

WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service
and World Agricultural Outlook Board

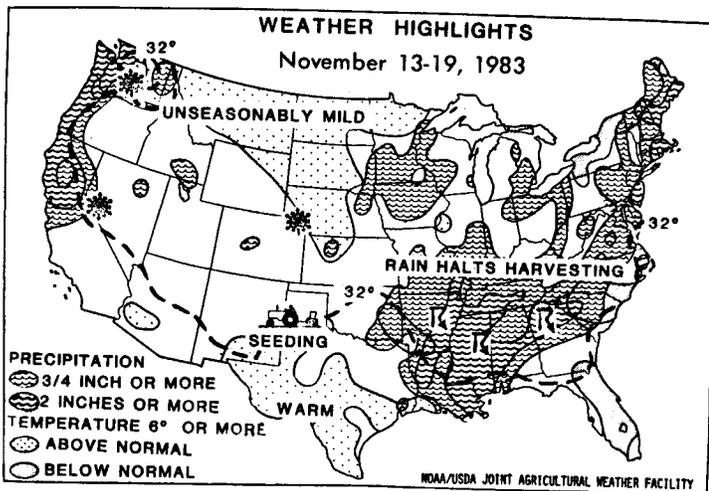
Volume 70, No. 47

WASHINGTON, D.C.

Nov. 22, 1983

National Weather Summary

November 13 to 19



in the warm air from Louisiana to Georgia and spread northward to the Ohio Valley and the mid-Atlantic States.

TUESDAY...The warm air, surging northward over cooler air, produced showers, thunderstorms, and rain from Alabama to the Ohio Valley, and across the Great Lakes and East Coast States. Moderate to heavy rain fell from western South Carolina to southern New England. Another storm pushed onto the west coast and triggered showers from central California through Washington and to the northern Rockies.

WEDNESDAY...Another mass of cold air pushed into the northern and central Plains and to the Mississippi River while the East continued to warm. Showers covered the northeastern quarter of the Nation with some moderate amounts in New England. Snow fell at high elevations. Showers continued in the Pacific Northwest with heavy snow in the northern Rockies.

THURSDAY...The next in a series of Pacific storms produced showers all along the Pacific Coast. Rain-showers were heavy along the western slopes of the Sierras and heavy snow accumulated along the ridge. Showers spread across the central Plateau to the Rockies. Showers were light in the Northeast with snow falling along the lake shores and in the mountains.

FRIDAY...A large low-pressure system in the central Plains spread snow across most of the Rockies and into eastern Colorado. Showers and thunderstorms developed late in the day through most of the southern and central Plains. Severe weather in eastern Oklahoma moved into Arkansas and Missouri, and light showers covered the Ohio Valley and lower Great Lakes States. Showers continued along the

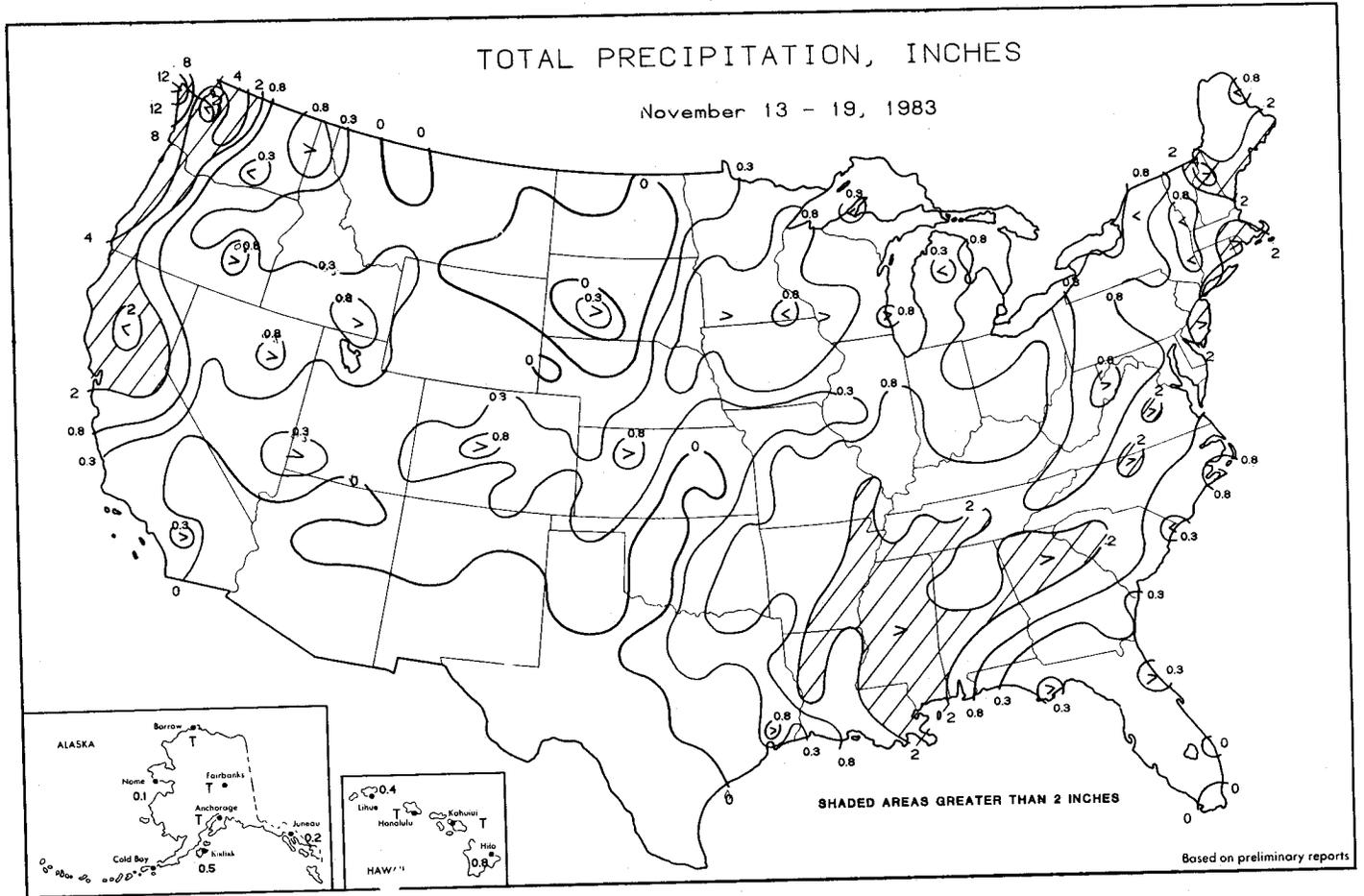
(continued on p. 16)

HIGHLIGHTS: Pacific storms moved onto the west coast in rapid succession and spread heavy rain over the western slopes of the Cascades and Sierras and heavy snow over the higher elevations. Snow fell over the Plateau and the Rockies as the storms moved eastward. Cold rain, sleet, or snow fell in the northern Mississippi Valley and the Great Lakes region, while strong thunderstorms and heavy showers moved from parts of the central Plains over the lower Mississippi Valley and to the East Coast States. Average temperatures were warmer than normal over most of the Nation--as much as 120 warmer than normal in the northern Plains and Rockies--but the East Coast States were colder than normal. Freezing temperatures reached southward to northern Florida.

SUNDAY...The next in a series of rapidly moving cold fronts spread rain along the entire west coast and triggered showers over the Plateau to the central and northern Rockies. Snow fell in the Cascades, the Sierras, and throughout the higher elevations. Late in the day cold rain spread from Nebraska and South Dakota to the upper Mississippi Valley. Freezing temperatures reached into the central Plains and through the East Coast States to South Carolina.

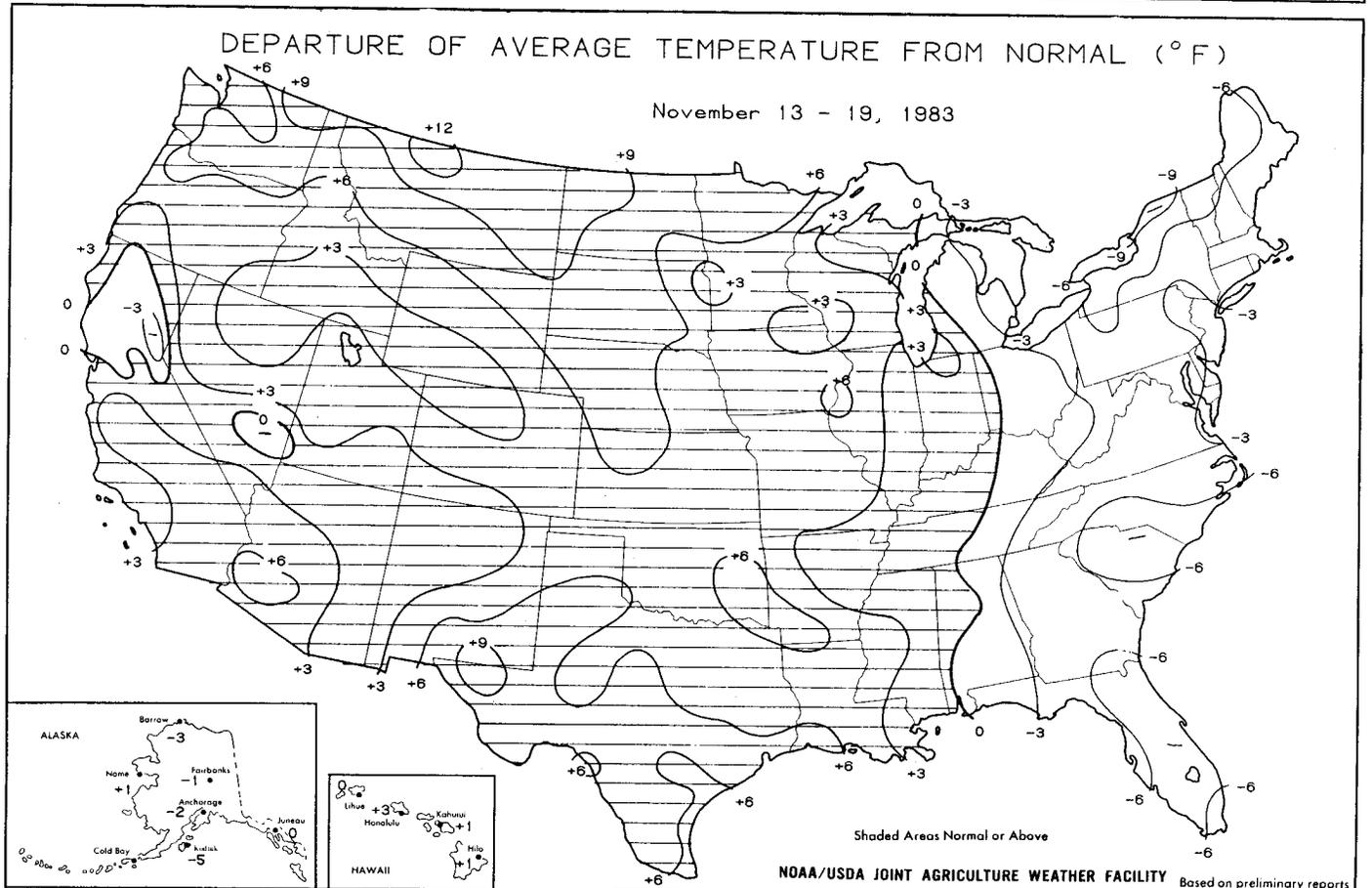
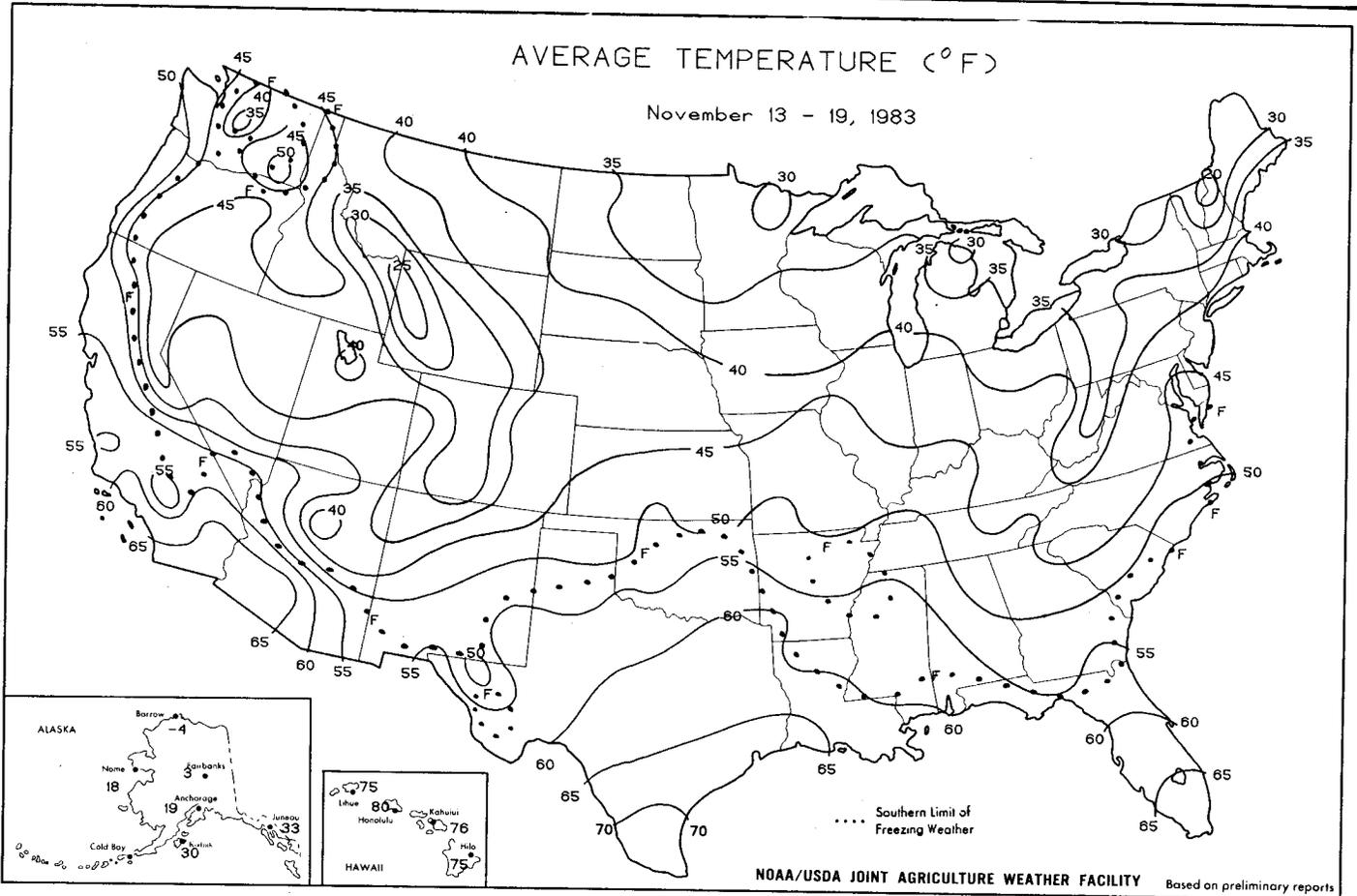
MONDAY...Showers continued over Washington and Oregon and heavy snow fell in the central Rockies. Cold air pushed southward, east of the Mississippi River, and freezing temperatures reached into Georgia. Severe thunderstorms and showers developed

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A HAPPY THANKSGIVING!





Weather Data for the Week Ending Nov. 19, 1983

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 AUG 28	PCT. NORMAL SINCE AUG 28	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	PRECIPI- TATION		
																		.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	65	39	71	29	52	0	1.0	.1	.6	8.1	82	51.3	103	91	46	0	1	3	1	
MOBILE	69	46	78	35	58	0	1.5	.6	.9	13.9	112	71.7	120	89	51	0	0	2	2	
MONTGOMERY	67	41	75	32	54	-1	1.9	1.2	1.3	12.4	135	62.8	143	95	50	0	1	2	2	
AK ANCHORAGE	26	12	29	4	19	-2	T	.3	T	4.9	96	11.6	85	89	70	0	7	0	0	
BARROW	1	-9	11	-14	-4	-3	T	0	T	1.4	100	2.9	57	83	68	0	7	2	0	
FAIRBANKS	11	-6	16	-12	3	-1	T	.1	T	4.1	178	9.6	100	83	56	0	7	0	0	
JUNEAU	37	28	42	24	33	0	.2	-1.0	.2	11.2	60	39.8	82	100	84	0	6	2	0	
KODIAK	37	22	42	16	30	-5	.5	-1.0	.3	16.6	72	67.0	107	92	75	0	7	3	0	
NOME	24	11	33	3	18	1	.1	-1.1	T	5.3	113	12.3	79	83	63	0	7	4	0	
AZ PHOENIX	77	55	81	46	66	6	0	-1.1	0	3.3	206	11.4	178	59	23	0	0	0	0	
PRESCOTT	60	37	64	28	49	5	T	-1.3	T	10.2	249	18.3	108	79	32	0	2	1	0	
TUCSON	73	47	79	38	60	2	0	-1.1	0	10.3	368	20.6	194	69	26	0	0	0	0	
YUMA	79	58	83	53	68	5	0	0	.3	33	4.3	172	54	24	0	0	0	0	0	
AR FORT SMITH	67	39	77	28	53	4	1.3	.5	1.3	8.9	97	30.1	80	90	45	0	1	2	1	
LITTLE ROCK	64	42	72	32	53	2	1.6	.6	1.6	6.4	67	33.0	77	85	58	0	1	1	1	
CA BAKERSFIELD	71	48	80	41	59	3	T	-1.1	T	.8	89	8.7	193	88	49	0	0	1	0	
EUREKA	60	49	63	45	54	3	2.9	1.4	.9	14.1	193	51.0	168	88	61	0	0	7	3	
FRESNO	63	48	70	43	56	2	.4	-1.1	.2	2.5	179	18.8	232	91	59	0	0	3	0	
LOS ANGELES	70	56	76	52	63	1	.1	-.3	.1	4.7	294	26.5	273	80	45	0	0	1	0	
RED BLUFF	58	47	63	39	52	-1	1.9	1.1	.5	6.1	169	36.2	221	99	62	0	0	5	2	
SACRAMENTO	59	47	62	41	53	0	2.2	1.7	.8	5.2	208	29.0	227	92	70	0	0	4	3	
SAN DIEGO	71	61	75	56	66	5	T	-.2	T	.9	90	15.5	215	84	57	0	0	1	0	
SAN FRANCISCO	61	51	63	45	56	2	2.3	1.7	.8	4.7	188	30.1	209	90	66	0	0	5	2	
CO DENVER	52	28	64	21	40	2	.6	.3	.6	1.6	52	18.1	121	78	27	0	6	1	1	
GRAND JUNCTION	52	34	58	29	43	3	.7	.5	.5	3.0	136	12.6	168	78	35	0	4	4	0	
PUEBLO	61	26	73	15	43	4	.3	.2	.2	1.1	48	12.0	104	72	21	0	6	2	0	
CT BRIDGEPORT	49	37	56	29	43	-3	1.4	.4	1.1	9.3	98	48.0	137	74	46	0	1	2	1	
HARTFORD	47	32	55	25	39	-2	1.8	.9	1.3	11.1	106	47.2	119	77	49	0	3	2	2	
DC WASHINGTON	53	38	63	33	45	-3	.7	.1	.7	10.8	132	43.2	122	75	46	0	0	2	1	
FL APALACHICOLA	69	46	77	36	57	-3	.4	-.3	.4	10.4	70	52.8	101	86	52	0	0	1	0	
DAYTONA BEACH	70	42	81	36	56	-9	.4	-.2	.4	19.4	140	60.3	130	90	42	0	0	1	0	
JACKSONVILLE	69	38	79	32	54	-7	.1	-.4	.1	10.2	80	53.2	105	93	41	0	1	1	0	
KEY WEST	78	66	83	61	72	-3	T	-.7	T	4.4	31	47.0	123	78	56	0	0	1	0	
MIAMI	77	59	81	53	68	-5	.1	-.4	.1	13.5	75	53.1	94	80	46	0	0	1	0	
ORLANDO	74	46	82	39	60	-7	T	-.4	T	9.7	97	49.0	105	94	42	0	0	1	0	
TALLAHASSEE	71	36	79	26	54	-5	T	-.8	T	6.1	48	54.5	91	96	44	0	0	3	1	
TAMPA	72	50	79	43	61	-6	.1	-.4	.1	9.6	90	54.4	119	99	51	0	0	1	0	
WEST PALM BEACH	75	55	80	48	65	-7	0	-.7	0	20.3	99	74.0	127	85	48	0	0	0	0	
GA ATLANTA	57	39	69	31	47	-5	2.0	1.2	1.2	12.0	145	37.3	87	86	50	0	1	2	2	
AUGUSTA	63	36	74	29	49	-4	1.5	1.0	1.0	9.6	125	44.7	114	84	40	0	2	2	2	
MACON	64	36	74	32	50	-5	.9	.3	.5	3.9	56	39.6	98	83	41	0	1	2	1	
SAVANNAH	67	40	78	33	53	-4	.2	-.2	.2	6.8	73	48.2	100	87	37	0	0	1	0	
HI HILO	83	67	85	64	75	1	.8	-2.8	.5	22.0	81	63.3	57	88	62	0	0	3	1	
HONOLULU	88	72	90	67	80	3	T	-.8	T	1.4	30	3.8	20	79	50	1	0	0	0	
KAHULUI	86	66	88	62	76	1	T	-.6	T	1.7	63	6.8	46	84	59	0	0	0	0	
LIHUE	82	69	85	63	75	0	.4	-.9	.4	4.1	39	14.9	40	87	65	0	0	1	0	
ID BOISE	50	34	57	27	42	3	.4	-.1	.2	2.3	115	14.0	143	84	47	0	3	4	0	
LEWISTON	53	40	58	35	46	7	.2	-.1	.1	2.6	100	12.1	111	89	57	0	0	4	0	
POCATELLO	44	30	52	24	37	2	1.0	.8	.8	4.8	240	16.3	172	87	52	0	4	4	1	
IL CHICAGO	48	34	63	24	41	1	.6	.1	.3	9.0	120	41.9	132	88	61	0	4	3	0	
MOLINE	51	37	65	27	44	5	.4	0	.3	11.1	139	31.7	90	89	68	0	3	3	0	
PEORIA	50	36	63	25	43	4	.4	0	.3	10.1	125	35.8	106	91	72	0	3	4	0	
QUINCY	51	39	62	30	45	4	.2	-.3	.2	12.0	128	29.2	80	84	66	0	2	1	0	
ROCKFORD	47	34	64	23	40	3	.7	-.1	.4	7.9	91	29.2	81	98	75	0	3	3	0	
SPRINGFIELD	50	39	64	27	45	3	.3	-.2	.3	7.0	96	26.3	83	91	67	0	1	1	0	
IN EVANSVILLE	54	39	73	28	46	2	.9	.1	.5	8.5	109	41.3	108	84	55	0	2	4	0	
FORT WAYNE	48	36	65	29	42	2	1.1	-.4	.9	7.3	100	26.1	80	88	60	0	2	3	1	
INDIANAPOLIS	50	36	68	29	43	1	.4	-.3	.3	7.6	99	30.4	84	86	60	0	2	3	0	
SOUTH BEND	49	37	65	30	43	3	.5	-.1	.3	5.7	65	25.8	74	78	53	0	2	3	0	
IA DES MOINES	51	34	63	27	42	4	.9	.5	.7	15.8	232	37.8	124	86	65	0	3	3	1	
SIoux CITY	46	33	52	31	40	4	.5	.3	.4	6.8	128	26.3	105	90	73	0	4	2	0	
WATERLOO	45	30	61	19	38	3	.9	.5	.8	9.6	130	33.5	103	95	73	0	5	3	1	
KS CONCORDIA	54	32	60	27	43	2	T	-.2	T	6.0	102	23.6	89	93	58	0	4	1	0	
DODGE CITY	61	34	68	31	47	6	.4	-.2	.3	5.1	131	22.7	112	80	34	0	1	2	0	
GOODLAND	55	29	64	26	42	5	.1	-.1	.1	1.5	50	16.1	99	78	32	0	6	2	0	
TOPEKA	59	34	67	25	46	4	T	-.4	T	9.1	114	33.2	102	81	56	0	3	1	0	
WICHITA	59	34	65	28	47	3	T	-.3	T	6.7	89	34.2	122	98	55	0	3	1	0	
KY BOWLING GREEN	54	37	71	27	46	0	1.2	.3	.6	7.7	88	44.0	98	94	60	0	3	4	1	
LEXINGTON	50	37	69	30	44	-1	.7	-.1	.4	8.8	111	34.7	83	90	63	0	2	4	0	
LOUISVILLE	53	38	72	29	45	0	.6	-.2	.5	9.4	107	39.9	98	76	55	0	1	3	0	
LA ALEXANDRIA	73	49	84	37	61	4	1.3	.2	1.2	9.5	98	46.7	97	81	44	0	0	2	1	
BATON ROUGE	74	49	81	35	61	3	2.3	1.4	1.5	8.7	85	68.1	135	93	47	0	0	3	2	
LAKE CHARLES	77	54	83	43	65	6	.5	-.4	.4	10.7	91	50.4	104	91	51	0	0	2	0	
NEW ORLEANS	73	50	81	38	61	2	2.6	1.6	2.1	15.3	131	74.4	138	91	51	0	0	2	0	

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending Nov. 19, 1983

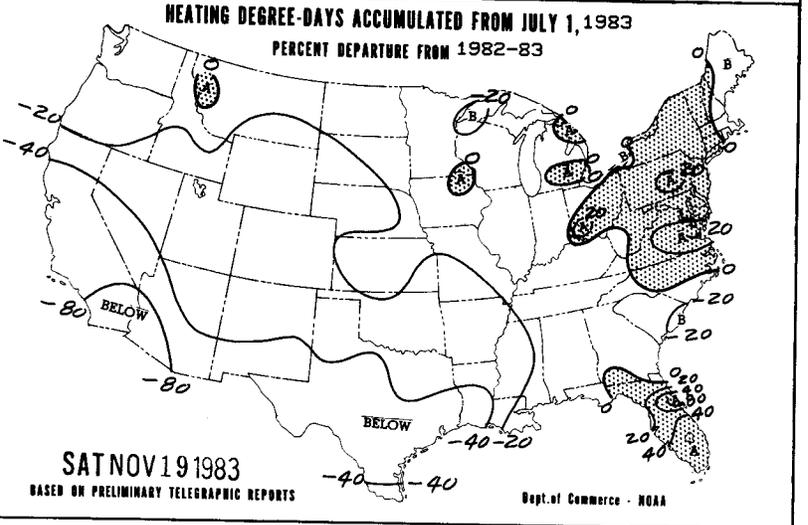
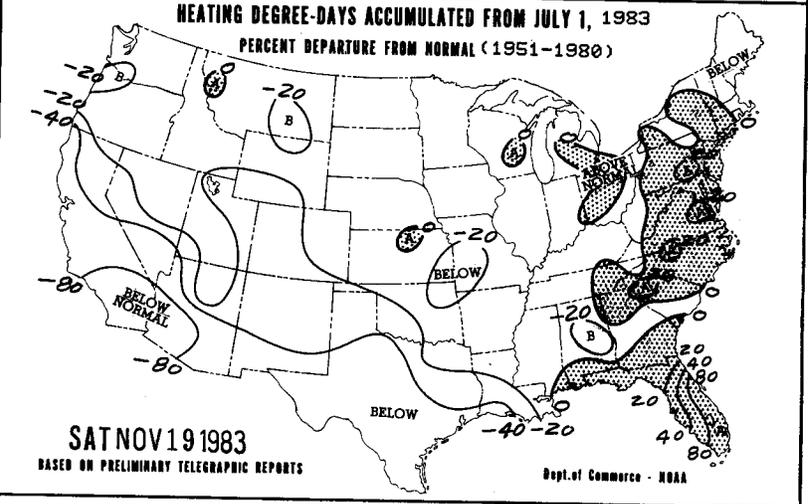
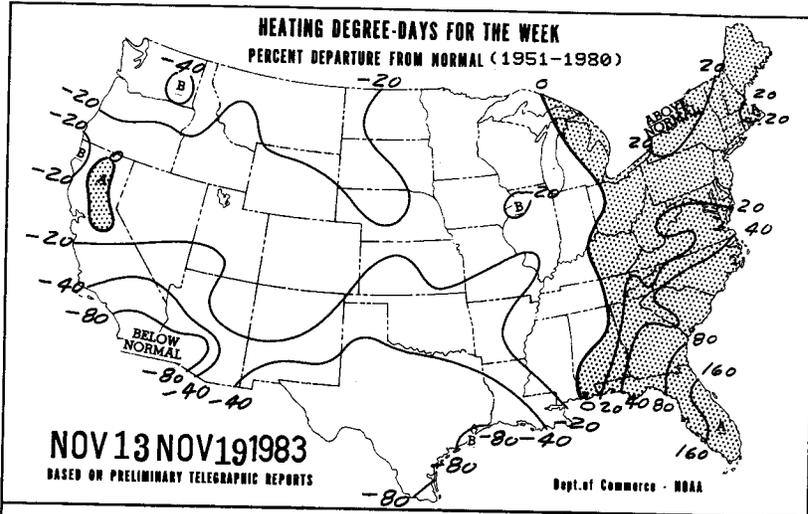
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE AUG 26	PCT. NORMAL SINCE AUG 26	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
ME SHREVEPORT	72	45	85	35	59	4	.8	-.2	.8	6.3	72	40.1	102	92	48	0	0	1	1
ME CARIBOU	33	22	41	12	27	-4	.9	.2	.9	8.4	93	36.5	111	86	68	0	6	3	1
ME PORTLAND	44	27	54	21	35	-3	2.7	1.5	2.7	14.5	134	52.9	141	83	48	0	6	1	1
MD BALTIMORE	51	34	61	30	42	-4	.7	0	.6	7.3	80	41.2	109	84	49	0	3	3	1
MD SALISBURY	57	39	70	32	48	0	1.8	1.1	1.6	12.0	119	44.4	106	88	52	0	2	2	1
MA BOSTON	48	34	57	28	41	-5	1.9	.9	1.7	9.9	100	43.5	115	74	45	0	3	3	1
MA CHATHAM	49	36	56	20	42	-3	1.0	0	.7	9.9	93	49.6	122	82	56	0	1	1	1
MI ALPENA	37	21	45	7	29	-6	.6	-.1	.4	8.0	118	32.1	119	99	73	0	6	3	0
MI DETROIT	44	29	54	16	36	-3	1.3	-.7	.6	8.8	142	32.6	114	88	61	0	4	3	2
MI FLINT	43	29	57	16	36	-3	1.1	.6	.6	9.1	144	29.3	105	87	64	0	4	3	1
MI GRAND RAPIDS	45	32	60	23	38	0	.7	0	.4	8.3	101	32.1	102	83	57	0	4	4	0
MI HOUGHTON LAKE	39	26	46	13	33	-2	.3	-.3	.2	8.2	115	27.9	108	91	71	0	5	3	0
MI LANSING	43	28	57	17	35	-3	.8	.2	.3	8.2	126	30.5	110	94	72	0	4	3	0
MI MARQUETTE	35	25	39	11	30	0	.7	0	.3	15.1	159	40.9	120	97	80	0	6	4	0
MI MUSKEGON	45	33	61	24	39	0	.4	-.3	.3	11.3	141	27.9	96	85	63	0	3	3	0
MN SAULT STE. MARIE	35	23	38	13	29	-3	.3	-.5	.2	8.4	88	29.3	96	88	56	0	7	3	0
MN ALEXANDRIA	35	29	38	21	32	3	.8	.6	.8	5.8	105	20.7	85	98	81	0	6	1	1
MN DULUTH	35	31	39	22	33	5	1.3	.9	1.2	9.4	132	26.0	91	96	80	0	3	2	1
MN INT'L FALLS	33	26	38	19	30	5	.4	.1	.3	8.1	129	22.8	95	97	83	0	7	2	1
MN MINNEAPOLIS	41	32	50	25	37	4	1.4	1.2	1.0	9.4	171	35.3	140	93	77	0	3	3	1
MN ROCHESTER	39	30	52	22	35	2	.7	.3	.4	10.2	152	32.1	115	97	80	0	4	3	1
MS GREENWOOD	68	46	79	35	57	4	3.2	2.1	2.7	7.5	82	51.8	111	84	45	0	4	3	1
MS JACKSON	72	44	84	29	58	4	2.4	1.4	2.1	7.2	79	61.3	132	91	44	0	2	2	1
MS MERIDIAN	68	41	80	29	55	1	3.1	2.3	2.9	9.5	110	59.5	128	97	52	0	2	3	1
MO CAPE GIRARDEAU	56	39	70	28	48	4	2.0	1.1	1.8	10.4	117	38.3	95	97	62	0	3	2	1
MO COLUMBIA	55	39	63	31	47	3	.7	.3	.7	15.1	172	40.5	120	93	61	0	3	1	1
MO KANSAS CITY	56	35	65	24	45	3	.1	-.3	.1	7.7	89	29.2	85	93	65	0	2	1	1
MO SAINT LOUIS	55	41	67	28	48	4	1.4	.8	1.4	10.6	154	37.2	119	95	63	0	2	1	1
MO SPRINGFIELD	61	40	71	30	50	6	1.1	.4	1.1	14.9	152	41.7	114	80	55	0	1	1	1
MT BILLINGS	51	34	55	27	42	8	T	-.2	T	4.0	125	11.5	82	71	33	0	3	1	0
MT GLASGOW	46	27	55	23	38	9	T	-.1	T	1.3	76	7.2	64	85	46	0	6	1	0
MT GREAT FALLS	50	34	57	29	42	9	T	-.2	T	2.8	108	14.1	98	67	35	0	2	0	0
MT HAVRE	52	29	57	26	40	11	T	-.1	T	.6	38	11.7	106	83	35	0	5	2	0
MT HELENA	46	29	51	25	37	7	T	-.1	T	2.0	105	13.1	125	79	42	0	5	2	0
MT KALISPELL	44	32	47	29	38	8	.1	-.2	-.1	3.2	100	15.9	110	94	61	0	4	4	0
MT MILES CITY	51	30	54	27	41	9	0	-.1	0	1.8	72	7.7	57	79	37	0	6	0	0
MT MISSOULA	45	31	48	28	38	7	.1	-.1	-.1	2.5	104	14.4	127	97	58	0	5	3	0
NE GRAND ISLAND	53	31	65	22	42	5	.4	.2	.4	5.4	120	26.0	114	89	53	0	3	1	0
NE LINCOLN	52	31	61	25	41	3	.1	-.1	.1	6.4	116	27.1	104	97	66	0	5	1	0
NE NORFOLK	49	30	60	25	40	4	.9	.8	.9	4.7	109	26.0	110	90	59	0	5	1	0
NE NORTH PLATTE	57	25	64	20	41	7	.1	0	-.1	1.2	39	17.6	93	81	28	0	4	2	1
NE OMAHA	48	32	58	19	40	3	.3	0	-.2	7.4	110	29.0	98	96	77	0	3	2	0
NE SCOTTSBLUFF	53	28	65	24	41	6	T	-.1	T	1.4	64	13.6	97	75	29	0	6	0	0
NE VALENTINE	54	27	61	19	40	7	T	-.1	T	3.1	100	27.2	151	77	36	0	5	0	0
NV ELY	50	26	59	18	38	4	.3	-.2	.1	1.6	94	12.7	161	87	40	0	6	3	0
NV LAS VEGAS	67	47	73	39	57	4	0	-.1	0	.7	78	4.5	113	47	21	0	0	0	0
NV RENO	53	32	61	27	43	3	1.4	1.2	.9	3.4	340	10.8	189	87	44	0	5	3	1
NH WINNEMUCCA	49	27	58	18	38	1	.4	.2	.3	1.9	136	10.2	146	80	39	0	6	2	0
NH CONCORD	43	24	46	13	34	-4	1.4	-.5	1.3	9.4	104	39.5	121	92	51	0	7	2	1
NJ ATLANTIC CITY	50	35	57	27	43	-3	2.9	2.0	2.5	11.6	130	41.0	106	96	64	0	3	3	1
NM ALBUQUERQUE	59	34	68	27	46	3	.1	0	.1	2.4	109	7.2	91	71	22	0	4	2	0
NM CLOVIS	65	40	72	35	53	7	T	-.1	T	4.0	95	10.8	62	64	22	0	0	0	0
NM ROSWELL	68	42	76	34	55	6	T	-.1	T	5.3	177	9.5	97	74	33	0	0	0	0
NY ALBANY	42	27	47	19	34	-5	.8	-.1	.5	6.3	74	38.1	120	87	56	0	6	2	1
NY BINGHAMTON	41	28	51	20	35	-3	.5	-.2	.2	6.5	76	34.8	105	85	62	0	4	4	0
NY BUFFALO	40	27	47	22	34	-6	1.0	.2	.7	9.6	107	29.7	88	91	64	0	6	3	1
NY NEW YORK	49	39	55	32	44	-3	1.3	-.4	1.0	12.7	137	51.7	135	79	51	0	1	2	1
NY ROCHESTER	40	29	45	19	34	-6	.7	-.1	.5	9.6	130	29.6	102	89	68	0	5	3	1
NY SYRACUSE	40	27	46	14	34	-7	.8	-.1	.3	8.0	90	29.1	82	95	71	0	6	3	0
NC ASHEVILLE	55	31	68	23	43	-3	.9	-.2	.8	11.5	119	41.1	94	90	45	0	5	2	1
NC CHARLOTTE	56	33	67	25	44	-6	1.4	.7	1.3	4.8	56	31.6	81	90	46	0	4	2	1
NC GREENSBORO	54	33	67	26	44	-5	2.0	1.4	2.0	9.6	108	39.4	101	88	44	0	4	1	1
NC HATTERAS	58	41	70	35	50	-6	.8	-.4	.4	17.9	124	56.7	113	82	47	0	2	2	0
NC NEW BERN	62	35	76	29	49	-6	.3	-.4	.2	8.3	71	47.1	96	97	47	0	2	2	0
NC RALEIGH	57	34	68	25	45	-5	1.5	.8	1.5	7.8	94	38.8	101	89	41	0	4	1	1
NC WILMINGTON	63	36	76	30	50	-6	.4	-.4	.3	8.8	75	51.6	103	93	47	0	2	3	0
ND BISMARCK	40	27	53	19	34	6	T	-.1	T	2.4	92	12.6	83	98	71	0	7	0	0
ND FARGO	38	30	46	23	34	7	.4	.2	.4	5.6	137	18.4	94	83	66	0	4	1	0
ND GRAND FORKS	36	31	37	25	33	7	.2	0	.2	5.7	139	20.6	116	86	75	0	5	1	0
ND WILLISTON	43	28	56	23	36	9	.2	.1	.1	1.5	56	8.7	65	93	65	0	6	3	0
OH AKRON-CANTON	44	33	61	24	39	-2	.8	.2	.4	9.9	138	34.1	102	83	60	0	4	4	0
OH CINCINNATI	49	36	68	25	43	0	.6	-.1	.5	12.5	160	37.3	100	86	57	0	2	3	0
OH CLEVELAND	42	31	55	24	37	-5	1.7	1.1	1.1	12.2	169	36.4	117	91	65	0	4	4	1
OH COLUMBUS	47	33	67	23	40	-2	.6	-.1	.4	10.9	158	33.4	96	80	54	0	4	3	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

Weather Data for the Week Ending Nov. 19, 1983

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 AUG 28	PCT. NORMAL SINCE AUG 28	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	52 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	47	33	65	23	40	-2	.6	-.1	.5	8.7	134	32.9	101	82	54	0	4	4	0
TOLEDO	45	29	62	17	37	-2	1.7	1.2	1.0	9.1	140	29.7	102	94	68	0	6	3	2
YOUNGSTOWN	41	31	53	21	36	-4	.8	.2	.4	11.6	147	33.7	197	88	63	0	3	4	0
OK OKLAHOMA CITY	64	41	76	35	53	4	.4	-.3	T	14.5	193	37.0	123	84	40	0	0	0	0
TULSA	67	43	78	34	55	6	T	-.3	.4	12.4	120	32.8	80	91	47	0	0	1	0
OR ASTORIA	55	47	58	44	51	5	5.3	2.9	1.3	17.6	114	65.6	124	94	73	0	0	7	6
BURNS	44	31	49	25	37	2	.9	.8	.3	2.8	156	14.2	158	76	45	0	4	6	0
MEDFORD	51	37	58	30	44	1	1.9	1.2	.9	8.0	186	22.2	143	88	57	0	1	6	1
PENDLETON	55	43	61	37	49	8	.4	0	-.1	2.6	104	11.9	173	79	44	0	0	4	0
PORTLAND	55	48	58	46	51	6	3.2	1.9	.8	11.6	147	40.4	139	91	73	0	0	7	3
SALEM	57	47	64	44	52	7	3.6	2.2	1.2	11.4	133	46.5	149	86	65	0	0	7	3
PA ALLENTOWN	48	33	55	24	40	-2	1.0	0	.8	8.2	80	41.1	104	86	55	0	3	3	1
ERIE	44	34	56	26	39	-1	1.1	.2	.7	13.6	133	40.2	113	80	58	0	2	3	1
HARRISBURG	47	34	56	28	40	-3	.9	.2	.6	8.2	95	38.2	110	82	57	0	2	4	1
PHILADELPHIA	50	37	57	29	43	-2	2.0	1.2	2.0	11.9	134	45.1	122	88	56	0	2	3	1
PITTSBURGH	45	31	58	21	38	-4	.8	.3	.6	9.9	136	36.0	106	89	61	0	4	5	1
SCRANTON	44	33	52	26	39	-2	.5	-.2	.4	6.4	75	34.3	107	87	62	0	3	4	0
RI PROVIDENCE	49	35	58	27	42	-1	2.7	1.7	2.4	12.1	117	54.2	137	71	41	0	2	3	1
SC CHARLESTON	65	39	75	34	52	-5	.6	.1	.3	8.0	78	48.6	99	90	41	0	0	2	0
COLUMBIA	61	33	72	24	47	-6	1.5	1.0	1.2	7.2	81	36.9	83	94	42	0	4	2	1
FLORENCE	62	35	73	29	49	-6	.8	.3	.7	6.6	80	43.6	110	97	45	0	3	2	1
GREENVILLE	53	32	65	26	43	-8	1.8	1.0	1.7	8.8	84	42.6	92	85	46	0	4	2	1
SD ABERDEEN	38	30	52	19	34	5	T	-.1	T	2.6	90	20.2	118	98	85	0	3	0	0
HURON	42	33	52	25	37	6	.2	0	-.2	4.9	136	17.2	94	95	80	0	2	1	0
RAPID CITY	52	29	59	23	41	6	.3	.1	.3	2.8	112	14.6	91	72	37	0	5	1	0
SIoux FALLS	43	32	52	29	38	5	1.6	1.4	1.5	6.1	111	25.2	104	98	83	0	4	3	1
TN CHATTANOOGA	56	36	68	29	46	-2	1.4	.4	1.2	6.8	67	37.2	80	90	46	0	3	2	1
KNOXVILLE	56	34	67	27	45	-4	.5	-.4	1.4	6.0	73	33.8	80	91	49	0	4	3	0
MEMPHIS	63	44	72	37	53	2	2.7	1.7	2.1	8.6	98	43.6	94	87	54	0	0	3	2
NASHVILLE	58	39	73	27	48	0	.8	0	.6	5.5	61	39.0	89	90	51	0	2	4	1
TX ABILENE	73	46	80	40	60	6	-.2	-.1	-.2	5.6	81	18.3	80	78	29	0	0	1	0
AMARILLO	65	36	74	30	50	5	-.2	-.1	-.1	4.0	98	14.5	75	78	28	0	2	2	0
AUSTIN	77	52	87	42	65	6	.1	-.4	.1	7.0	79	32.4	106	84	33	0	0	1	0
BEAUMONT	76	56	82	45	66	6	.2	-.8	.2	12.8	98	69.5	144	95	57	0	0	2	0
BROWNSVILLE	84	61	90	50	72	5	0	-.3	0	12.1	116	27.8	111	91	48	1	0	0	0
CORPUS CHRISTI	80	58	87	47	69	5	0	-.4	0	12.7	114	36.4	122	91	44	0	0	0	0
DEL RIO	76	49	88	42	63	4	0	-.2	0	3.7	63	14.0	80	84	29	0	0	0	0
EL PASO	71	47	75	36	59	7	0	-.1	0	6.3	233	7.7	99	56	25	0	0	0	0
FORT WORTH	72	48	83	36	60	5	.2	-.3	-.2	5.1	70	29.1	107	84	39	0	0	1	0
GALVESTON	76	63	79	57	69	7	.1	-.7	.1	14.2	130	49.8	134	87	60	0	0	1	0
HOUSTON	78	54	84	39	66	6	.1	-.7	.1	10.5	93	48.0	115	87	45	0	0	1	0
LUBBOCK	69	42	76	37	55	7	T	-.1	T	11.6	242	19.8	109	75	26	0	0	1	0
MIDLAND	71	44	78	37	57	6	T	-.1	T	6.4	160	9.4	69	72	28	0	0	0	0
SAN ANGELO	75	45	80	34	60	6	0	-.2	0	4.8	79	14.8	81	87	29	0	0	0	0
SAN ANTONIO	79	48	89	36	64	5	T	-.6	T	7.8	90	25.1	90	80	30	0	0	0	0
VICTORIA	78	57	84	43	67	6	T	-.6	T	14.2	122	41.3	117	97	47	0	0	0	0
WACO	75	47	89	35	61	4	.1	-.4	.1	3.4	43	22.0	74	90	39	0	0	1	0
WICHITA FALLS	70	42	84	34	56	4	T	.3	T	8.8	117	23.9	91	84	36	0	0	0	0
UT BLANDING	49	28	57	25	39	1	.3	.1	.3	4.7	147	14.1	141	75	42	0	5	1	0
CEDAR CITY	54	30	60	19	42	3	.4	.2	.4	2.0	87	12.9	136	74	31	0	6	1	0
SALT LAKE CITY	52	35	61	30	44	4	.5	.2	.4	4.2	140	19.3	143	84	42	0	2	3	0
VT BURLINGTON	38	24	43	16	31	-6	-.6	-.1	-.3	12.4	149	42.4	136	86	54	0	6	3	0
VA NORFOLK	57	38	70	33	48	-4	.7	0	.4	12.8	124	41.6	99	81	44	0	0	3	0
RICHMOND	54	33	68	27	43	-6	1.0	.3	1.0	9.8	101	36.1	90	86	44	0	4	1	1
ROANOKE	53	34	71	27	43	-3	.7	.1	.7	11.8	131	40.8	112	86	42	0	2	1	1
WA COLVILLE	46	39	50	34	42	9	1.5	1.0	.5	6.7	197	25.1	172	97	84	0	0	7	1
QUILLAYUTE	51	44	55	41	48	5	12.2	8.9	3.8	36.3	146	106.5	129	99	83	0	0	7	6
SEATTLE-TACOMA	54	45	58	35	49	5	2.3	.9	.6	10.8	120	34.0	113	87	61	0	0	6	1
SPOKANE	47	37	52	32	42	8	1.2	.7	.3	6.1	197	19.4	139	94	66	0	1	6	0
WV YAKIMA	53	39	58	34	46	8	.5	.3	-.2	2.8	187	10.2	173	86	55	0	0	5	0
BECKLEY	46	28	66	16	37	-5	.6	-.1	.3	7.7	95	31.9	83	95	63	0	5	3	0
CHARLESTON	53	34	72	24	43	-2	1.0	.3	.6	12.1	149	38.8	100	88	48	0	4	4	1
HUNTINGTON	51	35	71	24	43	-3	.7	0	.5	8.5	112	33.1	89	86	53	0	4	6	0
PARKERSBURG	50	36	68	25	43	-1	1.3	.7	.8	14.9	216	40.7	107	98	62	0	3	4	2
WI GREEN BAY	43	32	55	23	37	3	.7	.2	.4	7.1	104	27.6	105	94	76	0	4	3	0
LA CROSSE	42	30	54	18	36	1	.9	.6	.5	8.9	127	26.6	89	99	73	0	4	3	0
MADISON	44	32	62	24	38	3	.6	.2	.4	7.2	104	27.6	94	97	78	0	4	3	0
MILWAUKEE	46	35	59	27	41	3	1.0	.5	.7	6.9	103	32.1	113	96	69	0	2	4	1
WAUSAU	40	32	51	26	36	5	.5	.1	.3	11.4	144	28.2	90	93	70	0	5	3	0
WY CASPER	45	27	51	20	36	4	.2	.1	.1	2.6	118	16.2	150	79	42	0	6	2	0
CHEYENNE	46	28	56	22	37	3	.1	0	.1	1.7	85	18.4	144	73	34	0	6	2	0
LANDER	43	24	52	20	33	3	.1	-.1	.1	2.6	93	13.2	106	76	39	0	7	2	0
SHERIDAN	52	27	57	22	40	8	T	-.2	T	2.4	75	8.3	57	76	30	0	6	0	0
PR SAN JUAN	89	76	91	75	82	3	.2	-1.1	.1	8.6	52	37.7	75	87	61	3	0	2	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS



HEATING DEGREE DAY DATA WEEKLY SUMMARY
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NEEDIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 11-19-1983
ACCUMULATIONS ARE FROM JULY 1
** = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL WEEK, WEEK WEEK, CUM TOTAL, CUM DEV, CUM DEV, CUM DEV, CUM DEV. Lists cities from AL BIRMINGHAM to MT KALISPELL with associated weather data.

Table with columns: STATE CITY, CALL WEEK, WEEK WEEK, CUM TOTAL, CUM DEV, CUM DEV, CUM DEV, CUM DEV. Lists cities from MT MILES CITY to WY SHERIDAN with associated weather data.

NOVEMBER 14 TO 20

HIGHLIGHTS: A series of fast moving fronts advanced across the Nation during the week. Heavy precipitation halted field activities in northern California and the Pacific Northwest. Light showers slowed fieldwork across the Corn Belt, while heavy rain late in the week halted activities in the Delta States and portions of the Southeast. Freezing temperatures pushed southward into northern Florida damaging some tender vegetable crops. Soil moisture supplies were short to mostly adequate, except in portions of the Corn Belt and Virginia where adequate to surplus supplies were reported. Farmers generally had 2 to 4 days suitable for fieldwork in all regions. Winter wheat seeding moved up only 2 percentage points to 96% during the week and plants had emerged on 89% of the acreage. Progress was slightly behind normal. Corn harvesting advanced to 97%, 6 points ahead of average. Sorghum was 95% harvested, compared with the 93% average. Soybeans were 89% combined, trailing the average of 92%. Cotton picking advanced to 70%, 2 points ahead of the average. Fruit and vegetable harvests centered in Florida, Texas, Arizona, and California. Pastures were in fair to good condition in the Corn Belt and northern Plains, but were rated mostly fair elsewhere. Livestock were in fair to mostly good condition. Supplemental feeding continued with adequate feed available in most areas.

SMALL GRAINS: Winter wheat seeding in the 15 major producing States was 96% complete, equal to a year earlier but 1 point behind normal. Seeding neared completion in all areas except California, Missouri, and Texas. Wheat had emerged on 89% of the acreage, only 2 points behind usual. The Kansas crop was in excellent condition except in the western counties where dry weather produced fair conditions. High winds sapped soil moisture in western Oklahoma, but eastern areas received favorable precipitation. Cool, drier air depleted surface moisture in Texas and rain is needed to maintain good growth. Winter wheat seeding reached 93% completion and 80% of the acreage had emerged. Light showers and warmer than normal temperatures encouraged winter wheat growth across much of the Corn Belt. Montana's crop was rated good but more moisture would be beneficial.

CORN: Combining in the 17 major producing States was 97% complete, well ahead of last year's 86% and the average of 91%. Combining was equal to or ahead of schedule in all 17 States. Wet field conditions hindered fieldwork across the Corn Belt, Delta States, and portions of the Southeast. Producers in the eastern Corn Belt were 96% finished. In the western Corn Belt 99% of the acreage was combined, and in the Southeast 98% was harvested.

SOYBEANS: Harvesting reached 89% completion in the 18 major producing States, compared to 92% for both last year and the average. Progress was slightly behind normal in the western Corn Belt and South Central States but trailed the average by 16 points in the Southeast. Combining was virtually finished in the eastern Corn Belt. During the week, growers in Mississippi harvested 14% of their acreage, and those in Arkansas harvested 15%.

COTTON: In the 14 major producing States, 70% of the acreage had been harvested, compared with 66% in 1982 and the average of 68%. Progress was behind normal in California, Georgia, New Mexico, and Oklahoma. Picking was finished in Missouri

and virtually complete in South Carolina, but was only 20% finished in Oklahoma. Rain slowed harvesting in some areas of California. Shredding and disking of stalks was active. Good weather along with the smaller size crop allowed Arizona producers to pick a high percentage of cotton during the week. Open weather allowed rapid picking in Texas where growers surpassed the half-way mark.

OTHER CROPS: Sorghum harvesting advanced to the 95% mark, ahead of last year's 94% and 2 points ahead of the average. Growers in Oklahoma harvested 15% of their acreage during the week while producers in Kansas and Missouri combined 5%. Harvesting was equal to or ahead of schedule in all States except Oklahoma. Harvesting in Texas neared completion.

Peanut digging was virtually complete in the Southeast. Threshing was 99% finished in Georgia, 95% complete in Virginia, and 88% finished in North Carolina. Texas producers harvested 83%, 1 point behind normal.

Tobacco growers continued grading, stripping, and marketing their crop. The Kentucky burley crop was one-third stripped. The market is scheduled to open on the 21st. Tennessee producers had stripped 59% of the crop. Tobacco seedbed fumigation began in many areas.

FRUITS AND NUTS: Florida's citrus groves were in excellent condition with adequate moisture. Cooler temperatures slowed new growth but early pickings showed good color. Harvesting was active for the Thanksgiving market. Citrus picking gained momentum in the Rio Grande Valley of Texas; quality was good. Pecan picking was 42% complete in Texas, but production and quality were below expectations. Lemon, grapefruit, and Navel orange picking increased, but few tangerines were harvested in Arizona. Citrus groves were in good condition and the fruit was sizing normally. California producers irrigated, fertilized, pruned, fumigated, and sprayed their orchards. The Navel orange harvest was gradually increasing. Pecan harvesting was 36% complete in Georgia and 30% finished in Louisiana and Mississippi.

VEGETABLES: Rain delayed final harvesting of hardy crops in northern producing areas. Freezing temperatures pushed southward into northern Florida, damaging some tender vegetables. However, the major growing areas had favorable weather with adequate moisture. Shipments increased 32% from the previous week. Only cucumbers declined in volume. Tomatoes continued as the volume leader. Strawberry growth was good and early fields were forming bloom buds. Harvesting of peppers, cucumbers, broccoli, and cabbage was in full swing in the Rio Grande Valley of Texas. Harvesting of cucumbers and carrots gained momentum in the San Antonio-Winter Garden area. Sweetpotato digging neared completion in East Texas. A variety of vegetables were moving in volume from the Salt River Valley of Arizona. Lettuce harvesting was in full swing in the Poston area and increasing in the Yuma area. Broccoli and cauliflower cutting was active along California's central coast and increased in the San Joaquin Valley and Southern California. Cantaloupe and melon picking declined in the desert. Lettuce harvesting increased in the Palo Verde Valley but decreased in the San Joaquin Valley. Market tomato picking continued along the south coast but was virtually complete elsewhere.

(continued on p. 16)

CROP PROGRESS

FOR WEEK ENDING NOV 20, 1983

	WINTER WHEAT % PLANTED		
	1983	1982	AVG.
CALIF	50	45	43
COLO	100	100	100
IDAHO	100	100	100
ILL	99	100	99
IND	100	100	100
KANS	97	100	98
MO	92	92	92
MONT	100	100	100
NEBR	100	100	100
OHIO	100	100	100
OKLA	95	90	97
OREG	98	98	98
S DAK	100	100	100
TEX	93	92	94
WASH	100	100	100
15 STATES	96	96	97

THESE 15 STATES PRODUCED 80%
OF THE 1982 WINTER WHEAT CROP.

	WINTER WHEAT % EMERGED		
	1983	1982	AVG.
CALIF	30	30	30
COLO	88	99	98
IDAHO	100	100	100
ILL	95	98	96
IND	100	96	90
KANS	90	97	97
MO	81	80	81
MONT	100	100	100
NEBR	100	100	100
OHIO	98	98	95
OKLA	85	60	85
OREG	94	88	89
S DAK	100	100	100
TEX	80	75	81
WASH	99	98	97
15 STATES	89	86	91

THESE 15 STATES PRODUCED 80%
OF THE 1982 WINTER WHEAT CROP.

	COTTON % HARVESTED		
	1983	1982	AVG.
ALA	94	93	87
ARIZ	85	55	70
ARK	97	94	91
CALIF	80	80	90
GA	74	83	88
LA	96	92	94
MISS	95	93	92
MO	100	100	90
N MEX	41	65	60
N C	97	75	81
OKLA	20	15	35
S C	99	95	95
TENN	96	99	80
TEX	54	49	48
14 STATES	70	66	68

THESE 14 STATES PRODUCED 99%
OF THE 1982 COTTON CROP.

	SOYBEANS % HARVESTED		
	1983	1982	AVG.
ALA	82	86	84
ARK	81	92	87
GA	58	74	72
ILL	100	100	100
IND	100	100	96
IOWA	99	98	100
KANS	80	98	90
KY	92	93	95
LA	94	88	93
MICH	99	100	96
MINN	97	97	98
MISS	83	84	88
MO	89	92	92
NEBR	97	100	100
N C	43	45	57
OHIO	100	100	100
S C	34	45	54
TENN	84	93	83
18 STATES	89	92	92

THESE 18 STATES PRODUCED 94%
OF THE 1982 SOYBEAN CROP.

	SORGHUM % HARVESTED		
	1983	1982	AVG.
COLO	100	91	84
KANS	90	95	90
MO	94	89	89
NEBR	98	90	94
OKLA	70	80	80
S DAK	100	77	97
TEX	98	99	97
7 STATES	95	94	93

THESE 7 STATES PRODUCED 90%
OF THE 1982 SORGHUM CROP.

	CORN % HARVESTED		
	1983	1982	AVG.
COLO	96	85	86
GA	98	100	98
ILL	100	97	97
IND	98	96	93
IOWA	100	87	93
KANS	99	97	95
KY	96	95	95
MICH	93	95	86
MINN	98	72	86
MO	95	89	89
NEBR	99	70	85
N C	100	100	98
OHIO	90	100	90
PA	85	83	85
S DAK	99	63	93
VA	93	92	92
WIS	91	65	85
17 STATES	97	86	91

THESE 17 STATES PRODUCED 93%
OF THE 1982 CORN CROP.

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 SRS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures normal, rainfall 2.00 to 4.00 in.

Soil moisture short to adequate. Fieldwork: 4.4 days. Soybeans harvested 82%, 1982 86%, average 84%. Cotton harvested 94%, 1982 93%, average 87%. Wheat seeded 74%, 1982 71%, average 82%. Conditions: Pastures, livestock and wheat fair.

ARIZONA: Mostly fair, mild weather first of week. Southern end of first winter storm moved across State on 17th, 18th, spread precipitation over northern, central. Snow level down to 5,500 feet. About 1.00 to 3.00 in. snow over higher elevations of Grand Canyon, Mogollon Rim, White Mountains. Moisture amounts ranged 0.02 to 0.50 in. Colder air spread over State late on 18th and 19th, minimums into teens higher elevations, 20's at 5,000 foot level, 30's, 40's lower desert by 19th morning. Average temperatures from 1 to 6° above normal.

Cotton picking advanced to 85% acreage picked at least once, last year 55%, average 70%. Good weather with smaller cotton crop contributed to high percentage picked. Land preparation for small grains active. Seeding wheat, barley continued Yuma. Corn, sorghum harvest active in areas with acreage remaining for harvest. Harvest winding down or complete many areas. Lettuce harvest full swing Poston, increasing Yuma. Lettuce picking at peak Aguila, Florence. Cauliflower, broccoli harvests beginning Yuma, increasing Salt River Valley. Mixed vegetables moving in volume Salt River Valley. These included leaf, Boston, Romaine lettuce, red, green cabbage, beets, endive, greens, bok'choy, kale, napa, radishes, parsley, turnips, green onions. Some radishes harvested Wickenburg area. Lemon, grapefruit picking increased volume, some dates harvested Yuma. Few tangerines picked Salt River Valley, Navel orange picking increased. Lemon, grapefruit picking continued steady pace Salt River Valley. Citrus groves good condition, fruit sizing normally.

ARKANSAS: Rains beginning and ending of week. Temperatures 1 to 8° above normal. High 81°, low 24°. Significant rainfall all stations. Most 3.55 in. least 1.29 in.

Days suitable for fieldwork 5.8. Crop growth moderate to slow. Soil moisture short southwest, adequate elsewhere. Soybeans poor to good condition; harvested 81%, 92% 1982, 87% average. Cotton harvested 97%, 94% 1982, 91% average. Wheat good condition; planted 85%, 88% 1982, 87% average. Oats good; planted 96%, 96% 1982, 91% average. Pastures providing less than average forage. Cattle fair.

CALIFORNIA: Except for the Desert southeast interior, precipitation was scattered across the State nearly the entire week. Heaviest precipitation totals were in the central Sierra Nevada with snow reported at the higher elevations. Second place went to the north coast with week's totals close to 5.00 in. The Sacramento Valley had rain totals over 2.00 in. and the northern San Joaquin Valley had 1.67 in. Weekly mean temperatures were mixed Statewide, generally a few degrees above normal in the south, and a few degrees below normal in the north.

Frequent rain northern half stopped most fieldwork. Southern half more open, fieldwork making good progress. Cotton harvest 80% done, same as year earlier, behind average 90%. Rain slowed harvest some areas. Shredding, discing stalks active. Harvest becoming active Desert area. Small grain seeding making good progress. Many fields seeded by aircraft. Winter seeded wheat 50% planted, year ago 45%, average 43%. Crop 30% emerged, year ago, average same. Corn harvest slowed. Grain sorghum harvest active. Seeding alfalfa. Sheep grazing many alfalfa fields. Cultural practices include irrigation, fertilizing, pruning, dormant and herbicide spraying, fumigating, and pushing out of light producing orchards. The 1982-83 Navel oranges gradually increasing. Artichokes seasonally light. Broccoli, cauliflower harvests active Central Coast, increasing San Joaquin Valley, Southern California. Harvest cantaloup, miscellaneous melons decreasing Desert. Carrot harvest increasing Desert. Celery harvest peaking Central Coast. Sweet corn harvest slow Desert. Lettuce volume decreasing San Joaquin Valley, increasing Palo Verde Valley. Potato movement from storage moderate Tulelake-Butte Valley. Light harvest red and white potatoes Perris-Hemet area. Market tomato harvest continues South Coast, virtually complete other districts. Recent rains beneficial foothill, valley range, pasture. More moisture needed southern regions to sustain growth. Calving, lambing continue active. Sheep grazing alfalfa fields. Bees being fed sugar.

COLORADO: The period was mainly dry until 17th and 18th, when a storm moved through the State and left moisture over most areas except portions of the Arkansas Valley. Heavy precipitation amounts included 0.90 in. at Cortez in the west, 0.64 in. at Castle Rock in the east and up to 15 in. of snow in some mountain locations.

Another storm moved across the State late 20th leaving nearly 1.00 in. of moisture in the San Juan area. Temperatures were quite cold on 15th with low readings near 0 in parts of the San Luis-Gunnison Valley. Temperatures warmed rapidly afterward and for the week averaged 3 to 6° above normal.

FLORIDA: Scattered showers developed Panhandle, 14th; covered entire State, 15th and 16th. Rainfall mostly under 0.25 in. Very cool weather Peninsula last half of week. First significant widespread frost occurred north-west, Big Bend area night of 16th, spreading over north 17th, temperatures low 30's were common; a few cool 20° pockets. Patchy frost also reported night of 17th, north central Peninsula. Temperatures for the week were 6 to 10° below normal, north; 4 to 6° below normal, south. Showers, thunderstorms, some heavy, re-entered the Panhandle late, 19th, spreading over rest of Peninsula 20th, with some severe weather occurring across northern, central sections. Also some rains across the north central sections of 1.00 to 2.00 in. were common; a few local amounts of 2.50 in. far north with lesser amounts of 0.50 in. south. Temperatures warmed, weekend.

Soil moisture mostly adequate, a few dry areas along middle east coast, north and Panhandle. Many areas received rains late 19th; 20th. Soybean, cotton, hay harvest nearing completion. Sugarcane harvest active, yields

good. Planting of small grains about finished. Seed corn making good progress in south. Very cold temperatures around midweek with frosts, nearly curtailed growth of permanent pastures, upper Peninsula, northward. Early planted small grains being grazed, few areas. Pastures rated mostly good, lower Peninsula, fair central areas, poor to fair elsewhere. Weekend rains, moderating temperatures improved conditions considerably, most areas. Cattle, calves generally fair Panhandle, good extreme northern Peninsula, varying from poor to good remaining upper Peninsula; mostly good elsewhere. Citrus trees excellent condition. Adequate moisture. Cool temperatures slowing new growth. Good fruit color on early fruit. Fruit splitting generally abated, harvest active for Thanksgiving markets. Widely scattered showers most vegetable growing areas. Nighttime lows ranged 40's to 60's. Daytime highs 60's to 80's. Harvest increasing most fall crops. Crops gaining were snap beans, cabbage, carrots, cauliflower, celery, Chinese cabbage, escarole, lettuce, parsley, peppers, radishes, tomatoes. Cucumbers declined in shipments. Sweet corn, eggplant, okra, squash remained steady. Tomatoes continued as the volume leader. Overall shipments gained 32% during week. Strawberries making good growth. Early fields forming bloom buds. Light harvest expected by mid December.

GEORGIA: Relatively cold week. Temperatures 4 to 7° below normal. Rainfall averaged 1.25 to 2.00 in. north, 0.75 to 1.00 in. central and 0.25 in. south. Temperatures on 19th and 20th averaged 2° above normal south and 6° above normal north. Rainfall averaged 0.75 to 1.50 in. Statewide.

Soil moisture: 25% short, 62% adequate, 11% surplus. Average days suitable for fieldwork 3.8. Major activities: Harvesting and planting small grains. Cotton 15% poor, 66% fair, 17% good; bolls open 99%, last year 100%, average 99%; picked 74%, last year 83%, average 88%. Corn 98% harvested, last year 100%, average 98%. Peanuts 100% dug, equal to last year and average; 99% threshed, last year and average 100%. Soybeans 14% poor, 69% fair, 14% good; leaf drop 99%, last year 100%, average 99%; 58% harvested, last year 74%, average 72%. Wheat 49% planted, last year 53%, average 59%. Rye 84% planted, last year 86%, average 78%. Other small grains 75% planted, last year 76%, average 74%. Apples 99% picked this year and average, 100% last year. Pecan harvest 36%, last year 61%, average 53%. Onion transplanting underway.

HAWAII: Favorable weather prevailed throughout the State. Days were mostly sunny and hot but temperatures became relatively cool at night. Showers were light in most areas of the State. A band of heavy clouds passed through the State's western end producing heavy showers over the weekend in Kauai and Oahu.

A major earthquake shook Hawaii Island on 16th but caused very little damage to crops. Damages sustained by private and commercial structures is expected to run into the millions of dollars. Most vegetable supplies seasonally light with the exception of head cabbage and Chinese cabbage. Banana and papaya production currently in a seasonal peak period.

IDAHO: A series of weather disturbances brought above average precipitation to the entire State with rain in the lower elevations and snow in the mountains. Both temperature and precipitation

averaged well above normal. Temperatures ranged from 4 to 9° above average. Precipitation varied from 0.20 to 1.25 in. above normal with only the Lewiston area reporting below normal rainfall of 0.04 in. Sandpoint reported the heaviest precipitation with 2.02 in. while Lewiston reported the least with 0.27 in.

Wet fields kept fieldwork to minimal levels. Some corn fields remained for harvesting. Some crop marketing was underway. Calves and lambs were being sold. Cattle were being moved to winter ranges in some areas. A few people were getting ready for calving. Feed supplies were in good shape with hay being fed in some areas.

ILLINOIS: Temperatures near normal. Precipitation 0.22 to 1.52 in.

Corn 100% harvested, 1982 97%, average 97%. Soybeans 100% harvested, 1982 100%, average 100%. Wheat 99% planted, 1982 100%, average 99%; emerged 95%, 1982 98%, average 98%; condition mostly good. Livestock condition good.

INDIANA: Temperatures averaged from 4 to 9° above normal. Highest readings were in upper 60's to low 70's. Lowest readings were in the upper 20's to mid 30's. Precipitation totaled from 0.60 to 1.40 in. north, 0.60 to around 1.00 in. central, and 0.70 to 1.10 in. south.

Fieldwork averaged 2.7 days. Topsoil moisture mostly adequate to surplus. Subsoil moisture short to mostly adequate. Corn 98% harvested, 1982 96%, average 93%. Corn moisture 20%, 1982 17%. Soybeans 100% combined, 1982 100%, average 96%. Sorghum 100% harvested, 1982 100%, average 90%. Spring cropland 56% plowed, 1982 45%, average 45%. Wheat 100% seeded, 1982 100%, average 100%. Wheat 98% emerged, 1982 96%, average 90%. Wheat stands good. Wheat condition good. Pastures mostly fair to good.

IOWA: A moist warm week. Precipitation was heaviest at the week's end over the central district with moderate amounts over the remainder of the State. Flooding was reported near Marshalltown where 2.10 in. fell on the 19th. Cloudiness was in abundance throughout the week. Temperatures averaged 4 to 6° above normal.

Corn harvested 100%; 87% last year; 93% normal. Soybeans harvested 99%, 98% last year, 100% normal.

KANSAS: Precipitation averaged 0.25 to 0.50 in. west, none to 0.20 in. elsewhere. Temperatures averaged 44° northwest and north central, 50° southeast, 4 to 7° above normal.

Sorghum 90% harvested, 95% last year, 90% average. Soybeans 80% harvested, 98% last year, 90% average. Corn 99% harvested, 97% last year, 95% average. Wheat 97% planted, 100% last year, 98% average; 90% emerged, 97% last year, 97% average; 5% pastured, 10% last year, 5% average. Wheat condition fair west, excellent elsewhere. Pastures and range good, ranging from fair to excellent. Supplies of feed grain, hay and forage adequate. Soil moisture remains short west, adequate elsewhere. Wet conditions hampering soybean harvest. Days suitable for fieldwork: 4.0.

KENTUCKY: Temperatures average, warmer over weekend. Scattered rainfall with showers dropping 1.00 in. to over 2.00 in. in west.

Burley markets open November 21. Approximately one-third of 1983 crop stripped. Corn harvest 96% complete, last year and average 95%. Soybeans 92% harvested, last year 93%, average 95%. Soil moisture mostly adequate. Pastures have made good late season growth.

LOUISIANA: Rainfall ranged 0.43 to 3.59 in. Statewide. Temperatures ranged normal to 5° above normal. High 85°, low 30°.

Soil moisture ranged from short northwest to adequate southeast. Cotton harvested 96%, 92% 1982, 94% average. Soybeans harvested 94%, 88% 1982, 93% average. Sweetpotatoes harvested 96%, 98% 1982. Sugarcane harvested 60%, 55% 1982, 57% average. Condition fair to good. Wheat planted 83%, 63% 1982, 80% average. Wheat emerged 63%, 42% 1982. Condition fair to good. Pecans harvested 30%, 57% 1982, 52% average. Vegetables rated fair to good. Pastures rated fair. Livestock rated fair to good.

MARYLAND AND DELAWARE: Maryland: Temperatures averaged 4 to 6° below normal with rain over the entire State. In the 3.0 days available for fieldwork, farmers completed corn harvest in all but a few fields in western and north central counties and wrapped up wheat seeding in all but a few fields on the short. Soybean harvest at 85% completed was tied with 1982's progress. Wheat and rye seeding rates were equal to the 100% planted in 1982. Final barley seeding was two weeks behind 1982 and oats seeded was one week later than last year. Tobacco stripping has started. Stripping was 5% completed by 19th this year; in 1982 at the same time, 15% has been stripped.

Delaware: Temperatures averaged 3 to 4° below normal and precipitation averaged over 1.50 in. for the State. Corn harvest completed and soybean harvest at 85% combined is still 2 weeks behind the harvest completion of last year. Wheat seeding remains to be completed in a few fields in south and one week later than the completions rate of 1982. Rye seeding running two and one-half weeks behind last year's rate. Barley seeding was one week behind 1982's level.

MICHIGAN: Temperatures averaged near normal to slightly above normal with 2 exceptions. These were in the lower Peninsula; the northeast section averaged 5° below normal while the southeast section averaged 4° below normal. Moderate amounts of precipitation fell over the State with only the southeast and east central parts of the lower Peninsula reporting over 1.00 in.

Between rain and deer hunting, harvest activity was held to a minimum during the week. Statewide 3.0 days were suitable for fieldwork. Corn 93% harvested, 95% last year, 86% average. Soybeans 99% harvested, 100% last year, 96% average. Winter wheat condition considered normal in most areas. Fall tillage operations have reached the half-way point. Many farmers have already completed fall harvest and taking advantage of that time to prepare fields for spring use and put away equipment for the winter.

MINNESOTA: Temperatures averaged 4 to 7° above normal. High: 58°, low: 12°. Precipitation averaged 0.17 to 0.55 in. above normal for northwest, north central, and east central and 0.75 to 1.16 in. above normal elsewhere. Greatest reported weekly total: 1.97 in.

Snowfall occurred in the eastern 1/3 of the State and ranged from a trace south to near 5.00

in. north. Snow depths at week's end were 4.00 in. north central to trace of less elsewhere.

MISSISSIPPI: Temperatures ranged from normal to 6° above normal. Extremes 26 and 84°. Greatest weekly rainfall was 4.10 in.

Soil moisture short in the southern one-third of State, adequate other areas. Fieldwork 4.5 days suitable, 2.8 days last year, 3.7 days average. Cotton 95% harvested, 93% 1982, 92% average. Soybeans 83% harvested, 84% 1982, 83% average. Pecans 30% harvested, 60% 1982, 56% average. Corn 98% harvested, 100% 1982, 99% average. Sweetpotatoes 90% harvested; peanuts 96% harvested. Wheat 83% seeded, 70% 1982, 80% average; condition good to fair. Pasture condition fair. Livestock condition good to fair.

MISSOURI: Temperatures averaged 4 to 5° above normal. Precipitation was widespread throughout the week and heavy at the week's end with minor flash flooding in parts of east central counties.

Days suitable for fieldwork: 2.4. Corn 95% harvested, 89% last year and 89% normal. Grain sorghum 94% harvested, 89% last year and 89% normal. Soybeans 89% harvested, 92% last year and 92% normal. Winter wheat 92% seeded, 92% last year and 92% normal. Plowing for spring crops 53% completed, 53% last year and 51% normal. Pasture condition 1% excellent, 34% good, 59% fair and 6% poor. Topsoil moisture supplies, 20% surplus, 79% adequate and 1% short.

MONTANA: Very mild week with temperatures averaging 5 to 15° above normal, precipitation was confined to west and southwest, amounts mostly around 0.25 in. but some areas receiving 1.00 in. or so.

Winter wheat condition good, moisture needed but not critical. Grazing open most areas. Only about 20% cattle and sheep on supplemental feed.

NEBRASKA: Temperatures 5° above normal. Precipitation, little or none Panhandle, 0.10 in. to 0.20 in. remainder.

Corn harvested 99%, 70% a year ago and 85% average. Soybeans 97%, 100% and 100%. Sorghum 98%, 90% and 94%. Winter wheat good to fair. Some stands being re-drilled in western counties. Pastures and range feed supplies mostly adequate to short. Topsoil moisture mostly adequate to short. Days suitable for fieldwork 4.3.

NEVADA: Storm fronts moved across State every other day. Strong winds and plenty precipitation accompanied storms, mostly in form of rain valley floors, snow high elevations. Temperatures dropped sharply end of period bringing snow all areas north and west. Mostly cool, windy south.

Lettuce harvest well along extreme south. Grading and marketing potatoes active. Livestock feeding made more difficult by first winter type storm of season.

NEW ENGLAND: Warmest temperatures occurred on 16th and 20th, 61° at New Haven, Connecticut on 20th. Coldest reading was 7° overnight on 14th in Guilford, Maine. Most of New England received at least 1.00 in. precipitation from 15th thru 17th with 2.00 in. or more falling along coastal areas. Largest amount recorded was 3.15 in. at Providence, Rhode Island. Over a foot of snow was recorded on many northern slopes.

NEW JERSEY: Temperatures 1° above normal, averaging 42° north, 46° south and 48° coastal. Extremes 26 and 69°. Precipitation this period well above normal, averaging 2.04 in. in north, 3.01 in. south and 2.96 in. coastal. The heaviest 24-hour total 2.75 in. on 15th to 16th.

Fieldwork: 3.5 days suitable. Topsoil and subsoil moisture supplies adequate in most areas. Condition of small grains good to excellent. Final harvesting of corn, soybeans, fall spinach, cabbage and greens delayed due to recent rains. Feed supplies short and costly.

NEW MEXICO: Average temperatures for week above normal east, near normal west. Winter storm crossed State on 18th and 19th, brought much colder air plus rain or snow to most sections. Minimum temperature 9°, northern mountains. Maximum temperature 76°, southeastern Plains. Most significant precipitation amounts recorded north.

Soil moisture supplies mostly adequate, several north and east side counties reported short. Cotton harvest: Current 41%, last year 65%, average 60%. Irrigated small grain fields good condition, dryland fields fair to good. Corn, milo harvest virtually complete. Several areas have high moisture fields, unable to harvest now. Mesilla Valley pecans 5% harvested, red chile harvest 50% harvest. East side peanut harvest continues, moisture still high. Ranges poor on east side, fair to good elsewhere. Cattle, sheep rated good.

NEW YORK: Early in the week high temperatures were in the mid 20's and 30's, and lows were in the teens to low 20's. Around midweek temperatures moderated. By week's end, high temperatures were mainly in the 40's and up to the mid 50's in southeast, while lows showed a wide variation from 10 to 40°.

NORTH CAROLINA: Temperatures 6 to 8° below normal over the Piedmont, 4° below in other areas. Precipitation heaviest over the Piedmont and southern mountains.

Soil moisture 14% short, 75% adequate, 11% surplus. Days suitable for fieldwork: 4.0. Condition: Wheat: 14% fair, 84% good, 2% excellent. Oats: 17% fair, 81% good, 2% excellent. Barley: 18% fair, 80% good, 2% excellent. Rye: 16% fair, 83% good, 1% excellent. Harvests: Corn for grain: 100%, 1982 100%, average 98%. Apples: 98%, 1982 100%, average 100%. Sorghum harvest: 93%, 1983 94%, average 91%. Sweetpotatoes: 98%, 1982 100%, average 100%. Peanuts dug: 98%, 1982 100%, average 100%. Peanuts threshed: 88%, 1982 100%, average 100%. Soybeans: 43%, 1982 45%, average 57%. Cotton: 97%, 1982 75%, average 81%. Farm feed supplies: Hay and roughage: 29% short, 69% adequate, 2% surplus. Feed grains: 31% short, 65% adequate, 4% surplus. Major farm activities: Soybean harvest, seeding small grains, combining of corn for grain, preparation of land for fall seeding, seeding cover crops, peanut digging and threshing, cutting Christmas trees and fire wood, grading burley tobacco, gassing tobacco plant beds, and repairing farm equipment.

NORTH DAKOTA: Warmer than normal with wide precipitation. Temperatures ranged from 4° above normal southeast to 9° above normal northwest. Extremes were 56° northwest, west central and southwest on the 17th to 10° south central on the 13th. Precipitation

ranged from a trace southwest to 0.13 in. northwest and east central.

Crop season and winter preparations mostly completed. Weather pattern edging into winter, but allowing late work a chance to be completed. Precipitation, although widespread, still very light.

OHIO: Temperatures above normal. Highs upper 40's to lower 50's. Lows lower 30's to 40. Soil temperatures lower 40's. Precipitation 0.50 to 2.00 in.

Harvested corn grain quality fair, moisture content 21%. Emerged wheat good condition. Winter wheat planted 100%, 100% 1982, 100% average; emerged 98%, 98% 1982, 95% average. Soybeans harvested 100%, 100% 1982, 100% average. Corn harvested 90%, 100% 1982, 90% average. Days favorable: 2.0. Pasture condition fair to good. Soil moisture 27% adequate, 73% surplus.

OKLAHOMA: Temperatures averaged from 3° above normal Panhandle, north central and southwest to 6° above normal east central. Rainfall averaged from a trace west central and southwest to 1.30 in. southeast.

Light freeze conditioned cotton for harvesting but adversely affected pasture growth. Measureable rainfall received east while high winds sapped moisture west. Full scale cotton harvesting delayed until hard freeze. However, several fields stripped green. Cattle good to fair condition. Wheat planted: 95%, 90% 1982, 97% average; emerged: 85%, 60% 1982, 85% average. Sorghum harvested: 70%, 80% 1982, 80% average. Cotton harvested: 20%, 15% 1982, 35% average.

OREGON: Continuing rainfall dumped another 5.00 in. of precipitation along coast and northern Cascades and up to 4.00 in. in Willamette Valley and high Plateau. Precipitation varied from 0.50 in. to 1.00 in. in rest of State. Temperatures 5 to 10° above normal in most areas.

Winter wheat 98% seeded, normal progress. The crop 94% emerged compared with a norm of 89%. Most fall fieldwork has been completed. In the east, spraying for cheatgrass continues. Herbicide applications being made to wheat and grass seed fields in the Willamette Valley. Berry and fruit orchard maintenance ongoing. In Malheur County, harvest of sugarbeets and corn for grain nearly complete. Harvesting late season vegetables continues as weather permits in west. Soil moisture supply adequate. Range and pasture condition good. New pasture seedings a little behind normal. Livestock condition good, with most feeder operations well stocked in the west.

PENNSYLVANIA: Rain in the middle of the week made the State average 0.91 in., 0.14 above normal. Once again the heavier amounts were in the east. A gradual warming trend caused temperatures to raise slightly above normal by week's end. The average was 38°, 2° below normal. Extremes were 62 and 16°.

PUERTO RICO: No report available.

SOUTH CAROLINA: Frost of freeze 14th morning except south coast. General rains 15th, then cool nights but mild days, ending with warming and more showers.

Soil moisture near adequate, 4.2 days for fieldwork. Cotton 99% harvested, 95% 1982, average. Soybeans 86% mature as frosts halt late growth, 94% year ago, 95% average; harvest at 34%, behind 45% year ago, 54% average; condition poor to fair. Planting winter grazing interrupted, but benefitted by rains, 96%

planted, 95% last year, 91% average; emergence now 89%, 88% last year, 82% average; conditions fair to good. Pastures fair condition, live-stock fair to good. Wheat 44% planted, behind 58% last year, 65% average; emergence now 32%, 40% last year, 50% average. Oats, barley and rye seeding about on schedule.

SOUTH DAKOTA: Average temperatures 1 to 10° above normal. Extremes: 64 and 9°. Rain fell mostly in the east, with from 1.00 to 2.00 in. falling east central and southeast. Northwest, north central, west central and southwest received 0.25 in. or less.

Winter wheat planted 100%, 1982 100%, average 100%. Winter wheat emerged 100%, 1982 100%, average 100%. Corn harvested 99%, 1982 66%, average 93%. Sorghum harvested 100%, 1982 77%, average 97%.

TENNESSEE: Temperatures averaged in the upper 40's but ranged from 73 to 27°. Rainfall totals ranged from 2.75 in. in the west to 0.50 in. in the northeast.

Days suitable for fieldwork: 3.5. Soil moisture 12% surplus, 74% adequate, 14% short. Corn harvested 91%, 1982 92%, average 88%. Cotton harvested 96%, 1982 99%, average 80%. Soybeans harvested 84%, 1982 93%, average 83%. Burley tobacco stripped 59%, 1982 75%, average 71%. Wheat sown 85%, 1982 88%, average 86%. Pastures 20% poor, 63% fair, 17% good.

TEXAS: Warmer than normal temperatures, very little precipitation. Cold front North Texas late 18th, continued south into Gulf by 19th. Front triggered showers, some heavy thunderstorms north central, south central, southeast Texas. Mild, fair weather remainder of the week. Precipitation averaged below normal Statewide.

Crops: Open weather allowed fieldwork to progress rapidly. Harvest of cotton, sorghum continues active. Sorghum harvest completed soon if good weather continues. Small grain planting nearing completion. Cotton harvest made rapid progress. Statewide, condition 47% of normal compared with 63% a year ago. Currently 2% excellent; 5% good; 56% fair, 34% poor and 3% failure. Sorghum harvest picked up. Yields remain good, some damage due to early freezing temperatures High Plains. Small grain planting nearing completion. Statewide planting 93% complete. Cool, drier air depleted much surface moisture, rain is needed. Early seeded fields continue to provide good grazing. Soybean harvest picked up. Quality still remain low.

Cotton open bolls 99%, 96% 1982, 96% average; harvested 54%, 49% 1982, 46% average. Sorghum harvested for grain 98%, 99% 1982, 97% average. Wheat planted all purposes 93%, 92% 1982, 94% average; emerged 80%, 75% 1982, 81% average. Peanuts harvested 83%, 77% 1982, 84% average. Soybeans harvested 80%, 80% 1982, 80% average. Sugarbeets harvested 82%, 81% 1982, 75% average. Pecans harvested 42%, 46% 1982, 38% average. Sunflowers harvested 96%, 94% 1982, 90% average. Oats planted for all purposes 93%, 85% 1982, 91% average.

Commercial vegetables: Rio Grande Valley, harvest of peppers, cucumbers, broccoli, cabbage in full swing. Citrus harvest gaining momentum, good quality fruit reported. Coastal Bend, cucumber harvest progressing rapidly. Other fall vegetables reported good condition. Cabbage harvesting beginning. East Texas, sweetpotato harvesting nearing completion. San Antonio-Winter Garden area, cucumber, carrot harvesting

increased. All fall vegetables making good growth. Pecan harvest continues to gain momentum. Production, quality expected to be lower than early season estimates. Statewide pecan harvest 42% complete.

Range and livestock: Dry, cool weather slowed growth of grasses, dryland small grain pastures. Irrigated small grain fields provided good grazing High Plains. East, Central Texas, grazing prospects improved slightly. Supplemental feeding continues to increase. Livestock remain in good condition. Statewide, dryland pastures fair to poor condition.

UTAH: Recurring periods precipitation. Accumulations light to moderate except moderate to heavy in mountainous areas. Maximum temperatures averaged 3° above normal, minimums 6° above.

Farm activities mostly routine chores. Some apples picking continued. Onion, potato and apple sorting and marketing in progress as orders come in. Livestock conditions continued good.

VIRGINIA: Temperatures averaged about 4° below normal ranging from low of 14° at Blacksburg to high of 63° in southeast. Morning lows early in week near freezing along coast and well below freezing inland. Warming trend toward end of period. Precipitation early and again late in period averaged 1.5 in. heaviest in central--least in southwest.

Rains slowed fieldwork. Days suitable dropped to 3.2. Topsoil moisture increased to 1% short, 81% adequate, 18% surplus. Corn harvest progressed to 93% complete compared with 92% last year and average. Soybean harvest fell farther behind schedule; 46% complete compared with 76% last year, 73% average. Peanut digging virtually complete, last year and average was complete. Combining 95% finished, 100% last year and average. Wheat seeding 81% complete compared with 86% last year and 81% average. Fire, sun-cured and burley tobaccos were being graded and prepared for sale. Tobacco seed bed fumigation began. Livestock in good condition. Calving and lambing started.

WASHINGTON: A wet, soggy week with mild temperatures. Low pressure the dominant feature on weather maps for eastern Pacific and State. High winds and considerable rain accompanied frontal passages 13th, 15th and 17th. Although weak high pressure followed fronts, rain and high winds persisted through week. Precipitation totals considerably above normals. Forks, on north coast, reported nearly 12.00 in. compared to weekly normal of 3.25 in. Many stations east of Cascades 50 to 100% above seasonal (Sep, to mid-Nov) expectations.

Winter wheat in average to above average condition. Soil moisture conditions rated adequate to good. In Spokane and Garfield counties, some fields showing erosion due to heavy rainfall of past week. Some wheat replanting to be done in fields where cheatgrass a problem. Harvesting of remainder of corn crop being slowed by rain. Fruit tree and grape vine pruning has begun. Canning continues in raspberry fields. Harvesting fresh market cauliflower continues. Processing carrot harvest mostly complete. Winter cauliflower looks good. In east, ranges and pastures providing only limited forage. Cattle beginning to be moved into corn stubble fields. On west side, many pastures contain standing water due to heavy rainfall and livestock being moved to drylot

quarters. Feeder calves being moved to market. Winter wheat planted 100%, 100% 1982, 100% average; emerged 99%, 98% 1982, 97% average.

WEST VIRGINIA: Temperatures averaged 2 to 5° below normal. Range 12 to 72°. Precipitation above normal. Range 0.17 to 1.53 in. One to twelve in. of snow in higher elevations.

Soil moisture adequate. Days worked averaged 1.4. Main activities: Corn harvesting, livestock, general maintenance. Corn 89% harvested. Pasture in fair to poor condition.

WISCONSIN: Precipitation fell as light snow and drizzle over northwestern parts, light rain elsewhere. Amounts between 0.50 to 1.00 in. Temperatures generally mild. Highest reading 62° Madison on 19th; lowest was 15° Minong on 17th.

Soil moisture 63% adequate, 35% surplus, 2% short. Days suitable for fieldwork: 3.0. Corn harvested 91% complete, 65% last year, 85% average. Soybeans harvesting 96% complete, the same as average. Last year's progress 84%. Fall plowing 75% complete, last year at this time 36% was completed; average 56%.

WYOMING: Temperatures much warmer than normal. Precipitation amounts above or near average.

Winter wheat mostly good condition. Additional moisture needed for optimum development. Corn harvest, fall plowing continues as weather permits. Livestock mostly good condition. Supplemental feeding in areas with heavier snowfall. Hay supplies adequate most areas. Livestock producers continue to move livestock to winter pastures, market livestock, pregnancy testing.



(continued from p. 8)

CORRECT THE FOLLOWING STATIONS FOR
OCTOBER 1983 HEATING DEGREE DAYS.

NOME	AK.	1179
GRAND JCT.	CO.	208
NEW ORLEANS	LA.	37
HOUGHTON LAKE	MI.	569
HAVRE	MT.	540
BURNS	ORE.	544
HUNTINGTON	W. VA.	248

National Weather Summary (continued from front cover)

west coast from northern California through Washington. Freezing temperatures spread through the East Coast States to northern Florida.

SATURDAY...A cold front spread strong thunderstorms across the Mississippi Valley. Heavy rain, high wind, and a few tornadoes plagued the Mississippi Delta and moved into Georgia. Lighter showers early in the day fell over the central and southern Plains with light snow reaching into Kansas. Light rainshowers also reached to the Appalachians as far north as New York. Another Pacific storm moved onto the west coast and spread showers along all of the coast and snow showers across the Plateau to the northern Rockies.

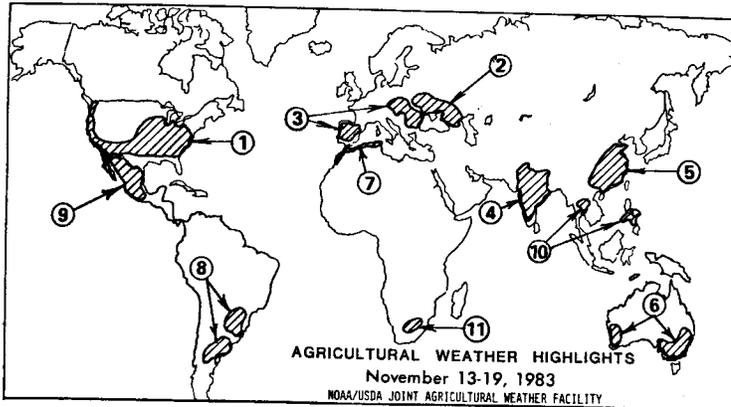
(continued from p. 9)

PASTURES AND LIVESTOCK: Pastures were in fair to good condition across the northern Plains and Corn Belt, but were mostly fair elsewhere. Supplies of feed were adequate in most areas but supplemental feeding was widespread. In Kansas, 5% of the winter wheat was being pastured. In Texas, early seeded wheat fields provided good grazing. However, dry, cool weather slowed grass growth and supplemental feeding continued to increase.

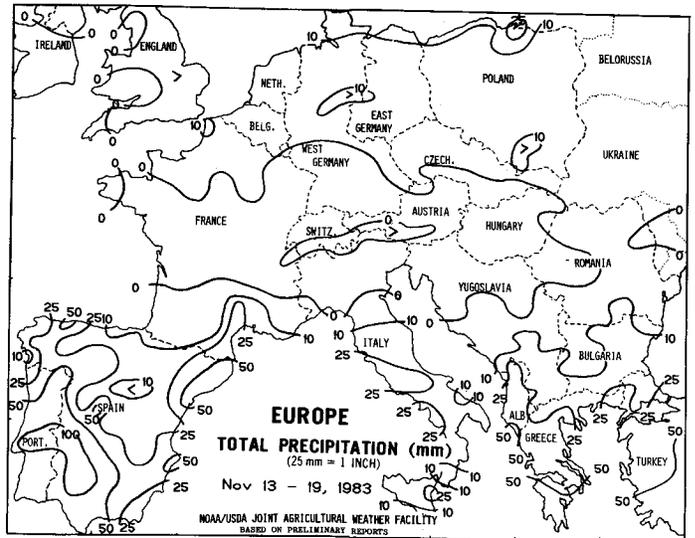
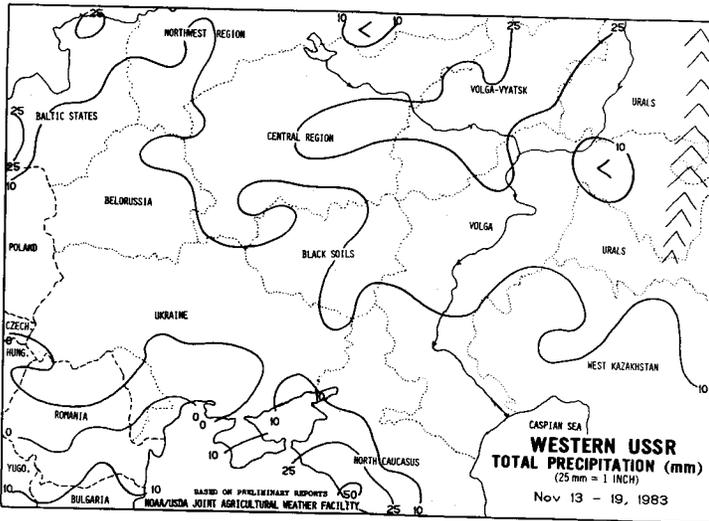


International Weather and Crop Summary

November 13 to 19



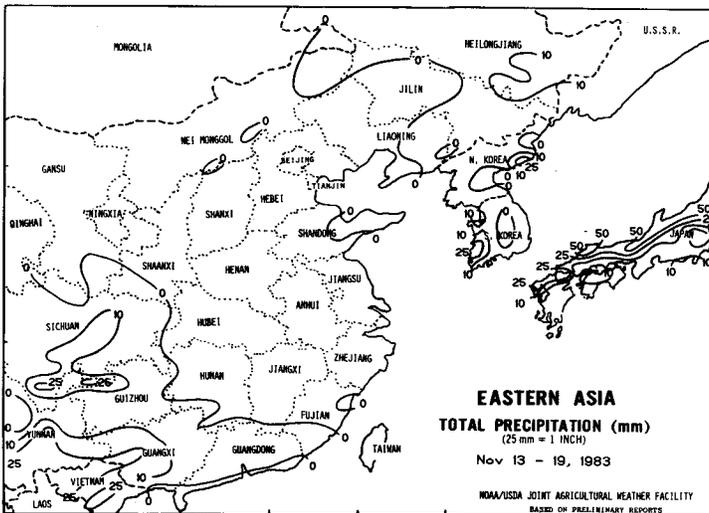
1. **UNITED STATES** ... Frequent rains halt most harvesting and field activities over the eastern half of the Nation and the Pacific Northwest into central California. Sunny and warm weather favors cotton harvesting and winter wheat planting and growth over the southern Plains and the Southwest.
2. **WESTERN USSR** ... The first major winter storm drops temperatures to subfreezing levels across the south. Top-growth of winter wheat is burned and plants are forced into dormancy.
3. **EUROPE** ... Wet weather continues to cover crop areas in the Iberian Peninsula and dry weather is needed to allow access to fields. Prolonged dryness and a cold snap in southeastern Europe likely causes poor plant establishment with crops more susceptible to winterkill.
4. **SOUTH ASIA** ... Dry weather continues to favor maturation and harvesting of summer crops. Growing conditions are good for winter wheat.
5. **EASTERN ASIA** ... Light showers in the south cause only minimal delays for the rice harvest. Slightly cooler temperatures slow winter wheat growth.
6. **AUSTRALIA** ... Showers aid late growth of wheat in the west but delays early harvesting in the east. Adequate moisture is available for final growth stages in nearly all areas but cool weather slows crop maturity.
7. **NORTHWESTERN AFRICA** ... Showers provide favorable planting moisture over most winter grain areas.
8. **SOUTH AMERICA** ... Soybean planting progresses well with over 50 percent of Parana's crop in the ground. Intermittent showers keep topsoils moist for early growth. Rain aids early summer crop growth in Argentina and wheat is maturing in northern crop areas.
9. **MEXICO** ... Dry and warm weather over most areas favors harvesting and field operations.
10. **SOUTHEAST ASIA** ... Mostly dry weather favors rice harvesting in Indochina. A tropical storm is likely causing some damage to maturing rice in the central Philippines.
11. **SOUTH AFRICA** ... Rain continues to favor eastern corn areas. Precipitation also benefits the southern Triangle where planting has been delayed because of dryness.



WESTERN USSR...The first major winter storm developed over the region early in the week. The storm provided a protective snow cover over northeastern winter rye areas, but high winds produced some drifting. As the storm system moved eastward, subfreezing temperatures and dry air pushed southward into winter wheat areas, reversing a warmer than normal pattern. Temperatures approached the threshold for winterkill in winter wheat areas but were not of sufficient duration for widespread winterkill to occur. However, topgrowth was likely burned over a large area of the south and most plants were forced into dormancy with minimal hardening, making the crop more susceptible to winterkill. Temperatures moderated over the region by week's end with light snow reported at many locations.

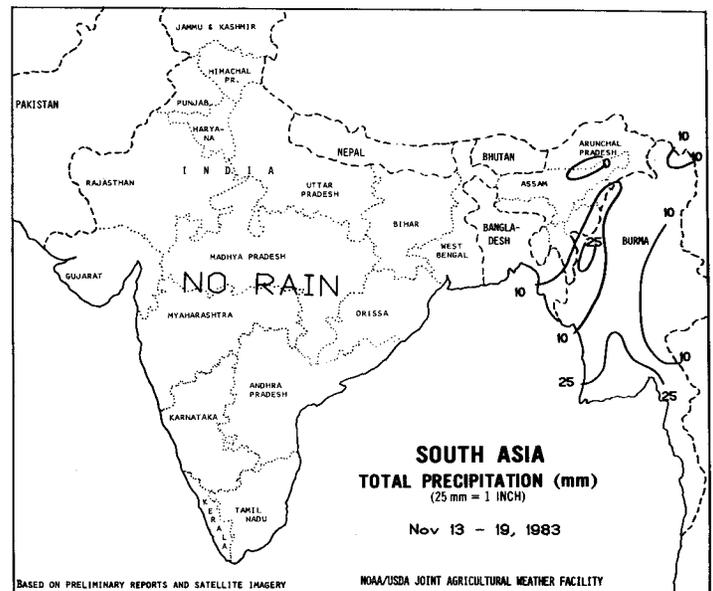
EUROPE...Heavy rain continued over crop areas of Portugal and southern Spain, likely causing localized flooding. Although the rain has saturated topsoils, providing excellent planting moisture, dry weather is now needed to allow access to fields. Widespread showers covered northern Spain and dry weather is needed for planting to progress. In northwestern Europe, light scattered precipitation covered winter grains and cold temperatures allowed only slow growth. Elsewhere, cold air plunged southward into southeastern Europe forcing winter grains in Czechoslovakia, Hungary, and Romania into dormancy. Nighttime lows, around -11°C for 2 consecutive days, approached the threshold for

winterkill, burning topgrowth. However, snow and moderating temperatures by mid-week kept the potential for widespread winterkill at a minimal level. In addition, the prolonged dryness which existed over these areas prior to the cold snap has likely caused poor plant establishment.

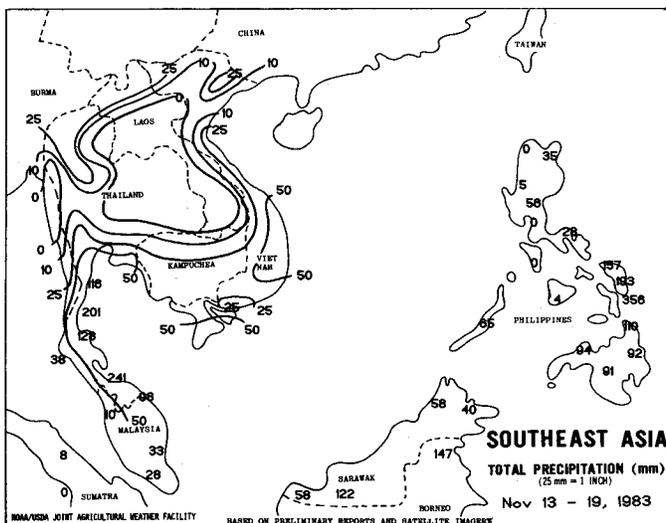


EASTERN ASIA...Light to moderate rain covered southwestern China while most of the China Plain was dry. The moisture caused only slight delays for rice harvesting activities in the south. The dry weather in central China allowed summer crop harvesting to proceed without delay. Temperatures were slightly below normal this week in eastern China. Winter wheat normally enters dormancy within the next few weeks in the north. Moisture conditions have been mostly favorable and earlier warm weather has been beneficial for good wheat establishment, lessening the effects of cold winter weather.

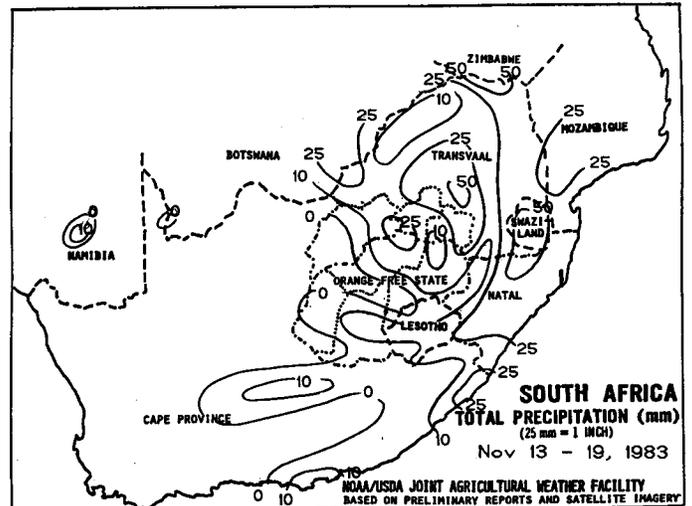
east-central Philippines, possibly damaging maturing rice crops and threatening the northern islands. Tropical Storm Percy remained in the open waters of the South China Sea but was moving toward southeastern Indochina.



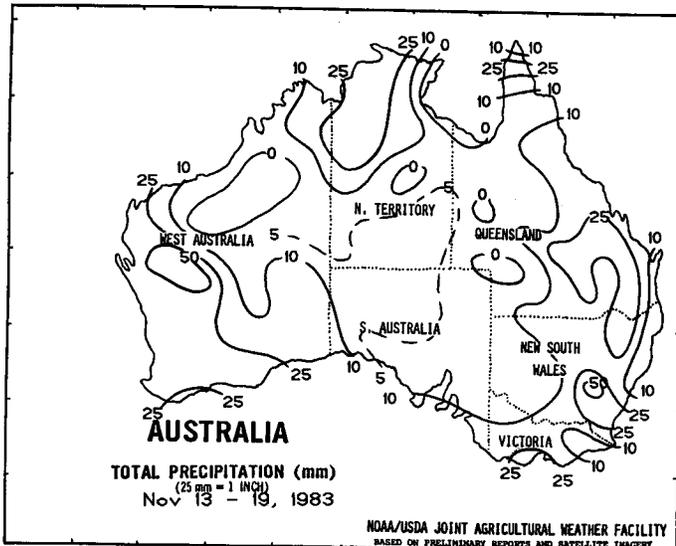
SOUTH ASIA...Seasonably dry weather continued throughout most of India, with only a few light showers occurring in the extreme south in Kerala and Tamil Nadu. Temperatures were a little below normal, but sufficiently warm to continue good early winter wheat growth in the north. Winter wheat normally enters the heading stage about mid-December in the south and early January in the north. The dry weather in peninsular India was favorable for maturation and harvesting of cotton, groundnuts, and rice.



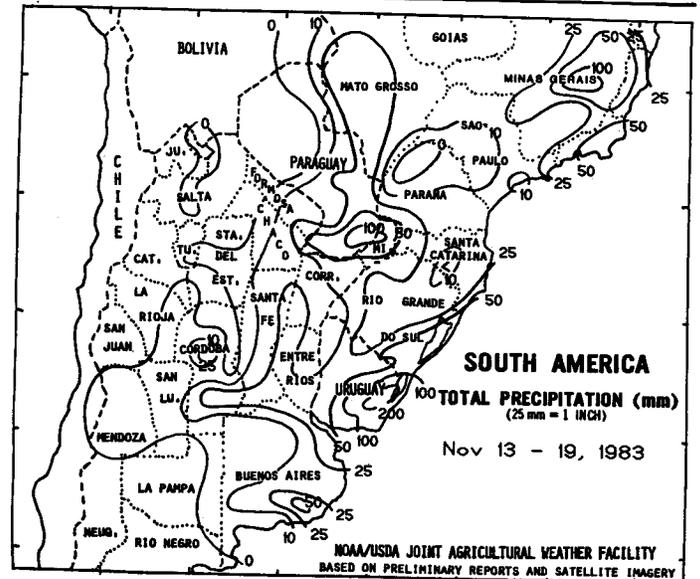
SOUTHEAST ASIA...Heavy rain was limited to peninsular Thailand and the extreme south-central rice area. Moderate rain fell in northern Thailand, while large portions of the eastern and central regions were dry. The relatively dry weather was favorable for maturation and harvesting of rice crops. Two tropical storms developed late in the week. Tropical Storm Orchid brought very heavy rain and high winds to the



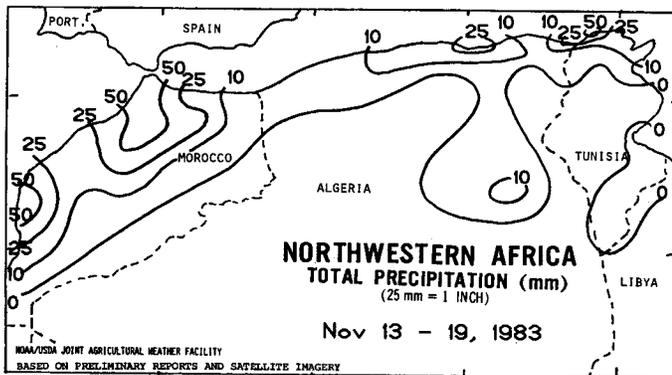
SOUTH AFRICA...Significant showers continued to fall in the eastern Maize Triangle maintaining adequate topsoil conditions. Beneficial rain, 10-20 mm, covered the southern portion of the Triangle in the Orange Free State where conditions had been too dry for planting and emergence. The moisture eased dry conditions somewhat, however, temperatures remain slightly above normal, maintaining a high evaporative demand. Much more precipitation is needed over the entire western Maize Triangle to create good planting conditions and to build moisture reserves.



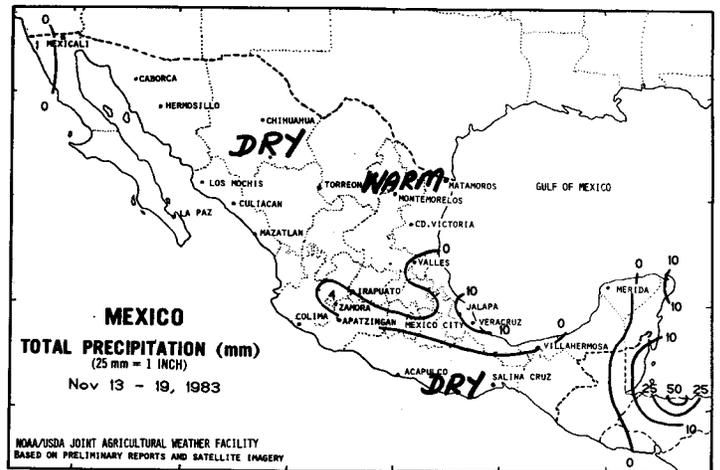
AUSTRALIA... Showers covered both the western and eastern portions of the wheat belt while mostly dry weather prevailed over much of the southern wheat areas. Temperatures were below average throughout the southern half of Australia, providing mild days and cool nights for grain development. In fact, the cool weather may slow wheat ripening in southern crop areas, but moisture is adequate for late growth. Wheat is a cool-season crop, although mild, dry weather during late grain-filling stages through maturity is favorable for higher quality grain yields. Locally heavy showers in southern Queensland and northern New South Wales delayed harvesting of early maturing wheat. In the west, another week of showers improved conditions for wheat, still in the grain-filling period, and halted any further yield reductions caused by the earlier dryness. The rains may have come too late to boost statewide wheat yields, however.



SOUTH AMERICA... In Brazil, soybean planting progressed well with more than 50 percent of Parana's crop and over 30 percent of Rio Grande do Sul's crop in the ground. These two states produce about 75 to 80 percent of the total crop, based on the recent five-year average. Intermittent showers maintained adequate topsoil moisture for early crop growth, and temperatures averaged above normal for the week. Thus, early season weather conditions have been mostly favorable for this year's soybean crop. Some rain fell over most of Argentina's crop areas but amounts were highly variable. The significant corn producing areas of Cordoba and Santa Fe received substantial rains (in excess of 25 mm), while southern wheat areas benefited from lighter amounts of rainfall. The summer crop growing season has just begun with favorable moisture. First-crop soybeans should be mostly planted. Early wheat harvesting in the major growing areas will begin soon.



NORTHWESTERN AFRICA... Significant amounts of precipitation covered winter wheat areas in western Morocco. Rainfall amounts generally ranged from 25 to 50 mm, with some locations receiving amounts as high as 70 mm. Reports indicate localized flooding, but overall the rain was beneficial, increasing soil moisture for winter grain planting. Elsewhere, widespread light showers covered winter grains in northern Algeria and northern Tunisia providing good moisture for planting.



MEXICO... Warm, dry weather encompassing most areas favored harvesting and field activities, especially in northeastern citrus and west coast crop areas. Temperatures were slightly warmer than normal over northern regions and enhanced the growth of winter vegetables, wheat, and rangeland vegetation. A few showers dotted parts of the southern Plateau corn belt but amounts were generally too light to interfere with outdoor operations. Moderate showers continued over parts of Central America even though the seasonal rainy pattern is decreasing.

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