

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

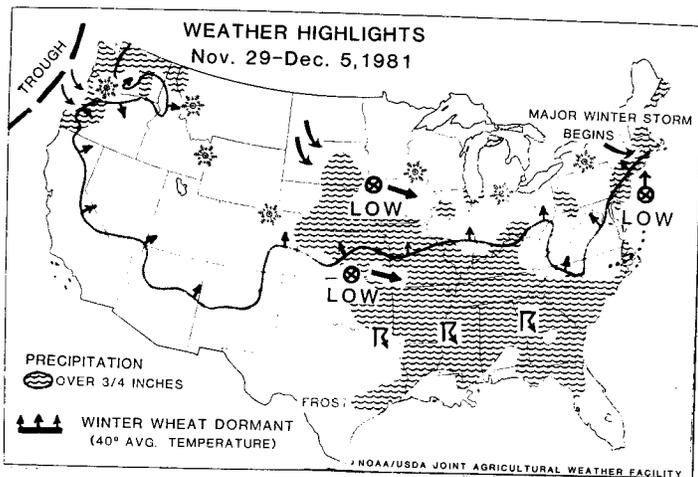
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WASHINGTON, D.C.

Dec. 8, 1981

National Weather Summary

November 29-December 5, 1981



TUESDAY... The snow storm moved into the Great Lakes region. Blizzard conditions continued through the northern Plains and upper Mississippi Valley. Rain fell south of the Great Lakes and in the Northeast. Parts of New York and New England had freezing rain early in the day. Showers spread ahead of a cold front through the east coast States to northern Florida and eastern Alabama. While areas behind the cold front were cooler, Florida and the gulf coast experienced unusually warm weather in the high 70s and low 80s. Showers of rain or snow continued through the Pacific Northwest to the northern Rockies.

WEDNESDAY... Freezing rain and sleet fell over parts of New York and New England. Rain or showers covered the rest of the east coast States to North Carolina and through Florida. Light rain fell through the eastern Great Lakes and southward to the Appalachians. Showers of rain with snow at higher elevations continued from northern California to Washington and through Montana. Cold air pushed southward through the Plains and Rockies and freezing temperatures reached to New Mexico, western Texas, and through Oklahoma.

THURSDAY... A cold front spread snow across the northern Plains into the upper Mississippi Valley. Heavy snow moved through Minnesota and Iowa while strong wind blasted the northern and central Plains. Light rain spread across the Great Lakes while rain and snow covered New England. Light rain extended to the Ohio Valley and to the southern Appalachians. Another cold front brought showers and high winds to the Pacific Northwest coast.

FRIDAY... Light snow lingered in the eastern Great
(Continued on page 14.)

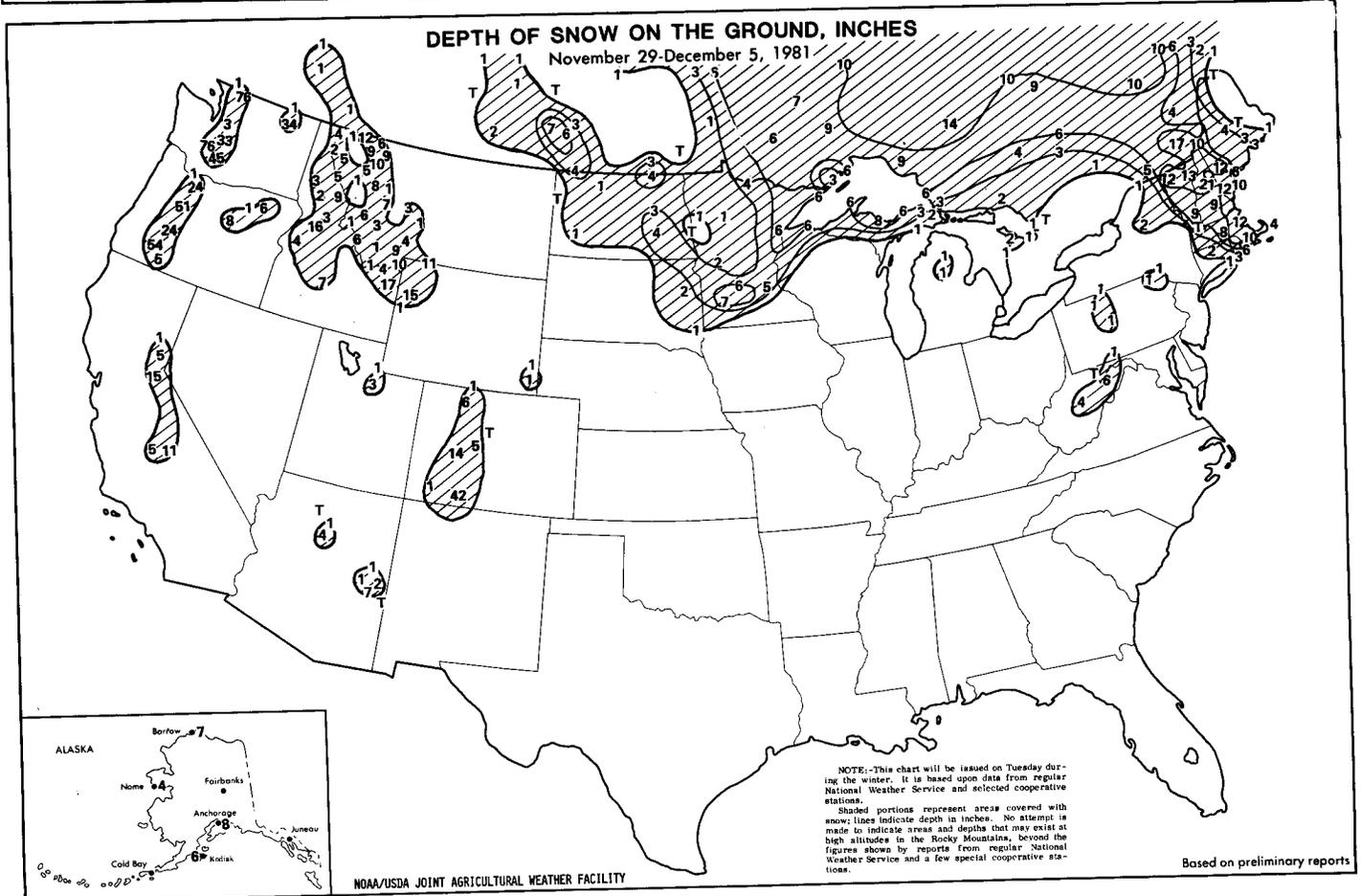
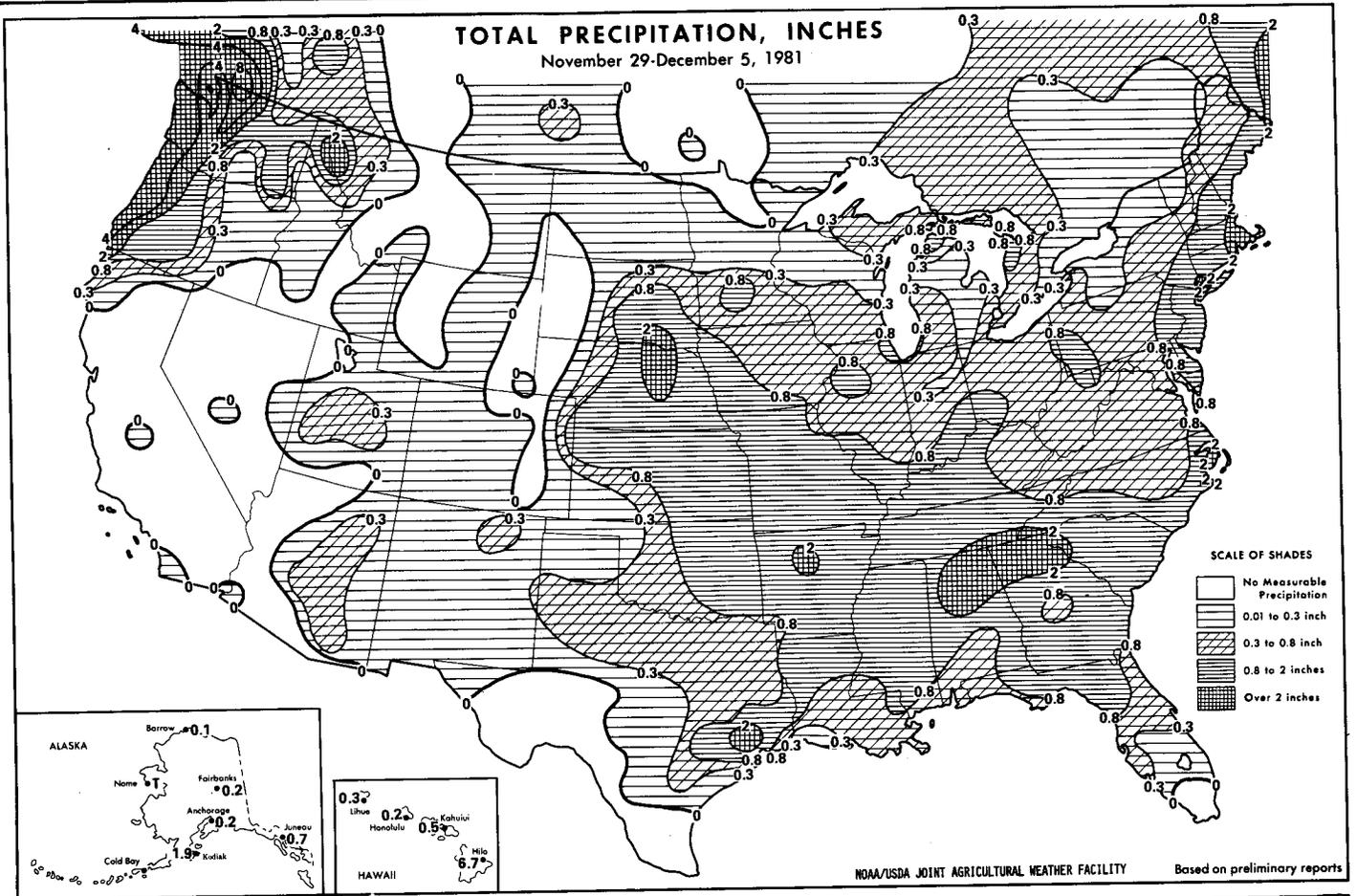
HIGHLIGHTS: A deep low pressure system in the Gulf of Alaska spawned storm systems that continued to move onto the coast of the Pacific Northwest. High wind and heavy rain caused flooding in the coastal areas of Oregon and heavy snow accumulated in the northern Cascades. Some rainshowers and lighter snow spread across the northern Plateau and Rockies into Montana. As the storms regenerated in the Plains and encountered moisture from the Gulf of Mexico or Atlantic, moderate to heavy precipitation fell through most of eastern United States. Snow fell from Nebraska and North Dakota eastward to New England and south of the Great Lakes to the central Appalachians.

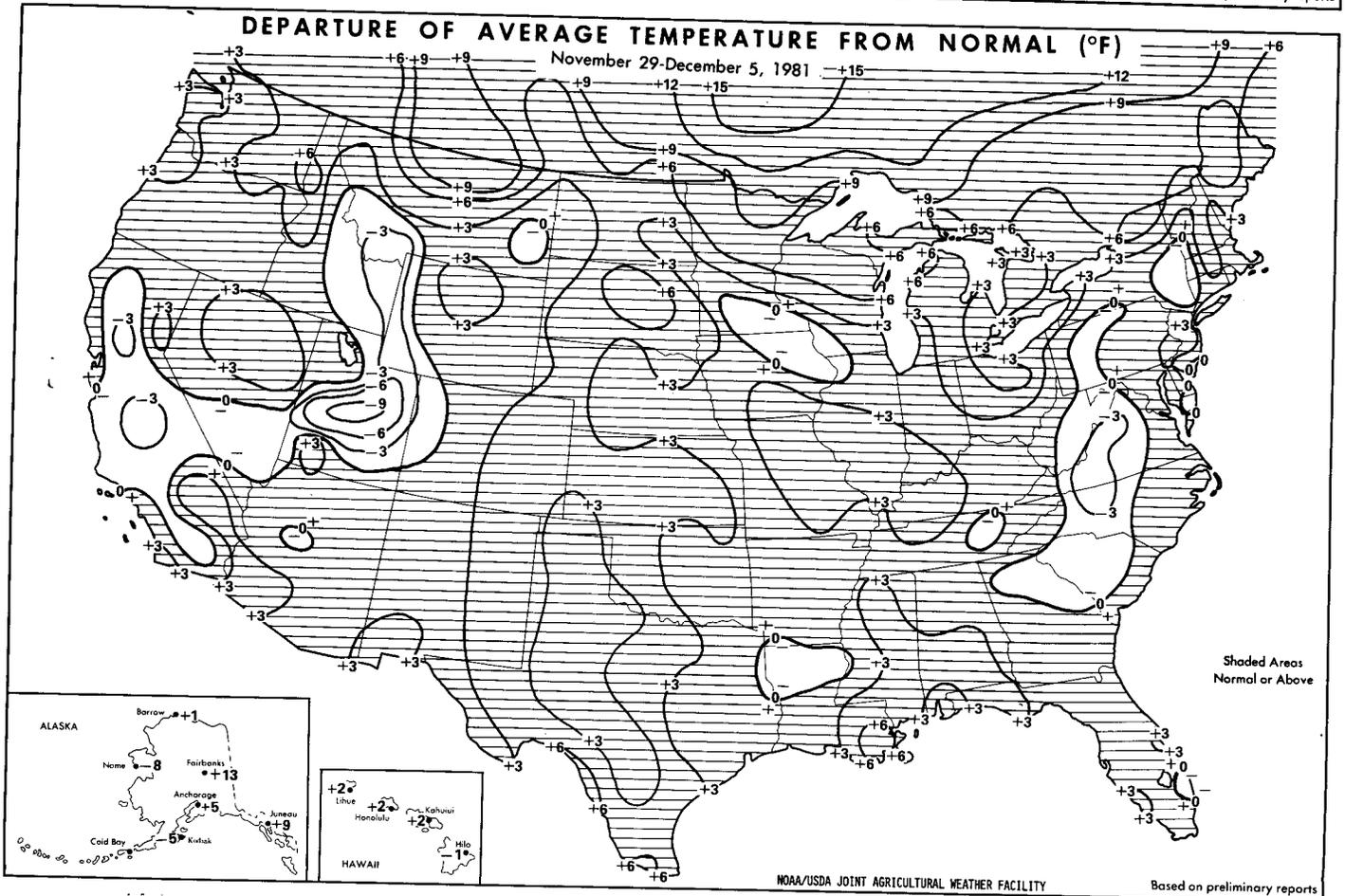
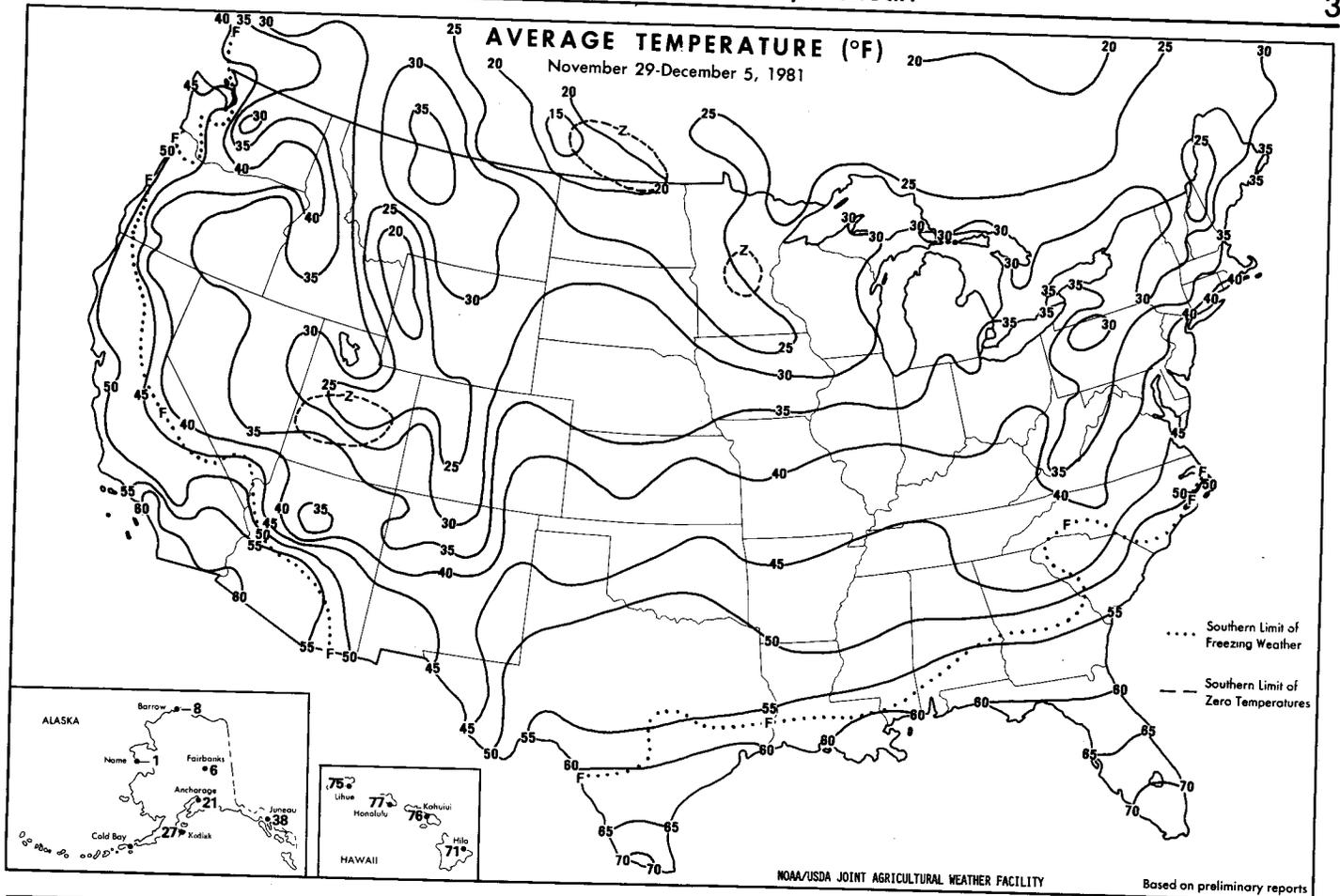
SUNDAY... A strong low pressure system moved out of the southern Rockies, picking up moisture from both the Pacific Ocean and the Gulf of Mexico. Showers of rain or snow spread from eastern Arizona and Utah eastward through the central and southern Plains to the Tennessee Valley and South Carolina. Heavy snow covered much of the central and southern Rockies. Another cold front spread showers over the Pacific Northwest. Snow showers lingered over the northern Appalachians.

MONDAY... An intense winter storm continued to spread snow from central Nebraska and South Dakota to central Lake Michigan. Rain or showers fell east of the snow area to the mid-Atlantic States and the Southeast to northern Georgia, then across the South to eastern Texas and Oklahoma. The most concentrated area of showers and a few thunderstorms were over the middle Mississippi Valley. Showers of snow or rain continued over the Pacific Northwest and in the northern and central Rockies.

Contents

	Page
National Weather Summary	1
Precipitation & Snow	2
Temperature & Departure	3
Weather Data for Selected Cities	4
Weekly Heating Degree Days	7
November Weather & Crop Summary	8
November Precipitation & Percent of Normal	9
November Temperature & Departure	10
November Weather Data	11
November Heating Degree Days	12
National Agricultural Summary	13
Crop Progress & State Summaries of Weather & Agriculture	14
Dry Weather Reduces Argentine Wheat Prospects	18
International Weather & Crop Summary	21
Subscription Information	24





Weather Data for the Week Ending Dec. 5, 1981

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. 31	PCT. NORMAL SINCE AUG. 31	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	59	37	65	28	48	1	2.7	-1.6	1.7	2.7	245	37.9	78	88	44	0	3	3	2	
AL MOBILE	68	45	79	32	56	2	.4	-.8	.4	.4	33	50.9	81	88	41	0	1	1	0	
AL MONTGOMERY	65	46	72	35	55	4	.6	-.4	.6	.6	60	40.3	88	86	35	0	0	1	1	
AK ANCHORAGE	24	17	32	11	21	5	.2	-.1	.1	.2	67	20.5	147	92	69	0	7	5	0	
AK BARROW	-4	-13	3	-18	-8	1	.1	0	T	.1	100	--	--	78	66	0	7	5	0	
AK FAIRBANKS	16	-4	24	-16	6	13	.2	0	.1	.2	100	9.9	95	86	61	0	7	5	0	
AK JUNEAU	42	34	50	33	38	9	.7	-.5	.3	.7	58	50.9	100	87	52	0	0	7	0	
AK KODIAK	33	20	48	10	27	-5	1.9	-.7	1.0	1.9	158	63.9	121	73	54	0	6	4	1	
AK NOME	6	-7	14	-21	-1	-8	T	-.2	T	0	0	15.4	101	65	53	0	7	1	0	
AZ FLAGSTAFF	48	20	59	7	34	2	0	-.4	0	0	0	22.0	122	97	44	0	7	0	0	
AZ PHOENIX	69	48	82	42	58	4	.5	.3	.5	.5	250	6.9	113	85	33	0	0	1	0	
AZ TUCSON	66	41	76	34	53	0	.6	-.4	.6	.6	300	13.9	138	85	31	0	0	1	1	
AZ WINSLOW	47	27	53	23	37	0	.7	-.6	.7	.7	700	9.6	123	--	--	5	1	1	1	
AZ YUMA	74	48	80	44	61	2	.1	0	.1	.1	100	1.6	53	55	22	0	0	1	0	
AR FORT SMITH	56	33	66	22	45	0	1.8	1.1	1.3	1.8	257	40.4	100	92	41	0	4	2	2	
AR LITTLE ROCK	57	39	69	33	48	2	1.1	.2	1.1	1.1	122	41.5	93	73	46	0	0	2	1	
CA BAKERSFIELD	55	42	59	38	48	-2	0	-.2	0	0	0	5.6	108	92	62	0	0	0	0	
CA EUREKA	58	46	64	38	52	2	.3	-1.1	.2	.3	21	33.4	96	94	74	0	0	2	0	
CA FRESNO	52	38	54	33	45	-3	0	-.4	0	0	0	9.2	101	98	73	0	0	0	0	
CA LOS ANGELES	69	49	83	46	59	2	0	-.4	0	0	0	9.6	93	82	44	0	0	0	0	
CA RED BLUFF	58	40	68	33	49	1	T	-.8	T	0	0	26.7	138	90	58	0	0	0	0	
CA SAN DIEGO	70	52	75	49	61	3	.7	-.3	.7	.7	175	10.4	127	94	48	0	0	1	1	
CA SAN FRANCISCO	56	44	60	39	50	-2	0	-.8	0	0	0	19.9	120	94	71	0	0	0	0	
CA STOCKTON	55	38	62	33	47	-1	0	-.5	0	0	0	14.4	120	99	73	0	0	0	0	
CO DENVER	51	25	64	18	38	3	.2	-.1	.2	.2	200	12.3	82	70	25	0	6	1	0	
CO GRAND JUNCTION	39	22	47	17	31	-2	.2	-.1	.2	.2	200	8.0	110	93	54	0	7	1	0	
CO PUEBLO	57	23	70	14	40	4	0	-.1	0	0	0	7.1	59	67	25	0	7	0	0	
CT BRIDGEPORT	47	30	56	21	39	0	1.2	-.4	.7	1.2	150	29.8	83	80	52	0	4	2	1	
CT HARTFORD	43	29	47	20	36	3	1.1	-.1	.6	1.1	110	32.3	81	77	45	0	5	3	2	
DC WASHINGTON	51	39	56	33	45	4	.6	-.1	.5	.6	86	29.6	81	84	46	0	0	3	1	
FL APALACHICOLA	70	49	78	38	60	3	.7	-.1	.5	.7	88	35.4	64	86	45	0	0	2	0	
FL DAYTONA BEACH	72	51	82	40	62	0	.4	0	.4	.4	100	37.1	76	91	48	0	0	1	0	
FL FORT MYERS	80	59	86	47	69	3	.3	0	.3	.3	100	51.8	98	95	46	0	0	1	0	
FL JACKSONVILLE	73	45	84	33	59	2	.7	-.3	.7	.7	175	33.3	64	94	39	0	0	1	1	
FL KEY WEST	79	71	83	59	75	2	0	-.4	0	0	0	26.9	69	89	63	0	0	0	0	
FL MIAMI	79	63	86	49	71	2	T	-.3	T	0	0	51.0	87	89	49	0	0	0	0	
FL ORLANDO	76	53	83	41	64	1	.5	.2	.5	.5	167	45.3	91	95	43	0	0	1	1	
FL TALLAHASSEE	70	41	78	29	55	1	.9	0	.6	.9	100	46.8	81	99	40	0	2	2	1	
FL TAMPA	74	53	80	40	63	0	.3	-.2	.3	.3	60	35.7	74	98	53	0	0	1	0	
FL WEST PALM BEACH	77	57	84	46	67	-1	.1	-.3	.1	.1	25	47.7	80	98	54	0	0	1	0	
GA ATLANTA	55	36	62	29	46	0	1.5	.6	1.0	1.5	167	36.4	81	86	47	0	1	3	2	
GA AUGUSTA	59	35	64	23	47	-2	1.0	.3	.5	1.0	143	36.3	91	93	46	0	3	3	1	
GA MACON	62	42	69	33	52	1	.7	-.1	.6	.7	88	40.7	99	89	46	0	0	2	1	
GA SAVANNAH	65	45	79	33	55	3	.8	-.1	.5	.8	114	37.7	78	80	43	0	0	2	1	
HI HILO	77	65	79	64	71	-1	6.7	2.9	2.3	6.7	176	--	--	95	70	0	0	7	3	
HI HONOLULU	82	71	83	70	77	2	.2	-.6	.2	.2	25	8.9	44	82	57	0	0	1	0	
HI KAHULUI	83	69	84	64	76	2	.5	-.1	.2	.5	83	--	--	79	56	0	0	4	0	
HI LIHUE	81	70	82	68	75	2	.3	-1.1	.3	.3	21	--	--	84	58	0	0	4	0	
ID BOISE	43	28	52	22	36	1	.1	-.3	T	.1	25	12.5	114	83	50	0	7	4	0	
ID LEWISTON	49	36	53	30	43	6	.1	-.2	.1	.1	33	12.9	103	82	48	0	1	2	0	
ID POCATELLO	37	22	51	10	29	-1	T	-.3	T	0	0	12.3	124	88	60	0	7	2	0	
IL CAIRO	49	36	57	27	43	1	.7	-.2	.7	.7	78	38.6	87	--	--	0	2	1	1	
IL CHICAGO	39	22	47	17	31	0	.9	.4	.3	.9	180	38.6	126	95	64	0	6	5	0	
IL MOLINE	38	25	42	19	31	0	.8	.3	.6	.8	160	36.2	105	91	69	0	6	3	1	
IL PEORIA	43	28	48	22	36	4	.5	0	.3	.5	100	38.2	114	92	64	0	6	3	0	
IL ROCKFORD	35	22	40	18	29	-1	.6	-.1	.3	.6	120	34.6	97	96	72	0	6	3	0	
IL SPRINGFIELD	45	30	50	25	38	3	.5	0	.4	.5	100	46.0	136	95	66	0	5	3	0	
IN EVANSVILLE	50	36	56	27	43	4	.8	-.1	.8	.8	114	41.2	105	83	55	0	1	2	1	
IN FORT WAYNE	41	29	57	23	35	2	.2	-.3	.1	.2	40	34.8	102	94	65	0	5	3	0	
IN INDIANAPOLIS	43	29	56	23	36	2	.4	-.3	.2	.4	57	34.4	94	90	60	0	6	3	0	
IN SOUTH BEND	41	28	51	21	34	2	.5	0	.2	.5	100	36.8	107	92	63	0	5	5	0	
IA BURLINGTON	41	28	45	22	34	3	.6	.3	.5	.6	200	--	--	90	67	0	6	3	0	
IA DES MOINES	39	25	43	20	32	2	.8	.6	.5	.8	400	30.7	101	89	67	0	7	3	1	
IA DUBUQUE	31	20	36	8	25	-2	.7	.2	.7	.7	140	--	--	99	83	0	7	1	1	
IA STOUX CITY	38	23	43	16	31	3	1.0	.8	1.0	1.0	500	20.0	79	97	72	0	7	2	1	
KS CONCORDIA	46	31	50	27	38	4	1.6	1.4	1.3	1.6	800	33.7	125	81	52	0	5	3	1	
KS DODGE CITY	50	31	55	22	40	4	.2	-.1	.1	.2	200	24.5	120	70	36	0	4	2	0	
KS GOODLAND	47	26	60	18	37	4	.9	.8	.6	.9	900	22.3	135	77	43	0	7	2	1	
KS TOPEKA	47	29	53	25	38	2	.9	.6	.9	.9	300	40.2	120	91	56	0	6	2	1	
KS WICHITA	50	33	55	28	42	4	.9	.7	.8	.9	450	27.6	92	86	48	0	4	3	1	
KY LEXINGTON	47	33	62	25	40	1	.6	-.3	.4	.6	67	33.4	80	91	61	0	3	3	0	
KY LOUISVILLE	48	33	61	26	41	2	1.4	.6	1.3	1.4	175	32.0	79	85	51	0	4	3	1	
LA BATON ROUGE	70	46	82	35	58	4	.5	-.6	.5	.5	45	38.3	76	88	40	0	0	2	0	

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Dec. 5, 1981

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. 31	PCT. NORMAL SINCE Aug. 31	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
LAKE CHARLES	68	44	76	32	56	0	.2	-1.1	.2	.2	15	47.6	93	95	45	0	1	1	0
NEW ORLEANS	73	52	84	40	62	6	.6	.6	.5	.6	50	49.8	94	90	39	0	0	2	0
SHREVEPORT	63	37	76	28	50	-1	1.0	.1	.8	.6	111	40.6	98	90	40	0	2	2	0
ME CARIBOU	32	23	39	16	28	6	.8	.1	.4	1.0	114	43.8	126	90	71	0	7	3	1
PORTLAND	42	27	49	16	34	4	1.1	0	.9	1.1	100	43.2	113	86	58	0	5	2	1
MD BALTIMORE	47	33	55	24	40	1	.7	.1	.6	.7	88	28.7	76	80	47	0	3	2	1
MA BOSTON	44	33	58	25	39	1	2.4	1.4	1.8	2.4	240	31.9	82	85	57	0	3	3	1
CHATHAM	44	35	53	28	39	-	2.6	-	1.4	2.6	-	40.6	-	85	68	0	2	4	2
MI ALPENA	37	29	44	22	33	6	.2	.3	.1	.2	40	20.4	77	93	63	0	5	3	0
DETROIT	42	29	53	21	35	3	.4	.1	.4	.4	80	31.6	105	91	58	0	5	2	0
FLINT	38	27	52	22	33	2	.2	.2	.2	.2	50	33.3	117	97	64	0	7	2	0
GRAND RAPIDS	40	28	50	21	34	3	.4	.2	.3	.4	67	44.4	143	84	64	0	5	3	0
HOUGHTON LAKE	36	29	41	26	32	5	.1	.4	.1	.1	20	29.5	106	93	74	0	5	3	0
LANSING	40	28	52	23	34	3	.1	.4	.1	.1	20	29.5	106	93	74	0	5	3	0
MARQUETTE	31	22	36	17	27	5	.5	.2	.2	.5	71	30.7	107	97	68	0	5	3	0
MUSKEGON	39	29	45	22	34	2	.6	0	.5	.6	100	31.5	106	89	63	0	7	5	0
SAULT STE. MARIE	34	22	37	15	28	3	.7	0	.6	.7	100	26.9	88	92	65	0	7	4	1
MN DULUTH	29	22	33	8	26	7	T	.3	T	0	0	27.2	94	91	68	0	7	2	0
INT'L FALLS	31	19	37	14	25	11	.1	.2	.1	.3	33	21.5	85	97	76	0	7	4	0
MINNEAPOLIS	32	19	35	9	25	2	.4	.2	.2	.4	200	26.8	106	94	73	0	7	2	0
ROCHESTER	30	16	32	3	23	-1	.4	.2	.3	.4	200	32.6	121	97	83	0	7	4	0
SAINT CLOUD	30	17	35	0	24	3	.2	0	.2	.2	100	24.5	93	96	80	0	7	3	0
MS JACKSON	67	39	82	28	53	2	1.3	.2	.7	1.3	118	42.1	92	95	37	0	2	2	2
MERIDIAN	68	40	82	29	54	4	1.5	.3	1.3	1.5	125	38.1	81	86	31	0	1	2	1
MO COLUMBIA	48	31	52	25	40	3	1.0	.6	1.0	1.0	250	47.6	130	97	59	0	5	1	1
KANSAS CITY	45	29	49	25	37	2	1.4	1.1	1.3	1.4	467	41.8	116	84	57	0	6	3	1
SAINT LOUIS	48	34	53	28	41	3	1.0	.5	1.0	1.0	200	43.6	127	94	56	0	2	1	1
SPRINGFIELD	50	33	56	25	41	2	1.5	1.0	1.5	1.5	300	42.2	110	83	49	0	4	2	1
MT BILLINGS	42	22	51	15	32	2	T	.2	T	0	0	15.6	113	75	42	0	7	0	0
GLASGOW	40	20	42	15	30	8	T	.1	T	0	0	8.6	78	77	50	0	7	2	0
GREAT FALLS	46	27	55	22	36	6	T	.2	T	0	0	14.0	97	61	30	0	6	0	0
HAVRE	46	22	53	16	34	11	T	.1	T	0	0	9.5	83	83	38	0	7	1	0
HELENA	41	19	52	10	30	3	T	.1	T	0	0	13.4	128	75	43	0	7	0	0
KALISPELL	38	20	42	13	29	3	.6	.2	.3	.6	150	17.4	109	94	62	0	7	3	0
MILES CITY	36	14	42	7	25	-1	T	.1	T	0	0	10.5	78	94	63	0	7	1	0
MISSOULA	37	20	44	13	28	1	.2	0	.2	.2	100	15.5	126	95	64	0	7	2	0
NE GRAND ISLAND	40	25	43	19	33	2	2.0	1.8	1.5	2.0	1000	23.1	100	90	60	0	7	3	1
LINCOLN	42	26	46	20	34	3	1.5	1.3	1.4	1.5	750	23.6	91	95	64	0	7	3	1
NORFOLK	41	24	47	16	32	4	1.5	1.3	1.4	1.5	750	21.0	89	92	59	0	6	2	1
NORTH PLATTE	41	22	49	14	31	1	1.2	1.1	1.0	1.2	1200	23.5	120	93	62	0	7	3	1
OMAHA	38	27	42	21	32	2	1.8	1.6	1.7	1.8	900	28.3	98	91	76	0	7	4	1
VALENTINE	42	19	47	10	30	3	.6	.5	.6	.6	600	18.0	102	87	58	0	7	2	1
NV ELY	48	17	58	9	32	4	T	.2	T	0	0	10.1	138	87	38	0	7	1	0
LAS VEGAS	59	37	65	34	48	0	T	.1	T	0	0	3.1	78	81	34	0	0	0	0
RENO	51	22	61	13	36	1	0	.2	0	0	0	5.6	88	97	42	0	7	0	0
WINNEMUCCA	47	26	55	13	36	4	T	.2	T	0	0	6.9	88	88	48	0	6	0	0
NH CONCORD	39	24	46	11	32	2	1.2	.3	.6	1.2	133	43.1	129	87	59	0	6	3	1
NJ ATLANTIC CITY	49	28	57	15	39	0	1.4	.4	.8	1.4	140	-	-	96	65	0	5	5	1
TRENTON	48	35	59	27	42	2	1.4	.7	.8	1.4	200	37.3	99	77	43	0	2	3	1
NM ALBUQUERQUE	51	29	60	23	40	1	.2	.2	.2	.2	200	7.7	103	74	34	0	5	1	0
ROSWELL	60	35	78	30	47	5	T	.1	T	0	0	24.5	229	68	26	0	3	1	0
NY ALBANY	39	22	44	12	30	0	.6	.1	.6	.6	86	27.6	88	90	58	0	7	2	1
BINGHAMTON	37	26	45	19	32	2	.5	.1	.4	.6	86	28.5	81	93	65	0	6	3	0
BUFFALO	40	29	47	25	35	3	.6	.1	.4	.6	86	28.5	81	93	65	0	6	3	0
NEW YORK	48	37	55	31	43	3	1.2	.3	.9	1.2	133	31.1	80	74	47	0	1	3	1
ROCHESTER	39	28	44	21	34	1	.2	.4	.1	.2	33	32.8	111	90	67	0	6	5	0
SYRACUSE	40	30	50	22	35	2	.3	.5	.1	.2	33	32.7	96	94	63	0	6	3	0
NC ASHEVILLE	49	34	58	29	42	1	1.1	.3	.6	1.1	138	30.4	71	90	53	0	2	3	2
CHARLOTTE	51	36	60	31	44	-1	1.1	.4	.8	1.1	157	32.5	81	88	49	0	1	3	1
GREENSBORO	47	31	53	25	39	-3	.5	.2	.3	.5	71	36.1	93	90	48	0	4	3	0
HATTERAS	57	44	68	40	50	0	3.0	2.0	2.4	3.0	300	47.7	91	91	58	0	0	3	1
RALEIGH	53	35	67	28	44	0	.3	.4	.2	.3	43	31.8	79	86	40	0	2	3	0
WILMINGTON	59	42	70	36	51	1	.8	0	.7	.8	100	39.3	77	86	48	0	4	1	0
ND BISMARCK	34	16	37	7	25	5	T	0	.2	.2	100	14.1	89	88	66	0	7	2	0
FARGO	28	17	34	4	23	4	T	.1	T	0	0	17.0	88	94	75	0	7	2	0
WILLISTON	36	9	37	4	22	2	.1	0	.1	.1	100	11.0	80	95	60	0	7	2	0
OH AKRON-CANTON	43	31	56	21	37	4	.7	.1	.4	.7	117	38.4	115	80	56	0	4	4	0
CINCINNATI	44	30	60	22	37	0	1.2	.5	.9	1.2	171	33.0	90	83	55	0	5	4	1
CLEVELAND	43	32	56	28	38	4	.7	.1	.4	.7	117	36.5	107	73	50	0	4	2	0
COLUMBUS	44	30	59	19	37	3	.7	.1	.4	.7	117	36.5	107	73	50	0	4	2	0
DAYTON	43	30	60	23	37	2	.8	.2	.3	.8	133	40.9	125	91	66	0	3	4	0
TOLEDO	41	27	57	17	34	2	.7	.1	.4	.7	117	36.3	120	94	65	0	5	4	0
YOUNGSTOWN	40	31	47	26	35	3	.7	0	.5	.7	100	33.0	92	90	67	0	4	4	0
OK OKLAHOMA CITY	55	34	61	28	45	2	.5	.2	.4	.5	167	38.6	125	76	41	0	4	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

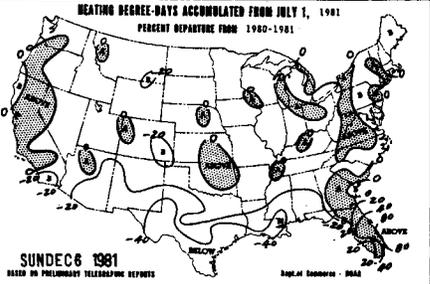
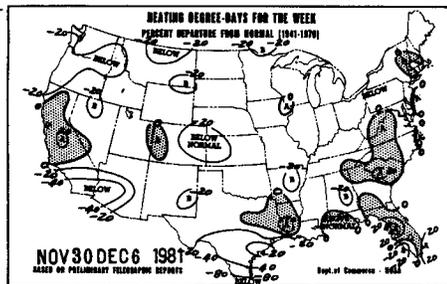
Weather Data for the Week Ending Dec. 5, 1981

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. 31	PCT. NORMAL SINCE Aug. 31	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE		TEMPERATURE °F			
														MAXIMUM	MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OR TULSA	56	36	63	30	46	3	.8	.3	.7	.8	160	36.9	103	86	50	0	2	2	1
OR ASTORIA	55	42	60	35	49	4	5.9	3.5	2.2	5.9	246	60.5	106	91	66	0	0	7	3
OR BURNS	39	24	47	14	32	1	.1	.3	.1	.1	25	11.8	112	96	56	0	6	1	0
OR MEDFORD	47	36	61	26	42	2	1.1	.3	.4	1.1	138	15.1	83	97	77	0	2	4	0
OR PENDLETON	51	35	60	26	43	5	.3	.1	.1	.3	75	13.3	114	86	46	0	3	4	0
OR PORTLAND	50	40	57	34	45	3	2.9	1.5	1.8	2.9	207	28.5	87	98	74	0	0	7	1
OR SALEM	53	38	60	22	46	3	2.8	1.3	1.7	2.8	187	34.1	96	90	64	0	2	6	1
PA ALLENTOWN	44	29	51	22	37	2	1.1	.2	1.0	1.1	122	32.7	83	85	53	0	5	3	1
PA ERIE	41	33	46	27	37	4	.5	.2	.4	.5	71	39.8	111	75	51	0	3	3	0
PA HARRISBURG	44	32	53	28	38	2	.8	0	.8	.8	100	33.3	97	81	48	0	2	1	1
PA PHILADELPHIA	50	33	56	25	41	3	1.4	.6	.8	1.4	175	34.2	92	85	50	0	2	4	1
PA PITTSBURGH	40	29	48	18	35	1	1.0	.4	.7	1.0	167	35.0	103	84	58	0	4	4	1
PA SCRANTON	40	29	43	22	35	2	.7	.1	.7	.7	117	34.2	104	85	71	0	6	2	1
RI PROVIDENCE	43	30	57	19	37	1	2.5	1.5	1.7	2.5	250	32.7	83	85	52	0	5	3	2
SC CHARLESTON	62	42	75	28	52	1	1.1	.4	.7	1.1	157	45.8	92	92	44	0	1	3	1
SC COLUMBIA	59	37	65	29	48	0	1.0	.3	.7	1.0	143	31.8	72	85	38	0	2	3	1
SC GREENVILLE	51	36	57	33	44	-1	1.9	1.0	1.1	1.9	211	29.6	67	86	46	0	0	3	2
SD ABERDEEN	33	21	36	10	27	6	--	--	--	--	--	--	--	89	73	0	7	--	--
SD HURON	37	22	45	10	30	5	1.0	.9	.9	1.0	1000	15.4	81	97	72	0	6	2	1
SD RAPID CITY	45	19	53	9	32	3	T	.1	T	0	0	14.1	81	74	37	0	7	0	0
SD SIOUX FALLS	38	20	47	12	29	4	.5	.3	.5	.5	250	17.7	73	89	66	0	7	2	0
TN CHATTANOOGA	51	38	58	31	44	1	2.3	1.2	1.3	2.3	209	42.0	90	85	49	0	1	4	2
TN KNOXVILLE	51	39	58	29	45	1	1.3	.3	.6	1.3	130	40.5	95	83	52	0	1	3	2
TN MEMPHIS	56	39	65	28	48	2	1.2	.2	1.2	1.2	120	37.7	82	82	47	0	1	2	1
TN NASHVILLE	52	38	63	29	45	2	1.7	.8	1.7	1.7	189	39.3	92	79	46	0	1	2	1
TX ABILENE	61	42	71	35	52	3	.4	.2	.3	.4	200	27.4	119	71	30	0	0	2	0
TX AMARILLO	54	30	65	25	42	1	.2	0	.1	.2	100	21.3	111	79	33	0	4	2	0
TX AUSTIN	71	45	83	35	58	4	.1	.4	.1	.1	20	45.7	148	75	31	0	0	2	0
TX BEAUMONT	69	47	78	36	58	2	.3	.8	.2	.3	27	46.7	91	94	46	0	0	2	0
TX BROWNSVILLE	81	58	90	49	69	4	T	.3	T	0	0	29.5	121	88	45	1	0	0	0
TX CORPUS CHRISTI	77	52	84	44	64	3	.1	.2	.1	.1	33	43.1	157	89	37	0	0	1	0
TX DEL RIO	72	46	83	34	59	5	0	.1	0	0	0	27.3	163	54	33	0	0	0	0
TX EL PASO	60	35	67	26	47	1	.1	0	.1	.1	100	12.6	166	85	33	0	3	1	0
TX FORT WORTH	63	41	72	33	52	2	.4	0	.3	.4	100	44.6	143	80	31	0	0	2	0
TX GALVESTON	67	54	73	47	61	2	.3	.6	.2	.3	33	33.9	86	95	58	0	0	2	1
TX HOUSTON	70	46	79	37	58	1	3.6	2.6	3.4	3.6	360	53.9	119	90	43	0	0	2	0
TX LUBBOCK	57	36	69	29	46	3	.5	.3	.4	.5	250	22.9	127	80	37	0	2	2	0
TX MIDLAND	63	37	79	29	50	2	T	.1	T	0	0	17.4	134	64	27	0	3	0	0
TX SAN ANGELO	64	39	76	29	52	1	T	.1	T	0	0	30.0	176	72	28	0	1	0	0
TX SAN ANTONIO	73	39	81	29	56	1	.1	.2	.1	.1	33	36.8	136	87	31	0	2	2	0
TX VICTORIA	74	48	83	36	61	3	T	.5	T	0	0	43.7	133	87	36	0	0	0	0
TX WACO	65	38	76	28	52	-1	.5	0	.3	.5	100	33.3	112	89	34	0	2	2	0
TX WICHITA FALLS	62	38	72	30	50	3	.7	.4	.6	.7	233	31.2	116	81	30	0	3	2	1
UT BLANDING	43	23	54	13	33	1	.1	.2	.1	.1	33	12.0	111	91	60	0	7	1	0
UT SALT LAKE CITY	43	27	50	23	35	2	T	.3	T	0	0	14.7	104	86	54	0	7	1	0
VT BURLINGTON	37	26	47	16	31	3	.1	.5	.1	.1	17	39.9	131	85	64	0	5	2	0
VA LYNCHBURG	45	35	56	27	40	-1	.5	.2	.3	.5	71	32.5	91	88	48	0	2	4	0
VA NORFOLK	54	40	66	36	47	2	.9	.2	.7	.9	129	36.3	86	87	45	0	0	5	1
VA RICHMOND	50	34	65	26	42	0	.7	.1	.3	.7	88	31.9	79	94	52	0	3	3	0
VA ROANOKE	44	30	53	21	37	-3	.6	.1	.5	.6	86	28.2	77	87	49	0	5	3	1
WA COLVILLE	38	30	49	28	34	4	.9	.4	.5	.9	180	23.3	154	95	76	0	5	4	0
WA OMAK	45	31	53	25	38	--	.5	--	.5	.5	--	12.2	--	--	--	0	3	3	0
WA QUILLAYUTE	51	37	53	33	44	2	6.8	3.3	1.8	6.8	194	94.7	98	100	76	0	0	7	6
WA SEATTLE-TACOMA	50	40	56	34	45	3	1.6	.3	.8	1.6	123	31.6	93	87	61	0	0	6	1
WA SPOKANE	42	30	49	26	36	5	.7	.2	.5	.7	140	13.2	83	91	65	0	5	4	1
WA WALLA-WALLA	50	36	60	31	43	4	1.5	1.0	.9	1.5	300	21.1	139	86	53	0	2	6	1
WA YAKIMA	47	27	57	20	37	4	.2	.1	.2	.2	67	6.7	97	91	60	0	6	1	0
WV BECKLEY	41	28	50	21	34	-1	.4	.3	.2	.4	57	34.4	86	86	52	0	5	4	0
WV CHARLESTON	49	33	64	21	41	2	.3	.4	.2	.3	43	33.7	87	88	57	0	3	3	0
WV HUNTINGTON	48	33	63	21	40	1	.2	.6	.1	.2	25	35.4	96	79	51	0	3	2	0
WV PARKERSBURG	46	33	59	20	40	1	.6	0	.4	.6	100	30.2	83	95	64	0	3	3	0
WI GREEN BAY	36	26	39	19	31	6	.3	.1	.3	.3	75	22.8	86	95	68	0	6	1	0
WI LA CROSSE	32	21	37	16	27	0	.6	.3	.3	.6	200	34.1	120	100	83	0	6	3	0
WI MADISON	35	21	41	13	28	1	.5	.2	.2	.5	167	31.7	109	97	73	0	6	3	0
WI MILWAUKEE	37	23	42	17	30	1	.5	.1	.2	.5	125	32.8	119	93	63	0	6	4	0
WY CASPER	40	17	52	6	29	0	T	.1	T	0	0	10.7	102	76	37	0	6	2	0
WY CHEYENNE	44	22	57	14	33	2	.1	.1	.1	.1	50	16.2	112	71	32	0	6	1	0
WY LANDER	38	13	50	6	26	0	T	.1	T	0	0	10.1	76	74	35	0	7	1	0
WY SHERIDAN	48	15	58	8	32	4	T	.2	T	0	0	13.4	85	72	25	0	7	2	0
PR SAN JUAN	85	74	87	71	79	2	.5	.7	.2	.5	42	57.2	103	89	62	0	0	6	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING DEC. 6, 1981.
BASED ON 1941-70 NORMALS +ACCUMULATION FROM JULY 1, 1981.

Table with columns for STATES AND STATIONS, WEEKLY ACCUMULATION, and SEASONAL ACCUMULATION. Rows list various cities across the United States with their respective heating degree days.



November Weather and Crop Summary

HIGHLIGHTS: A large low pressure system in the Gulf of Alaska persisted all month, spawning storms that plagued the west coast with high wind, heavy rain, and snow in the mountains. The storms moved eastward and spread snow and rain through the Plateau and Rockies before re-intensifying in the Plains. The seasons first major snowstorm formed in the northern Plains and moved eastward through the Great Lakes and midwest to the central and northern Appalachians. Average temperatures for the month were above normal over most of the Nation. Only parts of the east coast States were near normal or cooler. The northern Plains averaged 8 to 10° above normal.

FIRST WEEK...An intense low pressure system formed in the central Plains and remained nearly stationary before moving rapidly northeastward. Moisture from the Gulf of Mexico and Pacific Ocean reacted with the low and spread light to moderate rain from central and eastern Texas to Nebraska. The showers and some thunderstorms spread eastward through the South. Circulation from a hurricane moving northward out of the Caribbean to the east of Florida, triggering showers along the southeast coast. Later in the week, a cold front spread rain from the middle and lower Mississippi Valley through most of the East. Temperatures averaged above normal in most of the Nation except for the persistent rainy area near the low center in the southern Plains.

SECOND WEEK...A cold front moving through eastern United States brought light showers to the middle Mississippi and Ohio Valleys; a wave formed on the front in the Gulf of Mexico, causing moderate to heavy showers along the eastern gulf coast and through northern Florida. The low pressure center, or wave, then moved northward along the east coast, spreading rain all the way to New England. Later in the week, an intense storm off the coast of the Pacific Northwest brought high winds, heavy rain (snow in the mountains), and a few thunderstorms from south-central California through the Plateau to the northern Rockies. Temperatures were much above normal from the central and northern Plains through all of the West but the East was cool. Freezing temperatures reached into northern Florida.

THIRD WEEK...Storm systems were off both the Northeast and Northwest coasts. The West was a repeat of the previous week, as wind and heavy rain continued through the coastal mountains, accumulating more snow at higher elevations. Showers of rain or snow extended throughout the Pacific Northwest. In the East, another low pressure system moved northward along the coast and spread rain and showers from the eastern Gulf States through New England. At midweek, a low pressure system in southern Nebraska brought freezing rain and the season's first major snowstorm to the northern Plains. The system moved eastward, spreading snow through the Great Lakes and southward into Kentucky and the central Appalachians. The snow moved on to the northern Appalachians, but the coast of New England had only rain.

FOURTH WEEK...The present low pressure system off the West coast continued to generate storms that moved into the West and then across the Nation.

Late in the week, a storm moved southward along the West coast before turning eastward, bringing light to moderate rain or snow to the Southwest. Snow piled high in the mountains as precipitation spread throughout the West during the week. Precipitation covered nearly all of the Nation. Moderate showers reached from the southeastern Texas coast into Kentucky and more snow fell from the northern Plains through the Great Lakes.

Row Crop Harvest

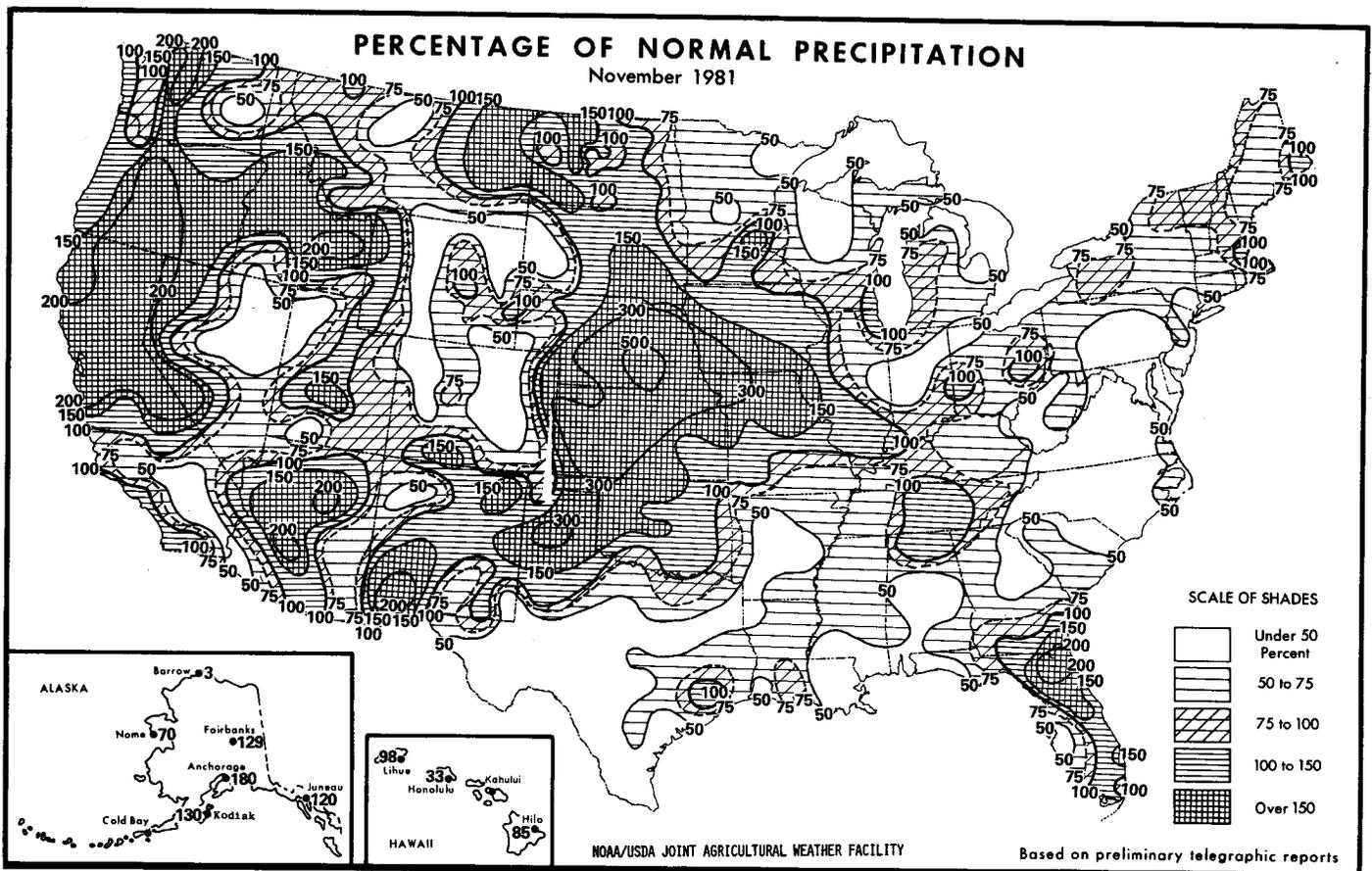
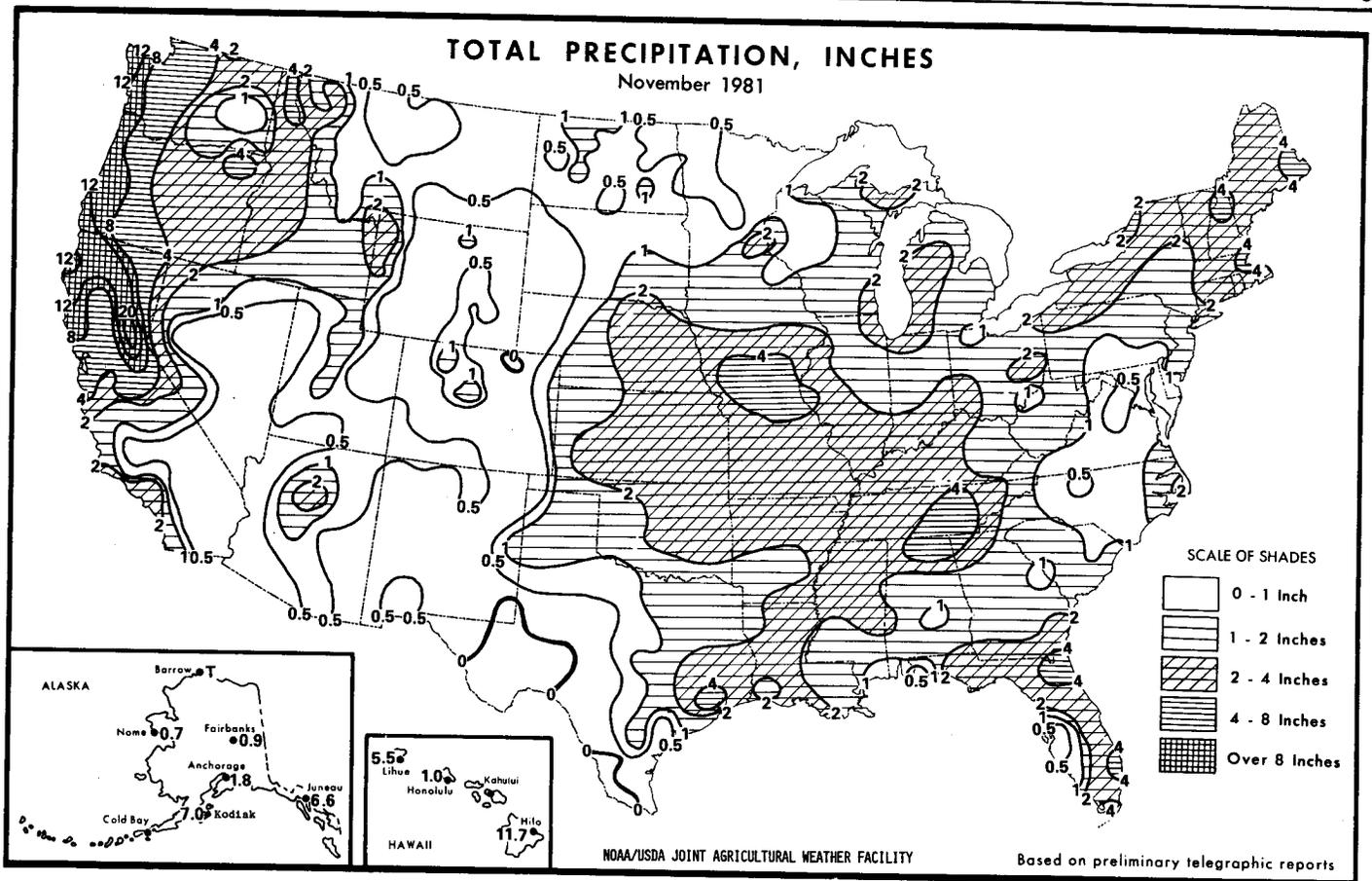
Harvests of corn, soybeans, and grain sorghum had passed the halfway mark by the beginning of November but, except for in the Southeast, were well behind average due to earlier delays caused by wet weather. Mild, dry weather late in October and early November helped to dry fields and lower moisture content of corn. This enabled growers to spend long hours in the fields taking advantage of the good weather conditions.

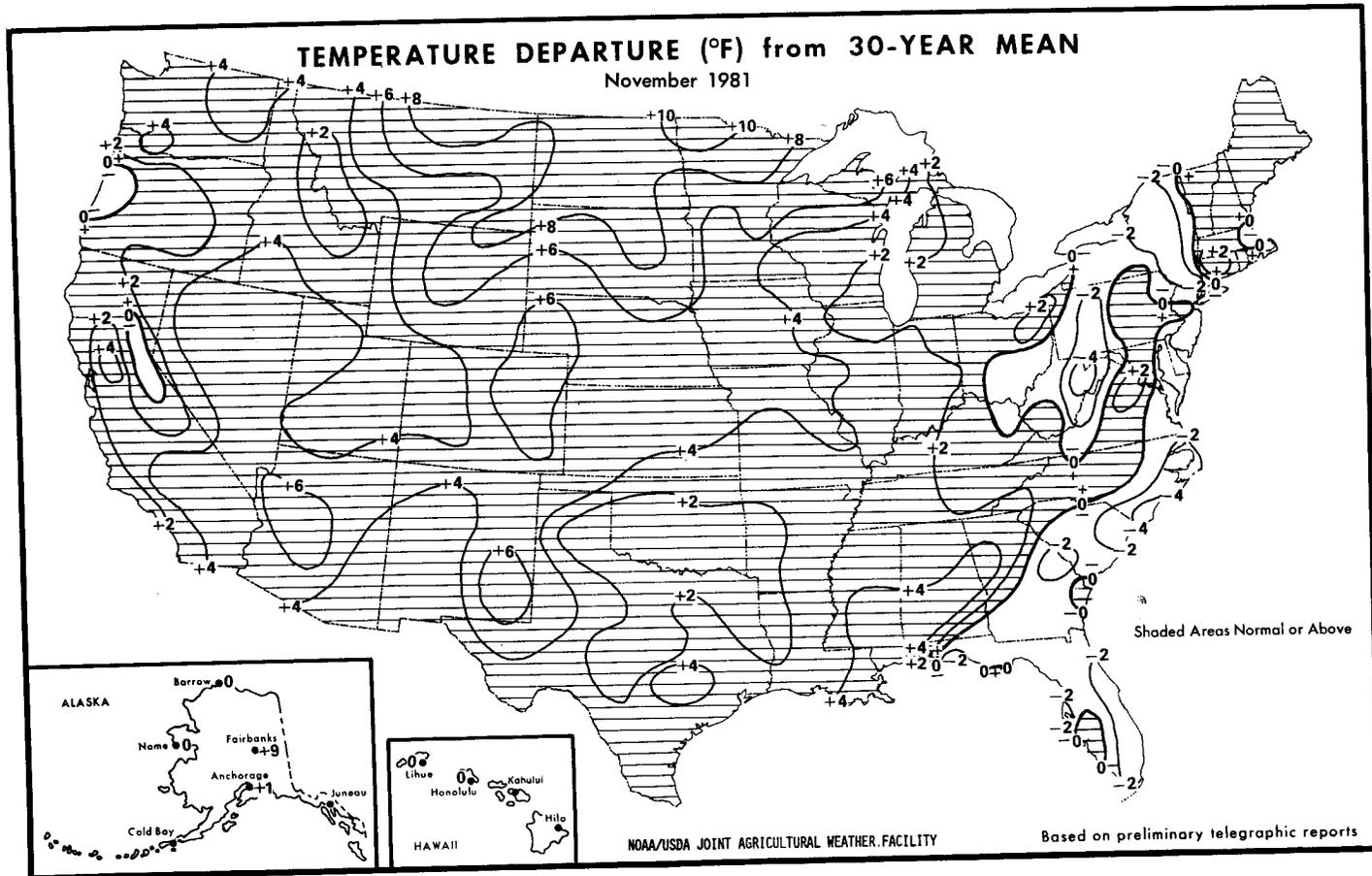
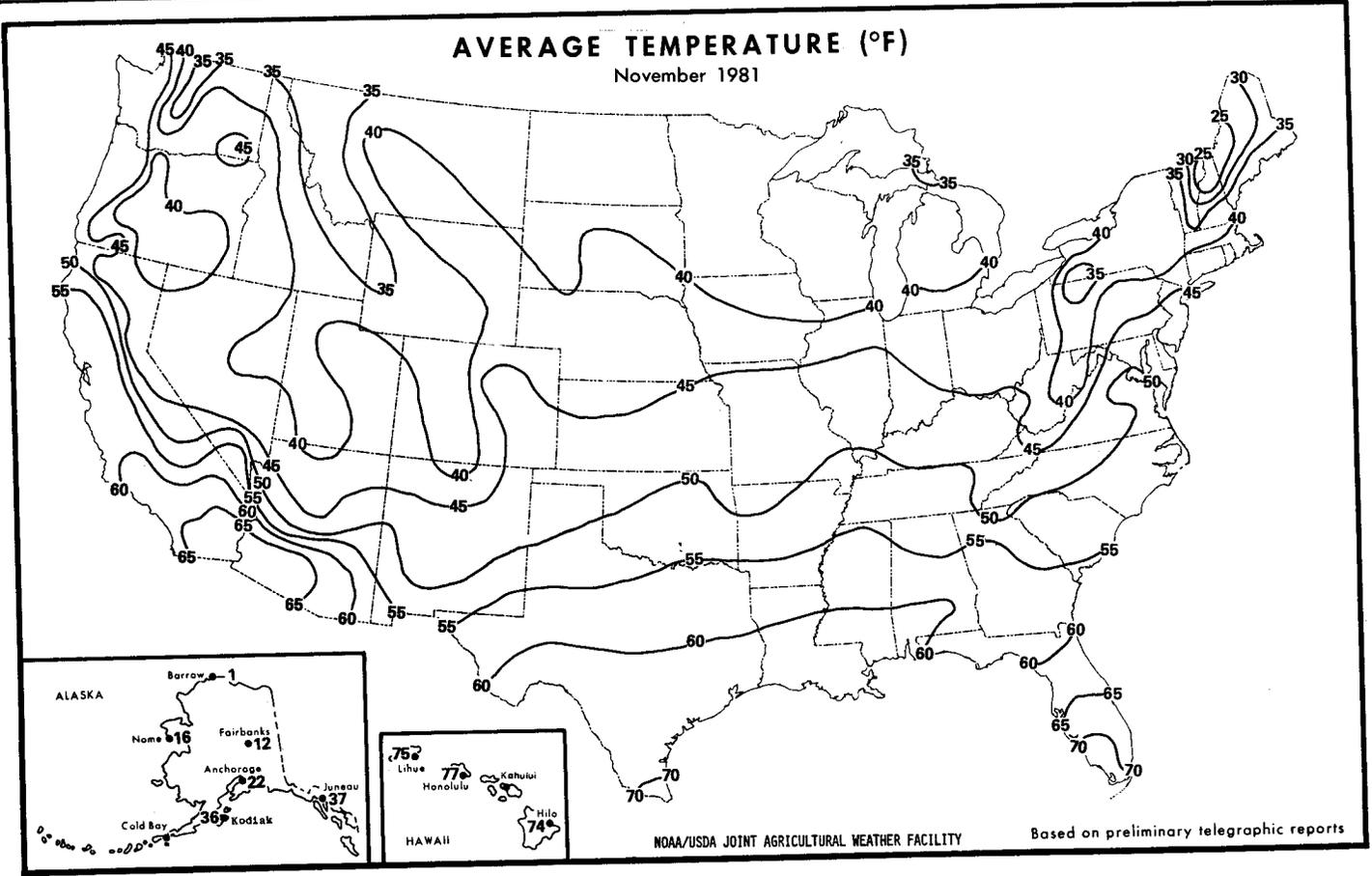
Corn harvesting in the 17 major producing States was 59% complete at the beginning of November, lagging last year's 86% and the average progress of 70%. Progress was behind normal in nearly all States except in the Southeast where dry weather enabled growers to harvest at a rapid pace. Harvesting was 20 percentage points or more behind schedule in Colorado, Indiana, Michigan, Minnesota, Ohio, and Wisconsin. The crop was 96% harvested by the end of November. By this time last year growers had finished combining the crop. Indiana and Ohio harvests were only 90% complete; producers were waiting for the grain to dry in the fields to avoid high drying costs. In northern growing areas, the completion of harvest was delayed by wet fields.

Grain sorghum harvest in the 7 major States reached 95% complete by the end of November, 3 points behind average. Producers were finished by this time last year. Progress lagged behind normal in all States except Oklahoma, South Dakota, and Texas.

Soybean harvest was 67% finished in the 18 major States as November began, 10 points behind a year earlier and 7 points behind average. Progress lagged the average in nearly all States. By the end of the month, 96% of the crop had been combined, 2 points ahead of average. Combining centered in the Delta, the Southeast, and in Kansas. Harvest was finished in Illinois, Iowa, and Nebraska.

In the 14 major producing States, 44% of the cotton acreage had been harvested by the beginning of November, slightly behind last year's progress of 52%. Harvesting was behind schedule in Arkansas and Missouri, equal to average in Arizona, Oklahoma, and Tennessee, and ahead in all other States. Warmer weather early in November sped development and bolls opened rapidly. By the end of the month, 71% of the acreage had been harvested, 9 points behind last year. Progress was behind normal in Missouri, Oklahoma, and Texas. Stripping progressed rapidly toward the end of the month in Texas with backlogs reported at some gins. Warm, open weather at the end of November was favorable for harvest and clean-up operations.





Temperature and Precipitation Data for November 1981

Temperature and Precipitation Data for November 1981				Temperature and Precipitation Data for November 1981				Temperature and Precipitation Data for November 1981						
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	55	3	1.7	- 2.0	LA BATON ROUGE	62	3	1.5	- 2.3	TOLEDO	40	0	.8	- 1.5
MOBILE	63	4	9.0	- 2.5	LAKE CHARLES	62	2	1.5	- 2.6	OK YOUNGSTOWN	41	1	1.7	- 1.3
AK MONTGOMERY	60	5	.5	- 2.9	NEW ORLEANS	65	5	1.1	- 2.8	OK OKLAHOMA CITY	50	1	2.1	.7
ANCHORAGE	22	1	1.8	.8	SHREVEPORT	57	1	1.5	- 2.1	TULSA	51	2	2.3	.4
BARROW	- 1	0	T	-. 3	ME CARIBOU	32	1	2.5	- 1.0	OR ASTORIA	49	2	10.7	.9
FAIRBANKS	12	9	.9	.2	PORTLAND	39	0	2.8	- 2.1	BURNS	36	0	2.6	1.2
JUNEAU	37	4	6.6	1.1	MD BALTIMORE	46	0	.3	- 2.8	MEDFORD	46	2	6.1	3.0
KODIAK	36	1	7.0	1.6	MA BOSTON	44	- 1	4.8	.3	PENDELTON	44	3	1.9	.4
NOME	16	0	.7	-. 3	CHATHAM	45	-	3.9	-	PORTLAND	49	4	4.6	- 1.0
AZ FLAGSTAFF	42	6	2.4	1.1	MI ALPENA	36	1	1.1	- 1.4	PA ALLENTOWN	45	0	7.5	1.4
PHOENIX	66	6	1.0	.5	DETROIT	41	1	1.3	- 1.0	ERIE	43	1	1.6	- 2.0
TUCSON	62	3	.6	.0	FLINT	39	1	1.4	- .9	HARRISBURG	42	2	2.2	- 1.5
WINSLOW	47	4	.8	.4	GRAND RAPIDS	40	1	2.6	- .2	PHILADELPHIA	45	1	1.0	- 2.2
YUMA	68	4	.1	-. 1	HOUGHTON LAKE	36	2	2.1	- .4	PITTSBURGH	40	- 1	1.5	- 1.0
AR FORT SMITH	50	0	3.0	-. 1	LANSING	39	1	1.5	- .8	SCRANTON	41	- 1	1.8	- 1.2
LITTLE ROCK	54	3	1.7	- 2.2	MARQUETTE	35	6	2.0	- 1.4	RI PROVIDENCE	43	0	3.2	- 1.3
CA BAKERSFIELD	60	4	.4	-. 3	MUSKOGON	39	0	2.5	-. 5	SC CHARLESTON	55	- 1	1.1	- 1.0
EUREKA	54	2	9.4	3.6	SAULT STE. MARIE	33	0	1.9	- 1.4	COLUMBIA	53	- 1	1.5	-. 8
FRESNO	56	2	1.2	.0	MN DULUTH	35	7	1.0	-. 7	GREENVILLE	51	0	1.7	- 1.4
LOS ANGELES	62	1	2.6	.8	INT'L FALLS	35	10	.7	-. 6	SD ABERDEEN	-	-	-	-
RED BLUFF	55	1	6.2	3.1	HINNEAPOLLS	38	6	2.2	1.0	HURON	40	8	1.2	.5
SAN DIEGO	64	3	1.8	.5	ROCHESTER	36	3	.9	-. 1	SIoux FALLS	40	5	.2	-. 3
SAN FRANCISCO	56	1	4.9	2.6	SAINT CLOUD	35	5	.5	-. 6	RAPID CITY	40	7	1.2	.3
STOCKTON	56	3	3.7	2.0	MS JACKSON	59	4	2.0	- 1.9	SIoux FALLS	51	2	4.9	1.0
CO DENVER	46	7	.4	-. 4	MERIDIAN	59	5	2.6	- .9	TN CHATTANOOGA	49	0	3.0	-. 6
GRAND JUNCTION	42	2	.5	-. 1	MO COLUMBIA	47	3	3.6	1.8	KNOXVILLE	54	3	2.1	- 1.8
PUEBLO	46	5	T	-. 4	KANSAS CITY	46	4	2.8	1.3	MEMPHIS	50	2	3.7	.2
CT BRIDGEPORT	44	- 2	1.9	- 1.9	SAINT LOUIS	49	4	2.7	.2	NASHVILLE	57	3	.4	-. 8
HARTFORD	44	3	2.3	- 2.0	SPRINGFIELD	49	3	2.6	.3	ABILENE	49	3	1.5	1.0
DC WASHINGTON	51	3	.3	- 2.6	MT BILLINGS	41	5	.4	-. 3	AUSTIN	64	5	.7	- 1.3
FL APALACHICOLA	62	1	2.0	-. 7	GLASGOW	37	8	.6	-. 2	BEAUMONT	63	3	2.2	- 2.1
DAYTONA BEACH	70	- 2	2.6	.5	GREAT FALLS	41	6	.3	-. 5	BROWNSVILLE	71	3	.3	- 1.0
FORT MYERS	63	1	.7	-. 6	HAYRE	38	4	.5	-. 1	CORPUS CHRISTI	68	3	.1	- 1.5
JACKSONVILLE	60	- 1	4.9	3.1	HELENA	36	4	.5	-. 1	DEL RIO	63	3	.1	-. 6
KEY WEST	74	- 1	3.5	.8	KALISPELL	33	2	1.3	-. 1	EL PASO	54	2	.3	-. 0
MIAMI	69	- 3	2.1	-. 6	MILES CITY	37	5	.8	.3	FORT WORTH	58	2	1.5	-. 5
ORLANDO	65	- 2	2.5	-. 9	MISSOULA	33	1	1.1	-. 1	GALVESTON	66	2	1.8	- 1.4
TALLAHASSEE	58	- 1	2.5	-. 3	NE GRAND ISLAND	41	3	3.2	2.6	HOUSTON	64	3	5.3	1.3
WEST PALM BEACH	64	- 3	.4	- 1.4	LINCOLN	42	3	3.8	2.9	LUBBOCK	53	4	.6	-. 1
GA ATLANTA	55	4	1.9	- 1.5	NORFOLK	41	5	2.1	1.5	MIDLAND	57	4	T	-. 5
AUGUSTA	52	- 2	.9	- 1.3	NORTH PLATTE	40	4	1.9	1.4	SAN ANGELO	56	0	T	-. 9
MACON	56	1	1.1	- 1.3	OMAHA	42	4	3.6	2.6	SAN ANTONIO	62	2	.7	- 1.1
SAVANNAH	58	1	1.7	-. 2	VALENTINE	40	5	.7	-. 2	VICTORIA	65	2	T	- 2.3
HI HILO	74	0	11.7	- 2.1	NV ELY	39	5	.2	-. 5	WACO	59	1	1.0	- 1.3
HONOLULU	77	0	1.0	- 2.0	LAS VEGAS	58	5	.3	-. 1	WICHITA FALLS	53	0	.9	-. 5
KAHULUI	-	-	-	-	RENO	43	3	2.1	1.4	UT BLANDING	42	4	.7	-. 1
LIHUE	75	0	5.5	-. 1	WINNEMUCCA	42	5	1.4	.4	SALT LAKE CITY	44	5	1.0	-. 3
ID BOISE	44	4	2.2	.9	NH CONCORD	38	0	3.5	-. 5	VT BURLINGTON	37	0	2.7	-. 2
LEWISTON	44	3	1.5	.2	NJ ATLANTIC CITY	45	- 1	1.1	- 3.1	VA LYNCHBURG	47	0	.9	- 1.8
POCATELLO	38	2	1.7	.6	TRENTON	46	0	1.9	- 1.4	NORFOLK	51	- 1	1.8	- 1.1
IL CAIRO	51	3	2.2	- 1.7	NM ALBUQUERQUE	47	2	.4	-. 1	RICHMOND	49	0	.7	- 2.5
CHICAGO	41	1	2.5	.3	ROSWELL	54	7	.2	-. 1	ROANOKE	45	- 2	.7	- 1.8
MOLINE	41	2	2.4	.5	NY ALBANY	38	- 2	1.6	- 1.2	WA COLVILLE	38	4	2.3	.3
PEORIA	45	5	1.6	-. 4	BINGHAMTON	38	0	1.7	- 1.4	OMAK	40	-	2.2	-
ROCKFORD	39	1	1.6	-. 8	BUFFALO	40	0	2.2	- 1.5	QUILLAYUTE	46	2	14.0	.2
SPRINGFIELD	45	3	2.2	-. 1	NEW YORK	47	0	1.6	- 2.2	SEATTLE-TACOMA	47	2	4.1	- 1.8
IN EVANSVILLE	48	3	3.4	.2	ROCHESTER	40	- 1	2.2	- .6	SPOKANE	40	4	1.0	- 1.2
FORT WAYNE	41	1	1.1	- 1.6	SYRACUSE	39	- 2	3.1	-. 2	WALLA-WALLA	46	3	2.5	.6
INDIANAPOLIS	44	2	1.1	- 2.0	ASHEVILLE	48	2	1.2	- 1.7	YAKIMA	41	3	1.4	.3
SOUTH BEND	42	2	2.2	-. 5	CHARLOTTE	51	0	.9	- 1.8	WV BECKLEY	42	0	1.3	- 1.6
IA BURLINGTON	44	4	2.9	1.3	GREENSBORO	49	1	.4	- 2.2	CHARLESTON	45	0	1.3	- 1.5
DES MOINES	43	5	2.6	1.2	HATTERAS	53	- 3	2.9	- 1.6	HUNTINGTON	45	- 1	1.2	- 1.7
DUBUQUE	-	-	-	-	RALEIGH	51	1	1.0	- 1.9	PARKERSBURG	44	- 1	.9	- 1.6
SIoux CITY	40	4	1.9	1.0	WILMINGTON	52	- 4	.8	- 2.2	WI GREEN BAY	37	3	1.1	-. 8
KS CONCORDIA	45	4	3.2	2.4	ND BISMARCK	37	8	.8	-. 2	LA CROSSE	38	3	1.1	-. 4
DODGE CITY	48	5	2.3	1.7	FARGO	35	6	.4	-. 3	MADISON	37	2	1.7	-. 2
GOODLAND	43	4	1.9	1.4	WILLISTON	35	7	.5	-. 0	MILWAUKEE	37	0	2.1	.1
TOPEKA	47	4	3.6	2.3	OH AKRON-CANTON	44	3	1.9	- .6	WY CASPER	39	5	.8	.1
WICHITA	47	3	2.9	1.7	CINCINNATI	44	0	2.9	-. 2	CHEYENNE	41	5	.1	-. 5
KY LEXINGTON	46	1	2.0	- 1.4	CLEVELAND	43	1	2.0	-. 8	LANDER	38	6	.1	-. 8
LOUISVILLE	47	2	2.4	-. 9	COLUMBUS	41	- 1	1.7	- 1.0	SHERIDAN	41	8	.1	-. 8
					DAYTON	44	2	2.8	.2	PR SAN JUAN	81	2	4.9	-. 6

Based on 1941-70 normals

Heating Degree Days (Base 65° F.)

November 1981

ALA. Birmingham	315	MAINE, Caribou	984	OKLA. Okla. City	434
Mobile	113	Portland	778	Tulsa	402
Montgomery	195	MD. Baltimore	557	OREG. Astoria	474
ALASKA, Anchorage	--	MASS. Boston	628	Burns	875
Barrow	--	Chatham	616	Medford	566
Fairbanks	--	MICH. Alpena	868	Pendleton	617
Juneau	--	Detroit	710	Portland	478
Nome	--	Flint	780	Salem	607
ARIZ. Flagstaff	690	Grand Rapids	749	PA. Allentown	643
Phoenix	56	Houghton Lake	872	Erie	694
Tucson	106	Lansing	770	Harrisburg	600
Winslow	527	Marquette	907	Philadelphia	576
Yuma	33	S. Ste. Marie	968	Pittsburgh	736
ARK. Fort Smith	395	MINN. Duluth	903	Scranton	706
Little Rock	315	Internatl Falls	894	R. I. Providence	651
CALIF. Bakersfield	158	Minneapolis	803	S. C. Charleston	291
Eureka	339	Rochester	868	Columbia	349
Fresno	278	St. Cloud	883	Greenville	422
Los Angeles	112	MISS. Jackson	217	S. DAK. Aberdeen	--
Red Bluff	280	Meridian	211	Huron	752
Stockton	263	MO. Columbia	544	Rapid City	730
San Diego	57	Kansas City	573	Sioux Falls	758
San Francisco	252	St. Louis	483	TENN. Chattanooga	422
COLO. Denver	570	Springfield	468	Knoxville	461
Grand Junction	696	MONT. Billings	729	Memphis	331
Pueblo	554	Glasgow	834	Nashville	445
CONN. Bridgeport	619	Great Falls	718	TEX. Abilene	237
Hartford	635	Havre	799	Amarillo	469
D. C. Washington	399	Helena	853	Austin	86
FLA. Apalachicola	133	Kalispell	966	Beaumont	94
Ft. Myers	23	Miles City	832	Brownsville	23
Jacksonville	180	Missoula	963	Corpus Christi	34
Key West	0	NEBR. Grand Island	713	Del Rio	92
Miami	1	Lincoln	678	El Paso	313
Orlando	75	Norfolk	727	Fort Worth	228
W. Palm Beach	33	North Platte	749	Galveston	45
Tallahassee	234	Omaha	677	Houston	82
Tampa	71	Valentine	748	Lubbock	341
GA. Atlanta	314	NEV. Ely	781	Midland	244
Augusta	400	Las Vegas	214	San Angelo	281
Macon	268	Reno	668	San Antonio	112
Savannah	231	Winnemucca	697	Victoria	64
IDAHO, Boise	624	N. H. Concord	810	Waco	194
Lewiston	620	N. J. Atlantic City	599	Wichita Falls	355
Pocatello	800	Trenton	528	UTAH, Milford	734
ILL. Cairo	431	N. MEX. Albuquerque	534	Salt Lake City	647
Chicago	719	Roswell	333	VT. Burlington	837
Moline	710	N. Y. Albany	816	VA. Lynchburg	535
Peoria	594	Binghamton	799	Norfolk	423
Rockford	761	Buffalo	732	Richmond	473
Springfield	581	New York	532	Roanoke	589
IND. Evansville	498	Rochester	748	WASH. Colville	816
Fort Wayne	711	Syracuse	775	Omak	--
Indianapolis	621	N. C. Asheville	499	Quillayute	570
South Bend	700	Charlotte	405	Seattle-Tacoma	530
IOWA, Burlington	625	Greensboro	477	Spokane	747
Des Moines	660	Hatteras	336	Walla Walla	578
Dubuque	--	Raleigh	425	Yakima	707
Sioux City	741	Wilmington	374	W. VA. Beckley	670
KANS. Concordia	594	N. DAK. Bismarck	836	Charleston	585
Dodge City	517	Fargo	881	Huntington	577
Goodland	405	Williston	903	Parkersburg	614
Topeka	529	OHIO. Akron-Canton	682	WIS. Green Bay	839
Wichita	537	Cincinnati	634	Madison	842
KY. Lexington	568	Cleveland	664	Milwaukee	820
Louisville	523	Columbus	713	WYO. Casper	775
LA. Baton Rouge	132	Dayton	638	Cheyenne	722
Lake Charles	118	Toledo	754	Lander	812
New Orleans	100	Youngstown	721	Sheridan	703
Shreveport	246				

National Agricultural Summary

November 30 - December 6, 1981

HIGHLIGHTS: Rain across the South delayed completion of harvest for most row crops and seeding of winter grains. However, moisture was needed to help restore soil moisture supplies and promote growth of fall seeded grains. Farmers generally had 3 to 4 days suitable for fieldwork in the southern half of the Nation. Soil moisture supplies in this region were short to adequate. Winter wheat seeding neared completion with only minor acreages remaining to be planted in the South and about the usual acreage left to be seeded in California. Corn harvest neared completion. Soybean harvest centered in the Southeastern and Delta States and in Kansas. Cotton picking reached 77% finished in the 14 major producing States, behind last year's progress of 83% complete. Pastures declined seasonally. Wheat and other fall seeded grains provided excellent grazing on the High Plains of Texas. Livestock were in fair to good condition.

SMALL GRAINS: Winter wheat seeding was virtually finished except for minor acreages in the South and about the usual acreage left to be seeded in California. Rains were beneficial for fall seeded grains, but areas in the Southeast need more moisture for optimum development. Kansas wheat was in good to excellent condition, although there were scattered reports of leaf rust. Wet conditions may delay use of wheat pastures. Winter wheat rated mostly good in Texas. Mild weather resulted in ideal growing conditions on the High Plains; showers provided needed moisture for late planted wheat, but heavy rains waterlogged fields in some areas. Because of dry conditions, some producers in south central Texas delayed seeding and are waiting for rain before resuming. Montana winter wheat was in fair to good condition with light to no wind damage reported.

COTTON: In the 14 major producing States, 77% of the cotton acreage had been harvested, compared with 83% a year earlier. Harvesting was finished in Mississippi and South Carolina but was only 35% completed in Oklahoma where progress has been behind normal all season due to wet conditions. Scattered showers interrupted most harvest and clean-up operations in the Central Cross-Timbers areas of Texas. Field work was returning to normal by the end of the week as fields dried. On the High and Low Plains of Texas, picking continued to make good progress. Rain and high winds damaged some unharvested fields in Arizona. Harvesting resumed after several days of wet, muddy conditions. The only States with significant acreage yet to harvest are Arizona (10%), New Mexico (15%), Oklahoma (65%), and Texas (37%).

OTHER CROPS: Corn picking neared completion, although a few fields remained for harvest due to the lateness of the season. Test weights of recently harvested corn in Ohio have been extremely low.

Soybean harvest continued active in the Southeast, the Delta, and Kansas. Among the Delta States, the Alabama harvest reached 97%

complete and the Mississippi harvest was 98% finished. In the Southeast, soybean harvest was 89% completed in Georgia. The Kansas crop was 95% combined.

The sugarcane harvest continued active in Florida with good progress reported during the week. The Louisiana harvest was 84% finished, 10 points ahead of average. Peanut harvest in Texas reached 92% complete. Harvesting was active in the Cross-Timbers area with good yields and grades reported. Tobacco growers stripped and marketed their crops. Virginia growers marketed burley and fire-cured tobacco and prepared the sun-cured crop for sales. Growers in Georgia prepared tobacco beds. Sunflower combining in Texas reached completion, compared with 85% a year ago and the average of 96%

FRUITS AND NUTS: Growers continued maintenance activities in deciduous orchards including pruning, fertilizing, and spraying. The pecan harvest was 61% complete in Texas, 66% in Arkansas to 79% in Georgia, 85% in Mississippi, and 74% complete in Louisiana. The Texas harvest progressed steadily. Production and quality improved on later harvested trees.

Midweek rains benefited Florida's citrus groves, although some areas are still dry. Cool weather slowed growth and reduced moisture loss. Harvesting increased slowly. Many processors are now open for the season. Arizona's citrus groves remained in mostly good condition. New crop fruit is sizing and coloring well. Growers harvested lemons, Navel and sweet oranges, grapefruit, and early tangerines. In the Rio Grande Valley of Texas, growers picked grapefruit and early oranges. Fruit showed good size and quality.

VEGETABLES: Florida's vegetable shipments increased 51% during the week. Harvesting of most crops returned to normal after the holiday period. Quality and yields have been good for most crops. The strawberry crop made excellent growth. Both blown and fruit set are good. Growers in the Rio Grande Valley of Texas harvested broccoli, cabbage, and cauliflower. Harvesting of fall vegetables was in full swing in the San Antonio-Winter Garden area. In the Trans-Pecos region, harvesting of lettuce and red chile peppers continued. Harvests of fall vegetables were mostly completed in the Coastal Bend area and land preparations got underway for plantings.

PASTURES AND LIVESTOCK: Pastures generally rated fair to good from the Delta States eastward, except in parts of the Southeast where conditions remained poor to fair. In Texas, winter grasses showed good growth in most areas. Frost slowed growth in portions of North Texas and on the Texas Plains. Wheat and other small grains on the High Plains provided excellent grazing. Wet field conditions in Kansas delayed movement of cattle onto wheat pastures. Livestock were in fair to good condition and were mostly on winter rations.

National Weather Summary

(Continued from page 1.)

Lakes region and spread southward to the central Appalachians. A low pressure center moved out of North Carolina and northward along the Virginia coast. Light rain fell along the east coast to southern New England and snow showers covered the east slopes of the Appalachians from North Carolina to Pennsylvania. Early morning temperatures were below freezing from Pennsylvania northward and another freeze pushed southward to the Texas Panhandle.

SATURDAY... Snow showers were scattered from lower Michigan through the upper Ohio Valley to eastern Pennsylvania and West Virginia. The low pressure center hugged the coast as it moved northward. Rain fell in Maryland and eastern Pennsylvania and heavy snow began in southern New England and was spreading northward. Heavy rain was accompanied by high winds along the Pacific Coast from northern California through Washington. Heavy snow fell from the Washington Cascades to the northern Rockies. Moisture from the Gulf of Mexico caused some light showers in southeastern Texas.

CROP PROGRESS

FOR WEEK ENDING DEC 6, 1981

	COTTON		
	% HARVESTED		
	1981	1980	AVG.
ALA	98	98	90
ARIZ	90	80	75
ARK	98	99	95
CALIF	95	93	NA
GA	95	99	91
LA	99	100	99
MISS	100	100	97
MO	97	100	100
N MEX	85	70	75
N C	95	98	92
OKLA	35	75	60
S C	100	100	100
TENN	97	100	90
TEX	63	74	72
14 STATES	77	83	NA
EXCL. STATES WITH NA	74	82	79

THESE 14 STATES PRODUCED 99%
OF THE 1980 COTTON 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 SRS State Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures near normal. Rainfall 0.50 in. or more at most stations, up to 2.23 in. Birmingham.

Fieldwork: 3.7 days. Soil moisture short to adequate. Activities: Row crop harvest, wheat seeding, pecan harvest, livestock and poultry care. Soybeans 97% harvested, 95% 1980. Cotton 98% harvested, 98% 1980, 90% average. Sorghum 97% harvested. Wheat seeding 96%, 96% 1980. Condition: Wheat, livestock fair to good; pastures poor to fair.

ARIZONA: Mostly sunny, no precipitation anywhere. Cooler 1st part week, warm, mild later part, through weekend. Average temperatures mostly 1 to 4° above normal.

Cotton harvest resumed after several days wet, muddy conditions. Harvest beginning to wind down Cochise, Graham, Greenless, Pima, Pinal Counties. Harvest well past peak Yuma County, some areas Maricopa County not picked. By week's end almost 90% acreage picked at least once compared 80% last year, 75% average. Rain, high winds strung out, knocked off some remaining cotton, reports indicate possibility quality loss rather than lint loss. Late season sorghum harvest resumed, conditions allowed. Many areas report harvest winding down or complete. Alfalfa haying slowed dramatically due both wet conditions, much cooler temperatures. Sugarbeet growth appeared ahead normal, good top, tap root development. Land preparations, planting small grains continued conditions allowed. Grains planted prior to rains, cold spell good start, growing well. Lettuce harvest continued full swing central, western areas. Harvest cabbage, cauliflower, broccoli, greens, green onions continued increasing rate.

Vegetables for later harvest making good progress. Land preparation, planting lettuce, other vegetables for late winter, early spring harvest continued conditions allowed. Picking lemons, Navel, sweet oranges, grapefruit, early tangerines good progress after weather cleared. No adverse weather effects to fruit, trees, groves remained mostly good condition. New crop fruit sizing and coloring well. Ranges fair higher elevations, southwestern Deserts poor. Water supplies, soil moisture adequate. Livestock fair to good.

ARKANSAS: Above normal temperatures, rainfall. Highest temperature 73°, lowest 17°. Departures from normal ranged from 0 to +5°. Most rainfall 2.10 in., least 0.32 in.

Cotton and soybean harvests virtually completed. Soil moisture generally adequate, getting dry south. Winter wheat good condition. Farmers top-dressing nitrogen. Cattle good condition. Pastures becoming short. Pecans two-thirds harvested. Five days for fieldwork.

CALIFORNIA: Week ending December 4 registered coldest temperatures of the season for most stations. Alturas with 11° was coldest in State. Vigorous cold front swept into State late November bringing cold temperatures and dropping snow level to 1,000 ft. along Oregon border to 8,000 ft. in south. Bulk of precipitation fell in central and southern portions of State. After the frontal passage, San Joaquin and to a lesser extent Sacramento Valley developed persistent valley fog and moderate temperatures. Wet conditions northern area. Winter grain planting active with over one-half planted. Herbicide spraying wheat fields, crop progressing well. Cotton 95% har-

vested, 93% last year. Waiting to resume rice field burning. Some dry beans may be salvaged. Milo harvest continues. Sacramento Valley growers back into orchards, still too wet in northern San Joaquin. Conditions very dry in Ventura County. Bacon, Zutano avocados getting started. Desert grapefruit continues slow. Central Valley, Desert lemons active. Navels continue. Minneola tangerines getting started. Dates nearing completion, quality fair. Broccoli moderate supply Central Coast; light harvest South Coast; started Desert. Cauliflower harvest moderate. Celery harvest increased from previous week. Lettuce harvest fairly slow Palo Verde, starting Imperial Valley. Yields light, supplies short due to virus infection in Desert areas. Light lettuce harvest San Joaquin Valley, Santa Maria. Potato shipments from storage active Tulalake-Butte Valley. Digging winter potatoes Riverside, Stockton. Limited market tomato harvest South Coast. Rangeland grass making excellent development over most of State. Stock water supplies above normal. Cattle, sheep grazing foothills. Calving, lambing active. Predators a problem some areas.

COLORADO: Temperatures were near normal. A storm on 29th and 30th brought rain and snow to most of the State. Precipitation amounts were generally light at lower elevations, although some spots in the east received moderate amounts of moisture. The storm brought heavy snow to the mountains, with 5 to 15 in. reported in many areas. Warmer and drier weather returned by the end of the week. Temperatures were unseasonably warm late in the week.

FLORIDA: A rather cold, dry period except for some rain the 2nd, 3rd as a cold front moved through. Rainfall mostly 0.25 to 0.75 in. or less confined mainly to north, central areas. Temperatures remained rather cold with two fronts, one on the 2nd; another on the 4th, each reinforcing the cool air with increasingly colder air. Freezing temperatures north with patchy frost into central interior areas most of period.

Soil moisture short central, north, mostly adequate south, Panhandle and along East Coast. Soybean, cotton harvest active but nearing completion. Sugarcane good condition. Cutting cane good progress. Seeding winter wheat continues, about finished some areas. Many pastures from central areas northward continued brown from frosts. Scattered midweek rains many areas very beneficial, especially to winter crops now providing limited grazing. Overall conditions mostly poor to fair. Condition of cattle, calves varies, but mostly fair to good. Midweek rain very helpful most citrus areas; however, some areas still dry. Cool days, cold nights slowing tree growth, reducing moisture loss. Harvest increasing slowly, many processors now open for season. Warm days, mild nights prevailed most of week in vegetable areas. Scattered showers preceded a cold front last of week. Nighttime lows dropped to low 40's. Daytime highs mostly 70's, 80's. Shipments increased 51% during week. Crops increasing were snap beans, cabbage, carrots, celery, Chinese cabbage, sweet corn, cucumbers, eggplant, escarole, lettuce, peppers, squash, tomatoes. Harvest most crops returned to normal after the holiday period. Radish harvest declined. Quality, yields have been good, most crops. Plantings continue active. Strawberry crop making excellent growth. Bloom, fruit set good. Few flats being harvested. Fair volume expected mid-late December.

GEORGIA: Rain, heavy at times during midweek, averaged nearly 2.00 in. over the northern third of the State while the southern two-thirds received generally 1.00 in. with locally

heavy amounts of over 2.00 in. Temperatures were 1 to 3° above normal in the northern third and 4 to 6° above normal in the central and south. Very cold and dry 5th and 6th with no rain occurring. Average temperatures were 8 to 10° below normal.

Soil moisture short to mostly adequate. Three days suitable for fieldwork. Late crop harvesting and small grain seeding main activities. Preparation of tobacco beds underway. Corn harvest virtually complete. Cotton poor to fair, 95% picked, 99% last year, 91% average. Soybeans poor to fair, 89% harvested, 86% last year, 83% average. Pecans fair to good, 79% harvested, 69% last year, 72% average. Wheat 84% planted, 85% last year, 83% average. Rye 93% planted this year and last, 88% average. Other small grains 95% planted, 91% last year, 88% average. Pastures and hay crops poor to fair. Cattle and hogs fair to good.

HAWAII: Weather remained variable. Moderate to heavy rains, Island of Hawaii slowed crop growth. Spoilage sustained to some leafy crops. Showers light to moderate other parts of the Island Chain. Temperatures dipping in higher elevations. Spraying frequent to control diseases. Vegetables: Supplies adequate. Spoilage reported for lettuce and Chinese cabbage crops on Hawaii from wet conditions. Bananas: Supplies steady and sufficient. Papayas: Supplies decreasing. Spraying frequent in wet areas. Pineapples: Light pickings continue. Sugar: Slow. Field activities down. Pastures: Rains beneficial. Foliage growth showing lushness.

IDAHO: Precipitation ranged from a trace in the south central to 1.13 in. in the north. Temperatures ranged from 6° below to 6° above normal. High of 59° in Parma, low of 20° below zero in Stanley.

Field activities minimal. Chores, bookkeeping, routine maintenance and machine repair very active. Winter wheat looks good. Livestock in good condition and feed supplies adequate.

ILLINOIS: Temperatures 1 to 5° above normal. Precipitation 0.35 to 0.70 in. over most of State, more than 1.00 in. in southeast. One to three inches of snow in northeast. Winter wheat mostly good condition. Activities: machinery repair, fence repair, livestock feeding, some grain hauling, fertilizer application.

INDIANA: Warm week. Temperatures 4° above normal and ranged from 21 to 58°. Rainfall 0.30 to 0.50 in. in central and north, 0.70 to 1.00 in. in south. Sunshine 34% of possible.

Fieldwork averaged 3 days. Topsoil moisture mostly adequate to surplus. Subsoil moisture adequate. Corn 95% harvested, 1980 100%, average 96%. Corn 25% moisture content. Spring cropland 50% plowed, 1980 70%. Pastures fair.

IOWA: Temperatures averaged from 2° above normal in the northeast to 4 or 5° above normal in the south and west. Moderate-to-heavy precipitation fell the 30th and 1st as rain and drizzle, and in the north and west as snow. Snow fell again the 3rd. Snowcover remained at the end of the week over northern districts.

KANSAS: Precipitation general but limited to beginning of week, averaging from less than 0.10 in. extreme southwest to near 1.00 in. northwest and 1.00 in. to 1.50 in. north central and east. Temperatures ranged 39 to 43° or 4 to 8° above normal.

Wheat condition good to excellent with plentiful top growth. Wet fields may delay wheat pasture use. Scattered reports of leaf rust. Corn harvest 98%, last year 100%. Soybean harvest 95%, last year 100%. Sorghum grain harvest 96%. Moisture supplies mostly adequate, feed and forage supplies all adequate or surplus. Farm activities included harvesting row crops and moving cattle. Fieldwork: 3.5 days suitable.

KENTUCKY: Temperatures averaged 1 to 2° below normal with warm readings 30th and 1st and below normal readings the rest of the week. Precipitation averaged around 1.00 in. east and central to around 0.50 in. in the east. This was near to 0.50 in. below normal.

Burley marketing ahead of last year, average price to date \$180 per cwt. Some cleanup harvesting of corn and soybeans continues. Fall seeded grains in mostly good condition, additional precipitation would be welcome in some areas. No snow to date. Livestock in satisfactory condition.

LOUISIANA: Rainfall generally 0.50 in. Temperatures near normal.

Soil moisture short to adequate. Days suitable: 5.3. Cotton harvested 99%, 100% 1980, 99% average. Soybeans harvested 99%. Sugarcane harvested 84%, 68% 1980, 74% average; condition good. Vegetables rated fair to good. Pecans rated fair; harvested 74% 1981 and 1980. Wheat seeded 94%, 100% 1980, 99% average; emerged 78%, 87% 1980; condition fair to good. Pastures rated fair. Livestock rated fair to good.

MARYLAND AND DELAWARE: Temperatures averaged 3° above normal with highs in the upper 40's to low 50's. Lows were in the mid 30's. Precipitation was light in most areas. The most received was 1.21 in. in Wilmington, Delaware. And the least was 0.16 in. at Patuxent, Md. The general average was 0.75 in.

MICHIGAN: Week began warm and cooled by weeks end. Temperatures ranged from 2° above normal in the southeast Lower Peninsula to 7° above normal in both divisions of the Upper Peninsula. Precipitation amounts starting about normal for the month, although due to the warmer than normal temperatures only stations in the Upper Peninsula and Houghton Lake in the Lower Peninsula report any snow still on the ground. Completion of harvest winding down with corn 98% and soybeans 99% in. Fall tillage progressed at a "glacier's pace". Other farm activity centered around preparing machinery, buildings and gathering firewood for winter.

MISSISSIPPI: Cold front early in week brought moderate amounts of rainfall mainly to the northern two-thirds of State. Greatest 24-hour total was 1.66 in. Temperatures near normal except coastal area where temperatures were slightly above normal. Extremes: 19 and 82°.

Soil moisture adequate to short. Days suitable for fieldwork: 3.9. Cotton 100% harvested, 100% last year, 97% average. Soybeans 99% harvested, 95% last year, 94% average. Pecans 85% harvested. Winter wheat seeding 96% completed; condition fair to good. Pasture condition fair; livestock condition fair to good. Hay and roughage and grain supplies adequate.

MISSOURI: Temperatures averaged 1 to 5° above normal. Precipitation was widespread with most of it falling the first part of the week. Precipitation averaged around 1.00 in., except in the northeast where an average of 0.75 in. fell.

MONTANA: Heavy precipitation fell western parts of State during two stormy periods. An inch to 1.50 in. fell over some valley areas while mountains received 2.00 to 4.00 in. precipitation. Some mountain areas of southwest also received heavy precipitation. Elsewhere dry, windy conditions prevailed. Over the snow covered southwest temperatures 3° below normal. Plains temperatures generally 2 to 8° above normal.

Topsoil and subsoil moisture supplies short to adequate. Winter wheat condition fair to good. Wind damage light to none. Livestock good condition, about 80% on supplemental feed. Stock water supplies short to adequate some areas of east.

NEBRASKA: Precipitation: State averaged about 1.50 in. of moisture except in the Panhandle where 0.20 in. were recorded. Near 14 in. of snow were recorded in parts of central and north central areas. Temperatures: 4° above normal.

Corn 97% harvested, 100% last year and 94% normal. Winter wheat good. Pasture and range feed supplies mostly adequate. Some supplemental feeding due to snow cover. Topsoil moisture mostly adequate to surplus. Subsoil moisture short to mostly adequate. Days suitable for fieldwork: 2.7.

NEVADA: Cold, windy early in week, moderating toward end of period. Gusty winds common most areas. No significant precipitation.

Cotton harvest full swing. Grading and marketing potatoes continuing. Livestock mostly good condition.

NEW ENGLAND: Temperatures averaged about normal. Precipitation: 0.75 inch to 1.50 in. on 1st and 2nd over much of southern New England and above the Maine coast. Light rain on the 3rd, up to 0.50 in., in eastern Maine. Major snowfall occurred on the 5th and 6th over eastern New England, amounts up to 16.0 to 20.0 in. in eastern Massachusetts, eastern Connecticut and Rhode Island. Nearly similar snowfall amounts in New Hampshire, southwestern Maine and northern Vermont while lesser snowfall occurred in southern Vermont and southwest New England.

NEW JERSEY: Temperatures were slightly below normal, averaging 34° north, 40° south and 41° coastal. Extremes: 15° at Charlotteburg, Newton and Neshanic Station and 59° at New Brunswick and Freehold. Precipitation was above normal averaging 1.50 in. north, 1.25 in. south and 1.35 in. coastal. Heaviest 24-hour total reported: 2.00 in. at Canoe Brook.

Farm activities limited to fruit pruning, soybean harvesting, marketing sweetpotatoes and apples from storage, cider making and caring for livestock.

NEW MEXICO: Weather good. Fair to partly cloudy. Temperatures a few degrees above normal, only light precipitation.

Soil moisture short to adequate. Light to moderate frost damage reported. Farm and ranch activities include harvest of cotton, grain sorghum, pecans, and chile. Ranchers working cattle and sheep. Cotton harvest nearly complete, 85% harvested, 70% harvested 1980 and 75% historically. Crop in good condition. Wheat and barley good condition with acceptable stands most areas. Red chile harvest progressing; crop in fair condition. Pecan harvest continuing condition of crop good.

NEW YORK: Temperatures near or slightly above normal. Cool early in week, warm midweek,

cool again at week's end. Precipitation varied from trace in Adirondacks to 1.50 in. in Lower Hudson Valley. Areas of freezing rain in Mohawk Valley and Hudson Valley on 1st.

NORTH CAROLINA: Temperatures: Near normal. Precipitation: Near normal with 0.50 to 1.00 in. Fieldwork: 3.9 days suitable. Soil moisture: 4% very short, 50% short, 45% adequate, 1% surplus. Harvest: Cotton 95%, 1980 98%, 92% average; sorghum grain 97%, 1980 94%, 96% average; soybeans 89%, 1980 73%, 76% average; corn for grain 99%, 1980 98%, 98% average. Planting: Wheat 94%, 1980 94%, 94% average; oats 98%, 1980 96%; barley 97%, 1980 96%; rye 90%, 1980 95%. Major farm activities: Soybean harvest.

NORTH DAKOTA: Precipitation near normal except in west central district where precipitation was above average. Highest total 0.33 in. west central. Temperatures averaged up to 9° above normal. Extremes from 51° southwest 6th, to 3° below zero north central 5th and northeast 4th.

Precipitation mostly in snow flurries and light rain. No heavy accumulations of snow. Rural roads generally open for travel. Relatively mild weather an aid to livestock producers. As of now, feed supplies for the winter appear to be adequate. Harvest complete and fieldwork at a standstill for the winter.

OHIO: Extensive cloudiness kept daily highs close to normal, low temperatures a few degrees above normal. Substantial precipitation; totals generally above normal. Soils moist with little effective drying taking place. Soil temperatures ranged mid-40's to upper 30's.

Some corn remains unharvested. Test weights of recently harvested corn have been extremely low. TDN also low, lowering grain quality. Marketing still very slow. Some soybeans have been of such poor quality that they were rejected by elevators.

OKLAHOMA: Temperatures averaged 1 to 4° above normal. Precipitation varied from none in the Panhandle and southwest to 0.15 in. in the southeast.

Wheat condition good. Late seeding slow developing due cooler weather, leaf rust still problem. Wheat pasture above normal in quantity and quality. Cattle good condition with fall calving winding up.

OREGON: Precipitation starting at the beginning of the week brought heavy rainfall with totals of up to 4.50 in. at coastal stations, up to 2.00 in. in the Willamette Valley and amounts of less than 0.60 in. east of the Cascades. Temperatures averaged 2° warmer at coastal stations, normal in the valley region and 2° below normal in the eastern section. Additional heavy precipitation was received over the weekend in many areas of the State causing flooding on many lowlands.

Topsoil moisture good in most of east but excessive in many western counties. Eastern areas: winter wheat stands fair but growth below normal on later reseeding. Growers attending meetings, preparing for winter and doing general chores. Livestock in generally good condition. Feed supplies sufficient.

PENNSYLVANIA: Seasonal conditions prevailed. Temperatures were near normal. Extremes: 56 and 12°. Precipitation in the form of snow, freezing rain, and rain were noted almost daily with the State average slightly above the normal.

PUERTO RICO: Island average rainfall 0.54 in. or 0.55 in. below normal. Highest total 2.64 in.

Temperatures averaged about 78° on Coasts and 73 to 72° Interior Divisions. Extremes: 93 and 50°.

SOUTH CAROLINA: Temperatures near normal. Rainfall general, mostly above normal.

Soybeans harvesting rapid, way ahead of last year and average. Gathering good pecan crop very active. Pruning fruit trees, grape vines. Caring, feeding livestock. Sampling, liming soil. Disking for spring planting.

SOUTH DAKOTA: Temperatures 3 to 5° above normal. Extremes: 65 and -4°. Major storm dropped 4 to 10 in. of snow eastern half early in the week. Some areas southeast received almost 2 in. of precipitation as rain and snow. Several other locations received an inch or greater. Most areas of the east have received below average annual precipitation while several West River locations are above average.

TENNESSEE: Cold fronts moved through the State 30th and 3rd. The remainder of the week was dominated by high pressure. Temperatures were near normal except for the Cumberland Plateau which averaged 3° below normal. Rainfall fell in association with the fronts with the higher amounts during the early part of the week.

Cotton harvest 97% complete, 1980 100%, average 90%. Farm activities include stripping and marketing tobacco, general farm chores and caring for livestock.

TEXAS: Weather: Scattered thunderstorms across State as cold front swept through 30th. Fair skies prevailed few days. Cold front moved through 3rd. Increasing cloudiness, scattered showers East and South Texas. Temperatures near normal over Pecos while 2 to 3° above normal elsewhere. Precipitation 0.10 below normal across western half while over remainder State 0.50 to 0.75 in. below normal.

Crops: Scattered showers early week interrupted most field operations Cross-Timbers-Central Texas. However, as fields dried planting, harvesting operations resumed. Cotton harvest continues good progress across High and Low Plains. Scattered showers interrupted most harvest, clean-up operations Central Texas. Cross-Timbers; fieldwork returning to normal as soils dried. Small grain fields good growth across State; some stands Edwards Plateau moisture stress. Oat fields providing good grazing Central Texas. Insect activity light. Wheat stands excellent progress High Plains; mild weather ideal growing conditions. Showers Cross-Timbers, Central Texas provide good moisture late planted wheat; heavy rains water logged fields some areas. Because dry conditions South Central Texas some producers waiting for rain before continuing planting. Reported wheat condition across State 19% excellent; 62% good; 17% fair; 2% poor. Peanut harvest active across Cross-Timbers; yields, grades good. Soybean harvest some progress along coast; yields, quality lowered because excess moisture. Some fields not harvested -- because poor yields. Cotton open bolls 98%, 100% 1980. Cotton harvested 63%, 74% 1980. 72% average. Wheat planted all purposes 97%, 97% 1980. 98% average. Wheat emerged 93%, 92% 1980. Peanuts harvested 92%, 87% 1980, 96% average. Pecans harvested 61%, 50% 1980, 64% average. Soybeans harvested 94%, 90% 1980, 97% average. Sugarbeets harvested 99%, 82% 1980, 93% average. Sunflowers harvested 100%, 85% 1980, 96% average. Oats planted 97%, 95% 1980, 97% average.

Commercial vegetables: Rio Grande Valley, harvest of cauliflower, broccoli, cabbage active. Spinach, cabbage making excellent growth. Harvest of grapefruit, early oranges, steady, fruit showing good size, quality. San Antonio-Winter Garden

area, harvest of fall vegetables in full swing. Movement of cabbage, carrots steady, spinach harvest getting underway. Conditions good, harvest moving as scheduled. Trans-Pecos region, conditions good, cabbage progressing well. Harvest of lettuce, red chili peppers continued. Coastal Bend, activity slowed, most fall vegetables completed. Some land preparation underway. Pecan harvest moved steadily. Production good, quality improved with later harvested trees.

Range and livestock: Livestock condition good. Winter grasses, weeds showing good growth in most areas. Portions of Plains, North Texas frost slowed growth of forage. Wheat, other small grains on High Plains providing excellent grazing. Activity at local markets light.

UTAH: Recurring periods rain or snow forepart week. Little or none latter portion. Accumulations generally light to moderate but locally heavy few localities. Cooling trend temperature dropping to well below normal. Average range to near normal to 9° below normal.

Apple, onion and potato producers continue to process and market from storage. Fieldwork limited to daily chores and care of livestock.

VIRGINIA: Rainfall totaled nearly 0.50 in. in most areas prior to a cool and sunny weekend. Temperatures mostly from 20's and 30's to 40's and 50's. Extremes: Low 70's to mid-teens.

Topsoil moisture 35% short, 60% adequate and 5% surplus. Only 3.5 days were suitable for fieldwork. Soybean harvest 90% complete, 80% last year, 81% average. Corn and sorghum harvest expected to be complete in 10 days in most areas. Pastures in fair to good condition. Winter grains and grazing good to excellent. Beef cattle and sheep still getting more than half their roughage from grazing. Late lambing and calving proceeding well. Burley and fire-cured tobacco being marketed; sun-cured tobacco being prepared for market.

WASHINGTON: West: Average temperatures were near normals, ranging from 2° below to 2° above the expected normals. Rainfall varied considerably: 4.50 to 6.00 in. were reported on the coast, 1.50 to 3.00 in. in south interior, 1.00 to 1.25 in. in the north interior. Totals near 6.00 in. were reported on the west slopes of the Cascades. Carrot harvest was interrupted by poor weather con-

ditions. Christmas trees and holly were harvested. Greenhouse operators were busy shipping poinsettias. Winter cauliflower plantings look good. Pruning and tying of berry plants continued. Cattle in good condition and on winter rations. Hay supplies adequate.

East: Average temperatures ranged from near to 3° above normals. Most precipitation fell during midweek with nearly all totals about one-half of the normals. Wheat and barley stands generally in good condition, although cheatgrass troublesome to some growers. Soil moisture in non-irrigated areas adequate. Fruit and grape growers busy with pruning operations, field corn still being harvested. Other activities include weed control and machinery repair.

WEST VIRGINIA: Temperatures averaged near normal except in northern areas where they were slightly above normal. High 64° in Charleston, low 10° in Green Bank. Precipitation near normal except in southern areas where it was slightly below normal. Soil moisture adequate to short. Days suitable for fieldwork: 3.3. Hay, grain, and other feed supplies adequate.

WISCONSIN: Light snow fell across central and northern areas on the 30th and continued on the 1st. Snowfall in amounts of 3 to 6 in. accumulated on 1st across central parts of State along a belt stretching from La Crosse to Wausau. Snowfall in the range of 1 to 4 in. were reported elsewhere. Generally cloudy and mild weather prevailed throughout the week. The high temperature, 44°, was recorded in West Allis on the 2nd while the cool spot was Baldwin which recorded 3° above on the 4th.

WYOMING: Temperatures mild, about half reporting stations had above normal average temperatures. Highest temperatures in Lower Platte Drainage 57°. Coldest temperatures in Snake Drainage 8° below. Precipitation light but widespread, most 0.75 in.

Winter wheat mostly good condition. Additional moisture needed. Livestock mostly good condition. Mild weather reduced stress. Limited supplemental feeding in areas with snow cover or poor pasture conditions. Some areas short stock water.

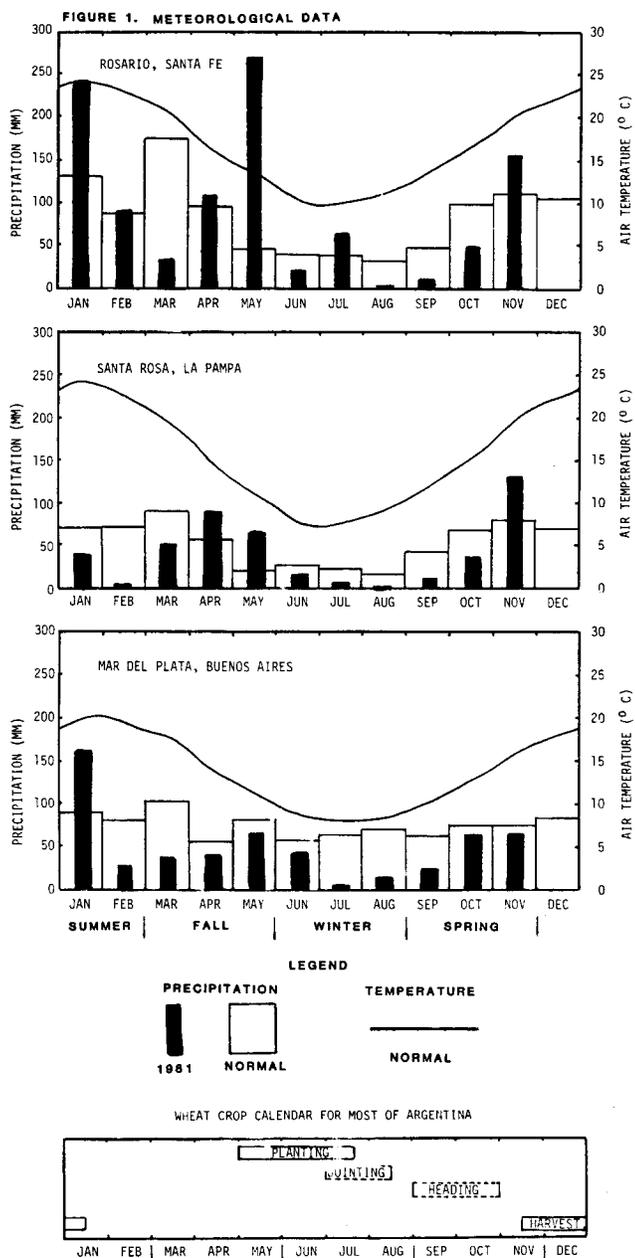
DRY WEATHER REDUCES ARGENTINE WHEAT PROSPECTS

By Ray Motha, Don Haddock, and Dave Smith
NOAA/USDA Joint Agricultural Weather Facility

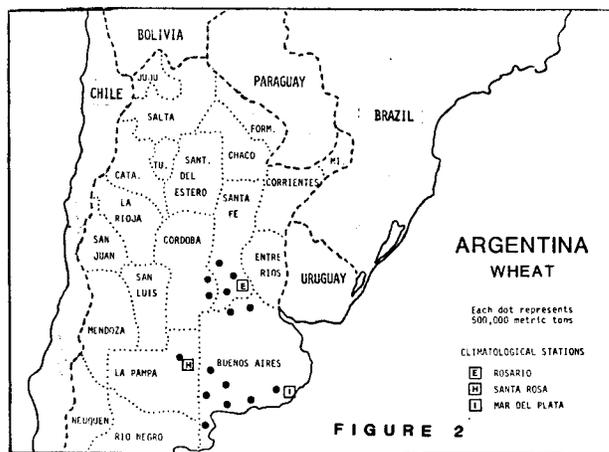
Argentina's major agricultural area ranks among the most productive regions of the world along with the U.S. Midwest and the U.S.S.R. Ukraine. The primary grain region is the Pampa which includes the provinces of Buenos Aires, Santa Fe, Cordoba, La Pampa and Entre Rios. The Pampa is divided into two climatic zones, the humid northeast and the semi-arid southwest, which are influenced by the moisture from the Atlantic Ocean to the east and the drying effect of the Andes on Argentina's western border. In the humid Pampa, average annual rainfall ranges from 750-1000mm and the growing season generally extends over 250 days. In contrast, the semi-arid southwest generally averages 450-750mm of annual

rainfall while the growing season is about 200-250 days.

Precipitation also varies seasonally across the Pampa with a pronounced pattern of continental summer showers in the interior and year-round maritime rains along the coast. The interior receives its heaviest amounts during the summer when moist, unstable air is advected or transported over the heated land mass, producing showers and thundershowers. Reduced advection of moist air and cool temperatures in the winter produce a dry regime, as shown by the normal precipitation bar graphs for Rosario and Santa Rosa in Figure 1.



wheat crop, as shown in Figure 2. Wheat sowing extends from May through early August, although optimum planting is during May and June to make more efficient use of autumn rains for early growth before the relatively dry winter weather pattern prevails. The harvest season is from November to mid-January.



Wheat is a cool season crop which is favored by cool, moist conditions during vegetative growth and reproduction and warm, dry conditions during the grain-filling period. Adequate moisture during the planting season is essential for favorable yield prospects. Insufficient moisture during the planting season will not only shorten the growth cycle but also retard germination and emergence of the crop. Winter wheat varieties require low temperatures for a period of several weeks in order to pass from the vegetative to the reproductive stage (vernalization). Spring wheat varieties do not require low temperatures, since flowering is induced by longer day lengths. After planting, the reproductive period is the most crucial developmental phase, when adverse weather may drastically reduce the yield potential. After the ear has emerged from the sheath (boot) during the fertilization process it is extremely susceptible to low temperatures, excessive heat, and/or moisture stress. After reproduction, prolonged hot, dry weather tends to hasten maturity and may cause shrivelled kernels of grain.

1981 WEATHER SUMMARY

May rainfall was much above normal and good for planting in most of the wheat areas of the Pampa (see 1981 precipitation bar graphs in Figure 1). The pattern changed drastically to a severe drought when dry high pressure aloft with low atmospheric moisture dominated the area during the winter and early spring. Fronts crossing the Pampa triggered only light rains. Significant rains finally began to fall in the late spring, but too late to benefit much of the wheat crop.

WEATHER IMPACT ON WHEAT CROP

The prolonged dry spell coincided with both vegetative and reproductive phases of development for much of the wheat crop. While the crop was not subjected to excessive heat during the crucial reproductive period, a major wheat growing area of southern Buenos Aires (see Figure 2) was exposed to near-freezing temperatures during the late vegetative period. This likely weakened the crop's resistance to further stress conditions. The timing of the late October rains was too late for a significant portion of the wheat crop to respond with

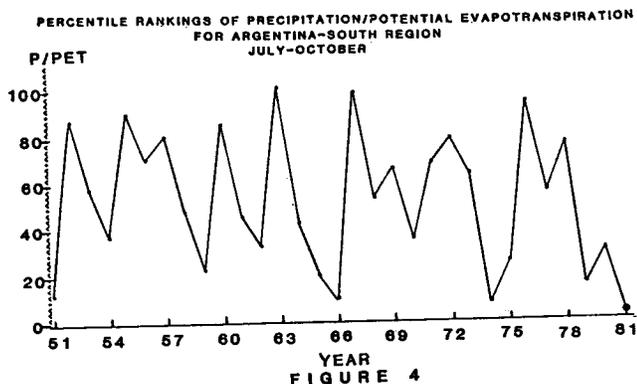
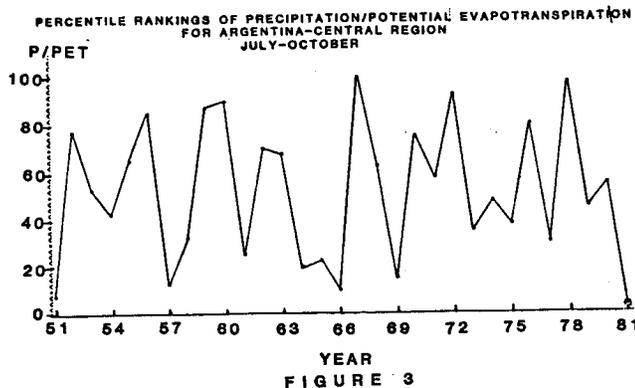
A year-round maritime rain pattern is depicted in the normal precipitation bar graph for Mar Del Plata, Figure 1. This type of rain pattern is produced by the year-round high moisture content of the air in combination with an unstable atmosphere resulting from a warm ocean current in the winter and heated land during the warmer seasons. The graphs also show the seasonal temperature variation between the warm to hot interior stations during the summer (December-February) versus the cooler station near the coast.

The concentration of agricultural production in the Pampa is largely due to the relatively favorable climate and fertile soils which are typically diverse with a more sandy composition to the west. Wheat and corn are the two largest crops grown in this area. Buenos Aires, the leading grain producing province, is expected to produce about 60 percent of Argentina's total wheat crop. Santa Fe and Cordoba also produce significant portions of the

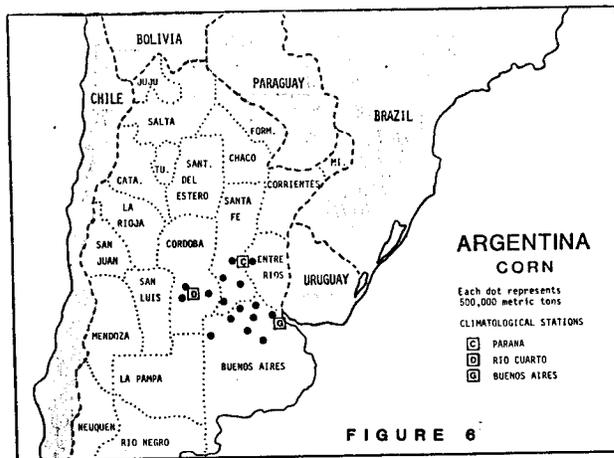
rejuvenated growth. The moisture prevented further deterioration of crop conditions; however, late-planted wheat which had not passed through reproduction benefited from the much-needed rains.

CORN CROP PROSPECTS

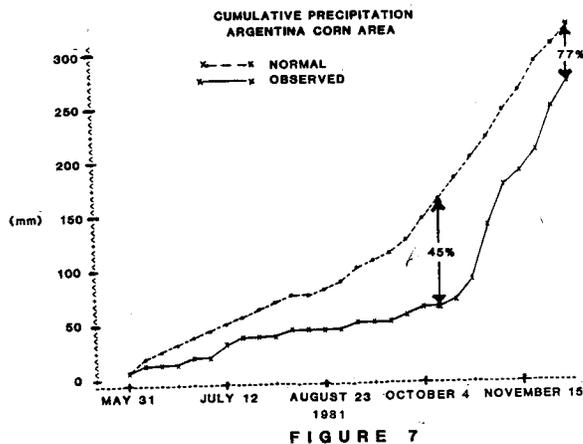
Figure 6 shows Argentina's corn producing area. Corn is a warm season crop which requires high moisture supplies. The planting season begins in September and extends into November but optimum planting occurs by the end of October. The harvest season is from March to early June.



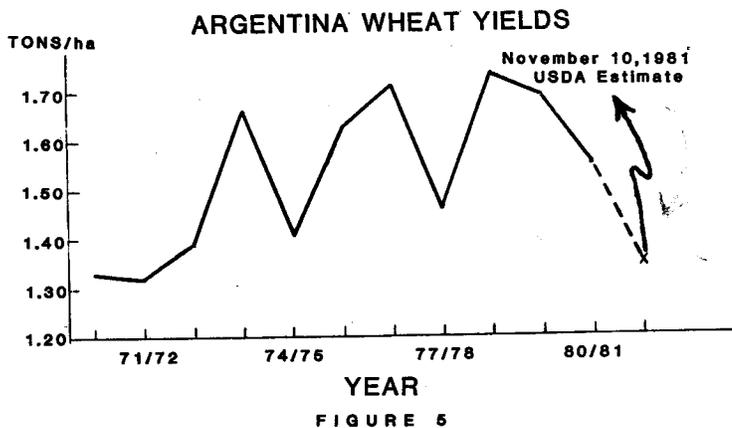
To illustrate the severity of the dry spell, the ratio of precipitation (P) to potential evapotranspiration (PET) was computed for monthly data over the growing season (ie; July-October) for the period 1951-1981. Station data were aggregated into regional averages and expressed in terms of percentile rankings shown in Figures 3 and 4 for the central and southern regions, respectively. P/PET represents a ratio of water supply under rainfall conditions to potential water use by the crop; thus, it is a crop moisture supply-demand index. Figures 3 and 4 show that the 1981 growing season was ranked as one of the driest years in the last 30 years for both crop areas of Argentina. As a result, the drought-stricken wheat yields, shown in Figure 5, are expected to be the lowest since the 1971/72 crop year, based on current estimates.



The dry weather during September and October delayed planting activities, causing concern for yield prospects. The timely rains, illustrated by the cumulative rainfall plot in Figure 7, provided sufficient moisture for planting and emergence, although the delayed planting season likely caused some switching to other crops like sorghum and



soybeans. Figure 7, which represents a regional average for the major corn area, shows that by October 18, 1981, cumulative rainfall since May 31 was 45 percent of normal. After the substantial rains, cumulative rainfall by December 6 was 77 percent of normal. Thus, the ample moisture turned an uncertain condition into a more favorable prospect for corn yields if favorable weather prevails during the crucial reproductive period. Careful attention must be given to this agricultural weather situation.

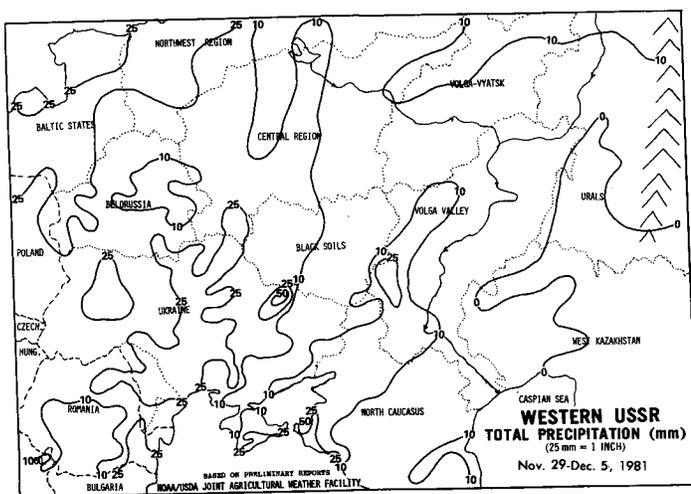


International Weather and Crop Summary

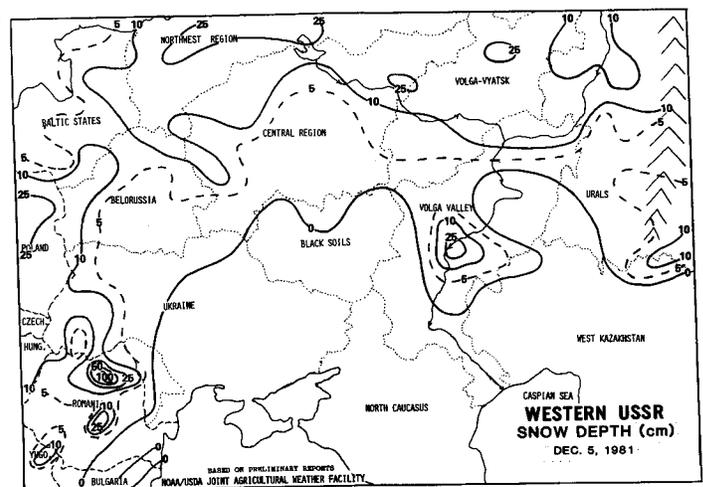
HIGHLIGHTS

November 29-December 5, 1981

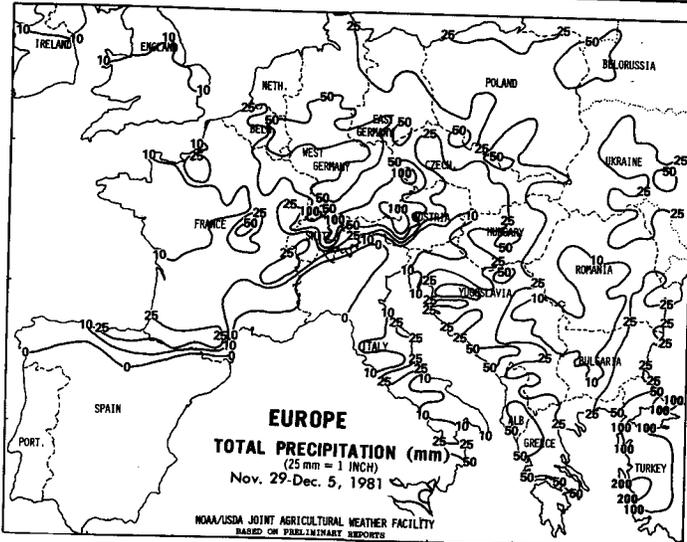
- WESTERN USSR: Beneficial precipitation continues; winter wheat remains dormant in most areas.
- EUROPE: Persistent dry weather plagues winter grain sowing in Spain; too wet in central areas.
- MEXICO: Rains hamper sugarcane and coffee harvest along the east central coastal slopes. Mostly sunny elsewhere.
- NORTHWESTERN AFRICA: Beneficial rains in eastern Algeria and Tunisia; still too dry for winter grain sowing in Morocco.
- SOUTH AFRICA: Southern corn areas need additional moisture for early growth.
- EASTERN ASIA: Dry weather in most areas.
- AUSTRALIA: Favorable wheat harvest weather.
- SOUTHEAST ASIA: Dry season dominates Thailand and vicinity.
- SOUTH ASIA: Dry weather persists in the north; wet weather continues in southern peninsular areas.
- SOUTH AMERICA: Showers benefit corn, sorghum, and soybean growth; wheat harvested in Argentina.



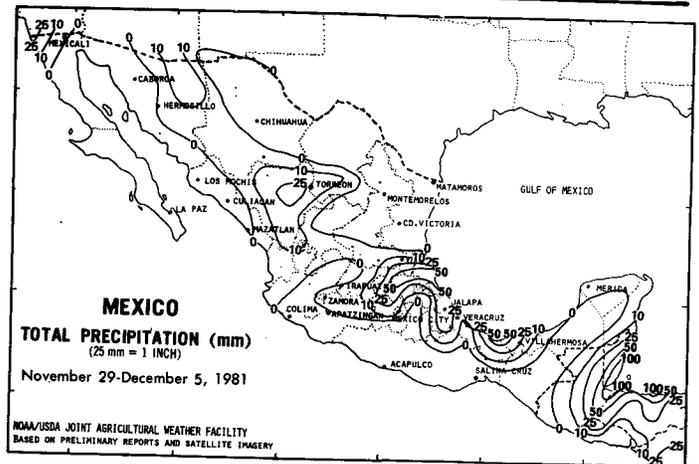
WESTERN USSR: Widespread precipitation ranging from 10-25 mm fell over the western portion of the region. The precipitation was mainly rain in the central Ukraine with snow from the Baltic States southward into Belorussia and the western Ukraine. Light precipitation fell from the Central Region and Volga Valley southward into the North Caucasus. The winter wheat crop is dormant in



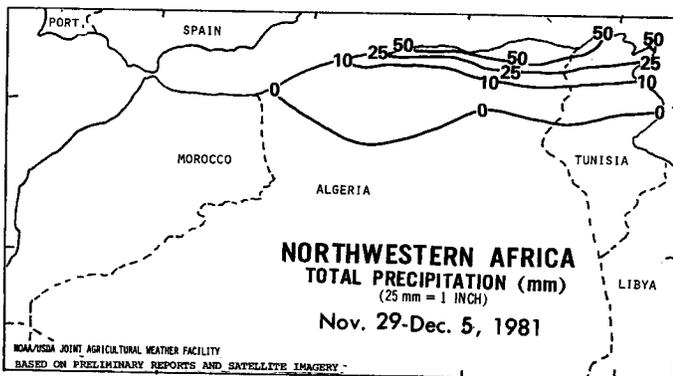
areas adjacent to the Black Sea. The snow cover increased this week in most western locations. In South Central USSR, cotton harvest is still continuing in more southern areas. Light precipitation and favorable temperatures caused no significant delays in final harvest activity.



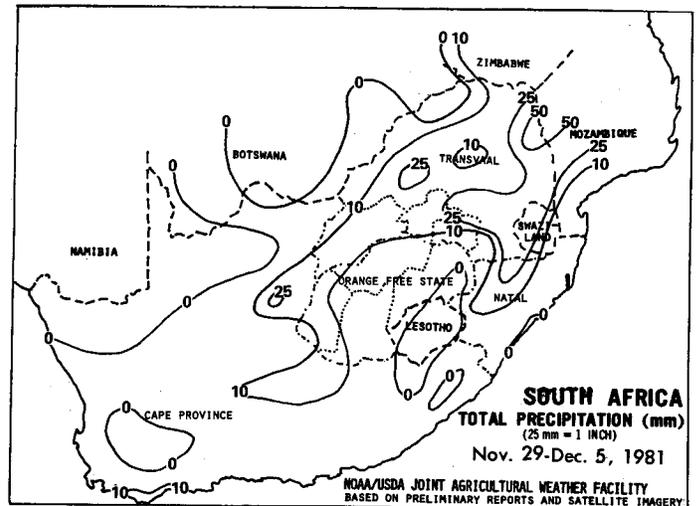
EUROPE: Dry weather continued over Spain and Portugal, delaying winter grain planting beyond the normal planting period of September through November. As a consequence, reports indicate that much of the area intended for winter grains will be planted to lower yielding spring wheat and barley in December or January. Generally light precipitation occurred over England and France while conditions remained too wet for winter grains in parts of Central Europe. In Eastern Europe, wet weather occurred over most winter grain areas. The precipitation which fell on Yugoslavia, Romania, and Bulgaria, was beneficial for improving soil moisture levels. Winter wheat is dormant in most areas except adjacent to the Mediterranean Sea.



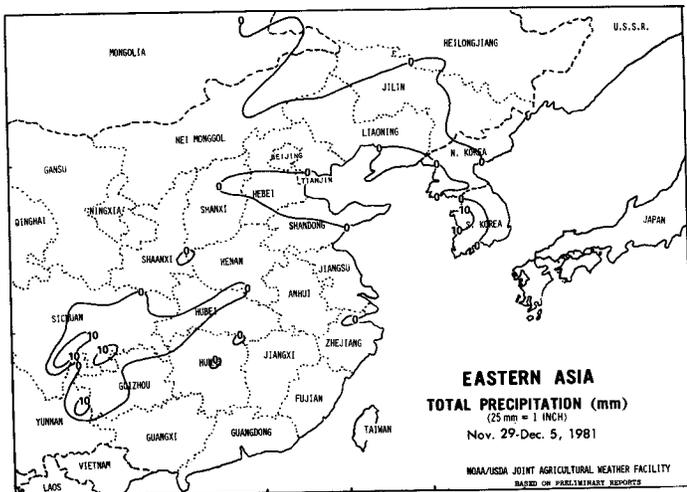
MEXICO: Rainy, warm weather dominated the east central coastal slopes and plains, while the rest of the country was generally dry and mild. Moderate to locally heavy rains between Valles and Veracruz improved soil moisture but interfered with harvesting of sugarcane, coffee, and other mature crops. Some cloudiness on the West Coast reduced sunshine and the usual diurnal range of temperatures over vegetable fields. However, the weekly mean temperature was near seasonal, averaging 22°C at Culiacan and favorable for vegetable development.



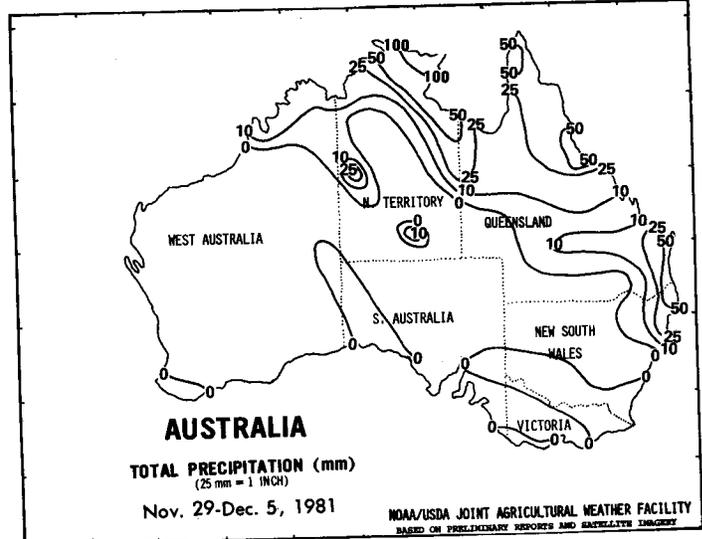
NORTHWESTERN AFRICA: Beneficial rains fell on winter grain areas of northern Algeria and northern Tunisia. Persistent dry weather continued over Morocco and western Algeria. Winter grain sowing should be underway in northern Tunisia and northeastern Algeria but topsoil moisture is not yet adequate to permit winter grain sowing in western Algeria and Morocco.



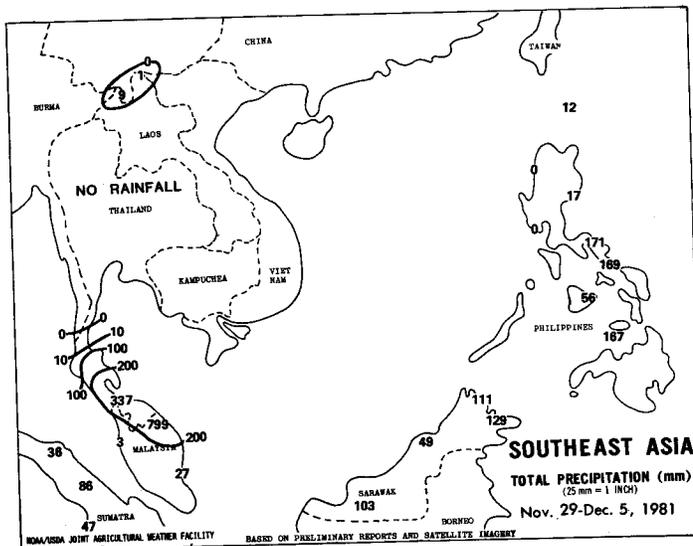
SOUTH AFRICA: Showers produced some beneficial moisture for corn growth in northern portions of the corn triangle including southern Transvaal but the Orange Free State was mostly dry. Weekly rainfall amounts were generally less than the seasonal average in all crop areas except southeastern Transvaal. Topsoil moisture has been less than adequate in southwestern portions of the corn triangle region during the planting season. Soaking rains are needed soon to establish the crop, and timely moisture will be needed during vegetative growth and reproduction to ensure favorable yield prospects.



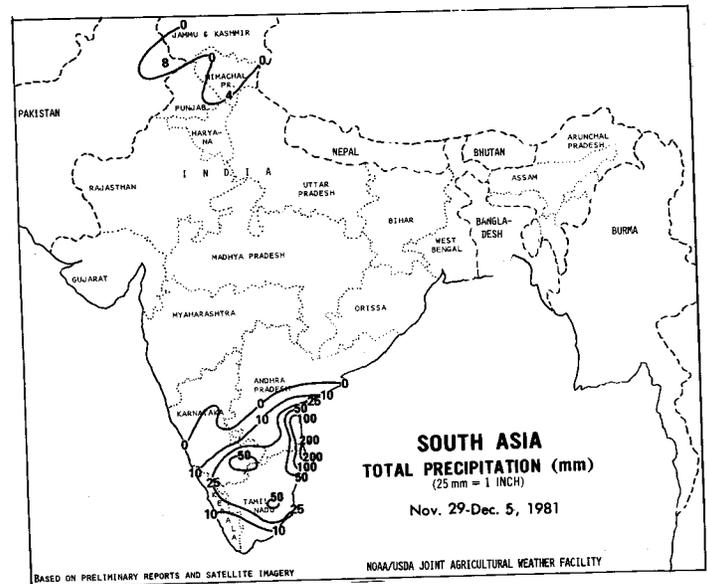
EASTERN ASIA: A generally dry weather pattern occurred throughout much of China. Winter wheat remains dormant north of the Yangtze River Valley where the average temperature for the week was below 5°C. In general, the early establishment of winter wheat in these areas occurred under marginally favorable conditions. In the southern coastal areas, dry weather benefited the final harvest of late rice. Dry weather and cold temperatures occurred in South Korea where the winter wheat crop remains in dormant.



AUSTRALIA: Favorable harvest weather prevailed throughout Australia's wheat belt. Scattered showers produced only minimal weekly totals except in Queensland and extreme northern Australia. About 70 percent of northern Australia's annual rainfall comes during the summer months, due largely to a combination of an intermittent monsoon circulation and local thunderstorm activity. In southern portions of the country, the dry weather has hastened maturation of winter grains and benefited harvest activities in all crop areas. The wheat harvest is about to begin in Victoria.



SOUTHEAST ASIA: Seasonally dry weather continued over Thailand and bordering countries. Showers were confined to peninsular Thailand, Malaysia and Indonesia. A small area of well above average weekly rainfall was located in extreme southern Thailand. Weekly totals were somewhat less than average in most other areas, however. With the onset of the dry season in the major crop areas of Thailand, weekly summaries will be discontinued until next spring. A brief review of Thailand's wet season will be summarized in next week's issue.



SOUTH ASIA: Dry weather persisted throughout most of India except the south peninsular region where generally 25-50 mm of precipitation occurred. The dry weather continuing for the past 3 weeks in winter grain areas of north and north central India has reduced topsoil moisture. More rain during the current planting period would benefit germination and early growth of the winter grain crop. In contrast, the dry weather aided both the cotton harvest in central India and the winter rice harvest in east and northeastern India. Wet weather over southeast peninsular areas early in the week caused some delays in the final harvest of autumn rice. Dry weather continued over most of Burma this week.

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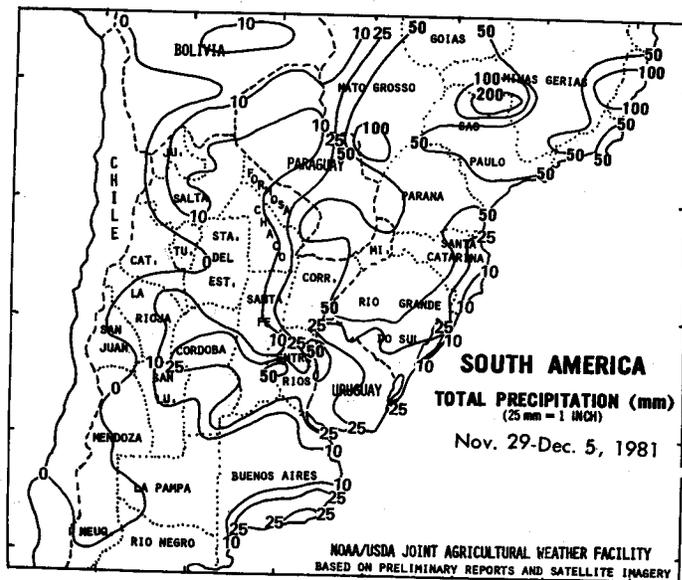
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SOUTH AMERICA: Widespread showers, occurring mostly late in the week, provided beneficial moisture for corn, soybeans, and other crops from Cordoba, Sante Fe, and extreme northeastern Argentina through most of southern and central Brazil. The significant rains had little impact on Brazil's wheat crop since the harvest is nearly complete in Rio Grande do Sul. Abundant moisture is available in Brazil's crop areas for early vegetative growth of soybeans and for the reproductive and grain formation period of corn. Soil moisture supplies continue to be replenished in Argentina's major corn/soybean areas. Showers in extreme southern Buenos Aires slowed wheat ripening but mostly dry weather elsewhere in Buenos Aires and La Pampa aided wheat maturation and harvesting. Buenos Aires will produce about 60 percent of the total wheat crop this year.



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