast).

**OCTOBER 1-3...**Cold air moved into the eastern half of the Nation, while warm weather prevailed in the West. Snow fell in the Catskill Mountains in New York. Temperatures climbed above 100 degrees in parts of southern California.

**OCTOBER 4-10...**Coastal California sweltered under the worst heat wave on record, while the eastern two-thirds of the Nation experienced cooler weather than normal. Snow fell in New York and New England early in the week, and showers and thunderstorms swept through most of the northeastern part of the Nation Tuesday and Wednesday. An early-season snowstorm moved across the northern Great Plains late in the week.

**OCTOBER 11-17...**Two tropical disturbances, separated by nearly 3,000 miles, played prominent roles in the week's weather. Hurricane Floyd brought high winds and heavy rains to southern Florida, while the Pacific storm Ramon produced a stream of moisture across the Southwest. The eastern third of the Nation had mostly cool dry weather. Shower activity increased across the Midwest. A polar outbreak began early in the week in the northern Great Plains and reached the southern Plains and the Mississippi Valley by week's end.

**OCTOBER 18-24...**Colder-than-normal weather covered most of the Nation east of the Rockies. Snow fell from the northern Great Plains to New England, and Minnesota had its first major snowfall of the season. Heavy rain fell in southern Texas and much of the lower Mississippi Valley. Late in the week, rainshowers caused local flooding in southern California, southern Nevada, and parts of Arizona.

**OCTOBER 25-31...**An east coast storm brought substantial rains to the Middle Atlantic States and the Northeast early in the week. Showers and thunderstorms again soaked much of the Southwest as moisture from dying tropical storm Selma streamed into the region. At week's end, rains finally came to the Pacific Northwest but were generally light except in coastal areas.

### Highlights

Dryness restricted winter wheat seeding and germination in the Southeast and Pacific Northwest during most of October. The lack of moisture hampered growth and development in most areas.

Seeding began the month considerably ahead of normal. By mid-month seeding was virtually finished in the northern and central Great Plains and Rocky Mountain States. By the end of the month, planting was 93 percent finished in the 20 major producing States, compared with 85 percent in 1986 and the 85 percent average. Eighty-five percent of the acreage was emerged, 8 points ahead of 1986 and 12 points above average. Winter wheat was mostly good to fair, but condition declined to fair to poor in Georgia, and poor to fair in Oregon by the end of October.

In Kansas, seeding at 99 percent completion was 9 points ahead of normal. The lack of moisture for wheat germination and stand development before winter concerned producers in western and central areas. Leaf rust was present Statewide but was most prevalent in early-seeded wheat. Seeding was finished in Nebraska. Near the end of October, producers began irrigating in areas of high stress. Mild, dry conditions promoted Russian wheat aphid development. Winter wheat seeding trailed 5 and 14 points behind normal in Washington and Oregon, respectively, because of dryness.

### Winter Wheat Seedings

**CORN FOR GRAIN** production is forecast at 7.17 billion bushels, up fractionally from the October 1 forecast but down 13 percent from last year. The 90 percent confidence interval for this production forecast is 6.84 to 7.49 billion bushels.

**SORGHUM GRAIN** production is forecast at 741 million bushels, 21 percent less than 1986 and down 1 percent from the October 1 forecast.

**SOYBEAN** production is forecast at 1.96 billion bushels, down fractionally from October 1 but 1 percent above last year. The 90 percent confidence interval for this production forecast is 1.85 to 2.07 billion bushels.

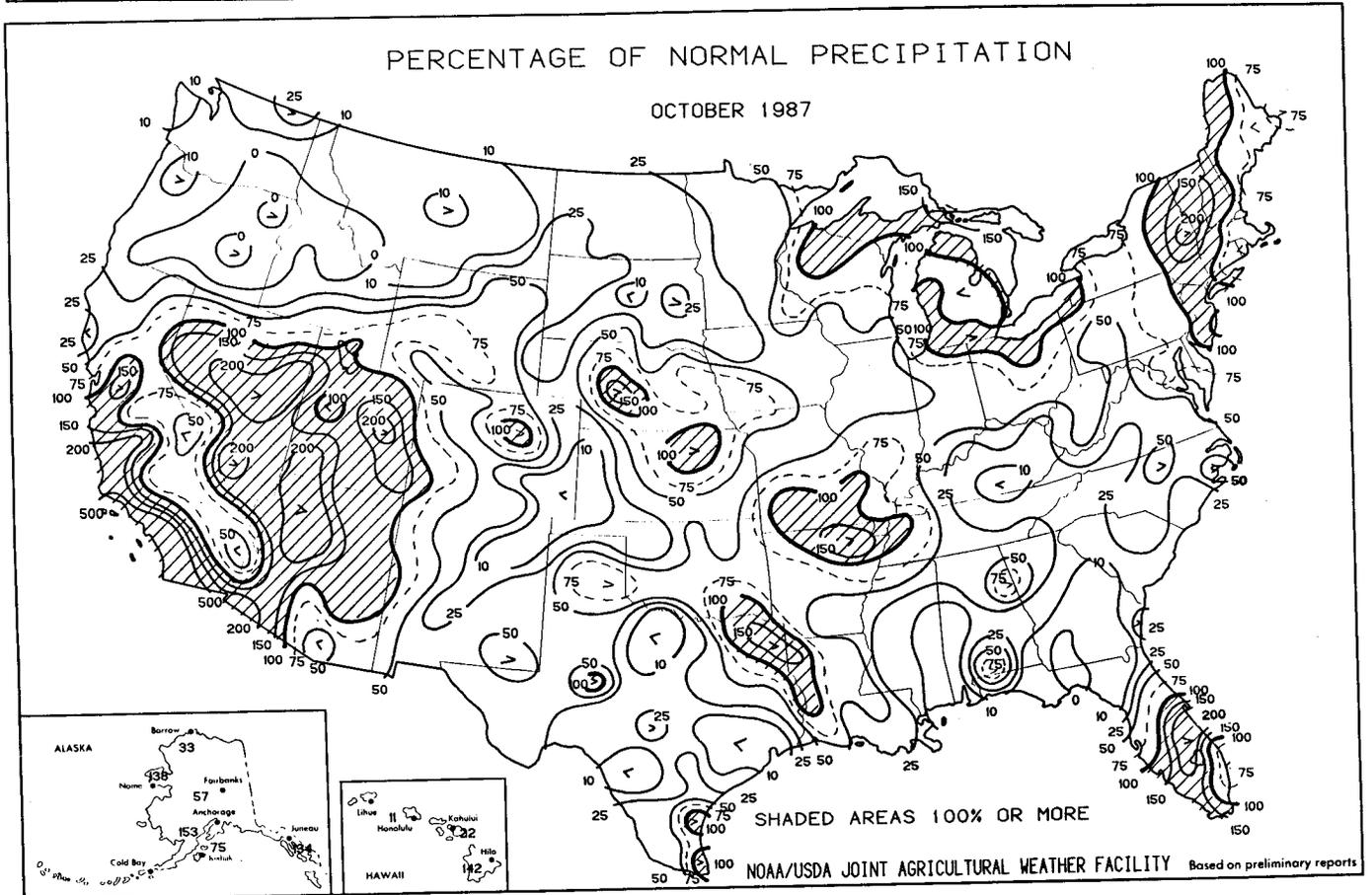
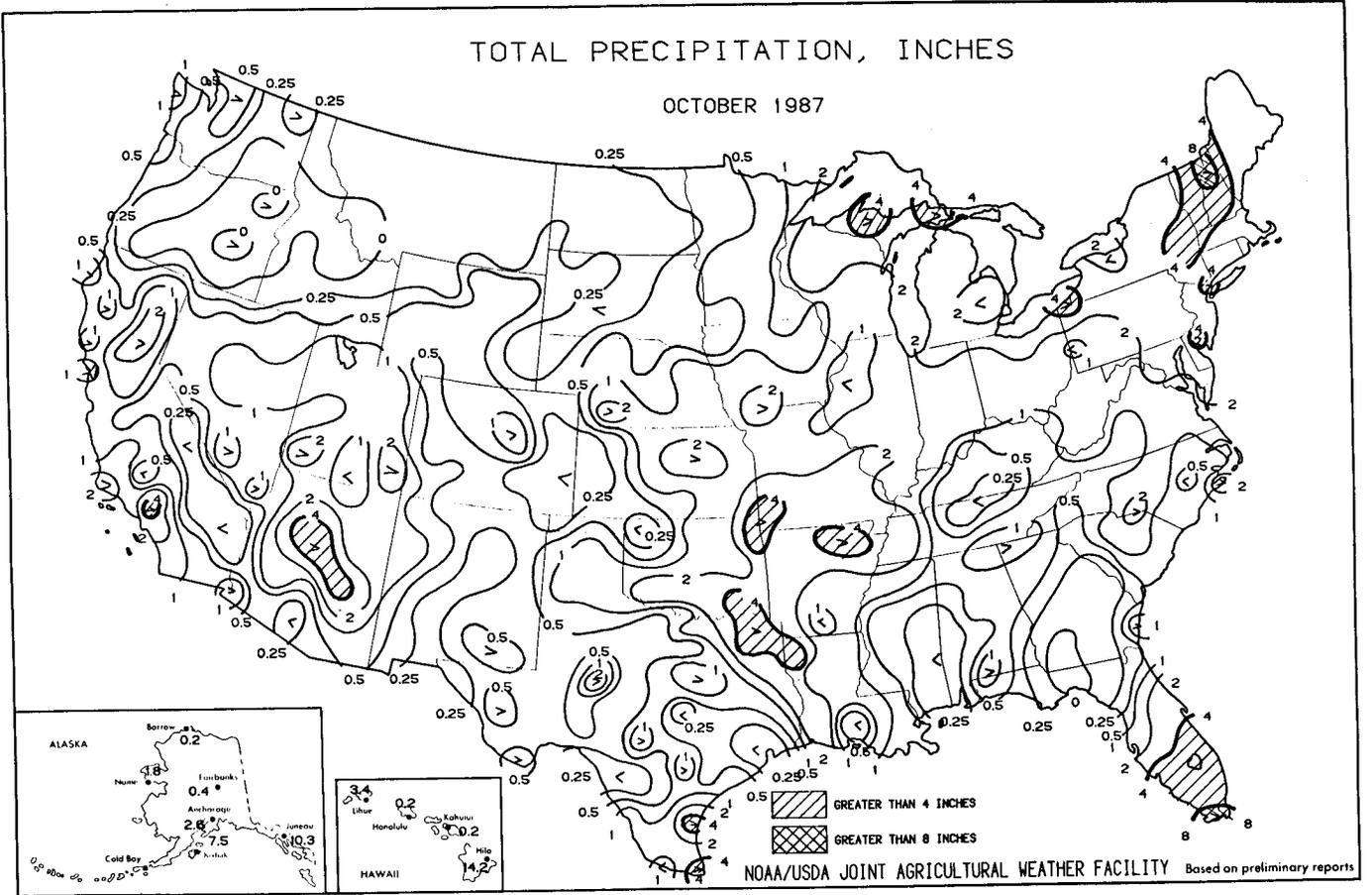
**ALL COTTON** production is forecast at 13.9 million bales, 43 percent above the 1986 crop and 4 percent above October 1. The 90 percent confidence interval for this production forecast is 13.1 to 14.8 million bales.

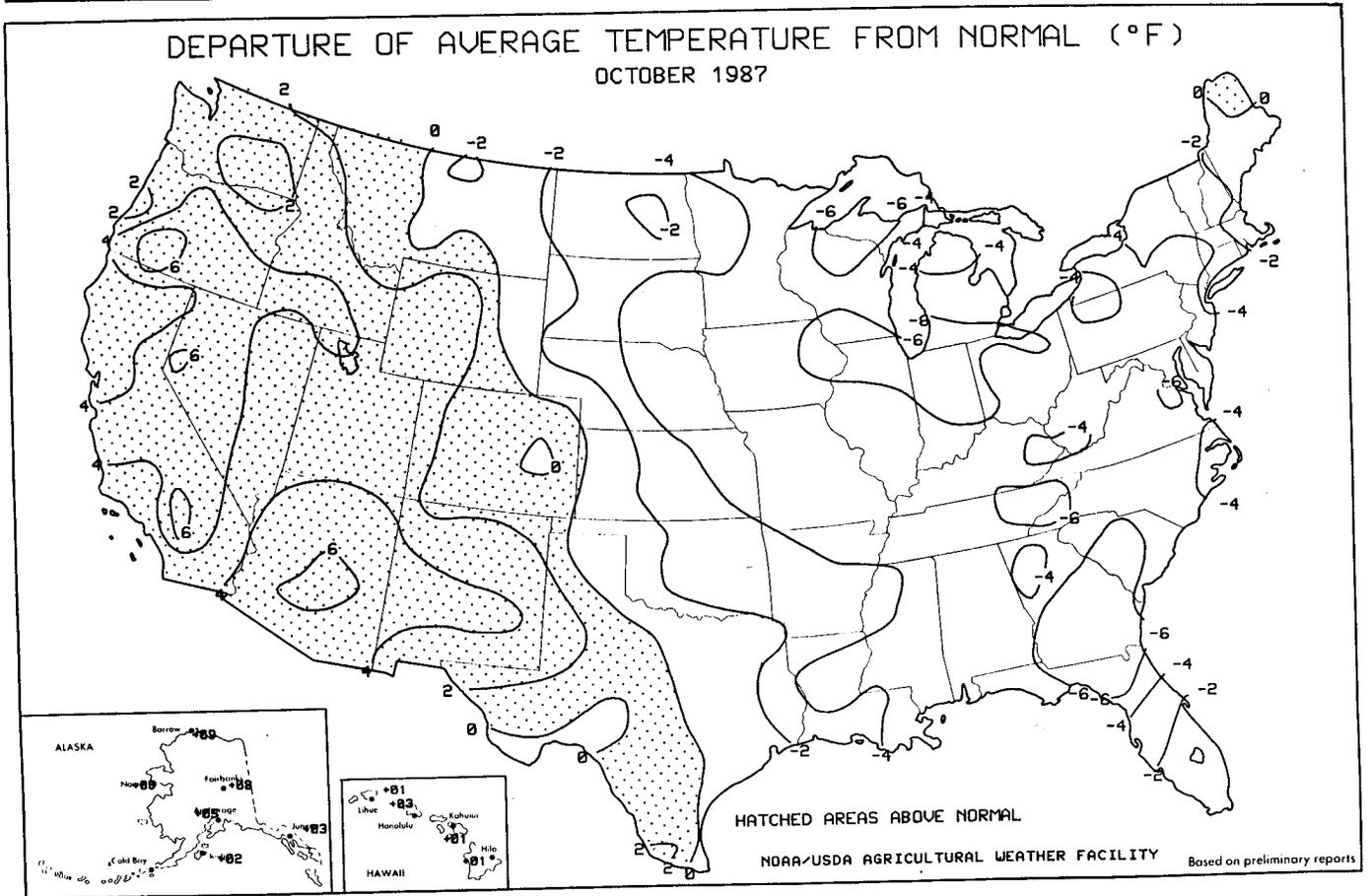
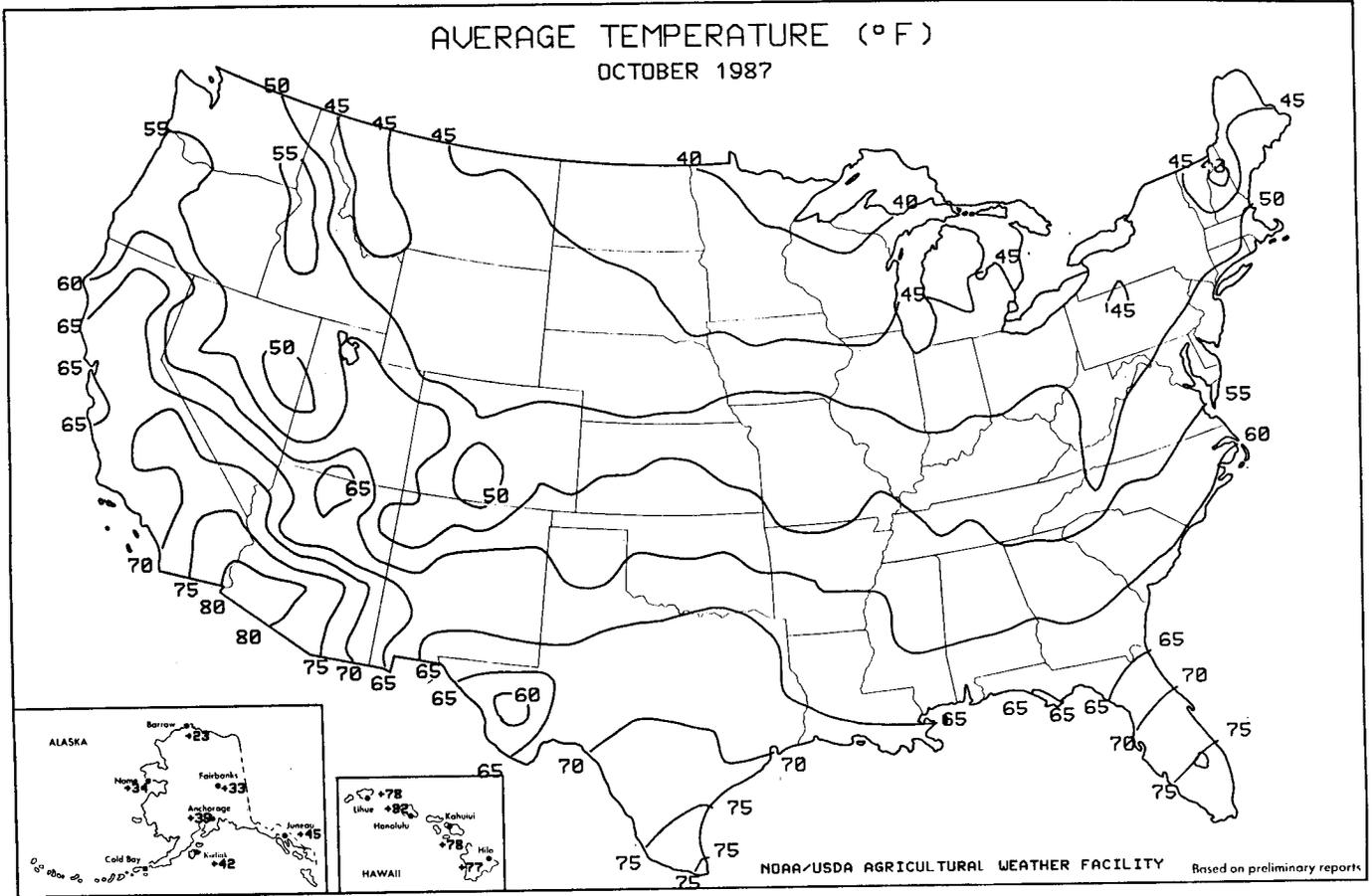
**PEANUT** production is expected to total 3.58 billion pounds, 3 percent below both last year and the October 1 forecast. Dry weather in the Southeast adversely affected late acreage and is responsible for the production drop from October 1.

**ALL TOBACCO** production is forecast at 1.23 billion pounds, fractionally lower than the October 1 forecast but 6 percent above the 1986 output.

**FALL POTATO** production is forecast at 343 million cwt, up 8 percent from last year but 3 percent below 1985.

**DRY BEAN** production is forecast at 25.9 million cwt, up 13 percent from last year and 17 percent above 1985.





Temperature and Precipitation Data for October 1987

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
AL BIRMINGHAM	57	-6	0.9	-1.8	BATON ROUGE	65	-4	1.5	-1.1	COLUMBUS	49	-5	1.6	-0.3
MOBILE	63	-6	T	-2.6	LAKE CHARLES	66	-3	3.1	-0.6	DAYTON	48	-6	1.3	-0.7
MONTGOMERY	60	-6	0.4	-1.8	NEW ORLEANS	65	-5	0.7	-1.9	TOLEDO	45	-7	2.2	0.3
AK ANCHORAGE	39	4	2.6	0.9	SHREVEPORT	64	-3	5.5	2.9	YOUNGSTOWN	46	-6	2.6	0.0
BARROW	23	9	0.2	-0.4	ME CARIBOU	44	1	2.2	-0.9	OK OKLAHOMA CITY	60	-2	1.8	-0.9
FAIRBANKS	33	8	0.4	-0.3	PORTLAND	47	-1	2.5	-1.3	TULSA	59	-3	1.3	-2.1
JUNEAU	45	3	10.3	2.6	MD BALTIMORE	51	-6	2.3	-0.8	OR ASTORIA	55	2	0.5	-5.7
KODIAK	42	2	7.5	0.6	MA SALISBURY	53	-5	2.8	-0.9	BURNS	51	3	T	-0.8
NOME	34	5	1.8	0.6	BOSTON	54	-1	2.7	-0.6	MEDFORD	61	7	0.0	-1.7
AZ FLAGSTAFF	50	3	4.6	3.1	CHATHAM	52	-1	2.6	-1.1	PENDLETON	54	1	T	-0.9
PHOENIX	81	8	0.5	-0.1	MI ALPENA	43	-4	2.0	-0.1	PORTLAND	58	4	0.3	-2.8
PRESCOTT	61	5	2.9	1.7	DETROIT	46	-6	2.0	-0.1	SALEM	56	3	0.5	-2.9
TUCSON	75	5	0.3	-0.5	FLINT	45	-6	1.9	-0.2	PA ALLENTOWN	49	-5	2.6	-0.4
WINSLow	50	3	1.3	0.4	GRAND RAPIDS	45	-6	2.3	-0.3	ERIE	48	-4	5.8	2.2
YUMA	82	5	1.6	1.3	Houghton Lake	44	-3	2.2	-0.1	HARRISBURG	49	-6	2.6	-0.1
AR FORT SMITH	60	-3	2.2	-1.0	LANSING	45	-6	1.8	-0.1	PHILADELPHIA	53	-4	2.6	-0.2
LITTLE ROCK	60	-4	1.6	-1.2	MARQUETTE	39	-9	4.3	1.5	PITTSBURGH	48	-5	0.9	-1.6
CA BAKERSFIELD	72	4	0.2	-0.1	MUSKOGON	46	-5	3.3	0.6	SCRANTON	47	-4	2.8	-0.1
EUREKA	58	4	1.1	-1.6	MN SAULT ST. MARIE	42	-3	5.1	2.2	RI PROVIDENCE	51	-2	2.3	-1.4
FRESNO	70	5	0.9	0.4	ALEXANDRIA	43	-4	0.7	-1.2	SC CHARLESTON	61	-5	0.6	-2.4
LOS ANGELES	69	2	1.7	1.5	DULUTH	40	-5	1.0	-1.2	COLUMBIA	56	-7	1.0	-1.6
REDDING	68	2	0.5	-1.6	INT'L FALLS	39	-4	0.7	-1.1	FLORENCE	59	-5	0.9	-1.5
SACRAMENTO	68	4	1.3	0.4	MINNEAPOLIS	45	-5	0.6	-1.2	GREENVILLE	55	-6	0.4	-3.1
SAN DIEGO	70	2	1.7	1.4	ROCHESTER	42	-6	1.6	-0.8	SD ABERDEEN	43	-5	0.2	-0.8
SAN FRANCISCO	64	3	0.9	-0.1	ST. CLOUD	42	-5	0.7	-1.4	HURON	44	-5	0.4	-1.0
STOCKTON	68	3	1.0	0.4	MS GREENWOOD	60	-4	0.5	-2.3	RAPID CITY	48	-2	0.3	-0.5
DENVER	52	0	1.2	0.3	JACKSON	60	-5	0.3	-2.1	SIOUX FALLS	44	-6	0.3	-1.2
GRAND JUNCTION	57	2	0.7	-0.2	MO CAPE GIRARDEAU	54	-	T	-2.6	TN CHATTANOOGA	55	-5	1.1	-1.8
PUEBLO	53	-1	T	-0.8	COLUMBIA	52	-6	1.8	-1.5	KNOXVILLE	53	-7	0.6	-2.1
CT BRIDGEPORT	52	-4	2.2	-1.1	KANSAS CITY	52	-7	1.3	-2.0	MEMPHIS	59	-4	2.0	-0.3
HARTFORD	49	-4	3.7	0.2	SAINT LOUIS	54	-4	1.7	-0.6	NASHVILLE	55	-6	0.2	-2.4
DC WASHINGTON	54	-5	2.5	-0.4	SPRINGFIELD	53	-5	3.2	0.0	TX ABILENE	67	1	0.2	-2.1
FL APALACHICOLA	65	-5	0.2	-3.0	MT BILLINGS	50	1	T	-1.1	AMARILLO	58	-1	1.2	-0.2
DAYTONA BEACH	70	-3	2.8	-1.9	GLASGOW	45	-1	T	-0.5	AUSTIN	70	0	0.3	-3.1
FT. MYERS	75	-2	5.7	1.8	GREAT FALLS	48	0	T	-0.8	BEAUMONT	67	-3	0.3	-3.4
JACKSONVILLE	64	-6	0.3	-3.5	HAVRE	44	-2	T	-0.6	BROWNSVILLE	74	-1	4.4	0.9
KEY WEST	77	-3	8.4	3.4	HELENA	47	2	0.1	-0.6	CORPUS CHRISTI	73	-1	1.4	-1.2
MIAMI	78	0	4.3	-2.8	KALISPELL	43	1	0.1	-0.9	DEL RIO	70	-1	0.2	-2.0
ORLANDO	72	-3	3.4	0.4	MILES CITY	47	-1	T	-0.9	EL PASO	67	3	0.2	-0.6
TALLAHASSEE	62	-7	T	-3.1	MISSOULA	45	1	T	-0.8	FORT WORTH	67	-1	0.1	-2.9
TAMPA	71	-3	1.5	-0.9	NE GRAND ISLAND	48	-5	0.8	-0.3	GALVESTON	72	-1	0.1	-2.6
WEST PALM BEACH	76	-1	4.8	-3.0	LINCOLN	49	-5	1.1	-0.5	HOUSTON	69	-2	0.2	-3.6
GA ATLANTA	60	-3	0.7	-1.8	NORFOLK	46	-6	1.1	-0.2	LUBBOCK	63	2	0.8	-1.0
AUGUSTA	58	-6	0.2	-1.8	NORTH PLATTE	47	-3	1.7	0.8	MIDLAND	66	2	0.4	-1.0
MACON	58	-7	0.1	-1.9	OMAHA	49	-5	1.7	-0.4	SAN ANGELO	67	0	0.3	-1.7
SAVANNAH	61	-6	0.3	-2.0	SCOTT'S BLUFF	48	-2	0.1	-0.7	SAN ANTONIO	71	1	0.4	-2.4
HI HILO	77	1	14.2	4.2	VALENTINE	46	-4	0.6	-0.3	VICTORIA	71	-1	0.3	-3.0
HONOLULU	81	2	0.2	-1.7	NV ELKO	50	2	0.6	0.0	WACO	68	-1	1.2	-1.9
KAHULUI	78	1	0.2	-0.6	ELY	49	3	1.5	0.9	WICHITA FALLS	64	-1	0.1	-2.5
LIHUE	78	1	3.4	-1.1	LAS VEGAS	71	3	0.5	0.3	BLANDING	55	3	2.3	0.8
ID BOISE	55	3	T	-0.7	RENO	56	6	0.5	0.2	CEDAR CITY	55	3	2.2	1.4
LEWISTON	55	3	T	-1.0	WINNEMUCA	54	5	0.6	0.0	MILFORD	52	2	1.0	0.3
POCATELLO	51	3	0.3	-0.7	NH CONCORD	46	-3	4.1	1.0	SALT LAKE CITY	57	4	1.2	0.1
IL CHICAGO	47	-6	1.6	-0.4	NJ ATLANTIC CITY	51	-6	2.6	-0.5	VT BURLINGTON	46	-2	3.3	0.5
MOLINE	47	-6	0.8	-1.9	NM ALBUQUERQUE	61	4	0.4	-0.4	VA NORFOLK	57	-5	1.8	-1.6
PEORIA	48	-6	0.7	-1.8	CLOVIS	61	2	0.5	-1.3	RICHMOND	53	-6	1.2	-2.5
QUINCY	50	-5	1.0	-2.3	ROSWELL	64	4	0.3	-0.8	ROANOKE	51	-6	1.1	-2.4
ROCKFORD	45	-7	0.8	-2.1	ALBANY	46	-4	6.9	4.0	WA COLVILLE	48	2	0.3	-0.9
SPRINGFIELD	51	-5	1.3	-1.4	BINGHAMTON	45	-4	2.7	-0.4	QUILLAYUTE	53	2	1.4	-9.1
IN EVANSVILLE	51	-6	1.2	-1.3	BUFFALO	48	-4	2.6	-0.3	SEATTLE-TACOMA	56	3	0.3	-3.1
FORT WAYNE	47	-6	1.8	-0.8	NEW YORK	54	-3	4.1	0.9	SPOKANE	50	2	T	-1.0
INDIANAPOLIS	48	-6	1.4	-1.1	ROCHESTER	47	-5	1.7	-0.9	WALLA WALLA	56	2	0.0	-1.4
SOUTH BEND	47	-7	3.2	0.0	SYRACUSE	48	-4	3.1	0.0	YAKIMA	50	1	T	-0.4
IA DES MOINES	48	-6	1.0	-1.1	NC ASHEVILLE	50	-6	0.4	-2.8	WV BECKLEY	48	-3	1.3	-1.4
DUBUQUE	45	-6	1.0	-1.9	CHARLOTTE	56	-5	0.8	-1.9	CHARLESTON	50	-6	1.1	-1.5
STIOUX CITY	47	-6	0.4	-1.3	HUNTINGTON	53	-6	0.7	-2.5	ELKINS	45	-6	1.5	-1.5
WATERLOO	45	-6	0.8	-1.5	PARKERSBURG	62	-4	1.2	-3.7	HUNTINGTON	51	-6	0.6	-1.8
KS CONCORDIA	53	-4	1.9	0.1	GREEN BAY	60	-4	1.0	-2.4	PARKERSBURG	50	-6	1.2	-1.2
DODGE CITY	56	-2	0.5	-0.8	LACROSSE	45	-6	0.6	-1.5	WI GREEN BAY	43	-5	1.8	-0.3
GOODLAND	53	0	T	-0.9	MADISON	43	-7	1.2	-1.0	LACROSSE	45	-6	0.6	-1.5
TOPEKA	53	-5	1.9	-1.0	MILWAUKEE	46	-5	1.1	-1.1	MADISON	43	-7	1.2	-1.0
WICHITA	56	-3	0.9	-1.6	ND BISMARCK	62	-4	0.1	-0.7	MILWAUKEE	46	-5	1.1	-1.1
WY BOWLING GREEN	52	-6	0.3	-2.5	FARGO	43	-4	0.2	-1.1	WAUSAU	41	-6	2.0	-0.3
JACKSON	53	-2	0.5	-1.6	GRAND FORKS	41	-4	0.3	-0.8	WY CASPER	47	0	0.6	-0.3
LEXINGTON	52	-5	0.5	-1.7	WILLISTON	42	-3	0.1	-0.6	CHEYENNE	47	0	0.3	-0.4
LOUISVILLE	52	-5	0.4	-2.2	OH AKRON-CANTON	47	-6	2.0	-0.2	LANDER	49	2	0.9	-0.3
PADUCAH	53	-6	1.6	-1.0	CINCINNATI	49	-6	1.4	-1.1	SHERIDAN	47	0	0.6	-0.6
LA ALEXANDRIA	61	-6	1.3	-1.7	CLEVELAND	47	-6	3.4	1.0	PR SAN JUAN	83	2	2.7	-2.8

Based on 1961-80 normals.

## Heating Degree Days (Base 65° F.)

## October 1987

ALA. Birmingham . . .	222	MAINE, Caribou . . .	645	OKLA. Okla. City . . .	165
Mobile . . . . .	108	Portland . . . . .	548	Tulsa . . . . .	189
Montgomery . . . . .	173	MD. Baltimore . . . . .	412	OREG. Astoria . . . . .	321
ALASKA, Anchorage . . .	801	MASS. Boston . . . . .	326	Burns . . . . .	434
Barrow . . . . .	1297	Chatham . . . . .	389	Medford . . . . .	136
Fairbanks . . . . .	990	MICH. Alpena . . . . .	660	Pendleton . . . . .	334
Nome . . . . .	979	Detroit . . . . .	566	Portland . . . . .	214
ARIZ. Flagstaff . . . . .	424	Flint . . . . .	605	Salem . . . . .	272
Phoenix . . . . .	0	Grand Rapids . . . . .	610	PA. Allentown . . . . .	487
Tucson . . . . .	0	Houghton Lake . . . . .	647	Erie . . . . .	513
Winslow . . . . .	153	Lansing . . . . .	621	Harrisburg . . . . .	477
Yuma . . . . .	0	Marquette . . . . .	800	Philadelphia . . . . .	379
ARK. Fort Smith . . . . .	175	S. Ste. Marie . . . . .	699	Pittsburgh . . . . .	529
Little Rock . . . . .	173	MINN. Duluth . . . . .	782	Scranton . . . . .	539
CALIF. Bakersfield . . .	8	Internatl Falls . . . . .	809	R.I. Providence . . . . .	414
Eureka . . . . .	221	Minneapolis . . . . .	623	S.C. Charleston . . . . .	135
Fresno . . . . .	7	Rochester . . . . .	695	Columbia . . . . .	259
Los Angeles . . . . .	6	St. Cloud . . . . .	713	Greenville . . . . .	296
Redding . . . . .	27	MISS. Jackson . . . . .	161	S. DAK. Aberdeen . . . . .	666
Stockton . . . . .	15	Meridian . . . . .	215	Huron . . . . .	635
San Diego . . . . .	0	MO. Columbia . . . . .	411	Rapid City . . . . .	545
San Francisco . . . . .	70	Kansas City . . . . .	398	Sioux Falls . . . . .	649
COLO. Denver . . . . .	410	St. Louis . . . . .	346	TENN. Chattanooga . . . . .	309
Grand Junction . . . . .	248	Springfield . . . . .	370	Knoxville . . . . .	370
Pueblo . . . . .	355	MONT. Billings . . . . .	473	Memphis . . . . .	186
CONN. Bridgeport . . . . .	417	Glasgow . . . . .	619	Nashville . . . . .	317
Hartford . . . . .	481	Great Falls . . . . .	540	TEX. Abilene . . . . .	45
D.C. Washington . . . . .	325	Havre . . . . .	646	Amarillo . . . . .	226
FLA. Apalachicola . . . .	52	Helena . . . . .	556	Austin . . . . .	11
Ft. Myers . . . . .	0	Kalispell . . . . .	671	Beaumont . . . . .	29
Jacksonville . . . . .	80	Miles City . . . . .	553	Brownsville . . . . .	0
Key West . . . . .	0	Missoula . . . . .	604	Corpus Christi . . . . .	0
Miami . . . . .	0	NEBR. Grand Island . . . . .	527	Del Rio . . . . .	2
Orlando . . . . .	0	Lincoln . . . . .	507	El Paso . . . . .	13
W. Palm Beach . . . . .	0	Norfolk . . . . .	575	Fort Worth . . . . .	55
Tallahassee . . . . .	114	North Platte . . . . .	551	Galveston . . . . .	0
Tampa . . . . .	4	Omaha . . . . .	486	Houston . . . . .	16
GA. Atlanta . . . . .	172	Valentine . . . . .	600	Lubbock . . . . .	96
Augusta . . . . .	220	NEV. Ely . . . . .	489	Midland . . . . .	38
Macon . . . . .	202	Las Vegas . . . . .	18	San Angelo . . . . .	49
Savannah . . . . .	122	Reno . . . . .	265	San Antonio . . . . .	1
IDAHO, Boise . . . . .	306	Winnemucca . . . . .	364	Victoria . . . . .	2
Lewiston . . . . .	323	N.H. Concord . . . . .	589	Waco . . . . .	44
Pocatello . . . . .	445	N.J. Atlantic City . . . . .	441	Wichita Falls . . . . .	97
ILL. Cairo . . . . .	--	N. MEX. Albuquerque . . . . .	133	UTAH, Milford . . . . .	381
Chicago . . . . .	541	N.Y. Albany . . . . .	567	Salt Lake City . . . . .	260
Moline . . . . .	541	Binghamton . . . . .	606	VT. Burlington . . . . .	584
Peoria . . . . .	520	Buffalo . . . . .	527	VA. Lynchburg . . . . .	389
Rockford . . . . .	623	New York . . . . .	321	Norfolk . . . . .	252
Springfield . . . . .	440	Rochester . . . . .	547	Richmond . . . . .	370
IND. Evansville . . . . .	423	Syracuse . . . . .	529	Roanoke . . . . .	412
Fort Wayne . . . . .	562	N.C. Asheville . . . . .	452	WASH. Colville . . . . .	521
Indianapolis . . . . .	504	Charlotte . . . . .	264	Quillayute . . . . .	453
South Bend . . . . .	558	Greensboro . . . . .	361	Seattle-Tacoma . . . . .	284
IOWA, Des Moines . . . . .	513	Hatteras . . . . .	118	Spokane . . . . .	474
Dubuque . . . . .	619	Raleigh . . . . .	319	Walla Walla . . . . .	268
Souix City . . . . .	563	Wilmingon . . . . .	154	Yakima . . . . .	447
KANS. Concordia . . . . .	389	N. DAK. Bismarck . . . . .	708	W. VA. Beckley . . . . .	507
Dodge City . . . . .	290	Fargo . . . . .	688	Charleston . . . . .	447
Goodland . . . . .	396	Williston . . . . .	698	Huntington . . . . .	426
Topeka . . . . .	376	OHIO. Akron-Canton . . . . .	558	WIS. Green Bay . . . . .	674
Wichita . . . . .	282	Cincinnati . . . . .	477	Madison . . . . .	660
KY. Lexington . . . . .	399	Cleveland . . . . .	535	Milwaukee . . . . .	576
Louisville . . . . .	377	Columbus . . . . .	489	WYO. Casper . . . . .	561
LA. Baton Rouge . . . . .	66	Dayton . . . . .	505	Cheyenne . . . . .	554
Lake Charles . . . . .	43	Toledo . . . . .	601	Lander . . . . .	501
New Orleans . . . . .	58	Youngstown . . . . .	594	Sheridan . . . . .	549
Shreveport . . . . .	79				

## National Agricultural Summary

November 2 to 8, 1987

**HIGHLIGHTS:** Row crop harvest neared completion in the Corn Belt and central and northern Great Plains but gained momentum in the Southeast. Dryness prolonged winter wheat seeding and hampered germination in the Delta, Southeast, and Pacific Northwest. The lack of growth concerned producers in the central and northern Great Plains as wheat moves into winter. Soil moisture remained short throughout most of the eastern half of the Nation and was becoming critically short in the Delta and Southeast. Fieldwork averaged 6 to 7 days in most areas.

Winter wheat seeding reached 95 percent (%) completion, 5 percentage points above 1986 and the 5-year average. Emergence was 11 points ahead of normal because of early planting. Corn was 97% harvested, compared with 76% normally. Most acreage to harvest was in Colorado, Pennsylvania, and Wisconsin. Soybeans were 94% combined, 5 points above the previous week and 17 points above average. Cotton harvest reached 60% completion, compared with 54% average. Rain caused delays in Arizona and California. Producers in Oklahoma and Texas need colder weather for harvest to accelerate. Grain sorghum was 87% harvested, 17 points above normal. Peanut harvest neared completion in the Southeast. Livestock was mostly good. Supplemental feeding increased.

**SMALL GRAINS:** Winter wheat was mostly good to fair in the central and northern Great Plains, Rocky Mountain, and Corn Belt States. Crop condition was poor to fair in Georgia and Oregon. In the 20 major producing States, seeding reached 95% completion, only 2 points ahead of the previous week and 5 points ahead of normal. Seeding was virtually finished except in the Southeast and along the west coast. Dryness continued hampering seeding in the Southeast, but rain increased seeding in some areas of Oregon. Rain helped eliminate the need for pre-irrigation in some areas of California. Small grain planting increased in Texas despite dry conditions. Greenbug infestations increased in some central fields. Irrigated early wheat supplied some forage in the High Plains. Arkansas wheat needed rain for germination. Kansas wheat needed moisture to establish stands before winter. Some wheat was having trouble establishing proper root systems. Leaf rust and wheat streak mosaic disease were present. Winter wheat needed more moisture before entering dormancy in Nebraska. Wheat diseases and aphids infestation were in many areas of North Dakota. Oklahoma wheat needed moisture to develop root systems and enhance plant growth in dry areas. Wheat suffered from greenbugs, aphids, and drought stress in South Dakota. Wheat growers in Adams and Lincoln Counties, Washington were considering not to plant remaining fall grain crops because of dryness. The dryness discouraged producers from replanting existing stands.

**CORN:** Corn harvest advanced 4 points from the previous to 97% completion. Harvest was 22 points above 1986, 21 points above average. Harvest was 95% finished or greater in all major producing States except Colorado, Michigan, Pennsylvania, and Wisconsin. Colorado's harvest surged 18 points but was still 1 point behind normal. Michigan's harvest was 15 points from completion but was 25 points above normal. Two-thirds of Pennsylvania acreage was harvested, compared with 58% normally.

**SOYBEANS:** Soybean harvest was virtually finished except in the Delta, Southeast, and Appalachian

States. Harvest progressed briskly, ranging from 12 to 26 points ahead of the previous week in these areas. The 26-point surge in Georgia put harvest 23 points ahead of normal. Harvest was 11 points ahead of normal in the Carolina's. Arkansas' harvest was 86% finished, compared with the 50% average.

**COTTON:** Heavy rains and high winds delayed cotton harvest in Arizona. The wetness caused stringing-out and boll rot in western areas. Cotton harvest peaked in Madera County, California. Rain slowed harvest the latter part of the week and caused some staining problems. Harvest-aid application continued in Texas, but many producers were hoping for a killing freeze. Texas harvest was 7 points behind normal at 24% completion. Harvest increased 15 points in North Carolina, ending the week 14 points above normal. In the 14 major producing States, harvest was 60% finished, compared with 54% in 1986 and average. Harvest neared completion in the Delta.

**SORGHUM:** Sorghum harvest reached 87% completion, 17 points above normal. Oklahoma's harvest increased 20 points but still lagged 10 points behind the 60% average. Kansas and Texas needed a hard freeze so producers can complete harvest. Texas producers registered an 8-point decline in normal harvesting progress because of slow maturity. Very little sorghum remained to be harvested in the other major producing States.

**OTHER CROPS:** Burley tobacco stripping was active in most States. Indiana processed 10 percent of its crop. Stripping dropped 6 points behind normal in Kentucky at 24% completion. Moisture was still needed to bring the hanging crop into case and improve color and quality. Forty-five percent of the Tennessee crop was stripped, compared with 50% normally.

Peanut harvest was virtually finished in the Southeast. A few acres remained to be combined in Alabama, South Carolina, and Georgia. Open weather increased Texas peanut harvest, but it still lagged 6 points behind normal.

**FRUIT AND NUTS:** Florida's citrus harvest increased as more crops passed maturity. Heavy rain left standing water in poorly drained groves. Harvest gained momentum in Texas. The heavy wind and rain caused minor damage in Arizona's citrus areas. Lemons, grapefruit, navel oranges, and tangerines were picked in the central valley, but rain hindered harvest. Pruning and pulling orchards were active in California. Rain slowed citrus harvest in the desert. Navel orange harvest progressed well.

**VEGETABLES:** Wet, warm weather caused flooding, plant wilt, and harvest delays in Florida vegetable producing areas. Harvest became more active with tomatoes, sweet corn, cucumbers, eggplant, peppers, radishes, squash, snap beans, carrots, celery, endive, and specialty lettuce volume leaders. Harvesting and planting continued in the Rio Grande Valley with a few delays. Rain and mud restricted vegetable fieldwork in western Arizona. Lettuce harvest subsided in the Southeast but began in western areas. Mildew began affecting broccoli and cauliflower production at Riverside, California. Early rain benefited vegetable crops along the central coast and allowed growers to extend production along the south coast. Vegetable harvest consisted mostly of broccoli, cauliflower, cabbage, celery, lettuce, melons, and sweetpotatoes. (Continued to p. 19)

Crop Progress

FOR WEEK ENDING NOVEMBER 8, 1987

	CORN % HARVESTED		
	1987	1986	AVG.
COLO	74	61	75
GA	100	100	99
ILL	99	88	87
IND	99	83	75
IOWA	99	74	78
KANS	100	90	90
KY	96	90	81
MICH	85	50	60
MINN	99	73	73
MO	99	69	79
NEBR	96	68	72
N C	96	95	94
OHIO	96	70	68
PA	66	64	58
S DAK	100	56	74
TEX	100	100	100
WIS	93	56	53
17 STATES	97	75	76

THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.

	COTTON % HARVESTED		
	1987	1986	AVG.
ALA	98	89	81
ARIZ	71	70	65
ARK	98	93	80
CALIF	80	65	64
GA	80	65	66
LA	99	96	79
MISS	99	98	80
MO	99	95	83
N MEX	30	24	36
N C	77	68	63
OKLA	15	2	15
S C	95	63	78
TENN	100	88	85
TEX	24	20	31
14 STATES	60	54	54

THESE 14 STATES PRODUCED 100% OF THE 1986 COTTON CROP.

	GRAIN SORGHUM % HARVESTED		
	1987	1986	AVG.
ARK	100	100	97
ILL	99	86	78
KANS	85	70	70
LA	100	100	100
MISS	100	100	98
MO	98	69	76
NEBR	99	79	84
OKLA	50	50	60
S DAK	100	79	86
TENN	100	95	87
TEX	78	77	86
11 STATES	87	76	80

THESE 11 STATES PRODUCED 96% OF THE 1986 GRAIN SORGHUM CROP.

	SOYBEANS % HARVESTED		
	1987	1986	AVG.
ALA	80	66	60
ARK	86	57	50
GA	67	37	44
ILL	99	93	91
IND	100	89	87
IOWA	100	90	92
KANS	98	55	75
KY	90	64	55
LA	93	71	64
MICH	90	65	80
MINN	100	97	93
MISS	87	65	53
MO	98	49	62
NEBR	100	87	91
N C	35	23	24
OHIO	99	88	88
S C	32	27	21
S DAK	100	93	95
TENN	87	55	55
19 STATES	94	76	77

THESE 19 STATES PRODUCED 96% OF THE 1986 SOYBEANS CROP.

Crop Condition

STATE	WINTER WHEAT					
	VP	P	F	G	EX	
ARK	0	6	27	49	18	
CALIF	0	0	25	50	25	
COLO	1	7	25	62	5	
GA	10	39	36	15	0	
IDAHO	1	14	33	36	16	
IND	0	10	35	53	2	
KANS	0	13	28	20	39	
MICH	0	3	17	50	30	
MO	0	7	49	40	4	
MONT	0	2	38	55	5	
NEBR	0	10	44	44	2	
N MEX	0	0	20	50	30	
OHIO	0	3	29	61	7	
OKLA	0	0	3	85	12	
OREG	0	42	42	16	0	
S DAK	0	7	21	63	9	
TEX	1	13	36	45	5	
WASH	0	10	40	50	0	

VP - VERY POOR P - POOR F - FAIR  
G - GOOD EX - EXCELLENT

	WINTER WHEAT % PLANTED		
	1987	1986	AVG.
ARK	82	63	59
CALIF	35	35	31
COLO	100	99	100
GA	19	34	32
IDAHO	98	100	100
ILL	99	90	87
IND	99	90	91
KANS	99	95	95
MICH	98	80	95
MO	95	50	68
MONT	100	100	100
NEBR	100	100	100
N MEX	100	100	NA
N C	55	51	54
OHIO	99	88	94
OKLA	99	85	90
OREG	85	96	95
S DAK	100	100	100
TEX	94	91	85
WASH	95	100	99
20 STATES	95	90	NA

EXCL. STATES WITH NA 95 90 90

THESE 20 STATES PRODUCED 91% OF THE 1986 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

	WINTER WHEAT % EMERGED		
	1987	1986	AVG.
ARK	66	45	NA
CALIF	10	8	12
COLO	96	94	93
GA	11	23	NA
IDAHO	84	91	89
ILL	87	73	75
IND	89	80	83
KANS	98	90	85
MICH	90	50	NA
MO	80	42	48
MONT	100	75	84
NEBR	100	100	100
N MEX	100	100	NA
N C	33	32	NA
OHIO	85	66	83
OKLA	90	70	65
OREG	50	90	83
S DAK	100	100	100
TEX	85	85	69
WASH	80	97	93
20 STATES	88	81	NA

EXCL. STATES WITH NA 90 83 79

THESE 20 STATES PRODUCED 91% OF THE 1986 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

## 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 totals 0.50 to 1.50 in. southern third. Temperatures averaged 4 to 8° above normal. Days suitable for fieldwork 6.5. Soil moisture 98% short, 2% adequate. Drought conditions persisted; prolonged small grain seedings. Sorghum 93% harvested, 93% 1986, 91% avg. Cotton 98% harvested, 89% 1986, 81% avg. Soybeans 97% mature, 95% 1986, 91% avg.; 80% harvested, 66% 1986, 60% avg. Peanuts 99% combined, 86% 1986, 97% avg. Wheat 55% seeded, 59% 1986, 50% avg. Pastures mostly poor to very poor; livestock mostly fair. Primary activities: Harvesting soybeans, sorghum, pecans, catfish; planting small grains, annual forage crops; providing cattle supplemental feed; general care of livestock, poultry.

**ARIZONA:** Showers, thunderstorms central, eastern sections 1st. Amounts substantial 1.00 to 2.00 in. many areas. Snow higher elevations, 3 in. Hannigan Meadow, 1 in. Happy Jack. Cloudiness, light showers northwest, central mountains 2nd. Cloudy skies prevailed western, northern sections, light showers 3rd. Sunny skies elsewhere. Noticeably warmer temperatures 4th, cloudiness increased late afternoon, increased moisture. Thunderstorms statewide 5th, heavy rain 0.25 to 0.50 in. hail central sections. Conditions improved 6th as storm system moved northeast. Northern sections above 6,500 ft. received 2 to 4 in. snow. Sunny skies, drier air returned 7th. Precipitation generally between 0.75 to 2.50 in., except 0.50 in. southeast. Temperatures normal to 7° above.

Heavy rains, high winds delayed cotton harvest. Rain, mud slowed fieldwork west. Stringing out, boll rot west. Heavy dew. Heavy rains delayed harvest southeast. Harvest progressed as weather permitted, central, west. Isolated hail central. Damage to picked cotton west. Extensive rain damage to windrowed alfalfa west. Harvest at standstill. Harvest, curing expected this week. Sheeping off delayed central. Wheat planted central. Land prepared for wheat, barley west. Rain, mud delayed, restricted vegetable fieldwork west; operations proceeded as conditions permitted. Lettuce harvest winding down southeast; underway west. Asparagus cut west. Vegetable movement central valley active. Southeastern apple deal essentially complete; packing continued with sales on demand. Pecans harvested Marana; underway southeast. Lemon, grapefruit harvest continued west. Lemons, grapefruit, navels, tangerines picked central valley. Rains hindered harvest. Heavy winds, rains minimal negative effects citrus. Citrus knocked off trees minor. Honeydews picked Aguila, central valley.

**ARKANSAS:** Warm, temperatures above normal. Temperature extremes 27°; 86°. Some rains northwest part of State weekend. Precipitation only 3 stations. Rainfall total none to 0.28 in. Days suitable for fieldwork 7.0. Soybean, cotton harvest continued, neared completion. Soybeans 23% poor, 46% fair, 31% good. Cotton 1% fair, 57% good, 42% excellent. Rains needed for wheat germination. Oats 80% planted. Livestock good; still being fed hay. Ponds low southern counties. Wheat, ryegrass pastures planted to stretch hay supplies.

**CALIFORNIA:** Unsettled weather ruled across State. Strong, nearly stationary low pressure off southern coast reason for unsettled weather. Over an inch of rain across much of south, north got much less.

Temperatures south couple of degrees below normal, extreme north temperatures 3 to 6° above normal.

Field preparation for small grain planting continued. Rain helped eliminate pre-irrigation some areas. Rice harvest almost completed Sacramento Valley. Cotton harvest at peak Madeira County. Rain slowed fieldwork latter part of week caused some staining problems. Picked fields shredded, disced to meet plowdown compliance. Sugarbeet, field corn, dry bean harvests continued. Avocado harvest continued. Date harvest progressed slowly. Grape harvest virtually complete. Kiwi harvest slowed by rain. Persimmon packing active. Valencia orange, summer grapefruit harvests winding down. Navel orange harvest progressed. Desert grapefruit, lemon, tangerine harvests slow due to rain. Few almonds, walnuts still being harvested. Pruning, pulling orchards active. Broccoli, cauliflower harvests remained active Westside. Mildew started to affect broccoli, cauliflower production Riverside. Harvest continued Salinas, Santa Maria-Oceano, south coast. Cabbage harvest remained active south coast. Celery harvest continued south coast, Salinas-Watsonville, Santa Maria-Oceano. Lettuce harvest remained very active, good quality Westside. Palo Verde lettuce crop improved due to cooler weather. Garlic planting continued Westside, Fresno. Melon harvest slowed by rain south coast. Sweet corn harvest continued Westside, south coast. Sweetpotato harvest active Clovis, Selma Districts. Early rains benefited vegetable crops central coast; allowed growers to extend vegetable production south coast. Rains continued to improve range, pasture conditions, water supplies most areas. Livestock movement heavy Shasta County. Supplemental feeding necessary most areas. Calving continued active; lambing gained momentum.

**COLORADO:** Temperatures 4 to 10° above normal. Scattered showers throughout week. Precipitation none to 1.24 in. Most areas east of Continental Divide averaged 0.10 in. or less.

Days suitable for fieldwork 5.7. Soil moisture 6% very short, 69% short, 19% adequate, 6% surplus. Corn harvest progressed well, 74% complete. Sorghum 60% harvested. Sugarbeets, dry bean harvests finished. Winter wheat needs moisture. Livestock good; pastures continued to dry, fair to good.

**FLORIDA:** Wet south, rain or showers almost daily. Amounts of 6.00 in. common. Rainfall elsewhere from tropical depression, moved up west coast, dropping midweek rain of 1.00 to 4.00 in. statewide. Temperatures warm, averaging about 6° above normal north, south; only 2° above, central.

Soil moisture adequate to surplus lower half of Peninsula; elsewhere mostly short. Panhandle, upper Peninsula, however, received some rain, enabling growers to commence small grain planting. Cotton, sugarcane harvest good progress. Sugarcane planting continued. Panhandle, Upper Peninsula pastures fair; elsewhere generally good. Cattle, calves mostly good. Heavy rains 2 or more days citrus areas averaged 2.00 to 6.00 in. Few poorly drained groves had standing water. Harvest increased as more crops passed maturity. Caretakers very active cultivating, spraying; winterizing young tree groves. Wet, warm weather in vegetable producing areas caused light to moderate flooding, plant wilt, crop harvest delays.

Harvests became more active tomatoes, sweet corn, cucumbers, eggplants, peppers, radishes, squash, snap beans, carrots, celery, escarole, endive, specialty lettuce.

**GEORGIA:** Rain over southern third of State midweek, 0.50 to 1.50 in. common; otherwise dry. Temperatures 4 to 8° warmer than normal. Warmest temperatures 70s north to 80s central, south. Coldest temperatures 20s mountains to mostly 30s elsewhere.

Days suitable for fieldwork 6.2. Soil moisture 76% very short, 20% short, 4% adequate. Cotton 1% poor, 35% fair, 61% good, 3% excellent; 99% bolls open, 98% avg. Sorghum grain 2% very poor, 24% poor, 49% fair, 18% good, 7% excellent; 91% harvested, 86% 1986. Peanuts 3% very poor, 26% poor, 59% fair, 12% good; 99% threshed, 85% 1986, 95% avg. Soybeans 3% very poor, 23% poor, 47% fair, 23% good, 4% excellent. Rye 8% very poor, 51% poor, 31% fair, 10% good; 54% planted, 67% 1986, 68% avg. Other small grains 34% planted, 59% 1986, 57% avg. Pecans 2% very poor, 15% poor, 51% fair, 31% good, 1% excellent; 21% harvested, 24% 1986, 29% avg. Shucks not turning loose of nuts. Pasture 20% very poor, 44% poor, 30% fair, 6% good. Pastures dry. Hay 24% very poor, 44% poor, 25% fair, 7% good. Early feeding of hay. Cattle 5% poor, 53% fair, 42% good. Hogs 1% poor, 38% fair, 61% good. Main activities: Harvesting sorghum grain, cotton, soybeans, pecans; small grain seeding delayed. Most areas very dry.

**HAWAII:** Heavy rains early week. Flooding low lying areas. Light agricultural damage expected. Mostly sunny thereafter. Rainfall mainly windward areas. Cooler temperatures aided crop growth. Temperatures low 70s to high 80s. Rainfall none to 4.60 in.

Days suitable for fieldwork 7.0. Irrigation, spraying normal levels. Crops fair to good, improved growth. Banana production steady. Papaya production steady, heavy. Chinese, head cabbage supplies steady, good quality.

**IDAHO:** Temperatures 5 to 10° above normal. Precipitation above normal southeast, parts south central, below normal elsewhere.

Winter wheat fair to good. Sugarbeet, corn for grain harvest continued. Other activities included fall plowing, disking, preparing seedbeds, preparing machinery for winter storage. Livestock good. Livestock activities included movement of cattle to winter pasture, weaning calves, pregnancy testing, some selling of cattle.

**ILLINOIS:** Temperatures average 5 to 11° above normal. Precipitation light, totals 0.50 few south central locations, otherwise, totals less than 0.20 in.

Harvest corn, soybeans, sorghum virtually complete.

**INDIANA:** Temperatures wide ranging extremes averaged 5 to 10° above normal. Lows mid to low 20s, highs mid 70s to low 80s. Precipitation light. Totals 0.50 in. central, northeast to 0.10 in. southwest.

Days suitable for fieldwork 6.7. Topsoil moisture 53% short, 46% adequate, 1% surplus. Subsoil moisture 60% short, 39% adequate, 1% surplus. Rye 99% seeded, 96% 1986, 96% avg. Spring cropland 58% tilled, 28% 1986, 30% avg. Pastures 8% very poor, 35% poor, 36% fair, 21% good. Tobacco 10% processed, 16% 1986. Good week for completing corn, soybean harvest.

**IOWA:** Warm, temperatures 6 to 9° above normal. Extremes 77° Burlington 3rd, 20° Spencer 9th. Precipitation 7th to 8th 0.40 in. Mason City, traces elsewhere.

Days suitable for fieldwork 5.0. Topsoil moisture 30% short, 67% adequate, 3% surplus; subsoil moisture 26% short, 74% adequate. Fall tillage 60%, 16% 1986, 29% avg.; fall fertilizer application 40%, 10% 1986, 25% avg. Livestock mostly good. Some flu, pneumonia indicated in cattle, hogs. Pastures 12% poor to very poor, 40% fair, 40% good, 8% excellent.

**KANSAS:** Temperatures averaged 55° northwest to 61° southeast; 10 to 13° above normal. Precipitation 0.78 in. northeast, 0.34 in. east central, less than 0.10 in. elsewhere.

Days suitable for fieldwork 6.0. Soil moisture 56% short, 36% adequate, 8% surplus. Dry weather helped harvest, lack of moisture concern south central, west. Need moisture to establish wheat stands before winter. Trouble establishing root system. Wheat streak mosaic still present, heaviest incidence western third. Leaf rust present statewide, moist prevalent early-seeded wheat. Row crop harvest winding down. Corn, soybean harvest virtually complete. Very late planted soybeans, freeze damage, may not harvest. South central, southwest need freeze, dry up sorghum crop so can complete harvest. Pastures good for State, poor west, good elsewhere. Cattle continued to move off pastures to corn, sorghum stubble. Approximately 10% of wheat being pastured, 5% 1986, 5% avg.

**KENTUCKY:** Warm, dry. Temperatures hot early, moderated near normal end. Temperatures averaged upper 50s statewide, 5 to 10° above normal.

Days suitable for fieldwork 5.9. Soil moisture 99% very short, 1% short. Drought conditions continued. Corn harvest neared completion. Soybean harvest continued above 1986 and average. Burley tobacco 24% stripped, 38% 1986, 30% avg. Rain needed to bring hanging crop into order for stripping, to improve color, quality. Stripped burley 4% very poor, 11% poor, 42% fair, 43% good. Winter wheat 84% seeded, 82% 1986, 70% avg.; 22% very poor, 46% poor, 28% fair, 4% good. Pastures very poor to poor. Feeding hay, hauling water for livestock.

**LOUISIANA:** Temperature 2 to 6° above normal. Temperature extremes 33°; 88°. Rainfall averaged none to 0.24 in.

Days suitable for fieldwork 6.7. Soil moisture 30% very short, 57% short, 13% adequate. Cotton, soybean harvest running well ahead of normal. Pecans fair; 21% harvested, behind normal. Sugarcane good; 100% planted, 41% harvested, above average. Sweetpotatoes 96% harvested. Winter wheat fair; 51% planted, 22% emerged. Main activities: Harvesting soybeans, sugarcane, sweetpotatoes; planting winter pastures, winter wheat.

**MARYLAND & DELAWARE:** Maryland: Average temperature 55°, normal 49°. Precipitation averaged none in.

Days suitable for fieldwork 7.0. Topsoil, subsoil moisture short to adequate, mostly short. Soybeans poor to fair, mostly fair. Soybeans 65% harvested, 55% avg. Corn 96% harvested, 90% avg. Wheat 85% planted, 85% avg. Barley 97% planted, 97% avg. Oats 95% planted, 95% avg. Small grains fair to good.

Delaware: Average temperature 55°, normal 51°. Precipitation averaged none in.

Days suitable for fieldwork 7.0. Topsoil moisture short. Subsoil moisture very short to short, mostly short. Soybeans poor to fair, mostly poor. Soybeans 60% harvested, 60% avg. Corn 96% harvested, 96% avg. Small grains fair to good. Wheat 80% planted, 80% avg. Barley 98% planted, 98% avg.

**MICHIGAN:** Temperatures ranged 5 to 11° above normal. Temperature extremes 16°; 75°. Precipitation 0.05 to 1.09 in. across State.

Days suitable for fieldwork 5.0. Soil moisture 55% adequate, 45% surplus. Corn 85% harvested, 50% 1986, 60% avg. Soybeans 90% harvested, 65% 1986, 80% avg. Winter wheat 98% planted, 80% 1986, 95% avg.; 90% emerged, 50% 1986, NA avg.; 3% poor, 17% fair, 50% good, 30% excellent. Dry beans 95% harvested, 95% 1986, 99% avg. Major activities: Corn for grain, soybean, sugarbeet, dry bean harvesting, wheat planting, fall tillage. Fruit growers prepared orchards for winter.

**MINNESOTA:** Temperatures averaged 5 to 8° above normal for State. Extremes 13°; 68°. Precipitation averaged 0.10 to 0.34 in. below normal. Precipitation totals averaged 0.10 to 0.23 in. southern third, 0.02 to 0.08 in. elsewhere. Greatest weekly total 0.39 in.

Cool, mostly clear week pushed corn harvest very near completion. Sugarbeet harvest completed. Pastures less than normal.

**MISSISSIPPI:** Temperatures 1° below to 10° above normal; extremes 26°; 86°. Warm, dry weather only few sprinkles over coastal region. Greatest 24-hour total rainfall 1.05 in.; greatest weekly total 1.09 in.

Days suitable for fieldwork 6.5, 2.7 1986, 4.2 avg. Soil moisture 90% very short, 5% short, 5% adequate. Dry weather, wildfire alert continued all counties. Acres burned during November already exceeds monthly average. Soybeans 87% harvested, 65% 1986, 53% avg. Pasture 35% very poor, 50% poor, 15% fair. Livestock 5% very poor, 15% poor, 50% fair, 30% good. Pecans 15% harvested, 38% 1986, 30% avg.; 20% poor, 45% fair, 30% good, 5% excellent.

**MISSOURI:** Temperatures 5 to 13° above normal, some record highs. No rain southeast quarter, less than 0.25 in. elsewhere.

Days suitable for fieldwork 5.4. Topsoil moisture 49% short, 48% adequate, 3% surplus. Fall tillage for spring crops 64%, 19% 1986, 34% avg. Pastures 1% very poor, 25% poor, 43% fair, 30% good, 1% excellent.

**MONTANA:** Warm, dry. Temperatures 8° above normal statewide. Southeast area received from 0.25 to 0.75 in. of rain early week. West, southwest received 0.10 in., rest of State remained dry.

Weather remained unseasonably mild, dry. Winter wheat still mostly fair to good. Grazing open in all areas. Nearly all livestock moved from summer pastures.

**NEBRASKA:** Temperature averages 5° above normal northwest to 10° above normal east half of State. Extremes 21°; 76°. Precipitation varied, 1.40 in. north central to less than 0.10 in. eastern half.

Days suitable for fieldwork 6.0. Topsoil moisture 34% short, 63% adequate, 3% surplus. Subsoil moisture 29% short, 71% adequate. Fall crop harvest neared completion, over 2 weeks ahead of normal. Fall tillage, fertilizer applications active. Winter wheat could use more moisture before entering dormancy. Grain storage management caused problems due to lack of space, transportation. Livestock feed supplies adequate. Hay moved to winter quarters. Stalk fields gleaned by cattle.

**NEVADA:** Two similar weather systems brought wet weather. Lows produced widespread showers, some thunderstorms southern areas. Rainfall locally heavy, some flooding occurred. Rainfall amounts lower north, northwest. Mean temperatures only slightly above normal extreme south, 3 to 5° warmer

elsewhere due mainly to mild nighttime readings result of cloudiness, higher than normal humidity.

Seventh cuttings alfalfa extreme south, other areas finished. Planting 1988 garlic crop completed. Cattle moving from pastures, ranges to local auctions, markets.

**NEW ENGLAND:** Average temperatures near normal most of State. Sharp change in temperature pattern, high temperatures many areas in 70s on 4th, 5th followed by high temperatures on 6th in 30s and 40s. Precipitation averaged 0.25 to 0.50 in. northern State. Elsewhere no precipitation except for light amounts in parts of northern Massachusetts, few locally heavy amounts higher elevations.

Major farm activities: Fall cleanup, preparations for winter.

**NEW JERSEY:** Temperatures averaged above normal. Extremes 22°; 79°. Rainfall averaged none north, central, south. Heaviest 24-hour total 0.01 in. on 6th, 7th. Estimated soil moisture percent field capacity averaged 95% north, 86% central, 80% south. Four inch soil temperatures averaged 47° north, 52° central, 53° south.

Harvest of hardy vegetables continued to decline. Combining of corn for grain well advanced. Soybean harvest active. Apple, cranberry harvest clean-up stage. Above normal temperatures, adequate soil moisture improved germination, growth of cover crops, fall sown grains, pastures.

**NEW MEXICO:** Temperatures over State 5° above normal. Snow mountainous areas above 7,500 ft.; rain statewide.

Days suitable for fieldwork 5.5. Soil moisture 13% short, 87% adequate. Cotton 17% fair, 83% good; harvest activity past mid-point Mesilla, Hatch Valleys; harvest very good, although rain midweek delayed harvest somewhat. Barley 40% fair, 40% good, 20% excellent. Wheat 20% fair, 50% good, 30% excellent; planting complete statewide; 100% emergence; limited livestock grazing. Irrigated grain sorghum 33% fair, 67% good; harvest activity continued. Dryland sorghum 30% fair, 60% good, 10% excellent; good to excellent yields continued. Corn 20% fair, 60% good, 20% excellent; harvest continued. Pecans 100% good; freeze needed to encourage husk splitting. Lettuce 100% good; harvest activity winding down statewide; excellent price. Red chile harvest continued; crop fair to good. Cattle 14% fair, 86% good. Pace of cattle movement slowed some. Sheep 100% good. Range 43% fair, 57% good; additional precipitation needed.

**NEW YORK:** Near normal temperatures early week. Midweek temperatures well above normal. Precipitation below normal except in north, snow late week.

Days suitable for fieldwork 6.0. Soil moisture adequate to surplus. Fieldwork winding down statewide. Corn harvest continued, harvest of all other crops virtually complete.

**NORTH CAROLINA:** Temperatures averaged 4 to 7° above normal statewide. Temperature extremes 20°; 83°. Precipitation nearly nonexistent except for few showers east.

Days suitable for fieldwork 6.4. Soil moisture 31% very short, 50% short, 19% adequate. Peanuts 96% dug, 99% 1986, 96% avg.; 92% threshed, 96% 1986, 88% avg. Sorghum 86% harvested, 75% 1986, 81% avg. Sweetpotatoes 91% harvested, 87% 1986, 89% avg. Apples 95% harvested, 100% 1986, 95% avg. Oats 77% planted, 68% 1986, 70% avg. Barley 86% planted, 66% 1986, 68% avg. Rye 75% planted, 64% 1986, 66% avg. Pasture 4% very poor, 26% poor, 43% fair, 27% good. Major farm activities: Harvesting corn, cotton, sweetpotatoes, hay, peanuts, soybeans, apples, sorghum; seeding small grains;

digging, tagging Christmas trees; tending livestock; general farm maintenance.

**NORTH DAKOTA:** Temperatures averaged 8° above normal north central to 5° above normal west central. Extremes 13° south central, 5th; 65° west central, 3rd. No significant rainfall.

Soil moisture remained below average. Few scattered sunflower fields to be harvested. Most cattle still on range, while remainder in winter headquarters. Good hay supply statewide. Wheat disease, aphid infestation many areas.

**OHIO:** Average high temperatures 10° above normal; average lows 8 to 10° above normal. Averages ranged mid 40s to mid 60s. Rainfall sparse over south to 0.40 in. north. Soil temperatures near or above 50°.

Days suitable for fieldwork 6.8. Soil moisture 50% short, 47% adequate, 3% surplus. Harvest of all crops almost complete. Winter wheat planted, needs soil moisture to grow before winter; mostly good.

**OKLAHOMA:** Temperatures averaged 3° above normal southeast to 9° above normal southwest. Precipitation averaged 0.02 in. west central to 0.72 in. east central.

Days suitable for fieldwork 6.0. Topsoil moisture 33% short, 65% adequate, 2% surplus. Subsoil moisture 15% short, 85% adequate. Wheat 3% fair, 85% good, 12% excellent; 99% planted, 85% 1986, 90% avg.; 90% emerged, 70% 1986, 65% avg. Dry areas need moisture, develop root system, enhance plant growth. Sorghum 50% harvested, 50% 1986, 60% avg. Cotton 15% harvested, 2% 1986, 15% avg. Some late-planted cotton bolls not opening. Pastures, livestock good. Cattle marketings, prices stable.

**OREGON:** Average temperatures 4 to 5° above normal across State. Daytime highs low 70s coast, 60s rest of State. Nighttime lows 30s, low 40s western areas; 20s, low 30s east of Cascades. Up to 0.80 in. of rain beginning of week along coast, Willamette Valley, north Cascades. As frontal system moved eastward, less than 0.20 in. northeastern sections. Remainder less than 0.10 in.

Soil moisture 90% short, 10% adequate. Recent rain improved soil moisture, fall grain germination west; east remained very dry. Fall fieldwork, winter grain planting continued. Some late crop strawberries harvested Willamette Valley. Fall spraying continued on berries, tree fruits. Cranberry harvest neared completion south coast. Potato harvest wrapped up all areas. Fresh vegetable harvest about completed Willamette Valley. Livestock fair to good. Most yearlings moved to winter range, spring calves weaned. Range, pasture poor to fair; despite recent rain fall remained much drier than normal. Some hay feeding started eastern high country.

**PENNSYLVANIA:** Warm, dry. Indian summer-like weather beginning of week, cold front swept through at midweek. Average temperature 50° to 6° above normal. Temperature extremes 24°; 79°. Average precipitation 0.11 in., 0.62 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 12% short, 75% adequate, 13% surplus. Corn 66% harvested, 64% 1986, 58% avg. Silage corn 99% harvested, 99% 1986, 100% avg. Soybeans 72% harvested, 64% 1986, 59% avg. Potatoes 98% harvested, 99% 1986, 100% avg. Third cutting alfalfa 98%, 100% 1986. Fourth cutting alfalfa 85%, 100% 1986. Quality of hay fair to good. Amount of feed being obtained from pastures average to below average. Apples 95% harvested, 98% 1986. Fall plowing 95%, 96% 1986. Winter wheat 93% planted, 100% 1986. Activities: Harvesting hay,

haylage, corn for grain, silage, soybeans, apples, potatoes, other vegetables; seeding wheat; hauling manure; spreading lime, fertilizer; installing conservation practices; machinery maintenance; caring for livestock.

**PUERTO RICO:** Island average rainfall 1.42 in., 0.12 in. below normal. Highest weekly total rainfall 5.14 in. Corral Viejo, 2.70 in. Vieques Island, 2.45 in. Adjuntas. Highest 24-hour total 1.90 in. Vieques Island. San Juan mean temperature 82°, 1° above normal. Total rainfall 0.31 in., 1.02 in. below normal. Divisional temperature averaged about 79 to 82° on coasts, 77 to 78° interior, mean station temperature ranging from 73° Adjuntas to 84° San Juan City. Lowest minimum temperature 55° Adjuntas. Highest maximum temperature 94° San Juan City.

**SOUTH CAROLINA:** Temperatures above seasonal average. Rainfall 0.33 to 1.00 in. Coastal areas, remainder of State dry.

Days suitable for fieldwork 6.2. Soil moisture 47% very short, 47% short, 6% adequate. Cotton 95% harvested, 63% 1986, 78% avg.; 12% poor, 88% fair. Soybeans 93% leaves shedding, 88% 1986, 93% avg.; 90% mature, 80% 1986, 75% avg.; 32% harvested, 27% 1986, 21% avg.; 2% very poor, 1% poor, 75% fair, 22% good. Peanuts fair; 94% harvested, 80% 1986, 87% avg. Pastures fair. Livestock fair to good.

**SOUTH DAKOTA:** Average temperatures 8 to 12° above normal. Extremes 16°; 72°. Precipitation light.

Winter grains good to fair. Some areas suffered from greenbugs, aphids; also drought stress. Livestock good. Calves being weaned, marketed; cows on stubble fields.

**TENNESSEE:** Temperatures averaged 5 to 10° above normal. Rainfall 0.50 in. or less west; none middle, east.

Days suitable for fieldwork 6.2. Soil moisture 75% very short, 19% short, 6% adequate. Burley 45% stripped, 50% 1986, 50% avg. Winter wheat 75% seeded, 65% 1986, 60% avg. Pastures poor.

**TEXAS:** Weather generally pleasant since ridge high pressure provided fair skies. High pressure kept temperatures warm side, some record high temperatures. Upper level low pressure system moved into western sections 6th producing scattered showers, thunderstorms. System combined with cold front 8th producing scattered showers, thunderstorms central, eastern areas. Temperatures above normal because high pressure. Despite rainfall, precipitation totals below normal western half State. Rainfall central, south above normal.

**Crops:** Grain sorghum producers Plains another good week for harvest. Many hoping next frontal system will contain freezing temperatures needed to dry grain not harvested. Yields good to excellent; 98% mature, 95% 1986, 99% avg. Cotton producers enjoyed open weather Plains, Cross-Timbers. Harvest operations increased. Harvest-aid chemicals applied; many producers hoping for killing freeze to aid harvest. Yields good irrigated, dryland. Harvest ending Blacklands, east. Harvest continued Trans-Pecos; 78% open bolls, 67% 1986, 84% avg. Small grains continued to need rain. Dryland fields slow growth provided little grazing. Irrigated early wheat Plains supplying some forage. Stands varied over State. Planting increased, despite dry conditions. Greenbugs increased some fields central. All small grains would benefit from rain. Soybean harvest continued Plains above average yields. Yields Upper Coast average. Peanut harvest increased with open weather. Yields good, grades low. Sugarbeet, sugarcane harvest continued with good yields. Other crops planted: Oats 86%, 85% 1986, 79% avg.

Other crops harvested: Peanuts 51%, 63% 1986, 57% avg. Pecans 27%, 46% 1986, 28% avg. Soybeans 62%, 64% 1986, 53% avg. Sugarbeets 44%, 31% 1986, 54% avg. Sunflowers 65%, 62% 1986, 75% avg.

**Commercial Vegetables:** Rio Grande Valley harvesting, planting operations continued few delays. Citrus harvest increased. San Antonio-Winter Garden harvest cabbage, tomatoes, cucumbers, greens continued. Other vegetables good progress. High Plains carrot, pepper harvest continued, good yields. Trans-Pecos harvest peppers continued. Pecan harvesting underway most areas. Light crop producing good quality meats. Harvest some areas south winding down.

**Range and Pasture:** Ranges, pastures all areas need rain. Grasses browning, growth native grasses, small grains almost ceased. Grazing conditions declined. Supplemental feeding increased. Livestock body conditions still good. Markets off slightly.

**UTAH:** Precipitation 0.35 in. north central, east central to 1.23 in. southwest. Temperatures 2 to 11° above normal.

Movement of livestock to winter ranges neared completion. Some held higher elevations waiting for lower elevation ranges to recover. Livestock continued good to excellent. Hay supplies adequate or better. Major farm activities: Working livestock, marketing calves, lambs, winterizing equipment fencing, cutting wood.

**VIRGINIA:** Warm, dry. No precipitation. Temperatures 8 to 9° above normal, reaching low 80s.

Days suitable for fieldwork 6.5. Topsoil moisture 72% short, 28% adequate. Dry spell stressed pastures, winter grains; fair to good. Grain corn 90% harvested, 86% 1986, 85% avg. Soybeans 42% harvested, 39% 1986, 43% avg. Cured, marketed flue-cured tobacco. Dry weather hampered burley grading activity. Barley 94% seeded, 90% 1986, 93% avg. Wheat 74% seeded, 65% 1986, 66% avg. Dry soil slowed germination. Some late hay cut. Cattle sales active. Forest fires several areas.

**WASHINGTON:** Season's first significant rainfall occurred early week, moderate frontal system passed through region. By 3rd another high pressure ridge started building off coast which diverted weather systems north, returned State to dry weather pattern remainder of week.

Soil moisture 90% short, 10% adequate. Winter wheat planting, emergence continued behind normal because of dry conditions. Winter wheat 95% planted, 100% 1986, 99% avg. Winter wheat 80% emerged, 97% 1986, 93% avg. Winter wheat growers in Adams, Lincoln Counties opting not to plant remaining fall grain crops because of dryness. Producers discouraged from replanting existing stands. Conservation Reserve Program (CRP) seedings began Lincoln, Adams Counties. Perennial field crops going dormant Yakima County. Fieldwork completed for year, most areas. Apple harvest mostly complete Yakima County. Pest control, orchard cleanup major activities. Mild autumn temperatures left fruit wood in good condition. Berry growers continued to nurture plants for next year. Range, pasture 90% short, 10% adequate. Cattle being fed hay due to low pasture feed. Hay, other roughage feed supplies continued adequate to surplus. Carrot growers continued to dig processing, fresh market carrots. Vegetable harvest mostly complete Yakima County. West of Cascades harvest of fall vegetables continued.

**WEST VIRGINIA:** Average temperature 53°. Temperatures 6 to 9° above normal. Extremes 20° Circleville; 83° Creston. Precipitation averaged 0.03 in.; 0.40 to 0.65 in. below normal.

Days suitable for fieldwork 5.9. Soil moisture 62% very short, 38% short. Farm activities: General farm maintenance, livestock care, harvesting corn. Corn good to poor; 83% harvested. Hay fair to very poor. Fall seedings: Wheat 100%, barley 100%.

**WISCONSIN:** Temperatures averaged 46°, 8° above normal. Extremes 14°, 75°. Rainfall 0.20 to 0.40 in. North, ground freezing nights.

Days suitable for fieldwork 4.5. Soil moisture 13% short, 81% adequate, 6% surplus. Corn for grain 93% harvested, 56% 1986, 53% avg. Some corn left in fields over winter. Lots of corn stalk bedding made. Soybeans 98% harvested, 70% 1986, 69% avg. Fall plowing 65%, 32% 1986, 35% avg. Hay, winter wheat fields very good. Pastures going dormant.

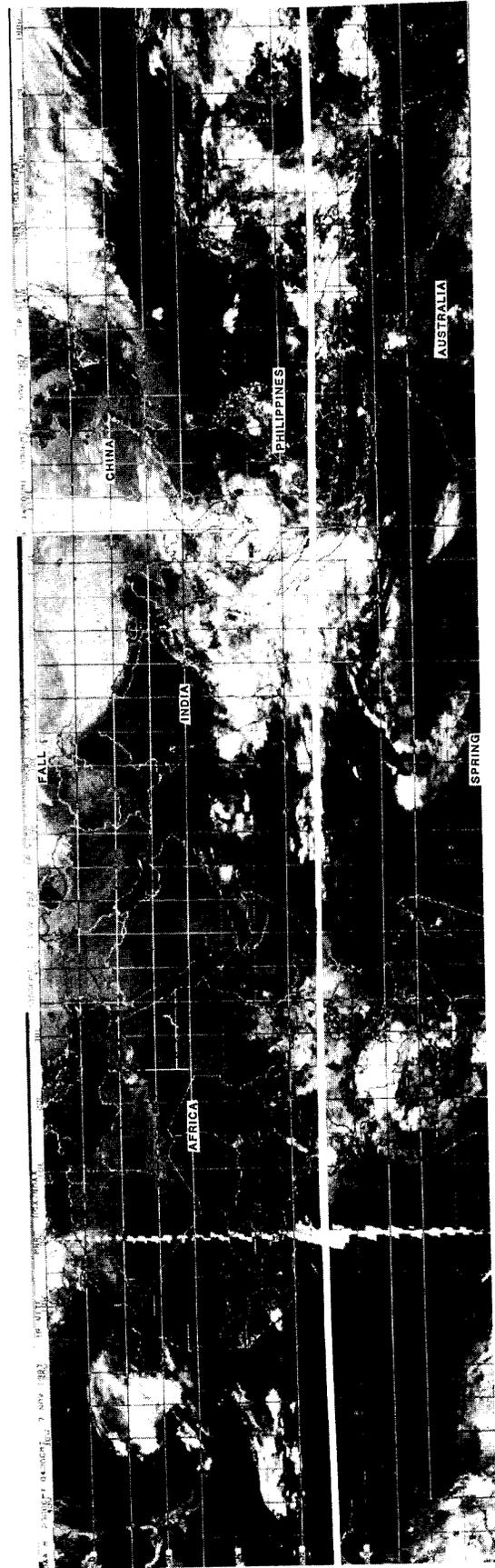
**WYOMING:** Temperatures, precipitation above normal.

Corn for grain harvest continued. Winter wheat fair to good. Additional moisture needed for good development. Russian aphid infestations. Livestock good to excellent. Movement to winter pastures, market continued. Hay supplies adequate or better.

(Continued from p. 13)

**PASTURES AND LIVESTOCK:** Livestock was mostly good. Supplemental feeding increased as pastures declined. Wheat and rye grass pastures were planted to stretch hay supplies in Arkansas. Cattle and hogs developed flu and pneumonia in Iowa.

# Global Weather Satellite Image



## International Weather and Crop Summary

November 1 - 7, 1987

**HIGHLIGHTS:**

**UNITED STATES...**Row crop harvest nears completion in the Corn Belt and northern and central Great Plains but gains momentum in Southeast. Dryness prolongs winter wheat seeding and hampers germination in the Delta, Southeast, and Pacific Northwest.

**WESTERN U.S.S.R....**Light rain and snow cover winter grains entering dormancy in the south and west.

**EUROPE...**Dry weather develops over the north, allowing for progress in fall harvesting. Wet weather favors soil moisture levels in the south.

**SOUTH ASIA...**A tropical cyclone brings variable rain and winds to southeastern India, likely lodging some immature rice. Wheat regions remain dry.

**NORTHWESTERN AFRICA...**Moderate to heavy rains favor winter wheat across most northern production areas.

**SOUTH AFRICA...**Pre-planting showers continue throughout South Africa's corn region.

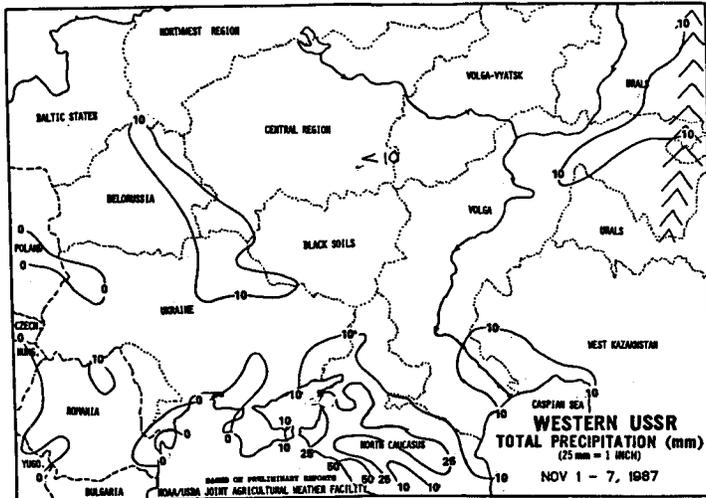
**SOUTHEAST ASIA...**Rain in Thailand benefits heading to filling rice. Much-needed rain in Java boosts pre-planting moisture levels.

**EASTERN ASIA...**Light precipitation and mild weather favor winter wheat establishment in the North China Plain. Moderate to heavy rain in parts of southern China delays late rice harvesting.

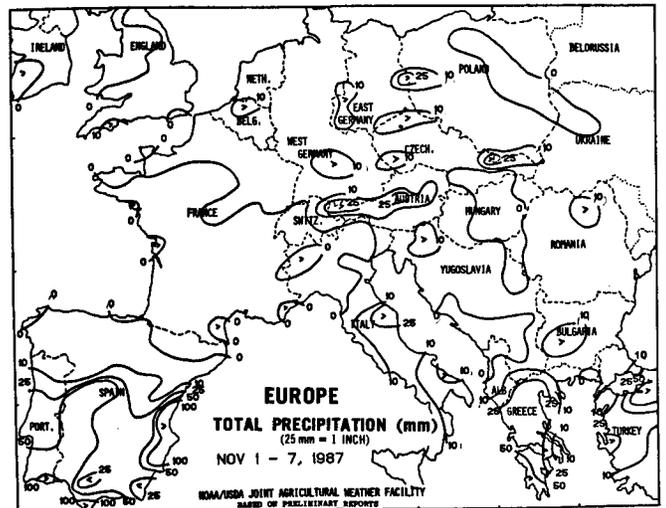
**SOUTH AMERICA...**Widespread, substantial rain favors summer crop establishment in Argentina and south-central Brazil.

**AUSTRALIA...**Mostly light rain temporarily delays wheat and barley harvests.

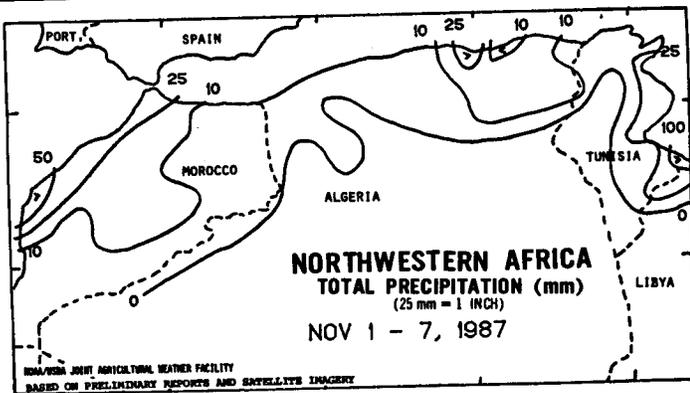
**MEXICO...**Mostly dry weather favors corn harvesting.



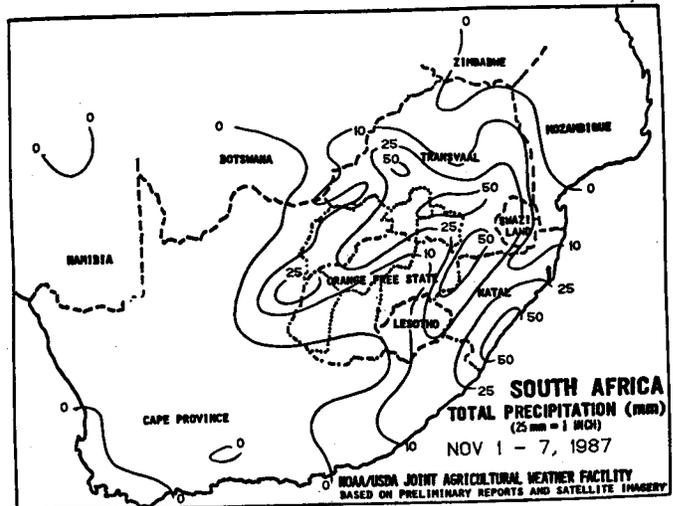
**WESTERN U.S.S.R....**Light precipitation, mostly snow, covered dormant winter grains in the Central Region, the Black Soils Region, the upper Volga, and the Volga Vyatsk. Average weekly temperatures in the areas ranged from 0 to 2 degrees C. Light rain and snow (3-12mm) covered winter grains in the Baltic States, Belorussia, and the Ukraine. In the North Caucasus, widespread significant rain (13-34mm) increased soil moisture. Winter grains over western and southern areas continued hardening and some were likely entering dormancy. In south-central U.S.S.R. cotton areas, a significant warming trend melted snow cover. Late-week light showers in most areas caused further harvest delays.



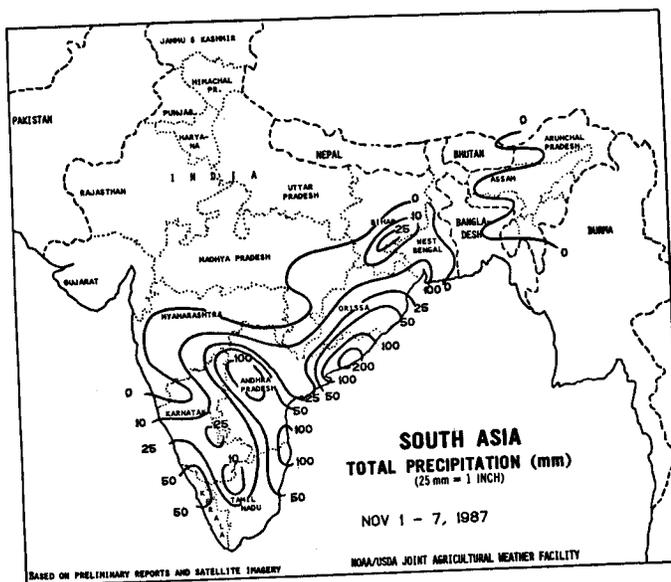
**EUROPE...**A large area of high pressure brought drier weather to the northern two-thirds of Europe, breaking a persistent wet spell and allowing rapid progress in sugar beet and potato harvests. Scattered light rainfall (less than 10mm) and seasonal temperatures favored the establishment of winter grains, which are nearly 1 month behind schedule in some areas. In the south, moderate to heavy rains (greater than 20mm) fell from Portugal eastward to Greece, favoring soil moisture recharge but delaying fall planting. Rainfall of over 100mm caused widespread flooding in parts of southeastern Spain. Most of previously dry southeastern Europe received little or no precipitation, however, and moisture is limited for fall crop establishment.



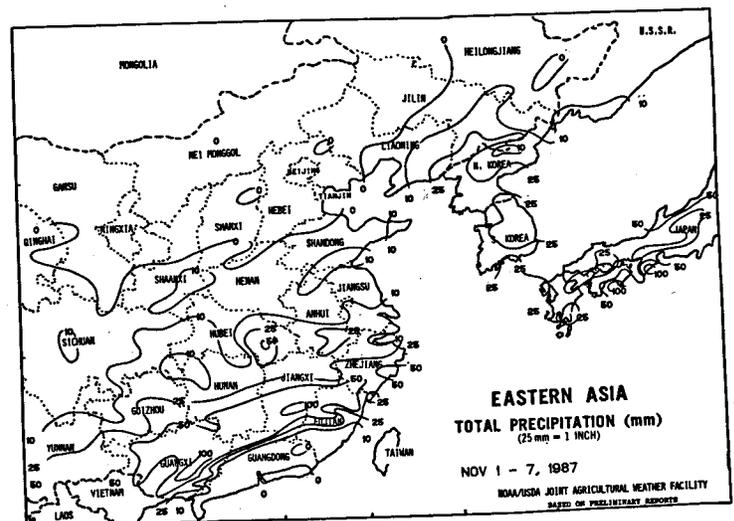
**NORTHWESTERN AFRICA...**Moderate to heavy rain (25-61mm) continued over much of Morocco and spread eastward into northern areas of Algeria and Tunisia. The rainfall in Morocco delayed wheat planting but favored germination and emergence of the crop already planted. Algeria and Tunisia had their first significant rain in more than 1 month. Southern growing areas in both countries, however, remained unfavorably dry, and more rain is needed to ensure proper germination and establishment of the winter crop.



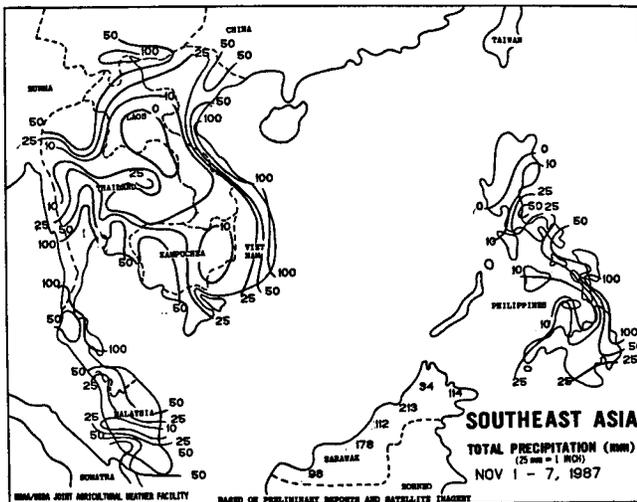
**SOUTH AFRICA...**Moderate to heavy showers (10-68mm) swept through South Africa's major corn regions, maintaining adequate to abundant soil moisture in Natal, Transvaal, and eastern Orange Free State and boosting moisture reserves in recently dry western Orange Free State. Planting, which normally lasts through December, is underway throughout the east due to this season's beneficial pre-planting rainfall.



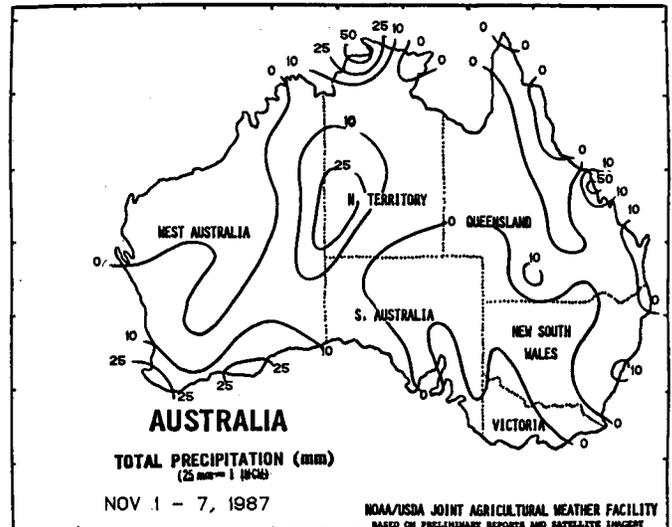
**SOUTH ASIA...**A tropical cyclone brought highly variable, light to heavy showers (10-100mm or more) to cotton and rice regions of southeastern India. Heaviest rainfall and highest windspeeds were generally restricted to coastal areas, causing some lodging of immature rice. Rain associated with the storm extended as far northeast as West Bengal but failed to reach chronically dry wheat areas of north-central India. Large portions of Haryana and western Uttar Pradesh continued too dry for planting, which normally takes place through December.



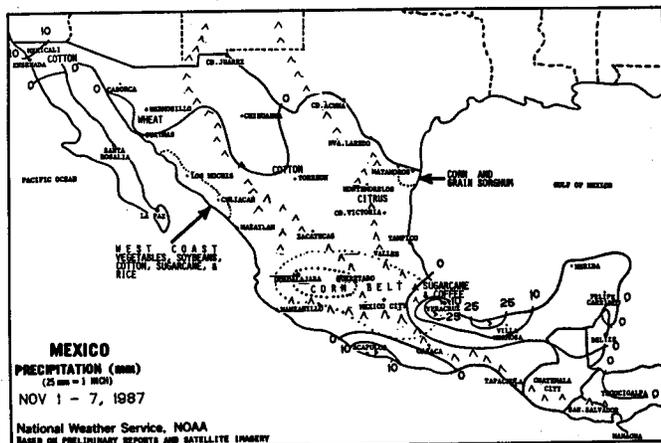
**EASTERN ASIA...**Light precipitation accompanied mild weather over the North China Plain, maintaining favorable weather conditions for winter wheat establishment. Daily showers produced moderate to heavy rain from central Guangxi, through southern Hunan and Jiangxi, and into Zhejiang, causing some delays in the late double-cropped rice harvest. Weekly rainfall in these areas ranged from 50-100mm, with isolated locations receiving precipitation in excess of 100mm. Mostly dry weather helped rice harvesting in Guangdong.



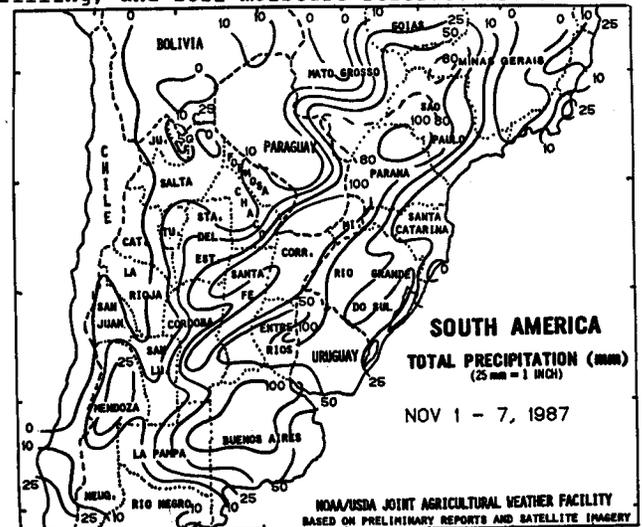
**SOUTHEAST ASIA...**Tropical showers (10-92mm) returned to rice regions of northern and central Thailand, benefiting heading to filling rice. Rainfall averaged less than 10mm, however, throughout the northeast and Khorat Plateau. Heavy showers (50-249mm) continued to the south near Bangkok, likely causing local damage. Moderate to heavy showers (25-100mm or more) fell elsewhere in Indochina, except for parts of central Laos which were mostly dry. Moderate to heavy tropical showers continued throughout Malaysia and Indonesia, finally reaching chronically dry southernmost regions from central Java eastward. In the Philippines, dry weather continued over northern Luzon's grain regions, benefiting rice harvesting as moderate to heavy showers (25-127mm) continued elsewhere.



**AUSTRALIA...**Mostly light rain (less than 10mm) fell over production areas, favoring late planted crops in the south, but slowing grain drydown elsewhere. The rain temporarily delayed wheat and barley harvests, which are progressing rapidly in most northern production areas. Intense heat (greater than 40 degrees C) covered growing areas of South Australia early in the period, but most winter grain crops had already passed through heat and moisture sensitive stages. Only scattered light rain fell in Victoria, where some of the wheat crop is still filling, and soil moisture reserves are limited.



**MEXICO...**Very light showers produced 5mm or less of rainfall in northwestern wheat areas. Dry weather covered the northeast, the west coast farming region, the Southern Plateau corn belt, and the extreme southwest. The dryness favored corn harvesting in the Southern Plateau. Substantial showers (10-30mm) fell along a small area of the east coast from Veracruz to Villa Hermosa. Minimal rain (5mm or less) fell over the Yucatan peninsula where corn is in vegetative growth.



**SOUTH AMERICA...**Widespread, substantial rain (50-170mm) covered Argentina's major summer crop areas, providing adequate moisture for summer crop emergence and establishment. Corn planting is about 50 percent complete. The soaking rain (100mm or more) in Buenos Aires and east-central Cordoba, extending into northeastern Argentina, delayed early wheat harvesting and corn planting. The rain in extreme southeastern Chaco benefited cotton planting. In south-central Brazil, widespread rain fell over most crop areas. Locally heavy rain (75-146mm) covered major soybean areas of southern Mato Grosso do Sul, western Parana, and western Sao Paulo. The heaviest rain (100mm or more) fell in soybean areas of northwestern Parana which were drying. Brazil's soybean planting reached nearly 30 percent, and recent rains throughout the region have provided adequate topsoil moisture for crop emergence.

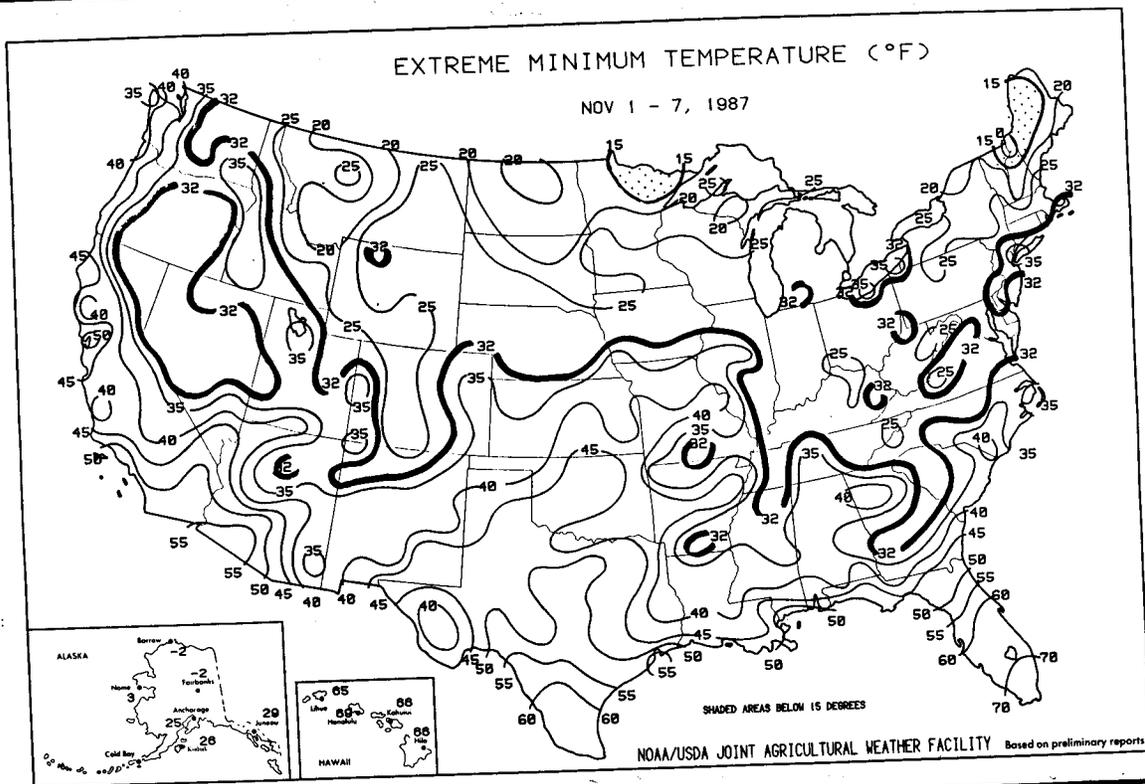
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