

# 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

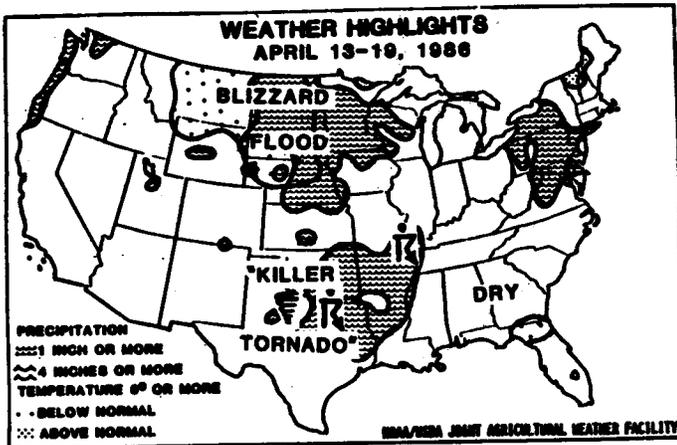
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Apr. 22, 1986

## National Weather Summary

April 13 to 19, 1986



Great Lakes region, and rain fell from the Ohio Valley to western New England. Light showers covered part of the area from Georgia through the Carolinas. A Pacific storm triggered rain along the west coast and more snow in the northern Rockies.

**WEDNESDAY...**Moderate to heavy rain fell from southwestern New York through New Jersey. Snow fell in the higher elevations of the Appalachians from West Virginia to New York. Lighter rain fell from the eastern Great Lakes and upper Ohio Valley into the Carolinas and southern New England. Showers and thunderstorms developed through the Rockies while rain fell from central California to Washington and across the Great Basin.

**THURSDAY...**Light rain persisted in the Northeast with snow in the Appalachians north of West Virginia. Showers and thunderstorms were widely scattered through most of Texas and the Great Plains but more concentrated in southeastern Texas. Snow fell in the central and northern Rockies.

**FRIDAY...**Snow ended in the central Rockies and melted rapidly. The melting snow, combined with rain, caused flooding in western Nebraska and South Dakota. Thunderstorms were widely scattered from west-central Texas to southeastern Texas with isolated severe weather through the area. Showers and thunderstorms were heavy from eastern Oklahoma into Arkansas. Showers fell from the lower Ohio Valley to the upper Mississippi Valley, and moderate to heavy rain covered the northern Plains.

**SATURDAY...**Violent thunderstorms began forming in the Texas Panhandle and spread to northeastern Texas, Oklahoma, and Arkansas. Tornadoes were widespread in Texas and Oklahoma. An early-morning, killer tornado devastated Sweetwater, Texas. Showers and thunderstorms reached from eastern Texas into Alabama and northward to southern Illinois. Showers spread through the Ohio Valley to western New York.

**HIGHLIGHTS:** High wind, snow, and cold temperatures produced blizzard conditions early in the week through the northern High Plains. Later, heavy rain in the northern Plains and rapidly melting snow caused local flooding in western Nebraska and South Dakota. Thunderstorms produced widespread tornadoes from west-central Texas into Oklahoma and Arkansas. Showers and thunderstorms covered most of the Mississippi Valley. Heavy rain fell from south-central New York through New Jersey and lighter rain covered the Northeast. Snow fell in the Appalachians from West Virginia northward. Mostly dry weather prevailed from Georgia through the Carolinas. Average temperatures were colder than normal in most of the Nation.

**SUNDAY...**A storm system moving out of the central Rockies triggered showers and thunderstorms from northeastern Texas to the Mississippi River and northward to the eastern Dakotas and upper Mississippi Valley. Very cold air spread over the northern Rockies and Plains and spread into the western portion of the central Plains. Heavy snow covered the High Plains from western Nebraska to North Dakota and Montana.

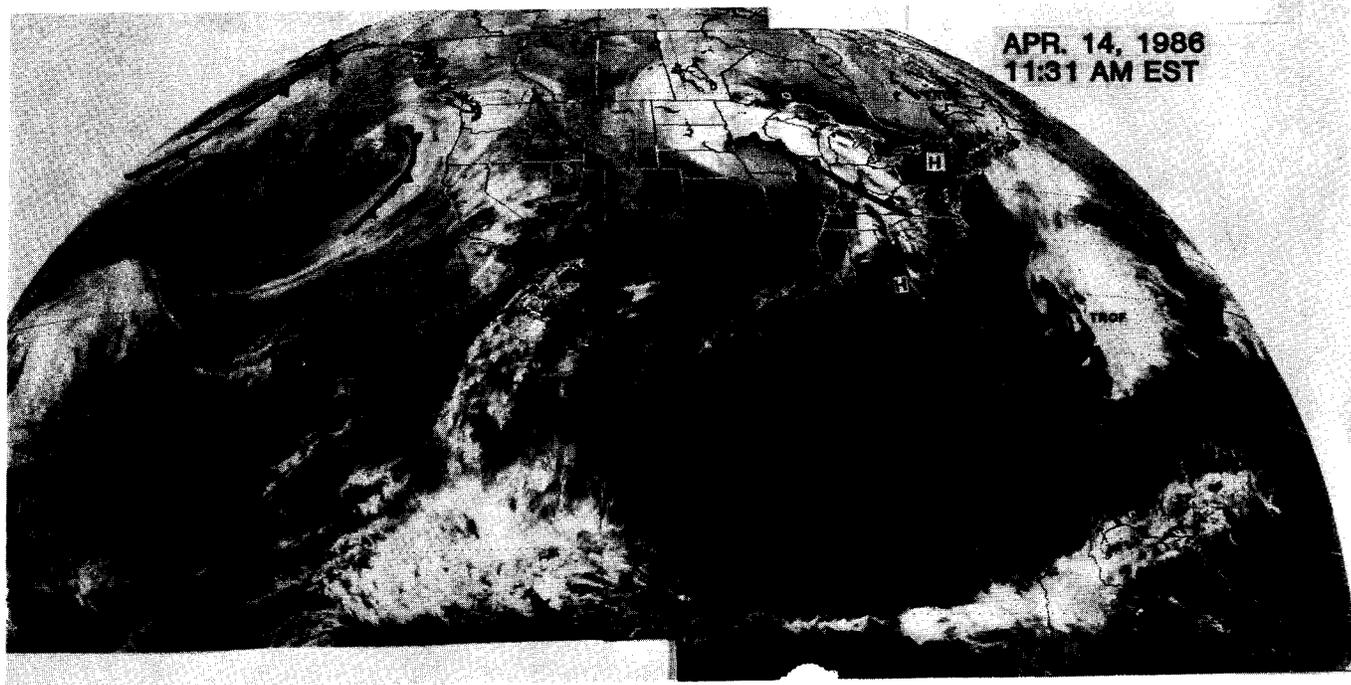
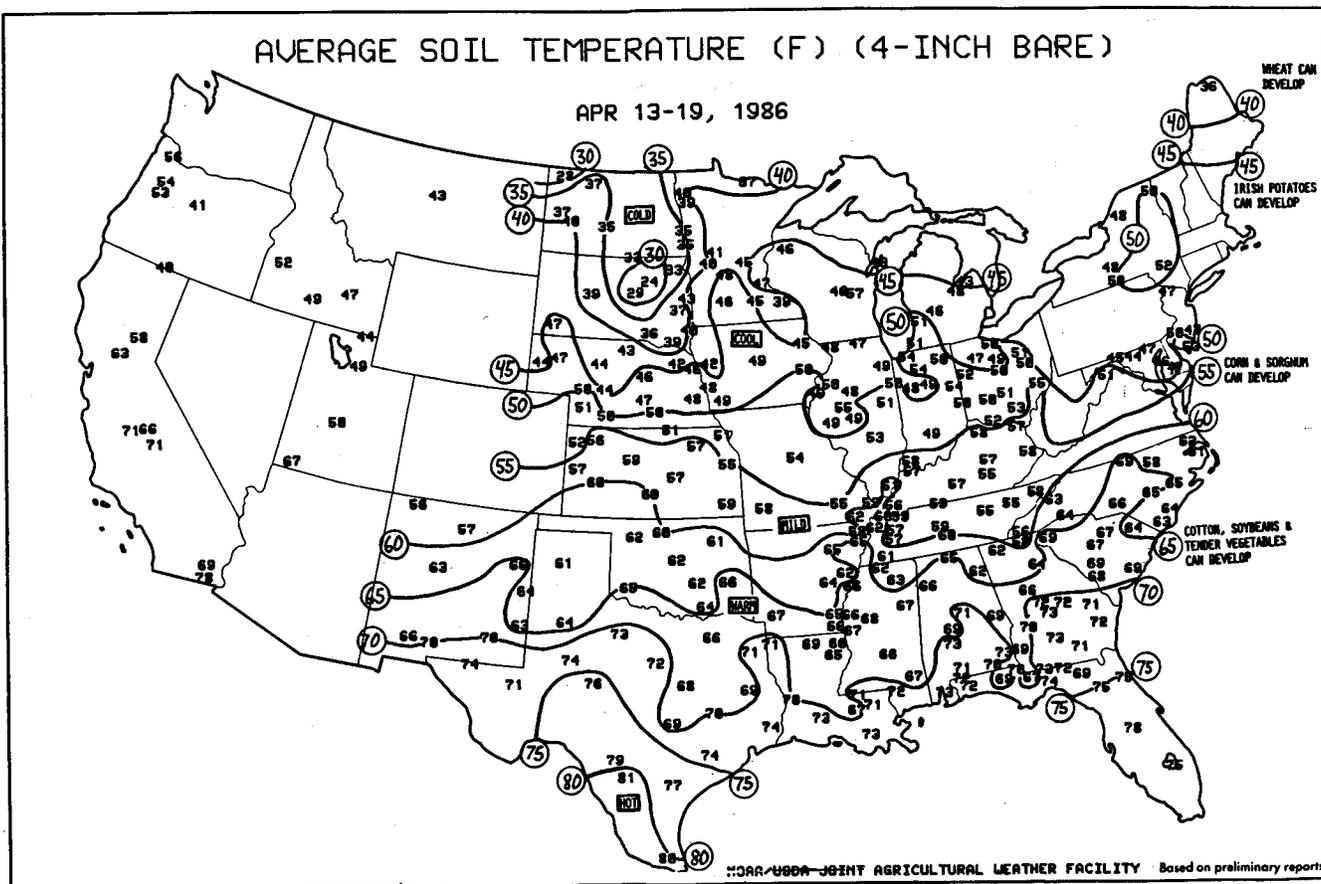
**MONDAY...**High wind prevailed over most of the Plains and, coupled with snow and cold weather, created a blizzard over much of the northern Plains. Moderate to heavy rain fell from the upper Mississippi Valley through the lower Great Lakes, and lesser showers fell from southeastern Texas to the eastern Great Lakes. Freezing temperatures reached the western portion of the central Plains and into the Texas Panhandle.

**TUESDAY...**Record-cold temperatures spread over parts of the northern High Plains, but snow covered the ground protecting crops. Wet snow fell in the

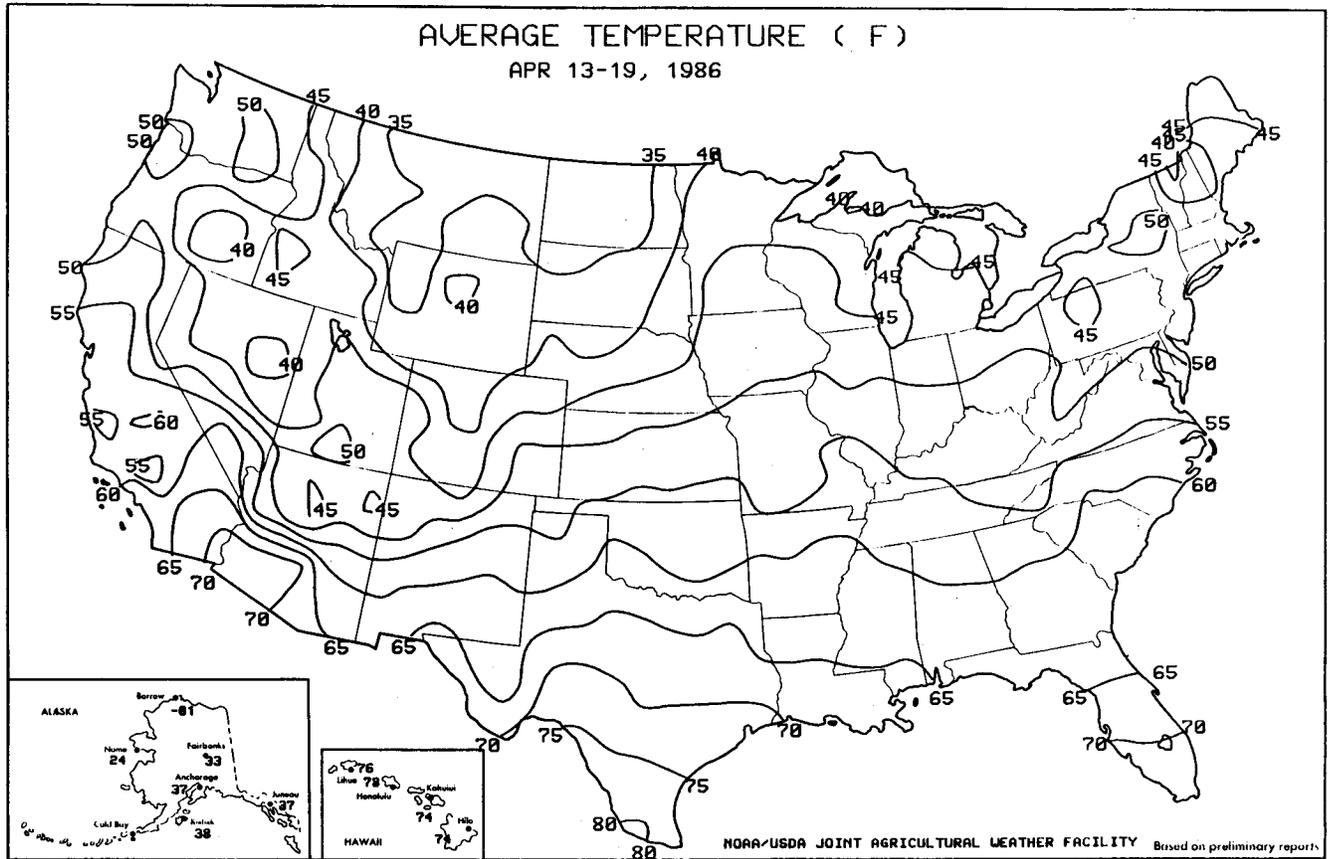
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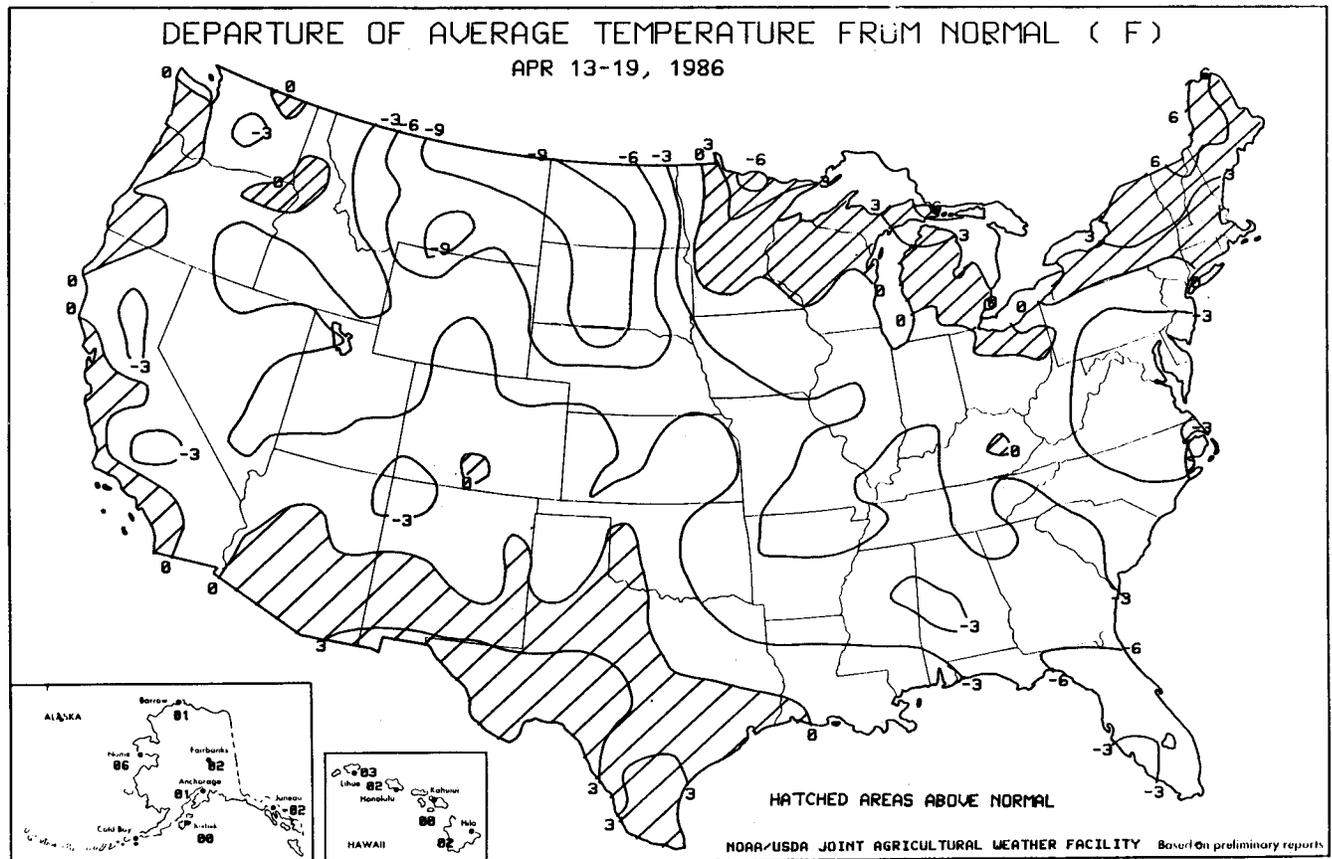




A LATE WINTER STORM BRINGS A BLIZZARD TO THE NORTHERN PLAINS AND HEAVY RAIN TO THE UPPER MISSISSIPPI VALLEY THROUGH THE LOWER GREAT LAKES. ALSO, A PACIFIC STORM CAUSES WIDESPREAD RAIN ALONG THE NORTHERN WEST COAST.



Point values may differ on these computerized maps from the reported values in the tables.



# National Weather Data for Selected Cities

## Weather Data for the Week Ending April 19, 1986

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 MAR. 1	PCT. NORMAL SINCE MAR. 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPI- TATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	74	43	83	33	59	-5	T	-1.1	T	2.5	26	5.5	28	88	29	0	0	1	0	
MOBILE	77	53	80	45	65	-3	T	-1.2	T	6.0	61	12.9	66	92	35	0	0	1	0	
MONTGOMERY	76	49	83	40	62	-3	T	-1.2	T	9.4	106	16.6	95	87	33	0	0	1	0	
AK ANCHORAGE	44	30	48	26	37	1	T	-2	T	2.0	173	2.7	93	86	44	0	0	5	0	
BARROW	7	-8	11	-14	-1	1	T	-1.1	T	.1	25	.4	57	86	75	0	0	0	0	
FAIRBANKS	44	22	48	9	33	2	T	0	T	.4	70	.7	47	65	29	0	0	7	0	
JUNEAU	42	31	45	21	37	-3	T	.2	T	8.8	171	19.1	152	93	59	0	0	3	5	
KODIAK	44	33	47	31	39	0	T	.8	T	7.1	106	23.7	111	91	58	0	0	2	4	
NONE	30	18	36	6	24	6	T	1	T	.3	33	1.3	57	94	69	0	0	7	3	
AZ PHOENIX	85	59	92	53	72	4	T	1	T	1.6	150	2.9	121	31	9	1	0	0	0	
PRESCOTT	65	36	71	29	50	0	T	0	T	2.0	95	3.1	58	51	19	0	0	3	0	
TUCSON	82	51	90	41	67	1	T	0	T	1.3	145	3.4	142	36	10	1	0	0	0	
YUMA	85	58	92	51	71	1	T	0	T	.5	52	.5	50	47	14	2	0	0	0	
AR FORT SMITH	72	48	85	40	60	-2	T	2.1	T	1.9	120	11.5	106	92	46	0	0	4	2	
LITTLE ROCK	71	50	82	42	60	-3	T	-2	T	8.9	110	12.4	80	78	41	0	0	2	1	
CA BAKERSFIELD	71	45	83	38	58	-4	T	-1	T	2.2	160	4.1	121	85	31	0	0	0	0	
EUREKA	56	44	58	40	50	0	T	.1	T	7.5	105	24.7	128	81	61	0	0	3	1	
FRESNO	73	46	85	43	60	0	T	-3	T	3.8	156	9.6	152	82	28	0	0	0	0	
LOS ANGELES	70	53	83	51	62	2	T	-2	T	5.2	213	12.9	161	82	42	0	0	0	0	
RED BLUFF	68	43	84	36	56	-3	T	.1	T	5.8	167	19.2	170	85	33	0	0	3	0	
SACRAMENTO	67	44	78	38	55	-3	T	-3	T	4.1	137	16.3	165	91	40	0	0	0	0	
SAN DIEGO	69	54	82	52	62	1	T	-2	T	4.2	194	7.6	133	77	44	0	0	0	0	
SAN FRANCISCO	65	47	78	44	56	1	T	-2	T	6.2	165	18.4	157	85	39	0	0	2	3	
CO DENVER	58	31	64	24	45	-3	T	.5	T	2.6	117	3.5	100	73	24	0	0	4	4	
GRAND JUNCTION	62	35	73	23	49	-3	T	0	T	.8	71	1.3	54	74	21	0	0	3	4	
PUEBLO	65	32	75	24	49	-3	T	-2	T	.8	67	1.2	67	71	16	0	0	2	4	
CT BRIDGEPORT	60	41	70	33	51	2	T	-3	T	3.0	48	9.0	72	71	34	0	0	2	1	
HARTFORD	64	36	69	28	50	1	T	-2	T	3.4	50	11.8	87	83	26	0	0	3	0	
DC WASHINGTON	60	44	71	41	52	-5	T	.5	T	.8	2.4	45	8.3	78	89	54	0	0	3	1
FL APALACHICOLA	74	53	80	48	64	-4	T	-8	T	2.2	36	11.5	86	93	47	0	0	0	0	
DAYTONA BEACH	76	53	82	48	65	-5	T	0	T	2.3	51	10.6	107	94	45	0	0	1	0	
JACKSONVILLE	76	48	85	43	62	-5	T	-8	T	0	5.6	98	14.6	119	94	35	0	0	0	0
KEY WEST	80	67	83	64	73	-5	T	.9	T	.9	1.9	90	5.2	90	85	53	0	0	1	1
MIAMI	81	61	84	56	71	-4	T	.6	T	11.3	316	18.0	234	85	42	0	0	1	1	
ORLANDO	79	56	84	53	68	-4	T	-3	T	3.1	68	12.1	127	93	37	0	0	0	0	
TALLAHASSEE	79	44	85	37	61	-6	T	0	T	2.6	32	14.9	83	97	31	0	0	0	0	
TAMPA	79	57	83	51	68	-4	T	-1	T	2.2	113	8.9	91	90	40	0	0	1	1	
WEST PALM BEACH	82	60	88	53	71	-3	T	-6	T	5.6	123	13.5	136	90	41	0	0	0	0	
GA ATLANTA	72	46	82	38	59	-3	T	-1.0	T	4.5	51	7.9	43	79	29	0	0	0	0	
AUGUSTA	76	45	83	35	60	-3	T	-7	T	4.1	57	8.0	53	87	29	0	0	1	0	
MACON	77	46	86	39	61	-4	T	-8	T	3.0	40	8.7	53	87	29	0	0	0	0	
SAVANNAH	77	50	85	39	63	-3	T	-7	T	3.1	54	10.4	87	88	30	0	0	0	0	
HI HILO	82	67	87	65	74	2	T	-1.6	T	51.7	234	57.1	127	93	62	0	0	4	1	
HONOLULU	85	70	88	67	78	2	T	-3	T	.5	10	2.0	18	85	54	0	0	0	0	
KAHULUI	84	65	85	60	74	0	T	-2	T	6.8	178	9.0	80	91	58	0	0	0	0	
LIHUE	81	71	83	63	76	2	T	-1	T	3.5	52	4.7	28	90	67	0	0	3	2	
ID BOISE	58	35	64	30	46	-2	T	-1	T	2.9	162	7.6	169	82	29	0	0	3	0	
LEWISTON	61	39	66	34	50	0	T	-3	T	.7	40	3.4	85	82	37	0	0	0	0	
POCATELLO	53	31	63	26	42	-3	T	0	T	2.8	168	6.5	176	90	38	0	0	4	4	
IL CHICAGO	56	35	69	25	46	-4	T	.3	T	2.4	48	5.3	67	90	50	0	0	2	2	
MOLTF	60	39	69	30	50	-2	T	.5	T	2.4	46	5.3	65	85	45	0	0	2	1	
PEORIA	61	38	70	31	49	-3	T	-7	T	1.3	25	3.3	40	94	49	0	0	1	1	
QUINCY	61	41	70	32	51	-3	T	.5	T	1.7	31	3.9	47	92	52	0	0	2	2	
ROCKFORD	57	37	69	30	47	-1	T	-4	T	1.9	36	5.0	63	90	52	0	0	1	3	
SPRINGFIELD	61	41	70	33	51	-3	T	-8	T	2.2	38	4.0	44	89	46	0	0	2	2	
IN EVANSVILLE	65	42	78	36	53	-4	T	-3	T	3.3	46	10.2	77	94	52	0	0	2	3	
FORT WAYNE	58	38	69	31	48	-1	T	-3	T	4.3	82	7.9	86	93	53	0	0	0	0	
INDIANAPOLIS	60	41	70	33	51	-2	T	-3	T	5.0	84	8.7	78	90	56	0	0	4	0	
SOUTH BEND	58	38	69	32	48	-1	T	-5	T	3.0	52	6.7	66	90	51	0	0	1	3	
IA DES MOINES	59	38	66	29	49	-2	T	-2	T	5.4	131	7.3	116	86	52	0	0	2	4	
STOUC CITY	56	34	66	23	45	-5	T	1.5	T	6.8	221	7.6	165	95	52	0	0	4	5	
WATERLOO	58	37	66	26	48	0	T	-1	T	3.4	77	6.2	100	87	53	0	0	2	3	
KS CONCORDIA	63	37	76	27	50	-3	T	0	T	3.4	107	4.7	102	88	40	0	0	3	3	
DODGE CITY	68	36	86	27	52	-3	T	-3	T	1.0	41	1.5	43	75	24	0	0	3	1	
GOODLAND	64	31	76	23	48	-1	T	-2	T	0	1.8	109	92	79	23	0	0	4	0	
TOPEKA	65	40	79	32	53	-2	T	-1	T	3.7	90	5.3	88	84	39	0	0	1	3	
WICHITA	66	41	79	32	54	-3	T	.7	T	2.5	76	3.8	78	80	38	0	0	1	1	
KY BOWLING GREEN	67	44	78	35	55	-2	T	-8	T	4.0	48	8.7	52	85	38	0	0	0	2	
LEXINGTON	64	44	79	34	54	-2	T	-5	T	3.0	41	6.1	43	94	48	0	0	0	3	
LOUISVILLE	63	44	78	36	54	-3	T	-7	T	3.0	41	7.9	89	84	53	0	0	0	0	
LA ALEXANDRIA	75	55	79	46	65	-2	T	-4	T	3.7	44	7.0	37	84	53	0	0	1	1	
BATON ROUGE	79	57	84	49	68	0	T	-1.1	T	3.9	49	9.1	52	86	35	0	0	0	0	
LAKE CHARLES	78	59	82	52	69	0	T	-9	T	2.7	50	6.4	47	92	50	0	0	2	1	
NEW ORLEANS	78	56	82	52	67	-1	T	-5	T	2.7	35	9.1	51	92	42	0	0	0	1	

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS.

Weather Data for the Week Ending April 19, 1986

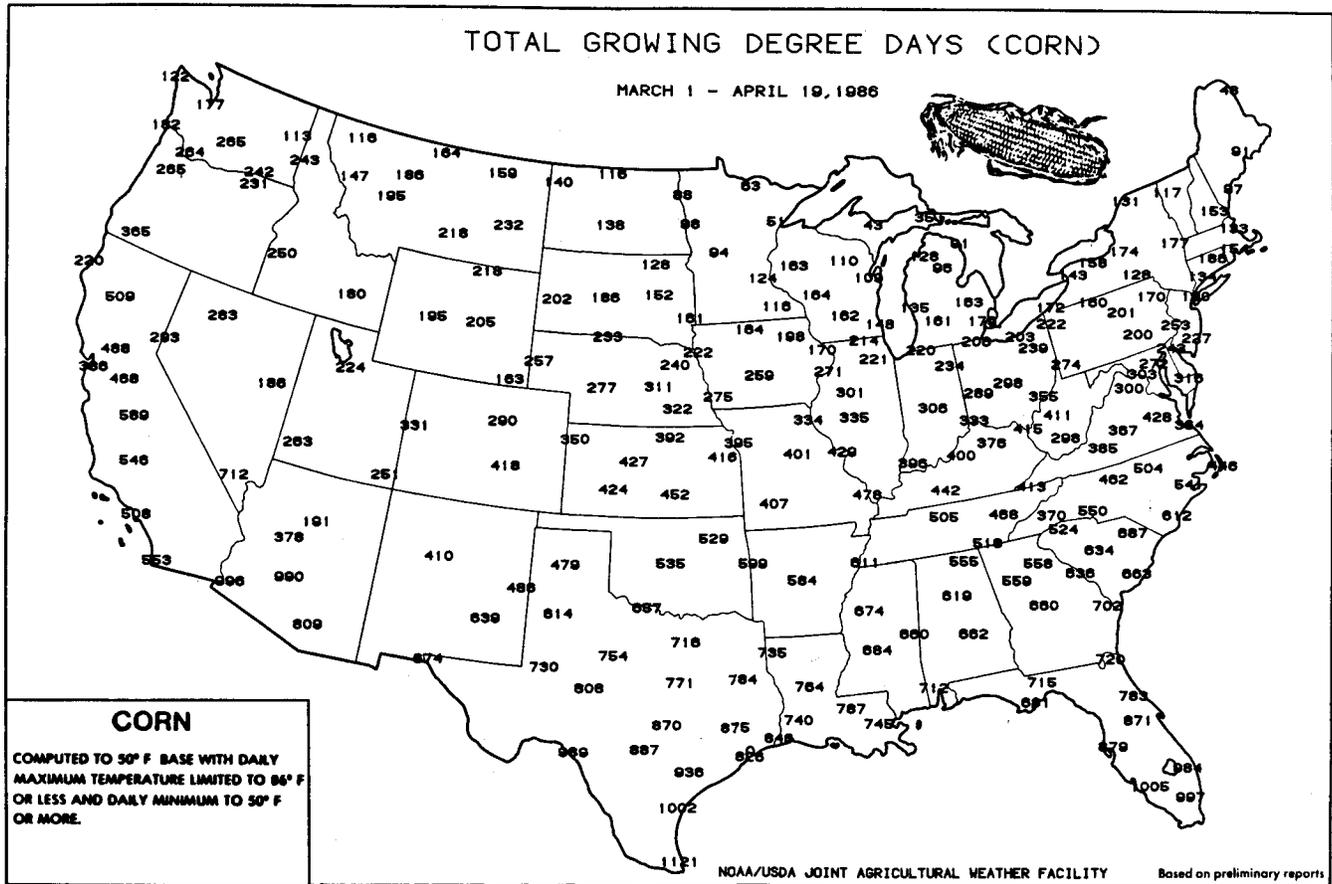
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS						
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR. 1	PCT. NORMAL SINCE MAR. 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMPERATURE		PRECIPITATION	
																		.01 INCH OR MORE	.50 INCH OR MORE		
SHREVEPORT	76	50	81	41	63	-3	2.1	1.0	2.1	3.7	56	7.7	54	95	44	0	0	1	1		
ME CARIBOU	54	31	61	26	43	5	T	-6	T	3.7	91	114	80	33	0	0	5	1	0		
PORTLAND	58	32	64	29	45	2	0	-9	0	5.6	86	14.8	89	35	0	0	4	0	0		
MD BALTIMORE	58	40	71	35	49	-5	1.7	-9	1.1	3.4	57	9.2	78	94	57	0	0	0	3		
SALISBURY	61	39	67	34	50	-4	1.0	-2	.7	2.1	34	10.1	78	96	45	0	0	0	5		
MA BOSTON	55	41	59	37	48	-1	0	-9	0	3.8	58	10.1	71	81	39	0	0	0	0		
CHATHAM	52	40	56	37	46	1	T	-9	T	3.7	57	9.3	62	93	76	0	0	0	0		
MI ALPENA	55	32	75	23	43	3	.9	.3	.7	3.6	106	5.7	89	94	45	0	0	3	1		
DETROIT	59	38	70	30	48	0	.8	0	.3	4.0	88	8.8	109	89	48	0	0	3	0		
FLINT	59	34	72	27	46	7	.7	-1	.4	3.4	83	6.2	87	89	42	0	0	2	3		
GRAND RAPIDS	58	36	70	31	47	0	.5	-3	.4	3.7	79	8.1	99	88	46	0	0	3	0		
HOUGHTON LAKE	56	34	68	26	45	3	.1	-5	.1	2.7	78	5.5	87	87	44	0	0	3	1		
LANSING	58	34	71	26	46	-1	.6	-1	.4	2.8	66	6.2	83	90	45	0	0	2	3		
MARQUETTE	50	29	64	19	40	2	1.0	-2	.7	6.2	123	10.4	117	93	45	0	0	6	3		
MUSKOGON	57	37	70	32	47	1	.6	-2	.6	3.0	66	6.7	78	85	46	0	0	1	1		
MN SAULT STE. MARIE	58	34	66	26	46	1	.7	-5	.1	5.2	148	7.8	105	82	35	0	0	3	1		
ALEXANDRIA	52	36	56	29	44	2	2.8	2.3	1.6	5.1	204	7.2	180	96	58	0	0	2	4		
DULUTH	49	32	56	25	41	2	.9	-4	.5	2.0	66	3.4	65	88	41	0	0	3	3		
INT'L FALLS	56	34	63	29	45	1	.3	0	.2	.7	36	2.3	64	77	35	0	0	3	2		
MINNEAPOLIS	56	39	62	33	47	1	1.6	1.1	1.2	4.4	149	6.1	133	88	44	0	0	4	1		
ROCHESTER	54	36	62	29	45	0	1.2	-6	.7	4.0	124	5.2	111	93	51	0	0	3	5		
MS GREENWOOD	75	48	81	37	62	-3	.7	-6	.6	4.2	42	6.2	32	90	37	0	0	2	1		
JACKSON	75	47	81	38	61	-4	.3	-1.0	.3	4.8	49	7.0	37	91	40	0	0	1	0		
MERIDIAN	76	46	81	36	61	-4	.1	-1.2	0	4.2	41	7.6	38	94	34	0	0	2	1		
MO CAPE GIRARDEAU	68	45	79	36	57	-1	1.0	0	.9	5.4	68	9.1	66	88	41	0	0	2	1		
COLUMBIA	64	40	77	33	52	-3	.4	-5	.3	3.0	54	7.2	80	87	44	0	0	2	0		
KANSAS CITY	64	38	76	30	51	-4	.8	0	.3	3.0	69	4.3	65	90	46	0	0	3	4		
SAINT LOUIS	63	45	75	36	54	-2	.2	-6	.2	1.6	30	6.4	68	87	42	0	0	4	0		
SPRINGFIELD	64	43	78	33	54	-3	.3	-6	.3	5.2	88	7.2	74	88	46	0	0	4	0		
MT BILLINGS	45	27	57	9	36	-9	.8	-3	.4	2.6	116	4.7	121	86	49	0	0	3	0		
GLASGOW	43	23	61	6	33	-10	.3	-1	.2	.7	75	1.5	88	85	49	0	0	4	2		
GREAT FALLS	47	22	59	3	35	-8	.2	-1	.1	1.0	56	2.3	66	86	46	0	0	6	2		
HAVRE	44	20	64	-3	32	-11	T	-2	T	.4	36	1.5	68	85	51	0	0	4	1		
HELENA	50	26	59	10	38	-5	.1	-1	.1	1.1	87	2.6	108	82	36	0	0	2	0		
KALISPELL	52	30	60	22	41	-2	.4	-2	.4	.8	53	4.9	120	83	35	0	0	5	1		
MILES CITY	49	25	63	5	37	-8	.6	-3	.3	.9	64	2.0	80	87	43	0	0	5	2		
MISSOULA	52	29	58	22	41	-4	T	-2	T	.8	54	3.8	106	94	41	0	0	5	1		
NE GRAND ISLAND	58	34	70	24	46	-5	1.1	-4	.8	3.5	114	4.0	91	91	51	0	0	3	3		
LINCOLN	59	35	68	26	47	-5	1.1	-5	.5	5.4	150	6.0	113	91	49	0	0	4	1		
NORFOLK	53	33	67	20	43	-6	1.6	1.1	.8	5.4	190	6.5	159	94	59	0	0	4	1		
NORTH PLATTE	57	29	67	22	43	-5	.6	-2	.4	3.6	167	4.8	155	85	41	0	0	5	2		
OMAHA	59	35	66	24	47	-4	.9	-2	.4	7.5	208	8.4	162	85	59	0	0	4	0		
SCOTTSSBLUFF	54	27	63	21	41	-6	1.2	-9	.7	2.9	160	4.9	188	87	35	0	0	5	3		
VALENTINE	47	26	63	13	37	-10	.5	-1	.3	3.5	191	4.3	159	85	50	0	0	5	4		
NV ELY	51	24	62	18	38	-3	.1	-1	0	2.5	170	3.6	124	86	32	0	0	7	3		
LAS VEGAS	73	49	84	45	61	-2	0	-1	0	.4	72	.8	53	34	12	0	0	0	0		
RENO	58	31	69	25	45	-2	T	-1	T	1.7	168	6.9	216	70	21	0	0	5	0		
WINNEMUCCA	57	26	67	18	42	-3	T	-2	T	1.0	84	2.2	81	85	24	0	0	1	0		
NH CONCORD	63	28	68	24	46	1	0	-7	0	4.4	90	11.6	115	96	30	0	0	7	0		
NJ ATLANTIC CITY	58	36	67	28	47	-4	3.5	2.8	3.0	5.9	96	13.1	101	97	51	0	0	4	1		
NM ALBUQUERQUE	66	41	74	30	54	-2	T	-1	T	.5	59	1.7	106	52	15	0	0	1	0		
CLOVIS	74	40	82	35	57	0	.1	-1	.1	.3	28	1.5	71	68	18	0	0	0	0		
ROSWELL	78	47	86	39	62	0	T	-1	T	.4	93	1.6	160	50	15	0	0	0	0		
NY ALBANY	65	36	70	27	50	3	.2	-5	.2	4.8	99	11.0	116	94	29	0	0	3	2		
BINGHAMTON	58	36	70	26	47	3	1.6	-8	.7	5.6	115	11.7	119	82	37	0	0	1	3		
BUFFALO	59	37	76	30	48	2	1.4	-7	1.0	4.4	90	9.3	89	89	42	0	0	2	3		
NEW YORK	60	43	68	40	51	-1	2.1	1.2	1.2	4.4	67	11.6	91	87	39	0	0	3	2		
ROCHESTER	58	36	76	29	47	1	1.8	1.1	1.0	5.3	125	9.4	107	92	44	0	0	2	3		
SYRACUSE	62	38	73	31	50	3	1.6	-8	.9	6.1	117	10.7	102	95	42	0	0	1	3		
NC ASHEVILLE	67	38	76	32	52	-4	T	-8	T	3.0	40	6.0	41	87	38	0	0	1	1		
CHARLOTTE	74	47	81	37	60	0	T	-7	T	3.1	44	5.1	35	70	27	0	0	1	0		
GREENSBORO	69	43	79	34	56	-3	T	-7	T	2.2	36	4.5	35	74	33	0	0	0	1		
HATTERAS	66	51	76	46	58	-1	.8	-1	.7	2.4	40	9.5	64	93	33	0	0	0	0		
NEW BERN	70	47	79	42	58	-4	.3	-3	.2	4.6	84	9.6	72	96	43	0	0	2	1		
RALEIGH	70	44	80	37	57	-3	T	-6	T	3.3	59	6.9	55	88	36	0	0	0	0		
WILMINGTON	74	49	80	42	61	-2	.3	-4	.2	4.6	77	9.2	71	86	37	0	0	2	0		
ND BISMARCK	40	28	55	15	34	-10	1.9	1.6	.8	3.2	206	3.8	152	94	70	0	0	4	5		
FARGO	47	33	57	24	40	-2	2.7	2.3	1.8	3.5	181	4.7	162	95	68	0	0	4	2		
GRAND FORKS	46	31	56	21	38	-3	.6	-2	.2	.7	44	1.7	61	91	52	0	0	4	0		
WILLISTON	42	22	57	-6	32	-10	1.9	1.5	1.7	3.1	237	4.1	171	93	54	0	0	4	1		
OH AKRON-CANTON	61	36	76	30	49	0	.6	-2	.3	3.2	60	7.8	76	89	43	0	0	4	5		
CINCINNATI	62	41	76	34	52	-2	.6	-2	.4	3.9	62	7.8	65	87	42	0	0	0	0		
CLEVELAND	57	35	74	31	46	-2	.8	0	.2	4.5	89	9.8	100	94	47	0	0	3	5		
COLUMBUS	63	39	76	34	51	-1	.4	-4	.3	3.3	61	7.8	76	92	46	0	0	4	0		

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS.

Weather Data for the Week Ending April 19, 1986

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 MET. 1	PCT. NORMAL SINCE MET. 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	60	40	75	32	50	-2	.5	-.3	.4	5.2	99	10.5	106	94	51	0	1	4	0
TOLEDO	58	35	69	25	47	-2	.7	-.1	.5	3.9	86	7.4	88	95	50	2	2	4	1
YOUNGSTOWN	61	36	76	31	48	0	.6	-.2	.3	2.7	48	5.7	54	86	45	0	2	3	0
OK OKLAHOMA CITY	69	48	81	38	58	-2	1.1	.5	1.1	5.1	141	5.8	98	78	38	0	0	2	2
TULSA	66	47	80	39	57	-4	2.1	1.1	1.3	6.6	117	7.8	90	92	44	0	0	4	1
OR ASTORIA	57	42	63	39	50	2	1.0	-.1	.5	8.0	76	28.6	97	91	54	0	0	3	1
BURNS	53	27	64	20	40	-3	1.3	-.1	1.3	1.3	180	6.2	388	11	1	0	6	0	0
MEDFORD	64	38	78	33	51	1	1.1	-.1	1.1	1.2	45	8.4	104	88	31	0	0	1	0
PENDLETON	61	41	69	37	51	1	.2	-.1	.1	1.4	85	5.6	124	76	32	0	0	2	0
PORTLAND	60	43	69	40	51	1	.4	-.1	.2	3.4	66	13.4	88	94	50	0	0	2	0
SALEM	59	39	69	32	49	0	.3	-.2	.2	3.4	57	17.9	102	95	51	0	1	4	0
PA ALLENTOWN	58	37	71	28	48	-3	3.2	2.3	1.7	5.8	91	14.4	113	92	44	0	2	3	3
ERIE	56	34	76	26	45	0	1.3	.5	.8	4.5	88	9.5	98	87	49	0	3	3	1
HARRISBURG	55	39	70	29	47	-6	3.2	2.5	1.3	6.8	124	13.6	121	90	52	0	2	4	3
PHILADELPHIA	60	42	70	35	51	-2	3.4	2.6	2.4	5.3	86	12.8	106	90	48	0	0	4	2
PITTSBURGH	62	36	76	32	49	-1	.5	-.3	.3	2.6	46	8.5	78	80	39	0	1	4	0
SCRANTON	58	36	73	26	47	-1	1.4	.7	.8	6.4	141	11.6	130	88	39	0	2	3	1
RI PROVIDENCE	59	38	65	32	48	0	T	-.9	T	3.6	53	12.7	87	83	29	0	2	1	0
SC CHARLESTON	75	49	80	38	62	-3	0	-.6	0	3.3	55	9.4	74	90	34	0	0	0	0
COLUMBIA	76	44	83	37	60	-4	T	-.8	T	3.4	45	6.0	38	78	24	0	0	0	0
FLORENCE	77	47	84	39	62	-2	0	-.7	0	3.5	57	5.7	44	83	29	0	0	0	0
GREENVILLE	72	43	80	34	57	-3	T	-1.0	T	3.3	38	5.9	34	86	31	0	0	1	0
SD ABERDEEN	44	31	60	22	37	-8	3.4	2.9	1.3	5.7	263	6.8	206	97	80	0	4	6	4
HURON	46	32	63	23	39	-8	2.5	2.1	1.2	5.6	232	6.4	178	98	73	0	4	5	2
RAPID CITY	49	25	63	15	37	-8	1.7	1.2	.8	4.0	184	5.5	172	93	43	0	4	3	2
SIoux FALLS	53	35	63	27	44	-3	2.4	1.9	1.1	5.0	183	6.2	141	94	57	0	4	5	2
TN CHATTANOOGA	71	44	82	40	58	-3	T	-1.0	T	2.1	23	6.8	35	87	35	0	0	1	0
KNOXVILLE	68	42	79	37	55	-5	.1	-.8	.1	3.0	37	7.9	47	88	39	0	0	1	1
MEMPHIS	71	49	83	40	60	-3	1.0	-.4	.8	5.2	57	8.2	45	89	41	0	0	2	1
NASHVILLE	69	44	80	38	56	-4	T	-1.0	T	2.4	29	6.2	36	84	37	0	0	1	0
TX ABILENE	82	54	96	42	68	3	.3	-.3	.3	1.2	50	2.7	63	73	28	1	0	1	0
AMARILLO	70	40	86	30	55	-2	.2	0	.1	.8	55	1.8	72	69	19	0	2	3	0
AUSTIN	80	60	87	53	70	1	.1	-.7	0	.9	26	2.5	33	82	45	0	0	3	0
BEAUMONT	81	61	86	51	71	2	.1	-.8	.1	3.0	57	5.9	45	94	52	0	0	1	0
BROWNSVILLE	85	71	89	68	78	3	T	-.4	T	T	0	1.3	31	94	59	0	0	0	0
CORPUS CHRISTI	82	68	86	65	75	2	T	-.5	T	.3	15	3.1	61	91	58	0	0	0	0
DEL RIO	87	66	95	59	77	4	T	-.4	T	.6	37	2.5	81	72	26	2	0	1	0
EL PASO	81	52	87	41	67	3	0	0	0	.4	89	.8	62	29	10	0	0	0	0
FORT WORTH	75	53	80	44	64	-3	1.4	.5	1.2	5.2	113	7.6	93	89	48	0	0	4	1
GALVESTON	75	65	78	60	70	1	T	-.6	T	1.9	51	4.3	48	88	54	0	0	0	0
HOUSTON	81	62	85	53	71	2	.7	-.3	.7	2.8	54	6.3	54	81	45	0	0	1	0
LUBBOCK	76	45	88	39	61	1	.2	0	.2	.7	47	1.6	67	77	19	0	0	3	0
MIDLAND	83	51	95	47	67	3	0	-.2	0	T	3	.4	21	73	17	2	0	0	0
SAN ANGELO	85	56	96	46	71	3	T	-.4	T	.6	34	1.5	47	73	21	1	1	1	0
SAN ANTONIO	80	63	92	55	71	2	T	-.6	T	.7	23	4.0	63	85	42	0	0	1	0
VICTORIA	82	65	87	54	74	3	.4	-.3	.4	1.4	50	3.0	43	87	44	0	0	1	0
WACO	78	54	84	43	66	-2	.2	-.7	.2	2.5	59	7.0	89	92	47	0	0	1	1
WICHITA FALLS	76	49	86	41	62	-2	1.0	.3	.9	3.3	95	4.4	80	78	32	0	2	2	1
UT BLANDING	58	33	66	22	45	-2	T	-.1	T	2.3	186	3.9	111	80	28	0	3	2	0
CEDAR CITY	58	29	66	21	44	-4	.4	-.2	.2	2.5	145	3.2	100	88	30	0	5	3	0
SALT LAKE CITY	55	36	68	31	45	-4	.5	-.1	.3	5.5	174	7.7	133	90	36	0	1	3	0
VT BURLINGTON	64	33	69	26	48	5	0	-.7	0	3.7	94	9.1	121	90	29	0	4	0	0
VA NORFOLK	61	46	69	41	53	-5	.3	-.4	.2	1.7	29	6.8	54	88	58	0	0	3	0
RICHMOND	66	44	74	38	55	-4	.9	-.2	.4	2.1	40	7.5	64	91	50	0	0	3	0
ROANOKE	65	42	78	39	54	-4	.7	0	.7	2.5	45	6.3	54	81	41	0	0	2	1
WA COLVILLE	55	37	60	32	46	0	.4	-.2	.1	3.0	166	8.4	153	93	68	0	1	5	0
QUILLAYUTE	52	40	60	36	46	0	1.3	-.3	.3	15.0	93	43.7	101	97	70	0	0	7	0
SEATTLE-TACOMA	56	42	60	38	49	0	.6	0	.6	3.5	67	16.5	106	85	51	0	0	2	1
SPOKANE	54	35	59	29	45	0	.2	0	.1	2.1	106	7.2	118	91	44	0	2	4	0
YAKIMA	60	33	63	28	47	-3	T	-.1	T	.6	57	3.7	116	86	36	0	4	1	0
WV BECKLEY	60	39	75	31	49	-2	.3	-.5	.2	2.9	45	7.1	54	84	46	0	2	4	0
CHARLESTON	65	40	80	37	53	-3	.4	-.4	.2	2.4	39	8.9	70	93	45	0	0	3	0
HUNTINGTON	66	42	80	36	54	-2	.3	-.5	.1	1.8	29	6.7	54	88	37	0	0	4	0
PARKERSBURG	65	39	79	33	52	-2	.4	-.4	.2	3.1	52	8.3	64	85	40	0	0	3	0
WI GREEN BAY	53	35	63	29	44	-1	.8	-.2	.6	4.4	124	5.8	100	88	48	0	2	3	1
LA CROSSE	59	39	65	30	49	1	.6	-.1	.6	3.4	89	4.7	84	79	40	0	1	2	1
MADISON	56	34	66	28	45	-1	.7	-.1	.6	3.1	77	6.8	110	92	48	0	4	2	1
MILWAUKEE	50	37	63	33	44	-1	.7	-.2	.5	3.0	63	7.9	101	88	52	0	0	4	1
WAUSAU	55	35	65	30	45	2	.7	0	.7	3.7	104	5.1	93	84	41	0	3	3	1
WY CASPER	53	25	64	14	39	-4	1.0	.6	.6	2.1	112	3.3	114	89	39	0	6	3	3
CHEYENNE	49	26	58	20	38	-4	.4	-.1	.3	2.5	152	3.1	124	82	35	0	7	3	0
LANDER	52	26	63	6	39	-4	1.3	-.8	.7	2.3	97	3.7	106	91	42	0	5	3	2
SHERIDAN	50	27	63	12	38	-5	.2	-.3	.1	1.5	66	3.3	87	85	43	0	4	2	0
PR SAN JUAN	87	73	89	71	80	1	1.3	-.5	1.3	5.3	121	8.6	92	93	58	0	0	1	1

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS.



## Use of Growing Degree Units in Corn Production

For years, the practice has been to label corn maturity in days. A 135 day variety would presumably reach maturity 135 days after it was planted. This system does not take into account the complicated physiological processes that control the growth and development of corn. The number of days required to reach maturity depends on the location of the planting, and the weather that the plant is subjected to in a particular growing season. In most years, the period will be more or less than 135 days. It is hard to decide which maturity to plant to achieve maximum production. A delayed planting might not provide the required number of days for your variety to mature.

Each day does not contribute equal to the growth of plants. Growth is faster during the warm season than it is in cold weather. On the other hand, summer temperature can be too high for optimum growth. Although other factors than temperature enter into determining the rate of growth,

there is a growing acceptance among seed producers to use the temperature based Growing Degree Units (GDU) concept to express maturity. There have been many of these "heat-unit" systems devised over the years. The one currently in use for corn is that proposed by the Environmental Data Service of the National Oceanic and Atmospheric Administration (Formerly U.S. Weather Bureau).<sup>1</sup>

<sup>1</sup> In this system, Growing Degree Units are calculated by subtracting a base temperature of 50° (F) from the average of the maximum and minimum temperatures for the day. Corn doesn't grow much at temperatures below 50°. As the temperature rises, corn grows faster if moisture is plentiful. However, at a temperature higher than 86° the roots have increasing difficulty taking in water fast enough to keep the plant growing at full speed. GDU are calculated by the following equation.

$$GDU = \frac{Max\ Temp. + Min\ Temp. - 50^\circ}{2}$$

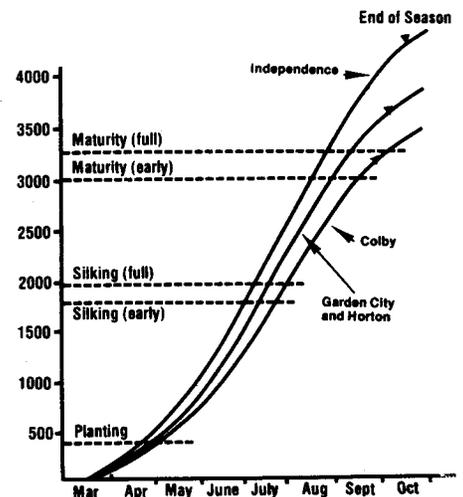
NOTE: Minimum temperatures below 50° are counted as 50° and temperatures above 86° are counted as 86°.

For example a day with temperature extremes of 82° and 60° would have contributed 21 GDU. A day with a high temperature of 90° and a low of 48°, will be considered as one with temperatures of 86° and 50° for purposes of calculation. That day would have had 18 GDU.

Reproduced from "Corn Production Handbook," C-560, Oct 1976, Kansas State Univ., Manhattan, KS

### GDUs Required to Reach:

	Silking Maturity	
Early Season Variety	1390	2610
Full Season Variety	1560	2830



## National Agricultural Summary

**HIGHLIGHTS:** Across the Corn Belt and through the Great Plains from Texas to North Dakota, precipitation curtailed seeding but provided much needed moisture for small grain growth and development. More moisture is needed, especially in Texas. Fieldwork was limited to 4 days or less across the northern half of the Nation. Farmers were able to work 5 days or more in most other areas of the County. Moisture shortages existed in the Southeast and in Texas. Soil moisture was generally adequate elsewhere.

Winter wheat was mostly fair in the Southeast and mostly good elsewhere. Wheat was 23 percent (%) headed, compared with 9% last year and the 7% average. The 5 major spring wheat States had seeded 13% of the acreage, 7 points behind normal. In South Dakota, seeding was 6 times slower than the average 36% and 11 times slower than the 66% seeded in 1985. Corn seeding reached 9% completion in the 17 major producing States. Seeding was just beginning in Iowa, Nebraska, and Colorado. Cotton seeding outpaced the average in all States except Georgia, Mississippi, North Carolina, and South Carolina reaching 30% completion overall and 10 points greater than normal. Sorghum seeding was slightly ahead of normal at 22% finished. Rice was 42% seeded, 14 points ahead of normal. Planting approached completion in Texas. Peanuts were seeded in Alabama, Georgia, and Mississippi. Livestock was mostly good, but cold temperatures stressed livestock in the northern Plains and Rockies.

**SMALL GRAINS:** Winter wheat condition varied across the Nation. The crop was mostly good in the central and northern Great Plains, and in some States conditions were good to excellent. Wheat was mostly fair in the Southeast, the Delta, and Texas. More rain is needed for grain heads to fill adequately, especially in the Southeast and in Texas. The lack of moisture has become critical in some States. In 17 of the 20 major producing States, wheat was 23% headed. Heading was 16 points ahead of normal and 14 points ahead of 1985.

Kansas wheat was mostly good. Soil-borne and streak mosaic diseases were present in all areas and more visible than normal. Growth was ahead of normal. Wheat was mostly good to excellent in Nebraska. Freezing temperatures and high winds delayed maturity, but yield is not expected to decline.

Oklahoma's wheat development was 1 to 2 weeks ahead of average. Wheat was 55% headed, 11 times greater than normal. Leaf rust and streak mosaic diseases began infesting fields, but the crop was mostly good. In Texas, considerable dryland wheat acreage was grazed-out and cut for hay. Wheat was turning color in south Texas with harvest near. Small grains continued heading out in the High Plains, but prospect for good yields are poor. Irrigated wheat looks good.

In Arizona and California, wheat was good to excellent. Development was 10 to 15 days ahead of normal in Arizona.

Spring wheat was 13% seeded, 7 and 13 points behind the average and last year, respectively. Precipitation slowed seeding, but progress managed to stay ahead of normal in Idaho and Montana. Seeding fell 30 points behind normal in South Dakota. Minnesota had seeded only 2% of their acreage when normally 18% would be seeded.

**OTHER CROPS:** The 17 major corn producing States had planted 9% of the acreage compared with 5% average. Seeding was underway in all States except Michigan, Minnesota, South Dakota, and Wisconsin. Planting was ahead or equaled to

normal in all States except Colorado. Planting was just underway in Iowa, Nebraska, and Colorado. Texas corn was 88% seeded, 22 points above normal. Planting increased in the Blacklands, and showers helped germination and relieved stress. Midday stress was evident in south Texas where moisture is critically needed. In Georgia, seeding was slightly ahead of normal.

In the 14 major cotton producing States, seeding outpaced the average in all States except Georgia, Mississippi, North Carolina, and South Carolina. The lack of moisture is the major factor curtailing seeding in these States. Seeding had reached 33% completion, compared with 13% normally. Even though moisture was needed, stress was not that evident. Seeding was 5 and 12 points above average in Arizona and California, respectively. Planting was underway in all States except Oklahoma.

Sorghum producers had seeded 22% of the acreage, in the 11 major producing States, up 3 points from average. Planting was not underway in the Corn Belt and central and northern Plains. In Texas, dryness slowed planting with 67% seeded at week's end. This was 5 points above the average. Arkansas was 15 points ahead of normal. Louisiana's sorghum acreage was 45% seeded.

Rice planting slowed but was still 14 points above average. Seeding nearly doubled normal in Mississippi. Arkansas and Louisiana were 18 and 13 points above the average, respectively. Planting reached 90% completion in Texas. Producers continued flushing to produce germination.

Tobacco was fair to poor in Georgia. Eighty-five percent was transplanted compared with 81% normally. South Carolina's tobacco was 66% transplanted and fair to good. Tobacco bed seeding continued but was drawing to a close in most burley producing States. Peanut planting was underway in Alabama, Georgia, and Mississippi.

**FRUIT AND NUTS:** Cold temperatures and frost damaged fruit crops in the northern Plains and in some Rocky Mountain States. Damage ranged from light to severe.

Florida's citrus belt was dry, and most groves were irrigated holding leaf wilt to a minimum. New crop fruit progressed well. Grapefruit movement slowed, but Valencia harvest increased.

Peaches progressed normally in Texas. Most pecan trees had leafed-out. Early varieties were setting nuts.

Grapefruit and Valencia oranges were packed in Arizona. Grapes sized rapidly and peaches were harvested. Apples were sprayed. Rain delayed vineyard work in northern and central California. Apple set was thin. Cherries developed rapidly with harvest expected to begin in early May. Raisin growers sprayed with gibberellic acid to aid cluster development. Navel orange bloom was heavy, and Valencia orange harvest continued.

**VEGETABLES:** In California, producers planted and harvested broccoli in various parts of Fresno County. Cauliflower volume was moderate from Salinas and light in Santa Maria but quality, weight, and appearance varied widely. Carrots were dug in Kern-Tulare and the Imperial and Coachella Valleys. Lettuce supplies were moderate. Cauliflower, leaf lettuce, and artichokes were shipped from western Arizona. Lettuce packing was active in Aguilla, the Salt River Valley, and Marana-Eloy. Potato digging gained momentum.

Light volume of cabbage and carrots were available from the Rio Grande Valley. Tomatoes,

(Continued to p. 16)

## State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by SRS State Statistical Offices in cooperation with the National Weather Service.

**ALABAMA:** Temperatures averaged 3 to 6° below normal. Rainfall totals under 0.50 in. with local totals 1.00 in.

Days suitable for fieldwork 6.6. Soil moisture 98% short, 2% adequate. Fieldwork progress on schedule. Wheat 6% very poor, 15% poor, 60% fair, 19% good. Pastures 4% very poor, 45% poor, 47% fair, 4% good. Livestock 6% poor, 74% fair, 18% good, 2% excellent. Feed supply 71% short, 29% adequate. Stored feed 48% short, 52% adequate. Primary activities: Planting corn, cotton, peanuts and sorghum; land preparation; fertilizer and lime application; machinery repair; care of livestock and poultry; general farm chores.

**ARIZONA:** Sunny skies, near normal temperatures, moderate to strong winds dominated. Isolated light showers central basins northward 16th, 18th. Snow level 6,500 ft. 18th; light amounts Mogollon Rim, White Mountains. Average temperatures 4° below to 4° above.

Wheat, barley good to excellent; 10 to 15 days ahead; 100% jointing, 98% 1985; 90% heading, 85% 1985; 25% turning color, 35% 1985. Poco variety barley combined. Cotton planting full swing, emerged stands good. Southeast corn seedbed preparation 40%. Stands emerged central, 12 in. tall west. Crop good. Sorghum fieldwork continued. Safflower budding. Western alfalfa growers into second cutting, first cutting central. Dairy green chop cut southeast. Demand good. Above average re-growth. Insects, diseases light to moderate. New alfalfa planted. Cauliflower, leaf lettuce, artichokes shipped west. Lettuce packing active Aguila, Salt River Valley, Marana-Eloy. Lettuce Willcox area good. Other mixed vegetables shipped. Potato digging gained momentum. Western, central melons good. Spring onions good. Chili planted. Grapefruit, Valencia oranges packed. Grapes sizing rapidly. Peaches harvested. Apples sprayed.

**ARKANSAS:** Temperature ranged 1 to 5° below normal. Temperature extremes 35°; 82°. Rainfall 0.64 to 4.83 in.

Days suitable for fieldwork 5.0. Soil moisture 9% short, 81% adequate, 10% surplus. Crop development 8 days ahead of schedule. Freeze, hail damage wheat. Wheat good to fair.

**CALIFORNIA:** Two low pressure systems spread rain over much of State. Totals generally below 0.50 in. Temperatures averaged 3° below normal, except south coastal, near normal.

Fieldwork progressed. Green chopping winter wheat. Wheat good to excellent. Cotton planting underway. Rice seedbed preparation. Alfalfa weevil control. Overwinter sugarbeets harvested. Safflower good growth. Rains delayed northern and central areas orchard and vineyard work, no major damage. Apples sprayed, thin set, treat for codling moth. Cherry crop developed rapidly, harvest begin early May. San Joaquin Valley grape growers dusted with sulphur, treated with herbicides, irrigated vineyards. Raisin growers prepared spray gibberellic acid aid cluster development. Significant prune drop noted Tehama County. New bloom petal fall stage reached Fresno County citrus. Navel orange bloom heavy. Harvest Valencia oranges continued. Almond nut set extremely variable, some shot hole fungus reported. Pistachio nut development ahead normal. Walnut set light early varieties Tulare County. Artichoke

moderate, variable quality Salinas. Production heavy Santa Cruz-San Mateo coast. Asparagus into freezers, young field going fern Delta. Broccoli moderate, variable quality Salinas. Planting, harvesting broccoli various parts Fresno County. Carrots dug Kern-Tulare, Imperial, Coachella Valleys. Cauliflower moderate Salinas, light Santa Maria, variable quality. Lettuce moderate Salinas wide range quality, weight, appearance. Santa Maria, Central San Joaquin fairly light, variable quality, weight, size. Decay, tipburn significant problems older fields Fresno, quality, prices good. Melons desert growing well. Early planted fields Palo Verde Valley small fruit. Dry onion Westside, Kern-Tulare progressed normally. Harvest light, Imperial Valley, picking up. Fall potatoes trucked from storage sheds Tulelake-Butte Valley. Field fumigation progressed. Harvest White Rose variety, Perris-Hemet wound down, supplies shifted to processing. Spring planting continued, earlier plantings good color, growth. Strawberries picked Modesto-Turlock. Sweetpotato ground fumigation Modesto-Turlock progressed. Tomato fruit started show Palo Verde Valley. Processing fields Sacramento Valley, coming along nicely. Tomato transplanting continued Delta. Planting continued Modesto-Turlock, some emergence. Pasture, water supplies good, some drying range grasses. Livestock good to excellent. Cattle movement slow, low prices.

**COLORADO:** Temperatures averaged 6° below normal to 2° above normal. Precipitation totals averaged none to 0.63 in.

Days suitable for fieldwork 3.7. Soil moisture 7% very short, 11% short, 70% adequate, 12% surplus. Winter wheat developing rapidly, good to fair condition. Seeding of small grains active. Fruit crops damaged by frost. Livestock good; range, pasture fair to good. Calving, lambing progress normal.

**FLORIDA:** Dry weather prevailed except for few light showers lower east coast 14th, few sprinkles western Panhandle 15th. Scattered showers, few thunderstorms Panhandle 20th. Temperatures averaged about 2 to 5° below normal.

Soil moisture short to very short except few southern counties adequate. Corn fair. Tobacco fair to good, irrigation active. Sorghum, millet, peanut planting delayed because of insufficient moisture. Small grains fair. Sugarcane progressing favorably. Panhandle, Peninsula pastures, mostly poor to fair, except mostly good south rain early week. Need warmth, moisture all areas. Cattle mostly fair to good Peninsula, fair Panhandle. Citrus belt dry, windy, cool; rain needed all areas, most groves being irrigated. Almost no leaf wilt from dryness. New crop fruit progressing well. Valencia harvest increasing. Grapefruit movement slowing. Temple harvest nearly over. Mild weather prevailed vegetable producing areas. Temperatures ranged lows 50s to 60s, highs 70s to 80s. General rains ending early in period, turning dry weekend. Supplies most vegetables available southwest, Pompano areas. Dade County season ending. Central areas increasing spring harvest most crops. Total shipments increased primarily due to higher volumes of snap beans, cabbage, carrots, celery, Chinese cabbage, sweet corn, cucumbers, eggplant, escarole, potatoes offsetting decreases in lettuce, peppers, radishes, squash, strawberries, tomatoes.

**GEORGIA:** Temperatures 3 to 60 cooler than normal. Minimum temperatures upper 30s to low 40s mid, late week. Clayton low 270 morning 17th. Highest temperature 88° Dublin 14th. Rainfall under 0.50 in., local totals near 1.00 in. Most rain on 20th.

Days suitable for fieldwork 6.1. Soil moisture 68% very short, 32% short. Sorghum grain 11% poor, 69% fair, 20% good; 11% planted, 19% 1985, 8% avg. Peanuts 20% poor, 67% fair, 13% good; 7% planted, 18% 1985, 7% avg. Tobacco 24% poor, 58% fair, 18% good; 85% transplanted, 97% 1985, 81% avg. Watermelons 17% poor, 59% fair, 24% good; 86% planted, 96% 1985, 82% avg. Wheat fair to good. Rye 1% very poor, 12% poor, 56% fair, 30% good, 1% excellent. Other small grains 1% very poor, 14% poor, 53% fair, 31% good, 1% excellent. Apples 10% poor, 41% fair, 46% good, 3% excellent; 98% blooming, 96% 1985, 74% avg. Peaches 12% poor, 46% fair, 38% good, 4% excellent. Pasture 3% very poor, 29% poor, 49% fair, 19% good. Cattle 10% poor, 51% fair, 39% good. Hogs 8% poor, 38% fair, 53% good, 1% excellent. Main activities: Dry soils continue to delay land preparation, planting; spraying fruit, pecan trees. Irrigation active where available.

**HAWAII:** Weather mostly sunny, warm, humid. Record high temperatures second half week. Light southeasterly winds. Temperatures ranged high 60s to high 80s. Rainfall ranged none to 3.20 in.

Days suitable for fieldwork 7.0. Weather favorable crop development. Sugar planting, harvesting operations normal. Pineapple harvesting increased seasonally. Intensive spray programs contained disease Papaya orchards, crop good condition, supplies seasonal peak. Interisland barge service returned normal schedule.

**IDAHO:** Precipitation, cleared 19th. Temperatures below normal most of week.

Days suitable for fieldwork 4.0. Spring wheat 54% seeded, 27% 1985, 40% avg.; 24% emerged, 5% 1985, 8% avg. Barley 35% seeded, 20% 1985, 30% avg.; 12% emerged, 5% 1985, 5% avg. Sugarbeets 70% planted, 40% 1985, 51% avg. Onions 92% planted, 100% 1985, 80% avg. Winter wheat good. Hay, roughage supply good. Livestock good. Fruit trees blooming.

**ILLINOIS:** Temperatures averaged 3 to 60 below normal. Daily highs mid 50s north, mid 60s south. Precipitation none to 0.50 in. north, none to 2.19 in. south.

Days suitable for fieldwork 5.3. Soil moisture 64% short, 35% adequate, 1% surplus. Winter wheat mostly fair. Alfalfa 3% very poor, 15% poor, 43% fair, 38% good, 1% excellent. Oats planted 90%, 79% 1985, 55% avg. Winter freeze damage to 1986 peach crop 19% severe, 11% moderate, 36% light, 34% no damage. Damage to 1986 apple crop 9% moderate, 53% light, 38% no damage. Pasture 5% poor, 43% fair, 50% good, 2% excellent. Livestock roughage from pasture 50%, 39% 1985, 33% avg. Major farm activities: Seeding corn and oats, seedbed preparation, applying fertilizer; general farm maintenance.

**INDIANA:** Temperatures 2 to 40 below normal. Lows near freezing, highs middle 70s. Soil temperature upper 40s to mid 50s. Rainfall 0.50 to 1.50 in.

Fieldwork averaged 4.0 days. Topsoil moisture 22% short, 65% adequate, 13% surplus. Subsoil moisture 15% short, 80% adequate, 5% surplus. Spring cropland 83% tilled, 62% 1985, 66% avg. Wheat 15% jointed, 15% 1985, 15% avg.; fair to good condition. Wheat 7 in. high, 8 in. 1985, 6 in. avg. Oats 80% seeded, 70% 1985, 50% avg. Oats 2 in. high, 2 in. 1985. Clover 85% seeded, 82% 1985, 70% avg. Tobacco beds 80% seeded, 80% 1985. Pastures mostly fair to good.

**IOWA:** Cool, cloudy week with frequent precipitation. Mild temperatures turned colder 14th to 15th, freeze statewide 14th, 23° Sioux City, 24° Carroll. Snow 1 to 3 in. north; rain, light snow elsewhere.

Days suitable for fieldwork 2.4. Topsoil moisture 1% short, 63% adequate, 36% surplus; subsoil moisture 1% short, 84% adequate, 15% surplus. Winter wheat 4% very poor, 13% poor, 40% fair, 40% good, 3% excellent; hay 1% very poor, 7% poor, 32% fair, 55% good, 5% excellent. Wet, cool soil conditions continued; 75% oats sown, 92% 1985, 55% avg.; 25% oats emerged, 66% 1985, 29% avg. Seedbed preparation 40% completed; fertilizer application 45% completed, 71% 1985, 58% avg.; fertilizer availability 96% adequate, 4% surplus. Livestock mostly good; cool, wet conditions stressful on young. Pastures good to fair. Other farm activities: General livestock care, farm maintenance, readying equipment.

**KANSAS:** Precipitation little to none extreme west, 0.50 to 0.75 in. elsewhere. Temperatures averaged 50 to 52° west, north central; 53 to 54° east, south central.

Days suitable for fieldwork 5.0. Soil moisture 48% short, 47% adequate, 5% surplus. Wheat light to moderate freeze damage, mostly good. Soil-borne, streak mosaic present all areas; more visible than normal; growth ahead schedule. Oat, barley seeding complete, early growth excellent. Corn planting good progress, seedbed preparation complete, soil temperature, moisture current delay. Range, pasture good grazing; burning complete east. Alfalfa greening, heavy weevil infestations. Lamb, calf crops good.

**KENTUCKY:** Spotty rain throughout week with more numerous showers, widespread rain over weekend. Rainfall averaged 0.50 to 1.00 in. with locally heavier amounts. Rainfall 0.50 to 0.75 in. below normal. Mean temperatures generally mid to upper 50s slightly below normal.

Days suitable for fieldwork averaged 5.5. Soil moisture 96% short, 4% adequate. Farmers plowing, disking, fertilizing, planting corn and spraying alfalfa weevil. Record corn planting progress for date. Dry field conditions slowed planting, 16% emerged. Tobacco plants 50% up, 66% 1985, 58% avg. Plants rated 30% poor, 49% fair, 20% good, 1% excellent. Farmers continued watering beds. Spotty germination some reseeding. Wheat, barley development slowed. Some stands thin. Wheat for grain 22% poor, 38% fair, 35% good, 5% excellent. Barley for grain 26% poor, 48% fair, 21% good, 5% excellent. Some central, eastern wheat damaged by winter weather. Pasture, hay hurt by dry weather. Pastures 20% poor, 59% fair, 19% good, 2% excellent. Many farmers feeding hay. Fruit prospects good, but some eastern orchards hurt by frost.

**LOUISIANA:** Temperature ranged 30 below normal to normal. Temperature extremes 40°; 84°. Rainfall averaged 1.00 to 2.30 in. across State.

Days suitable for fieldwork 5.4. Soil moisture 62% short, 36% adequate, 2% surplus. Spring plowing 89% complete, 83% 1985, 75% avg. Hail damaged emerged corn, wheat, vegetables northeast. Corn fair to good; 92% planted, 89% 1985, 78% avg. Corn 87% emerged, 80% 1985, 69% avg. Cotton 19% planted, 11% 1985, 10% avg.; 9% emerged, 2% 1985, 4% avg. Rice 65% planted, 54% 1985, 52% avg.; 49% emerged, 35% 1985, 40% avg. Sorghum 45% planted, 42% 1985, 34% avg.; 25% emerged, 20% 1985, 21% avg. Sweetpotato 14% planted, 11% 1985, 9% avg. Winter wheat fair; 91% headed, 69% 1985, 63% avg. Winter wheat 12% turning color, 8% 1985, 9% avg. Sugarcane fair to good. Vegetables fair. Pasture fair. Livestock fair to good. Main activities: Spring plowing; planting corn, cotton, rice,

sorghum, sweetpotatoes; applying fertilizers; harvesting crawfish and strawberries.

**MARYLAND & DELAWARE:** Maryland: Temperatures averaged 5° below normal over State; lowest temperature 31° Oakland, Woodstock, Upper Marlboro; highest temperature 71° Bel Air. Precipitation averaged 1.25 in., ranging from 0.14 to 2.20 in.

Days suitable for fieldwork 3.5. Topsoil moisture adequate; subsoil moisture adequate. Hay, roughage supplies adequate. Small grain: Barley good; oats good; rye good; wheat good. Pasture good. Planted acreages: Oats 57% planted, 47% 1985, 52% avg.; tobacco beds 100% planted; snap beans 14% planted, 35% 1985, 9% avg.; green peas 96% planted, 75% 1985, 69% avg.; potatoes 96% planted, 80% 1985, 70% avg.; sweetpotato beds 100% planted, 85% 1985, 88% avg. Peaches 92% blooming, 72% 1985, 72% avg. Apples 37% blooming.

Delaware: Temperatures averaged 5° below normal over State; lowest temperature 32° Wilmington, Georgetown; highest temperature 67° Wilmington. Precipitation averaged 1.40 in., ranging from 1.10 to 2.10 in.

Days suitable for fieldwork 4.7. Topsoil moisture adequate; subsoil moisture short to adequate. Hay, roughage supplies adequate. Small grains: Barley fair to good; rye good; wheat fair to good. Pasture fair. Planted acreages: Green peas 90% planted; potatoes 96% planted. Peaches 99% blooming, 95% 1985, 72% avg. Apples 80% blooming.

**MICHIGAN:** Above normal temperatures across State. Temperatures averaged 2° above normal north, 1° south. Precipitation light.

Farm activities continued. Farmers buying fertilizer, seed. Field preparation active. Sugarbeet, oats, spring barley, celery planting increased. Spreading fertilizer. Spraying, planting fruit trees. Calving, lambing active. Feed supplies adequate. Livestock pasturing. Marketing government buyout dairy cows continued.

**MINNESOTA:** Temperatures averaged 2° below normal to 4° above normal. Temperature extremes 22°; 66°. Precipitation averaged 0.07 to 2.05 in. above normal. Greatest weekly total 5.60 in.

Topsoil moisture 38% adequate, 62% surplus. Full-scale fieldwork expected to start 25th. Cool, damp weather plus 1985 cropland still unworked holding back 1986 ground preparation, planting. Fields firming well northeast, southeast, sand plains. West central extremely muddy, much standing water. Oats 11% planted, 26% 1985, 20% avg. Barley 1% planted, 10% 1985, 13% avg. Winter grains greening, 21% still dormant. Hay, other feed supplies mostly adequate.

**MISSISSIPPI:** Temperatures 3° below normal. Extremes 30°; 83°. Rainfall 0.06 to 2.27 in.

Days suitable for fieldwork 5.9, 5.5 1985, 3.7 avg. Soil moisture 79% short, 21% adequate. Cool temperatures, dry weather limited planting. Corn 78% planted, 80% 1985, 57% avg.; 55% emerged, 47% 1985, 35% avg.; 5% very poor, 5% poor, 44% fair, 46% good. Sweetpotatoes 11% planted, 6% 1985. Watermelons 42% planted, 54% 1985, 52% avg. Peanuts 8% planted, 8% 1985, 7% avg. Wheat 98% jointing, 96% 1985, 95% avg.; 72% heading, 50% 1985, 44% avg.; 9% very poor, 25% poor, 45% fair, 19% good, 2% excellent. Peaches 36% very poor, 27% poor, 37% fair. Pasture 3% very poor, 6% poor, 57% fair, 34% good. Livestock 3% poor, 55% fair, 39% good, 3% excellent.

**MISSOURI:** Temperatures averaged 3 to 8° below normal. Rainfall averaged 0.50 in.

Days suitable for fieldwork 4.2. Soil moisture 16% short, 77% adequate, 7% surplus. Wheat poor to fair. Oat seedings 91%, 85% 1985, 69% avg.

Tillage for spring crops 66%, 54% 1985, 56% avg. Pasture 2% poor, 35% fair, 58% good, 5% excellent.

**MONTANA:** Temperatures much colder than normal, snow first couple days. Several record breaking low temperatures. Precipitation accumulations variable. 0.01 to 0.89 in.

Days suitable for fieldwork 1.2. Topsoil moisture 3% short, 86% adequate, 11% surplus. Subsoil moisture 13% short, 84% adequate, 3% surplus. Snow rain, cold slowed fieldwork; increased calf, lam losses; caused alfalfa leaf, small grain, sugarbee damage. Wheat good to fair. Livestock feed supplemental 80%. Calving 80%, lambing shearing 70% complete.

**NEBRASKA:** Temperatures averaged 5° below normal. Temperature extremes 13°; 67°. Rainfall averaged over 0.50 in. except Panhandle, northeast 1.00 in.

Days suitable for fieldwork 2.2. Topsoil moisture 8% short, 44% adequate, 48% surplus. Subsoil moisture 6% short, 76% adequate, 18% surplus. Wheat mostly good to excellent. Slight condition decline from freezing temperatures, high winds. No yield reduction expected. Possible delay in maturity. Septoria leaf blotch south central. Development behind normal southeast. Corn planted 1%, 3% 1985, none avg. Planting most active central. Oat seeding 70%, 92% 1985, 45% avg. Freeze damage small grains expected very light, may temporarily stunt growth. Fruit trees sustained appreciable damage. Some yield reduction expected. Slight damage alfalfa. First cutting possibly reduced. Fieldwork disking, fertilizing, manure spreading, seedbed preparation. Pasture, range mostly adequate to short. Calving, lambing excellent progress. Storm caused additional stress to young livestock. Scours, respiratory problems minor.

**NEVADA:** Week began cool air mass, few lingering snow showers, mainly northeast. Temperatures 5 to 15° below normal. Another cold front hit midweek producing strong, gusty winds excess 30 mph. Cloudy skies, scattered rain and snow showers common. Temperatures plunged 10 to 15° below normal. Precipitation generally light. Clearing skies, warming temperatures end of period. Temperatures near to slightly above normal. For entire week, temperatures 2 to 6° below normal. Precipitation frequent but light.

Planting 1986 fall potato crop off to slow start. Alfalfa hay harvest accelerating extreme south. Livestock movement to summer ranges on upswing.

**NEW ENGLAND:** Abnormally dry week. Average precipitation ranged from 0.05 to 0.15 in. over Connecticut, to between a trace and 0.02 in. over western Massachusetts, Rhode Island and western Vermont. Remainder of region received no precipitation. Average temperatures ranged from 40° near Canadian border to 50° along south coast; slightly above normal across north, near normal elsewhere.

Farmers plowing, spreading manure, preparing machinery for spring planting.

**NEW JERSEY:** Temperatures averaged below normal. Extremes 28°; 76°. Weekly rainfall averaged 3.60 in. north, 4.22 in. central, 2.94 in. south. Heaviest 24-hour total 2.90 in. on 16th, 17th. Estimated soil moisture percent field capacity averaged 94% north, central, 90% south. Four inch soil temperatures averaged 48° north, 49° central, south.

Days suitable for fieldwork 4.5. Planting, land preparation delayed due to rains. Peach bloom well advanced. Pastures good condition.

**NEW MEXICO:** Average weekly temperatures near normal. Temperatures 15° northern mountains.

northwestern plateau and western mountains, central valley and highlands to 87° southeastern Plains. Rain, snow showers over north. Precipitation none to 0.35 in. northern mountains.

Days suitable for fieldwork 6.8. Soil moisture 77% short, 23% adequate. Hail damage 94% none, 6% light. Wind damage 21% none, 63% light, 16% moderate. Freeze damage 69% none, 21% light, 5% moderate, 5% severe. Wheat mostly fair. Alfalfa 5% poor, 48% fair, 42% good, 5% excellent. First cutting underway south. Corn 20% fair, 80% good. Barley 45% fair, 55% good. Pecans 13% fair, 87% good. Apples 10% very poor, 30% fair, 60% good. Chile 29% fair, 71% good. Onions 17% fair, 83% good. Lettuce 75% good, 25% excellent. Cattle 55% fair, 45% good. Sheep 31% fair, 69% good. Range 18% poor, 82% fair.

**NEW YORK:** Week started dry. Heavy rains of 1.00 to 3.00 in. from West to New York City on 13th, 14th. Rain lighter Albany, North. Rains ended on 17th. Dry rest of week. Temperatures started near normal, below normal in wet areas 13th, 14th. Temperatures above normal after rains.

Rain, wet fields slowing fieldwork. Plowing, oat planting underway. Wheat yellowing in poorly drained areas. Hay growth picking up.

**NORTH CAROLINA:** Temperatures averaged 5 to 6° below normal Mountain Region; none to 4° below normal Piedmont Region; none to 1° below normal Coastal Plain Region. Temperature extremes 27°; 83°. Precipitation ranged from none to 0.59 in. across State.

Days suitable for fieldwork 5.7. Soil moisture 37% very short, 57% short, 6% adequate. Wheat fair to good. Oats 11% poor, 56% fair, 31% good, 2% excellent. Barley 11% poor, 56% fair, 31% good, 2% excellent. Rye 10% poor, 44% fair, 44% good, 2% excellent. Small grains suffering from dry weather. Tobacco beds 4% poor, 37% fair, 53% good, 6% excellent. Irish potatoes 6% poor, 22% fair, 72% good. Peaches 5% poor, 20% fair, 65% good, 10% excellent. Truck crops 8% poor, 42% fair, 50% good. Pasture 24% poor, 49% fair, 25% good, 2% excellent. Major farm activities: Planting corn; land preparation; tending tobacco plantbeds; tending livestock; transplanting ornamentals, Christmas trees; applying herbicides; planting vegetables, cotton, sorghum, tobacco, gardens; spraying, pruning apples; conservation work; general farm maintenance.

**NORTH DAKOTA:** Precipitation from 0.23 in. above normal northeast to 2.63 in. above normal southeast. Temperatures 5 to 13° below normal. Low -6° northwest; high 60° northeast.

No days suitable for fieldwork due to statewide snow, rain. Topsoil moisture 2% short, 63% adequate, 35% surplus. Subsoil 6% short, 83% adequate, 11% surplus. Winter wheat 20% fair, 71% good, 9% excellent. Planting halted by snow and rain, delayed 5 to 10 days. Hard red spring wheat 5% planted, 15% 1985, 10% avg.; durum wheat 2% planted, 5% 1985, 4% avg.; barley 5% planted, 12% 1985, 8% avg.; oats 7% planted, 14% 1985, 8% avg. Livestock losses from winter storm light. Wet, cold weather stressful. Calving 77% complete, lambing 85% complete. Pastures 16% dormant, 29% poor, 38% fair, 14% good, 3% excellent.

**OHIO:** Temperatures averaged 1 to 3° subnormal central, west; 1 to 3° above normal east. Extremes upper 70s to mid 20s. Precipitation central, west 1.00 to 2.00 in.; east 0.50 to 1.00 in.

Days suitable for fieldwork 4.5. Soil moisture 35% short, 57% adequate, 8% surplus. Weekend rains improved supplies. Field activities: Spreading fertilizer, plowing, planting. Winter wheat fair to good; heaving, uneven stands apparent. Grasslands fair to good. Fruit undamaged by low temperatures.

**OKLAHOMA:** Temperatures averaged 2° below normal Panhandle to 6° below normal north central, east central. Precipitation averaged 0.05 in. Panhandle to 2.78 in. southeast.

Days suitable for fieldwork 5.3. Topsoil moisture 40% short, 50% adequate, 10% surplus. Subsoil moisture 20% short, 80% adequate. Wheat 60% good, 35% fair, 5% poor. Wheat 55% headed, 1% 1985, 5% avg. Development 1 to 2 weeks ahead average. Rapid heading west. Leaf rust, streak mosaic infest fields. Sorghum 3% planted, 2% 1985, 2% avg. Cotton none planted, 1% 1985, none avg. Growers applying fertilizer, herbicides. Alfalfa harvest began. Pastures mostly good. Livestock good; marketings down, prices up moderately.

**OREGON:** Temperatures slightly below normal, increasing as week progressed. Enterprise low 19°; Grants Pass high 80°. Precipitation evident all areas; south coast recorded over 2.50 in.

Soil moisture 29% short, 63% adequate, 8% surplus. Barley 67% seeded, 89% 1985. Spring grain seeding near completion, except high elevations. Irrigation started many eastern areas. Grass seed growth normal; considerable rust bluegrass. Winter wheat fertilizing, herbicide spraying. Malheur sugarbeets 60% planted; field corn planting started. Hay crop good. Good pear set lower Hood River Valley; petals fell Willamette Valley; set very good Medford. Willamette Valley peaches, apples past bloom. Spraying, cultivation all berry crops; strawberry and blueberry bloom continues. Some frost damage to strawberries 9th, 10th. Cranberry insect pests developing ahead of normal. Malheur Russet potato planting just started; onions 98% planted. Willamette Valley onions 80% planted; all seeded Jackson County. First sweet corn emerged Jackson County, early planting Willamette Valley. Broccoli, snap bean planting, field preparation. Winter cauliflower being harvested. Radish, lettuce for seed planted Jefferson County. Livestock good west, fair east. Forage growth good west. Lower rangeland beginning to dry east, forage growth slow with cool nights high elevations.

**PENNSYLVANIA:** Soggy week. Precipitation averaged 1.84 in., 1.02 in. above normal of 0.82 in. Average temperature 48°, normal 48°. Low temperature 20°; high temperature 80°.

Days suitable for fieldwork 2.0. Soil moisture 6% short, 64% adequate, 30% surplus. Activities: Fence repair, hauling manure, very little plowing and seeding of small grains and corn, some spreading of lime, fertilizer. Plowing 57% complete, 43% 1985, 29% avg. Potatoes 14% planted, 19% 1985. Tobacco beds 35% planted, 67% 1985. Oats 55% planted, 58% 1985. Corn less than 5% planted, 5% 1985, 5% avg. Hay stands mostly good to fair.

**PUERTO RICO:** Island average rainfall 0.30 in., 0.78 in. below normal. Highest weekly total 1.90 in. Highest 24-hour total 1.29 in. Temperature averaged about 79 to 80° on coasts and 74 to 75° interior divisions. Mean station temperature ranged from 66 to 81°. Extremes 55°; 93°. Total rainfall 1.29 in. plus 0.80 in.

**SOUTH CAROLINA:** High pressure system caused cooler than usual weather. Little or no rainfall through 19th. Light general showers on 20th. Temperatures averaged 3 to 8° below normal. Light frost on 17th, 18th.

Days available for fieldwork 6.1. Soil moisture 51% very short, 40% short, 9% adequate. Cotton 27% poor, 73% fair; 24% planted, 57% 1985, 38% avg. Corn fair to good; 86% planted, 93% 1985, 74% avg. Tobacco fair to good; 66% planted, 59% 1985, 59% avg. Vegetables, peaches fair to good. Small grain crops critical stage of development without

additional rainfall very soon, yields could be reduced sharply. Pastures fair, declining.

**SOUTH DAKOTA:** Average temperatures 1 to 110 below normal. Extremes 20; 660; Black Hills high 680. Major spring blizzard early week; melted precipitation more than 2.00 in. east and central, 1.00 in. west.

Days suitable for fieldwork 0.4. Soil moisture 40% adequate, 60% surplus. Surplus moisture limits farmer's fieldwork; flooding major problem northeast, east central. Spring crop planting limited. Winter wheat good to excellent; little winterkill. Harvest 1985 corn continues when possible. Livestock fair to good. Blizzard caused heavy calf losses central, south central, fewer losses elsewhere. Calving 50% complete, lambing 63% complete. Feed short west, adequate east. Stockwater adequate to surplus. Range, pastures fair to good.

**TENNESSEE:** Temperatures averaged 2 to 50 below normal. Extremes 800 middle; 340 west. Widespread rain, amounts generally less than 1.00 in.

Days suitable for fieldwork 6.0. Soil moisture 83% short, 16% adequate, 1% surplus. Corn 50% planted, 35% 1985, 19% avg. Cotton 6% planted, 8% 1985, 5% avg. Sorghum 8% planted. Tobacco 98% beds seeded, 100% 1985, 98% avg.; 70% plants up, 70% 1985. Wheat 70% jointed, 40% 1985; 5% headed; 3% very poor, 16% poor, 57% fair, 24% good. Livestock fair. Pastures fair.

**TEXAS:** Couple slow-moving weather systems produced heaviest rains, most active storms north, east. North, east, south central, southeast adequate soil moisture, southwest, far south dry. Light rains west conditions dry. High Plains, north and east, Lower Rio Grande Valley above normal rainfall. Remainder below normal. Temperatures near normal.

**Crops:** Small grains continued head out High, Low Plains, short moisture conditions poor prospects exist. Dryland acreage conditions severe, considerable acreage grazed out, cut for hay. Irrigated acreage looks good. Wheat fields turning south, early harvest near. Insects, rust contribute to poor conditions. Oats utilized grazing, hay. Corn planting increased High Plains. Scattered showers helped Blacklands, most south ir critical need of moisture, mid-day stress evident. Grain sorghum planting underway Plains where sufficient moisture available. Many west areas, planting delayed until rain comes. Rains helped some acreage north. Greenbugs, yellow sugarcane aphids damage weak plants across State. Crop development slowed by lack of moisture. Land preparation continued High, Low Plains cotton. Planting active Blacklands, south central. Cotton needs rain; moisture stress not as evident for other crops. Rice planting nearing completion some areas along coast. Flushing continued get rice established. Fields continued emerge. Other field crops: Peanuts none planted, 1% 1985, 5% avg. Sugarbeets 90% planted, 43% 1985, 75% avg. Sunflowers 4% planted, none 1985, none avg.

**Commercial Vegetables:** Rio Grande Valley, onion harvest continued with good volume. Light supplies cabbage, carrots available. Tomatoes, okra, squash good progress. Melons good fruit set. San Antonio-Winter Garden, onion harvest slow start. Some cabbage, carrots, spinach harvested. Watermelons progressed normally. East, vegetables normal progress. Some planting sweetpotatoes started. High Plains, planting onions, potatoes near completion. High winds damaged some young transplants. Some sweet corn planted. Irrigation necessary. Trans-Pecos, cantaloups being thinned, watered. Onions, cabbage, peppers up. Peaches normal progress. Most pecan trees leafed out. Early varieties set nuts. Spraying continued.

**Range and Livestock:** Ranges, pastures continued deteriorate no moisture received. Recent moisture did help some scattered areas. Wheat, oats

providing some forage crops grazed out, crops running out. Supplemental feeding continued. Prices low. Some sheep shearing underway.

**UTAH:** Temperatures 20 above normal extreme southwest, 20 below normal west, north central. Precipitation general across State, light to very heavy north central.

Rain limited fieldwork to average 2.5 days. Topsoil moisture adequate to surplus south, mostly surplus north. Crops 5 to 7 days ahead of normal. Spring wheat 54%, barley 61%, oats 40% seeded. Frost 14th caused light to severe damage early season fruit. Bloom set complete peaches, apples 60%, pears 68%. Calving 78%, lambing 70%, shearing 71% complete. Livestock good. Range feed generally good.

**VIRGINIA:** Temperatures averaged 40 below normal. Range 30s to 70s. Rainfall averaged 0.50 in. but varied widely. Most rain north, least southeast. Scattered showers 21st helped in dry southeast area.

Days suitable for fieldwork 4.3. Soil moisture 59% short, 32% adequate, 9% surplus. Fieldwork hindered by dry soil some areas. Corn planting 27% complete, 35% 1985, 29% avg. Herbicides sprayed on corn. Most crops good to excellent. Fruit mostly excellent. Apples full bloom. No freeze damage. Sprayed orchards. Irrigating tobacco plantbeds. Some sprayed for rust, powdery mildew small grains. Some sprayed for alfalfa weevil hay. First cut hay may be short due to dry March. Tomato transplanting began. Planted cucumbers, snap beans. Potatoes emerged. Livestock good to excellent. Moved cattle to pasture. Sheared sheep. Feeder cattle sales. Other: Land preparation, liming, fertilizing.

**WASHINGTON:** Unseasonably cool across State throughout week. Limited warming by 18th.

Days suitable for fieldwork less than 6.0. Soil moisture 5% short, 80% adequate, 15% good. Range, pasture 30% short, 70% adequate. Hay supplies 45% short, 55% adequate. Field preparations continued. Apples various bloom stages. Asparagus harvest, sweet corn planting continued.

**WEST VIRGINIA:** Temperatures averaged 1 to 20 below normal. Average temperature 520. Temperature extremes 240 Greenbank; 850 Creston. Precipitation above normal except extreme south. Average precipitation 0.86 in.

Days suitable for fieldwork 3.0. Soil moisture 9% very short, 23% short, 53% adequate, 15% surplus. Feed supplies 19% short, 72% adequate, 9% surplus.

**WISCONSIN:** Temperatures averaged 50s; low 240 on 17th, high 700 on 18th. Rainfall ranged from 0.50 to 2.00 in.

Days suitable for fieldwork 3.5. Soil moisture 1% short, 57% adequate, 42% surplus. Spring plowing 20% complete, 12% 1985, 12% avg. Oats 19% planted, 16% 1985, 15% avg.

**WYOMING:** Temperatures below normal. Above normal precipitation except parts of Big Horn Basin.

Days suitable for fieldwork 4.0. Topsoil moisture 9% short, 78% adequate, 13% surplus. Spring wheat planted 45%, 50% 1985, 30% avg.; emerged 20%, 15% 1985. Oats planted 40%, 35% 1985, 20% avg.; emerged 10%, 5% 1985. Barley planted 55%, 65% 1985, 50% avg.; emerged 25%, 20% 1985. Sugarbeets planted 50%, 65% 1985, 35% avg.; emerged 15%, none 1985. Corn seeding beginning. Potatoes planted 5%, 5% 1985. Winter wheat 50% fair, 50% good, light wind damage, light freeze damage. Livestock 30% fair, 65% good, 5% excellent. Spring calves born 75%, 70% 1985, 70% avg. Calf losses light. Farm flock: Ewes lambed 80%, 85% 1985, 75% avg.; sheep shorn 75%, 80% 1985, 70% avg. Range flock: Ewes lambed 45%, 55% 1985, 45% avg.; shorn 45%, 50% 1985, 45% avg. Lamb losses light. Range, pasture 10% poor, 40% fair, 45% good, 5% excellent.

**CROP PROGRESS**

FOR WEEK ENDING APR 20, 1986

	WINTER WHEAT % HEADED		
	1986	1985	AVG.
ARK	54	NA	NA
CALIF	65	65	65
COLO	33	21	14
GA	59	69	44
IDAHO	0	0	0
ILL	0	0	1
IND	0	0	0
KANS	5	0	0
MICH	0	0	0
MO	4	0	0
MONT	0	0	0
NEBR	0	0	0
N MEX	0	NA	NA
N C	10	NA	NA
OHIO	0	0	0
OKLA	55	1	5
OREG	0	0	0
S DAK	0	0	0
TEX	53	28	23
WASH	0	0	0
20 STATES	23	NA	NA
EXCL. STATES WITH NA	23	9	7

THESE 20 STATES PRODUCED 91%  
OF THE 1985 WINTER WHEAT CROP.

NA - NOT AVAILABLE

	RICE % PLANTED		
	1986	1985	AVG.
ARK	31	15	13
CALIF	0	0	0
LA	65	54	52
MISS	58	51	31
TEX	90	43	74
5 STATES	42	26	28

THESE 5 STATES PRODUCED 97%  
OF THE 1985 RICE CROP.

	COTTON % PLANTED		
	1986	1985	AVG.
ALA	21	27	13
ARIZ	80	85	75
ARK	7	0	3
CALIF	60	65	58
GA	6	13	11
LA	19	11	10
MISS	7	17	9
MO	2	2	2
N MEX	25	33	19
N C	7	16	9
OKLA	0	1	0
S C	24	57	38
TENN	6	8	5
TEX	33	12	13
14 STATES	30	22	20

THESE 14 STATES PRODUCED 100%  
OF THE 1985 COTTON CROP.

	SPRING WHEAT % PLANTED		
	1986	1985	AVG.
IDAHO	54	27	40
MINN	2	22	18
MONT	35	20	25
N D	5	15	10
S DAK	6	66	36
5 STATES	13	26	20

THESE 5 STATES PRODUCED 95%  
OF THE 1985 SPRING WHEAT CROP.

	SORGHUM % PLANTED		
	1986	1985	AVG.
ARK	36	25	21
ILL	0	0	0
KANS	0	0	0
LA	45	42	34
MISS	25	24	NA
MO	2	0	0
NEBR	0	0	0
OKLA	3	2	2
S DAK	0	0	0
TENN	8	0	NA
TEX	67	57	61
11 STATES	22	18	NA

EXCL. STATES  
WITH NA 22 18 19

THESE 11 STATES PRODUCED 94%  
OF THE 1985 SORGHUM CROP.

NA - NOT AVAILABLE

	CORN % PLANTED		
	1986	1985	AVG.
COLO	2	12	4
GA	84	95	80
ILL	8	3	1
IND	4	2	0
IOWA	1	3	1
KANS	15	10	5
KY	32	18	10
MICH	0	0	0
MINN	0	0	0
MO	31	20	11
NEBR	1	3	0
N C	70	74	50
OHIO	5	5	0
PA	3	2	1
S DAK	0	0	0
TEX	88	77	66
WIS	0	0	0
17 STATES	9	8	5

THESE 17 STATES PRODUCED 93%  
OF THE 1985 CORN CROP.

WEEKLY CROP WEATHER CONDITION PERCENT REPORT  
FOR WEEK ENDING APRIL 20, 1986

STATE	WINTER WHEAT				
	VERY-POOR	POOR	FAIR	GOOD	EXCELLENT
ALA	6	15	60	19	0
ARK	0	7	35	58	0
CALIF	0	0	0	50	50
COLO	2	2	30	53	13
GA	1	15	52	31	1
IDAHO	0	3	17	71	9
ILL	8	24	45	20	3
IND	0	12	53	33	2
KANS	3	7	25	45	20
MICH	10	10	10	10	60
MO	0	44	40	16	0
MONT	0	0	27	70	3
NEBR	0	0	18	58	24
N MEX	0	28	44	28	0
N C	0	10	55	53	2
OHIO	0	1	33	59	7
OKLA	0	5	35	60	0
OREG	0	0	29	67	4
S DAK	0	1	21	46	32
TEX	1	15	58	24	2
WASH	0	10	30	60	0

STATE	RICE				
	VERY-POOR	POOR	FAIR	GOOD	EXCELLENT
ARK	0	6	50	38	6
LA	0	0	39	61	0
MISS	29	23	48	0	0

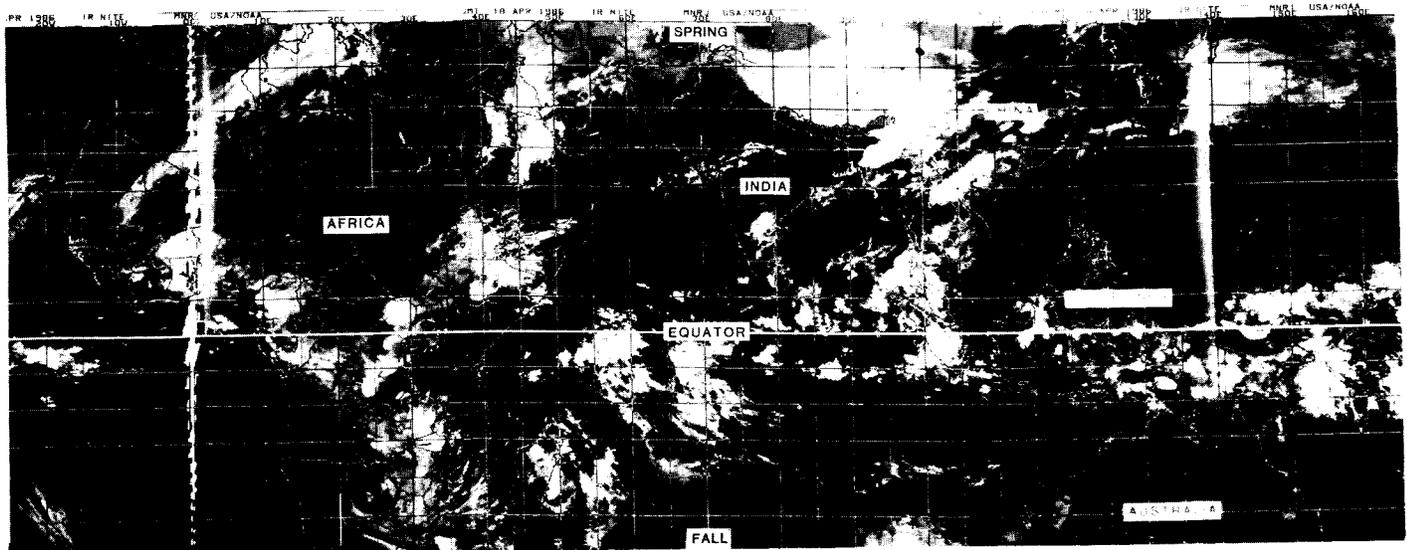
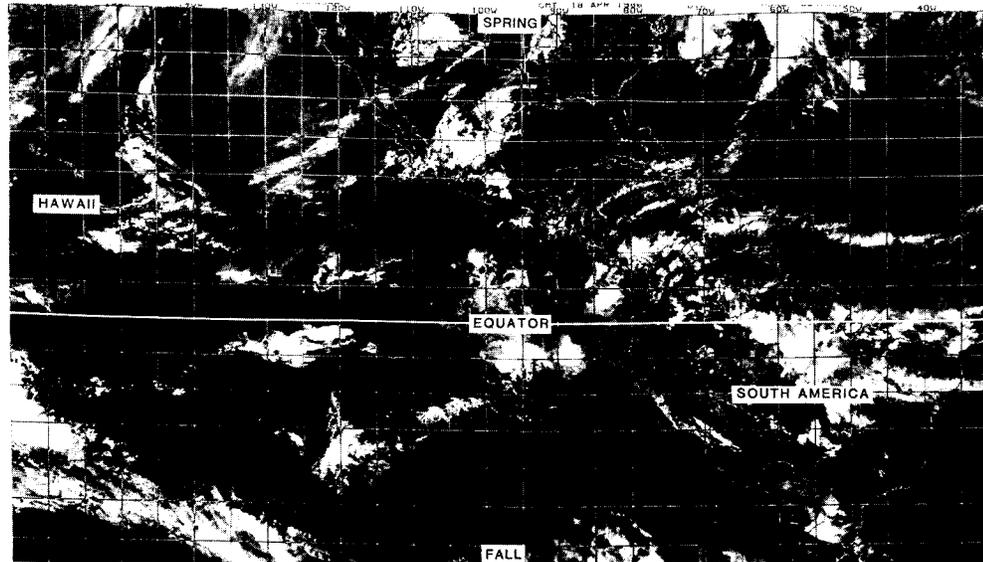
STATE	CORN				
	VERY-POOR	POOR	FAIR	GOOD	EXCELLENT
COLO	0	0	0	100	0
GA	0	10	60	28	2
TEX	0	2	39	54	5

STATE	GRAIN SORGHUM				
	VERY-POOR	POOR	FAIR	GOOD	EXCELLENT
ARK	0	7	40	47	6
TEX	0	7	65	26	2

STATE	COTTON				
	VERY-POOR	POOR	FAIR	GOOD	EXCELLENT
ARIZ	0	0	0	100	0
ARK	0	8	64	20	8
CALIF	0	0	0	50	50
GA	0	35	53	12	0
N MEX	0	0	50	50	0
S C	0	27	73	0	0
S C	0	27	73	0	0

# GLOBAL WEATHER SATELLITE IMAGE

April 18, 1986



(Continued from p. 9)

okra, and squash made good progress. Onion harvest was off to a slow start in the San Antonio-Winter Garden area. Some cabbage, carrots, and spinach were harvested. Planting onion and potatoes neared completion in the High Plains.

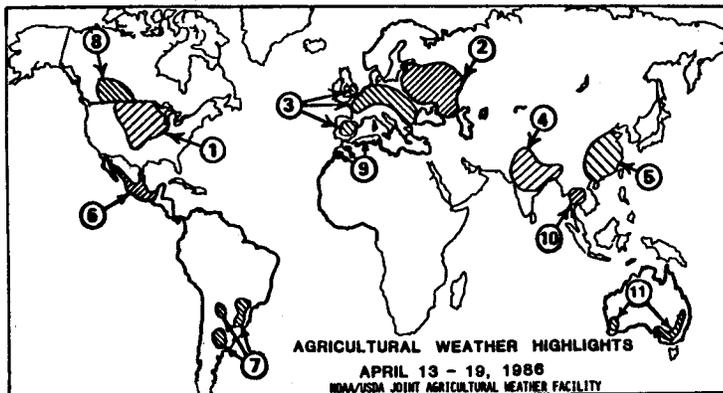
In Florida, the Dade County vegetable season was ending. Supplies of most vegetables were from the southwest, central, and Pompano areas. Total shipments increased due to higher volumes of snap

beans, cabbage, carrots, celery, Chinese cabbage, sweet corn, cucumbers, eggplant, escarole, and potatoes.

**PASTURES AND LIVESTOCK:** Pastures continued declining in the Southeast. Rain provided growth across the Corn Belt and central Plains. Livestock was mostly good, but cold temperatures were stressful to livestock in the northern Plains and Rockies.

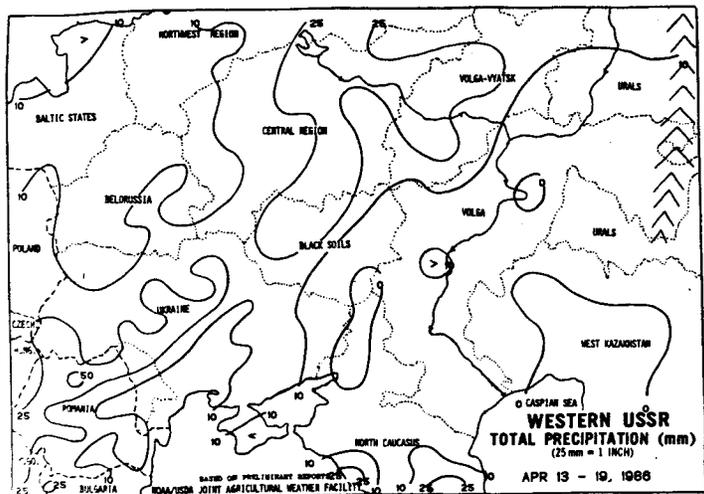
## International Weather and Crop Summary

April 13 - 19, 1986

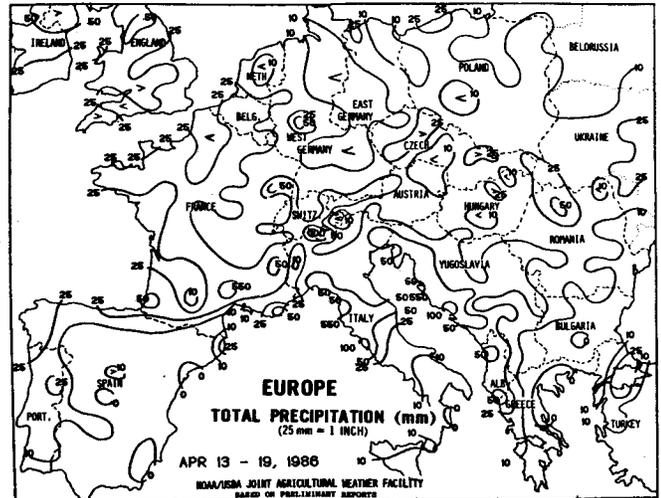
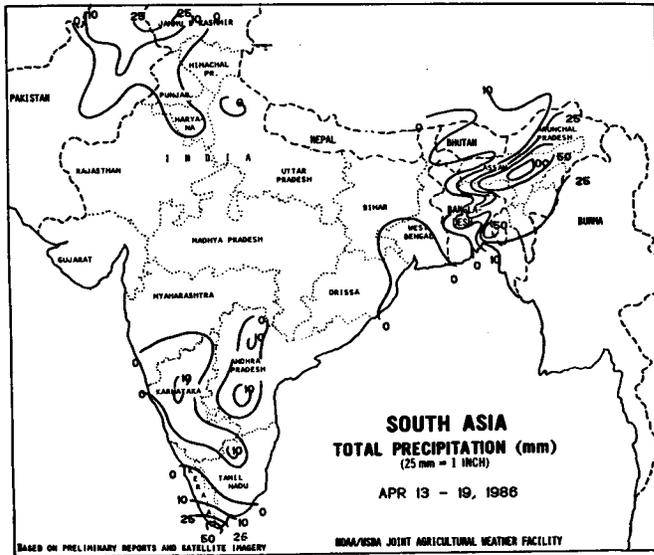


**HIGHLIGHTS:**

1. **UNITED STATES** ... Across the Corn Belt and through the Great Plains from Texas to North Dakota, precipitation curtails seeding and provides moisture for small grain growth and development.
2. **WESTERN U.S.S.R.** ... Widespread beneficial precipitation covers winter grains in the Ukraine, Black Soils, Central Region, and the Volga Vyatsk. The seventh consecutive week of dryness covers crop areas in the North Caucasus.
3. **EUROPE** ... Unseasonably cool, wet weather continues in the northwest, slowing winter grain growth and delaying spring crop planting. Showers benefit crops in the southeast.
4. **SOUTH ASIA** ... Wheat harvesting continues in the north while dry, hot weather covers central India.
5. **EASTERN ASIA** ... Heavy rain inundates the southern rice region while persistent dry weather is unfavorable for nonirrigated crops in the North China Plain.
6. **MEXICO** ... Warm, dry weather helps wheat harvesting in the northwest. Light showers benefit planting in the eastern Southern Plateau corn belt.
7. **SOUTH AMERICA** ... Recent drier weather helps to alleviate flooding and waterlogged fields in northeastern Argentina and southern Brazil. Some harvesting occurs elsewhere with sporadic rain delays.
8. **CANADA** ... Milder weather returns to the Prairies following the early-week severe cold air outbreak. Mostly dry weather prevails in the southwest grain areas.
9. **NORTHWESTERN AFRICA** ... Showers in Morocco and Algeria benefit winter grains in the filling stage. Persistent dryness over Tunisia hastens crop maturity.
10. **SOUTHEAST ASIA** ... Variable, pre-monsoon showers may initiate some early rice planting.
11. **AUSTRALIA** ... Beneficial showers likely allow wheat planting to begin in the south.

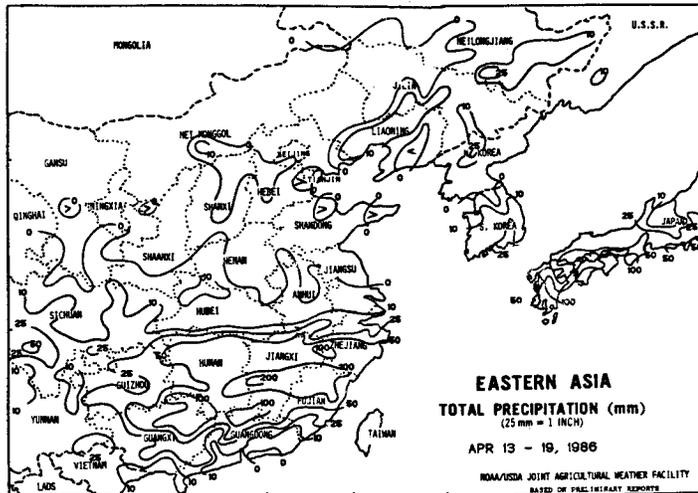
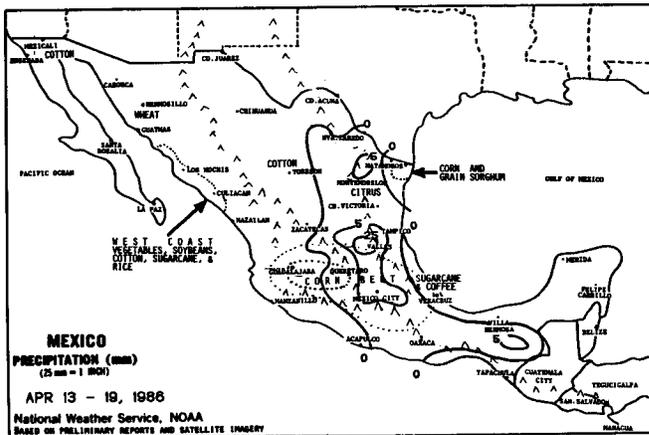


**WESTERN U.S.S.R.** ... Early-week rain over much of the Ukraine, Black Soils Region, Central Region, and the Volga Vyatsk was followed by a cooling trend and light snow. Precipitation that covered these areas benefited winter grains and increased topsoil moisture for spring crop planting. Dry weather for the seventh consecutive week covered winter grains in the North Caucasus, the extreme eastern Ukraine and the lower Volga. Rain is needed in these areas for winter grain growth and spring crop planting. Weekly temperatures were below normal in the west and north and above normal in the southeast. By late week, a warming trend returned to the region as a storm system approached from the west.



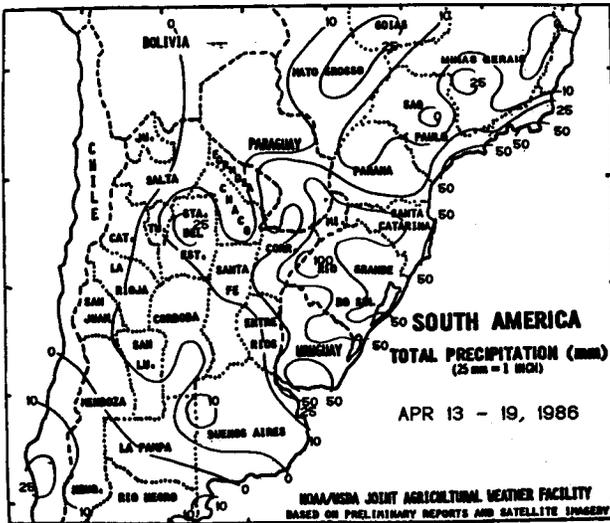
**EUROPE ...** Showers occurred on most days during the week in England, France, the Netherlands, Belgium, and West Germany. The precipitation that covered East Germany and Poland fell later in the week. The rain in these areas was accompanied by unseasonably cool weather that slowed winter grain growth and likely delayed spring crop planting. Dry weather returned to winter grains in Spain, and below-normal temperatures continued to slow crop growth. Early in the week, night temperatures were below freezing at many locations in northern Spain. In southeastern Europe, early-week showers in Hungary, Romania, Yugoslavia, and Bulgaria favored early winter grain growth and increased soil moisture for spring crop planting.

**SOUTH ASIA ...** Seasonably dry, hot weather covered central India while wheat harvesting continued in the north. Temperatures reached 40 to 44 degrees C (104 to 111 degrees F) in Andhra Pradesh, Maharashtra, and Madhya Pradesh. Light showers fell in northern wheat areas. The rain is slowing maturing wheat in northern Pakistan. Moderate to heavy rain (25 to 100mm) benefited rice planting in minor producing areas in eastern India.

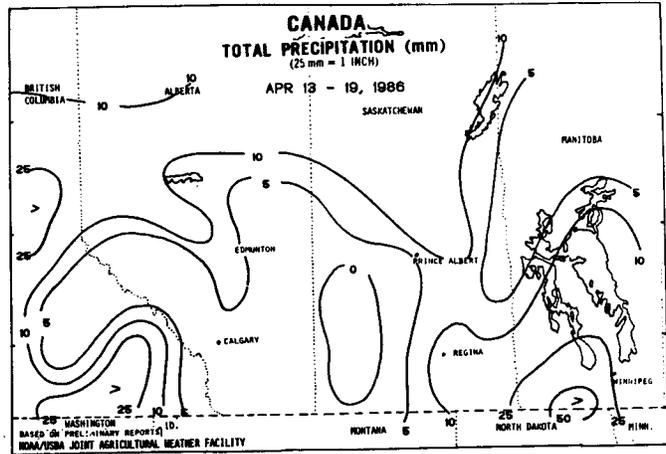


**MEXICO ...** Warm, dry weather promoted wheat harvesting in the northwest and fieldwork along the west coast farming region. Weekly temperatures averaged around 25 degrees C (about 2 to 5 degrees above normal) across much of northern Mexico, maintaining high irrigation requirements for crops while reducing moisture reserves for spring planting. Light rain (mostly less than 5mm) fell in the northeast. More substantial rain (generally, 5 to 10mm) fell over eastern portions of the Southern Plateau corn belt, moistening topsoils for planting. Dry weather prevailed over Yucatan Peninsula.

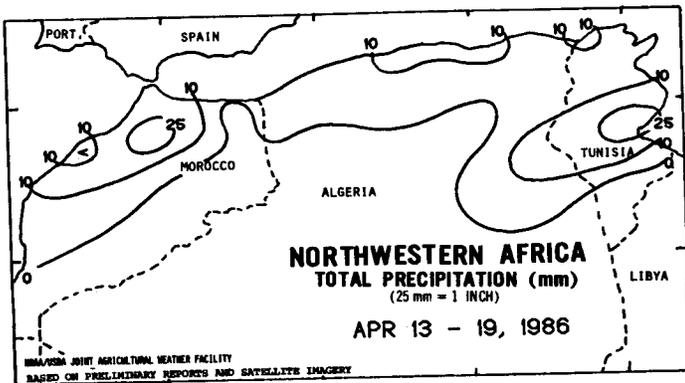
**EASTERN ASIA ...** Heavy rain continued in the rice region. The band of rain moved further south this week, and flooding likely occurred in Jiangxi where 150 to 225mm of rain fell. Relatively drier weather covered Guangdong, but irrigation supplies should be adequate for early rice in the late vegetative stage. Persistent dry weather in the North China Plain is unfavorable for nonirrigated winter wheat nearing the heading stage. Cotton, corn, and soybean planting may be delayed in nonirrigated areas. Temperatures averaged above normal in the North China Plain, further reducing limited moisture supplies. Moderate rain (10 to 30mm) in Liaoning, Jilin, and Heilongjiang was very timely for corn planting and early growth of spring wheat.



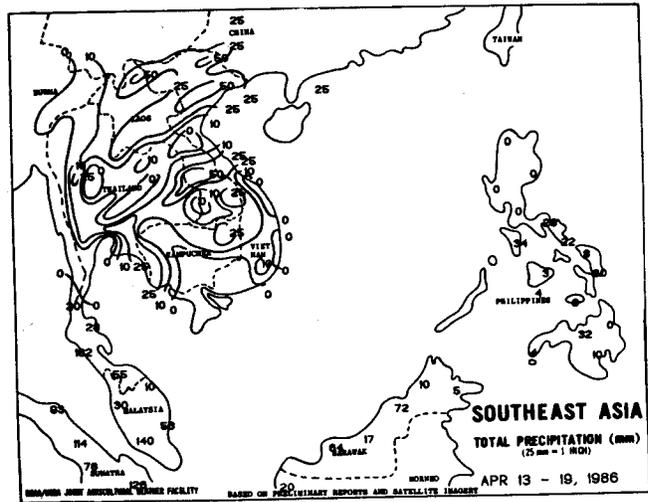
**SOUTH AMERICA** ... Early-week, heavy showers fell over extreme northeastern Argentina and Brazil's Rio Grande do Sul. Drier weather moved into the region by midweek. The several sunny days helped to alleviate flooding and likely permitted harvesting to resume later in the week. The quality of maturing crops has likely been affected by the persistent heavy rains. Scattered shower activity became concentrated mostly over Brazil's northern soybean area during the remainder of the week. Scattered showers also developed over Argentina's major summer crop areas late in the week spreading into extreme southern Brazil. Brazil's soybean harvest has made progress in central and northern crop areas but lags well behind in the south. Argentina's crop harvests have also made progress with some sporadic rain delays, except for the rain-drenched northeast, where flooding was reported recently.



**CANADA** ... Precipitation fell over the northern and eastern Prairie Provinces, but mostly dry weather prevailed over crop areas of western Saskatchewan and eastern Alberta. Milder weather returned to the region by midweek following the severe cold air mass which dropped minimum temperatures into the -10 to -20 degree C range early in the period. Weekly average temperatures remained close to the freezing level. Temperatures averaged 1 to 4 degrees C in the west, and -1 to -2 degrees C in the east. Moisture is limited in the southwestern Prairies for next month's spring grain planting.



**NORTHWESTERN AFRICA** ... Widespread showers (10 to 25mm) covered Moroccan winter grains, benefiting the crop in the filling stage. Lighter amounts of rain (3 to 10mm) covered Algerian winter grains. In Tunisian winter grain areas, unseasonably dry weather during much of the growing season has likely hastened crop maturity and reduced yield prospects.



**SOUTHEAST ASIA** ... Pre-monsoon rain continued in Indochina. The heaviest rain (50 to 90mm) fell in central Laos. Moderate showers (10 to 25mm) fell in southeastern Thailand where some early rice planting may have begun. Widely scattered light showers in central and northern Thailand were moistening topsoils, but more rain is needed for corn and rice planting. Moderate rain (20 to 40mm) benefited rice planting in southern Luzon and the Visayas in the Philippines. Dry weather covered the major rice area in central Luzon.

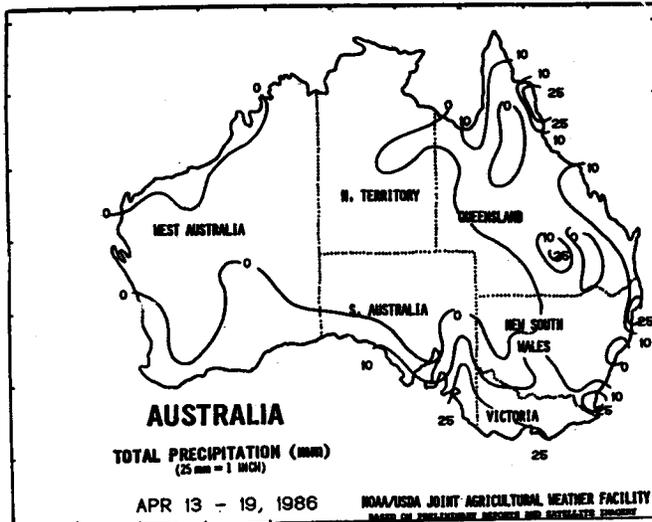
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**AUSTRALIA** ... Light to moderate showers fell in most of the southern wheat belt. A frontal system reached southeastern Australia at mid-week with as much as 25mm of rain extending into southern wheat areas of South Australia and Victoria. Moderate showers (10 to 20mm) benefited southern New South Wales before the front weakened rapidly and produced only light, scattered rain (1 to 5mm) in northern New South Wales and southeastern Queensland. Wheat planting has likely begun in the south while limited progress will be made in the northern wheat belt. Subsoil moisture remains limited throughout the east.

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