

WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE
Economics and Statistics Service
World Food and Agricultural Outlook and Situation Board

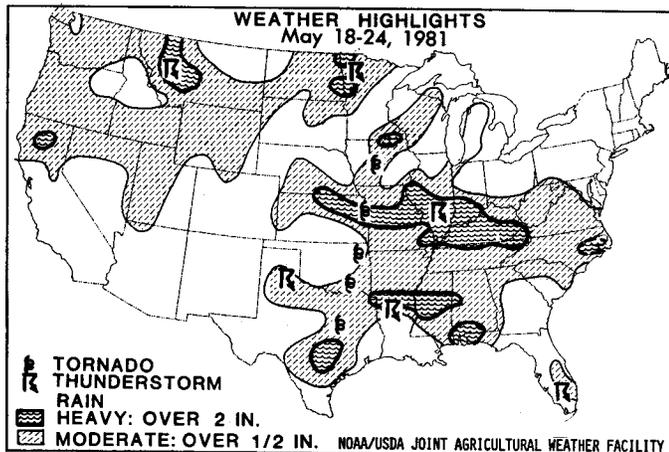
Volume 68, No. 21

Washington, D.C.

May 27, 1981

National Weather Summary

May 18-24, 1981



HIGHLIGHTS: Rain came to the northern Plains and dampened parts of the Dakotas and western Minnesota where drought had threatened crops. The rain was heavy in the northern Rockies and northern High Plains and widespread flooding was reported. Severe weather raked the Plains. Tornadoes and hail were widespread from Texas to Iowa. Thunderstorms brought some relief from the dry weather in central and southern Florida.

MONDAY...The onslaught of severe weather continued in the lower Mississippi Valley and into Kentucky. Heavy rain fell through the Ohio Valley. Over a dozen tornadoes touched down in Louisiana, Arkansas, and Missouri. Flash floods occurred from Missouri through the southern parts of Illinois, Indiana, and Ohio. Showers and thunderstorms extended across the South to the southern and middle Atlantic Coast.

TUESDAY...A frontal system, moving slowly eastward, spread showers and thunderstorms from the lower Mississippi Valley to the upper Ohio Valley and through the southern Appalachians and mid-Atlantic States to Pennsylvania. By the end of the day, the activity had ended through the Ohio Valley and the drying out process had begun. In the West, a pair of low pressure systems brought scattered showers to parts of California, the Pacific Northwest, and over the Rockies into Montana.

WEDNESDAY...A low pressure system in southeastern United States triggered showers and a few thunderstorms as far north as Virginia. The thunderstorms were more widespread through drought stricken southern Florida. Locally heavy rain, tornadoes, and hail accompanied some of the storms. A cold front brought showers across the central and northern Rockies. Thunderstorms in Montana pushed slowly eastward toward the very dry northern Plains. Cool weather persisted in

the southern Plains and northeastward to New England. Record low temperatures were recorded in Texas, Oklahoma, Louisiana, Missouri, and Illinois but temperatures warmed seasonally during the day.

THURSDAY...The unseasonably cool weather moved over the lower Mississippi Valley and into the Florida Panhandle, while record high temperatures were felt in southern Florida. A few thunderstorms lingered in southern Florida after some heavy rain fell earlier in the day. A low pressure system in Montana brought welcome showers to the northern Plains but heavy rain in parts of western Montana and Idaho caused some serious local flooding.

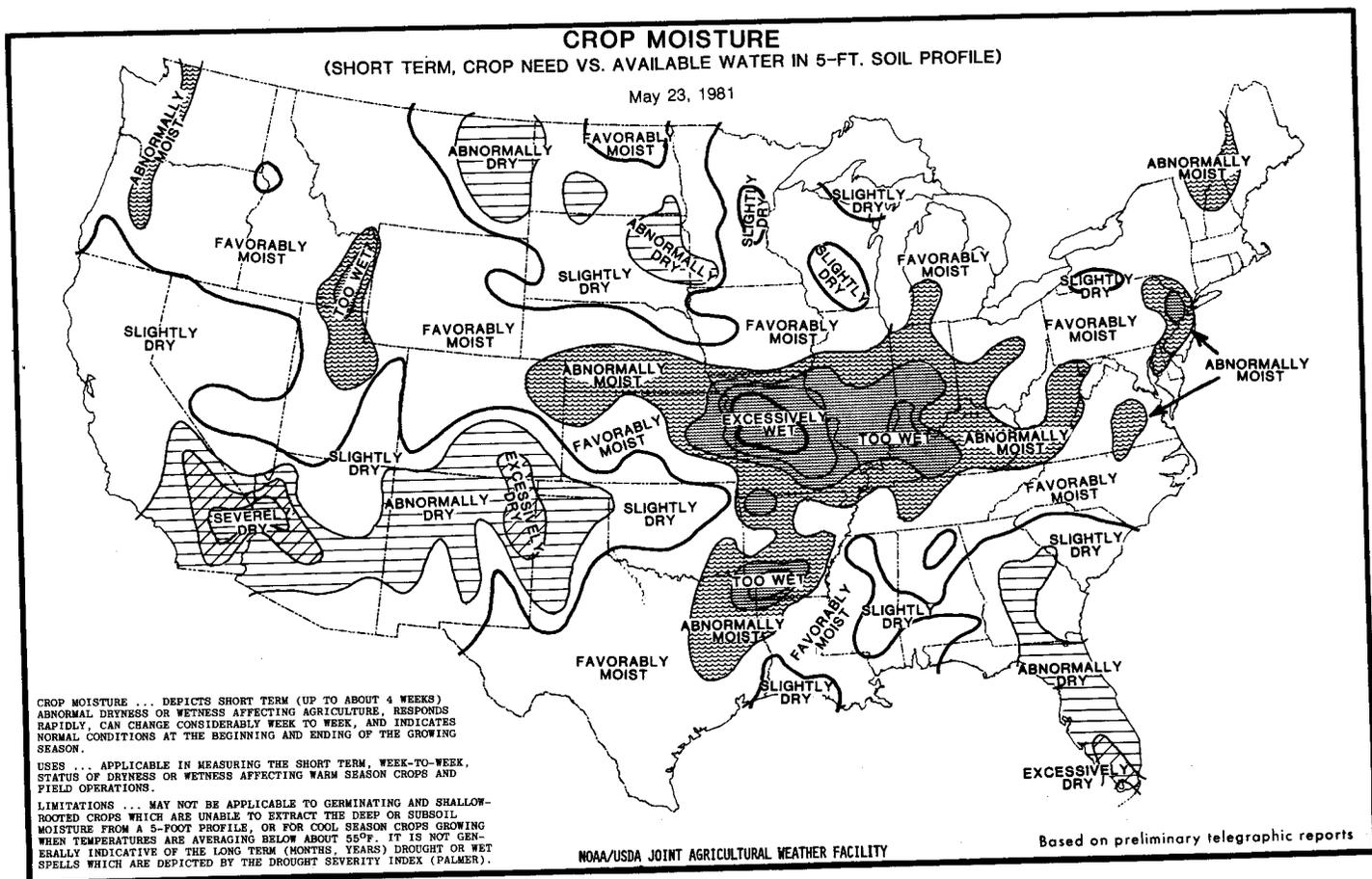
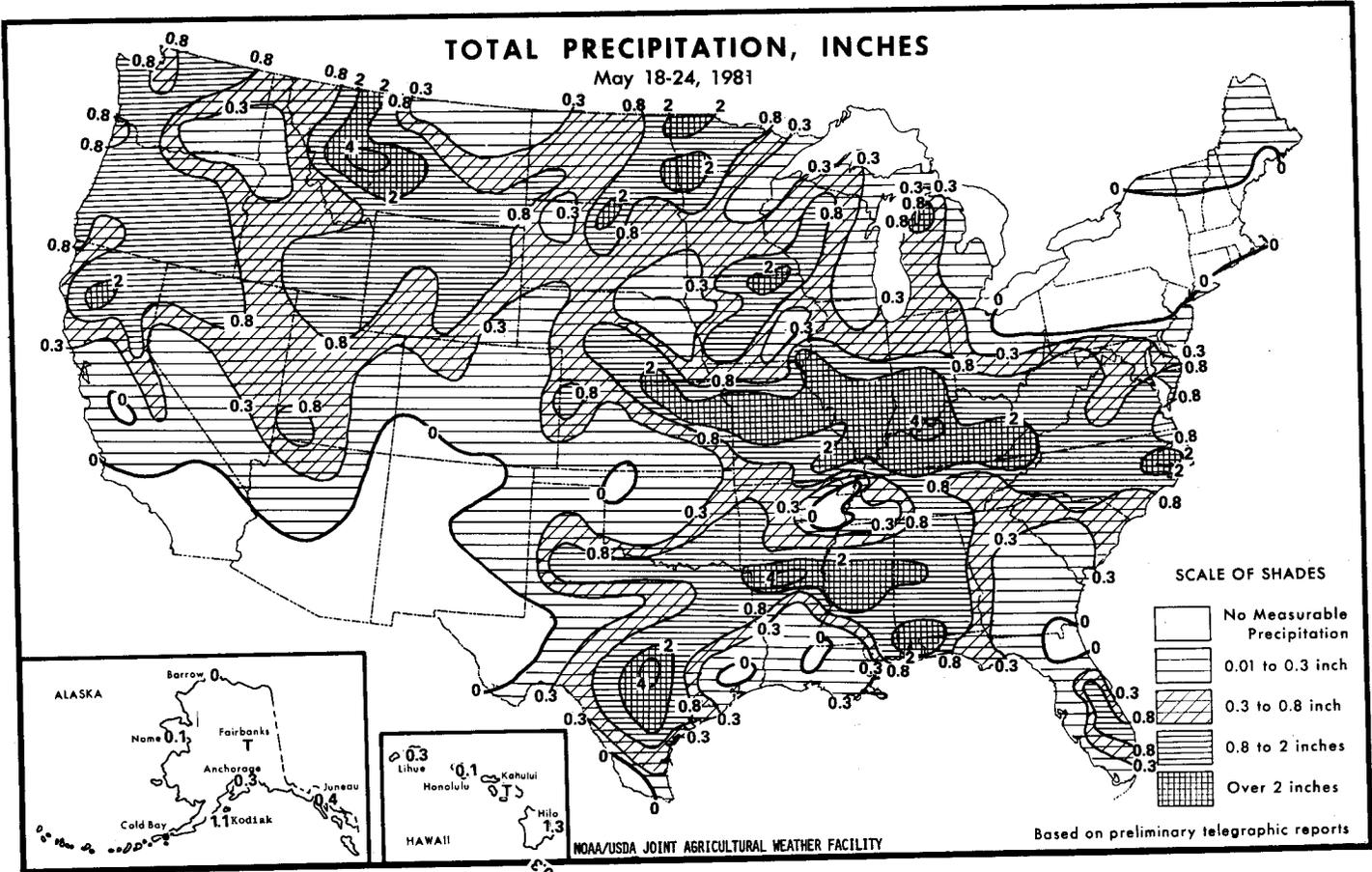
FRIDAY...Continued heavy rain brought widespread flooding to parts of the northern Rockies. Later in the day, strong thunderstorms developed from Oklahoma to North Dakota and Minnesota. At least 21 tornadoes were spawned through this area but most touched down in Oklahoma and Kansas. A few showers or thunderstorms formed over the southern and western Great Lakes and in New England. Cooler weather invaded Florida and record low temperatures were marked in the southern part of the State where 90° reading had prevailed the day before.

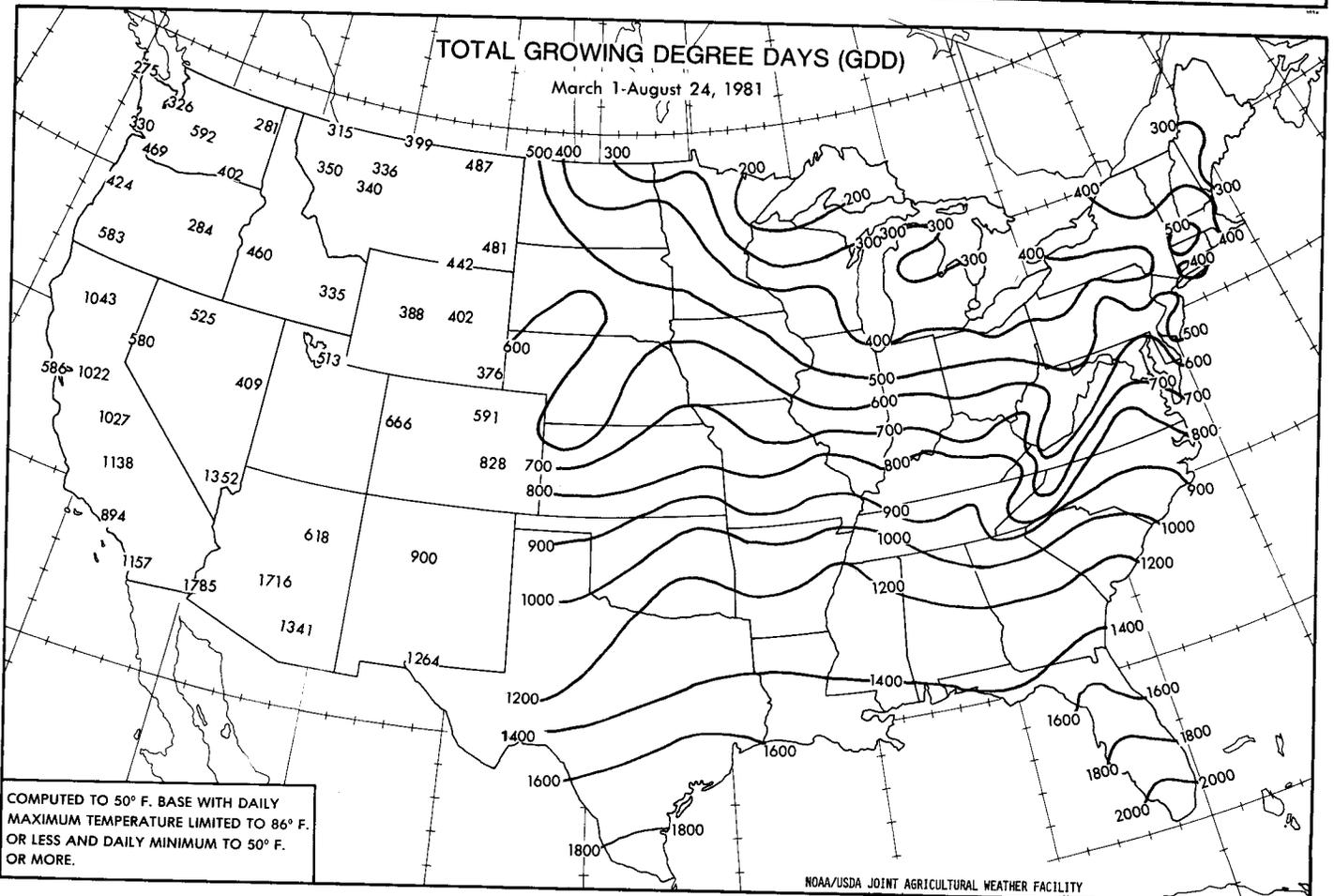
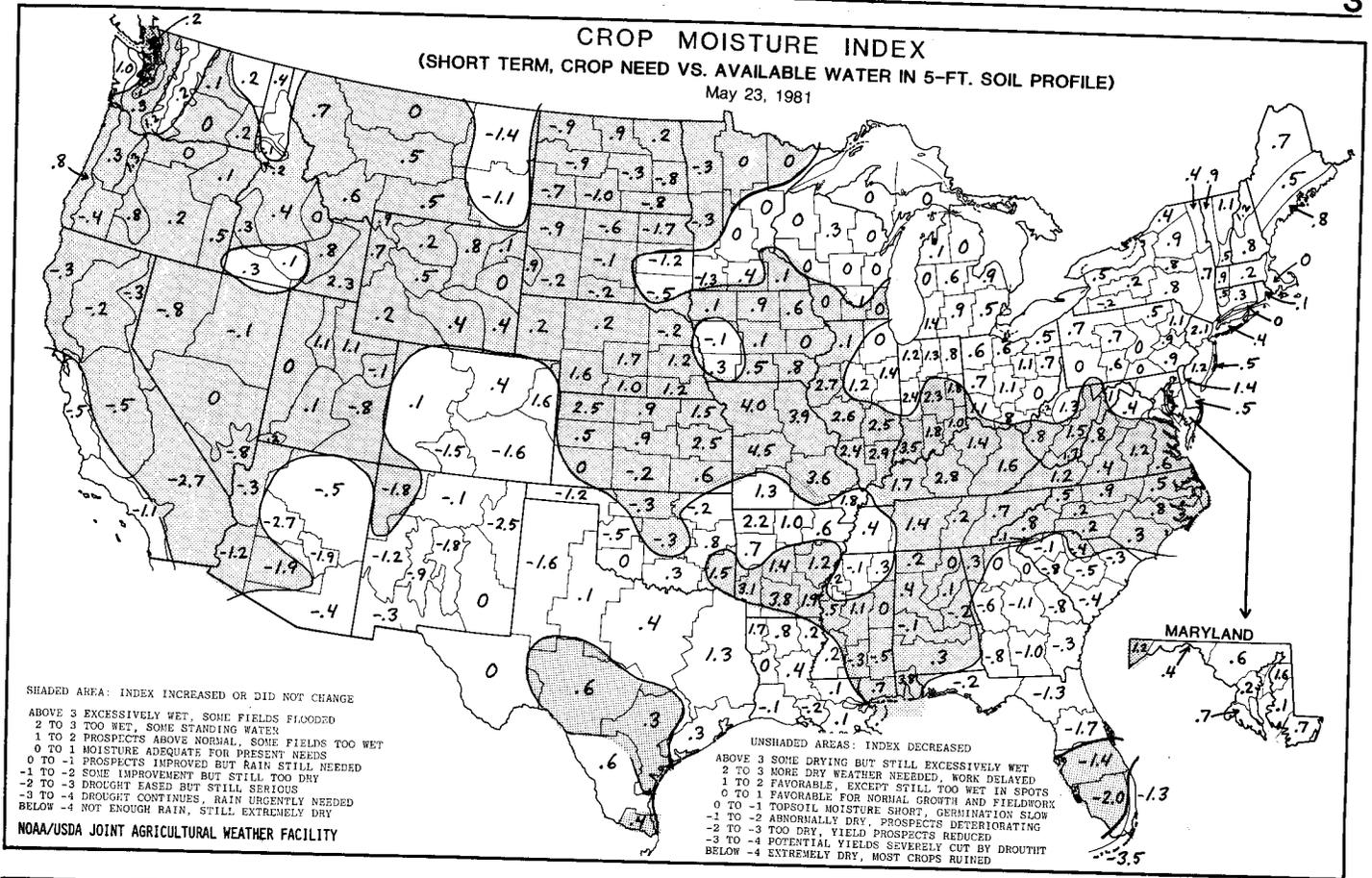
SATURDAY...Showers, thunderstorms, hail, and tornadoes reached from the southern Plains to the northern Mississippi Valley. More widely scattered showers reached into parts of Ohio. Rain fell from northern California into Washington and over the northern Rockies.

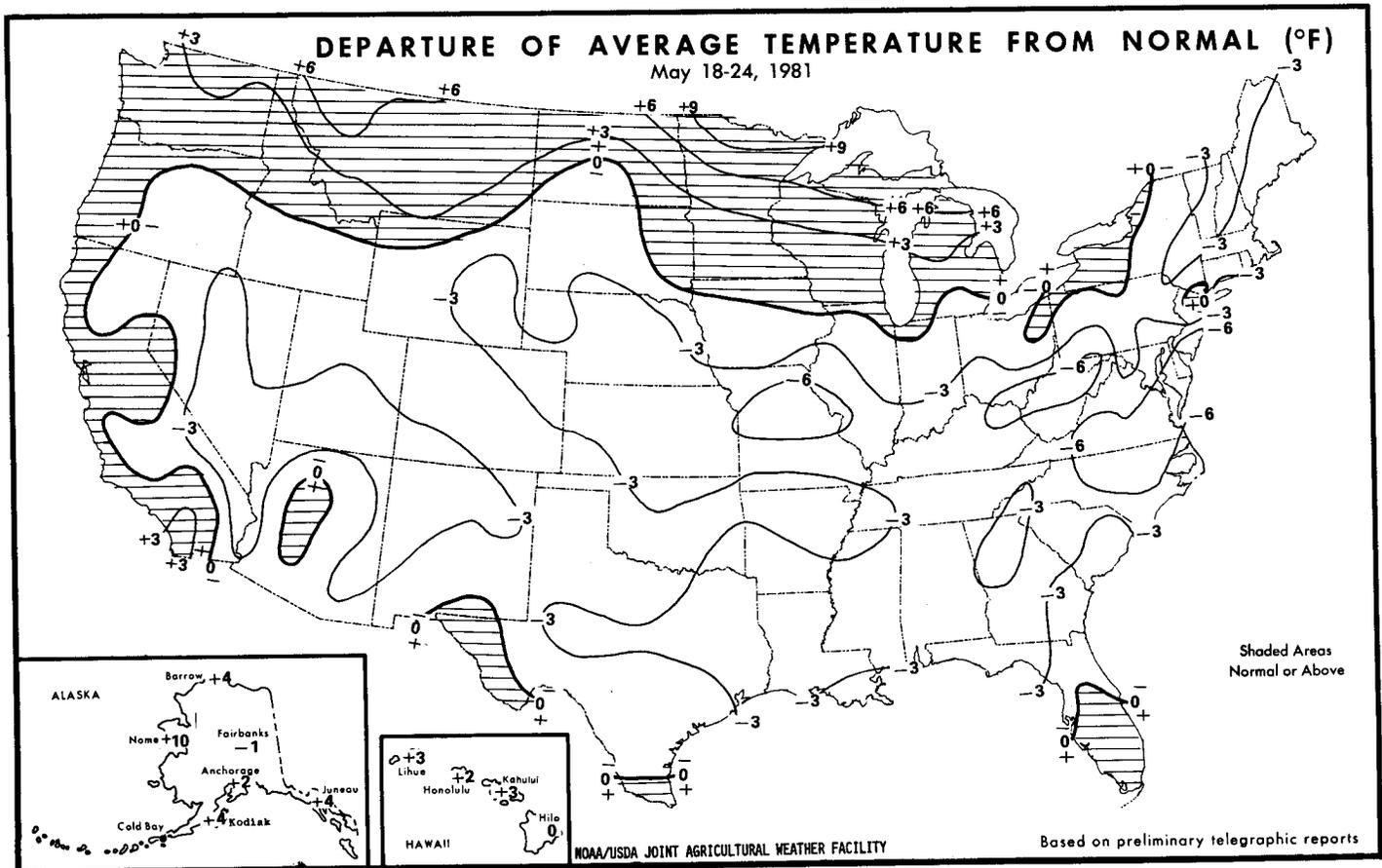
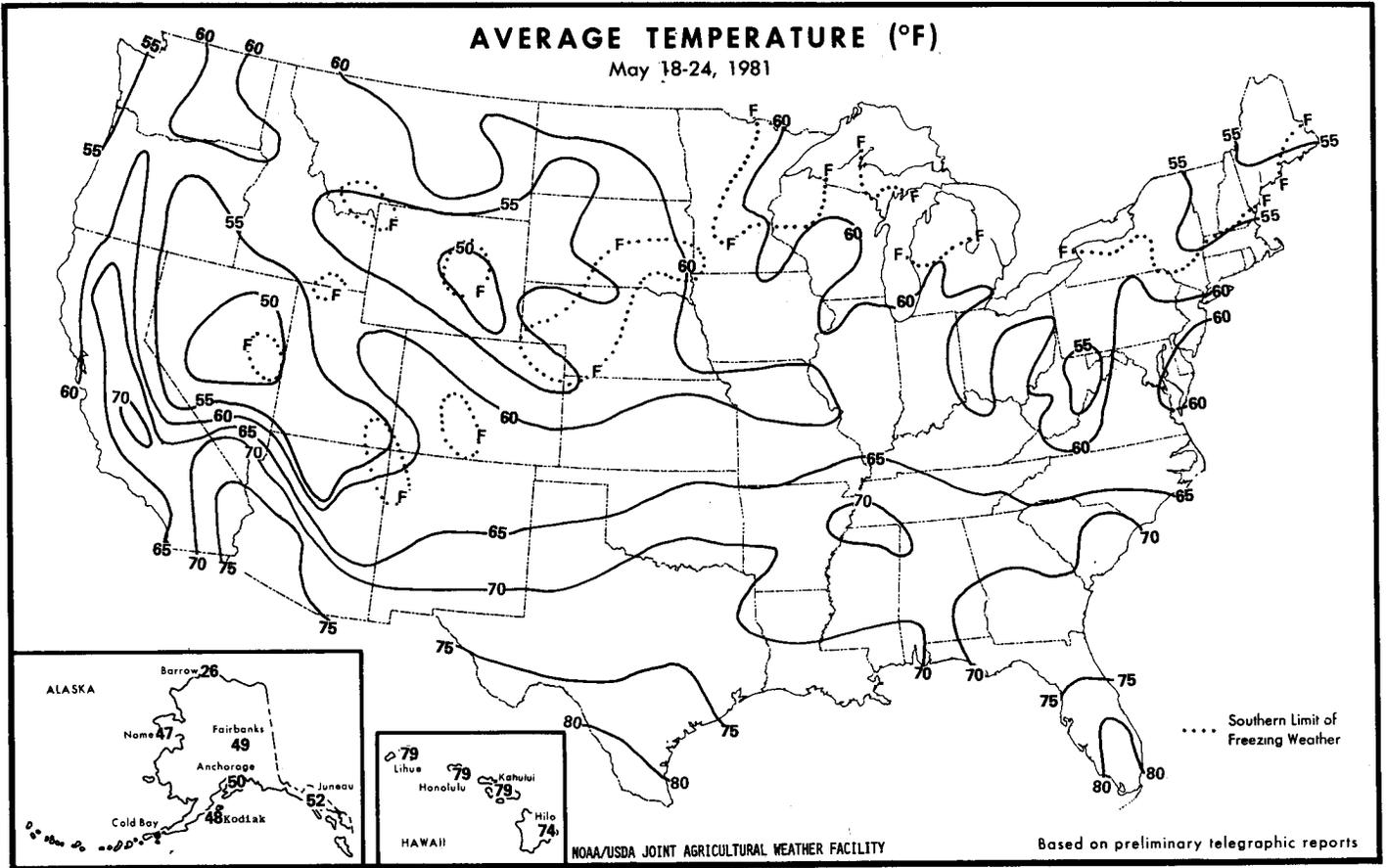
SUNDAY...Severe weather struck from Texas to the Great Lakes and reached into Tennessee and Indiana. Hail and tornadoes were most severe late in the day in western and central Texas. An isolated cloudburst brought a devastating flood to Austin when nearly 7 inches fell in the evening. Showers developed in the Northwest and the northern Rockies and continued over North Dakota and Minnesota.

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Weather Data for the Week Ending May 24, 1981

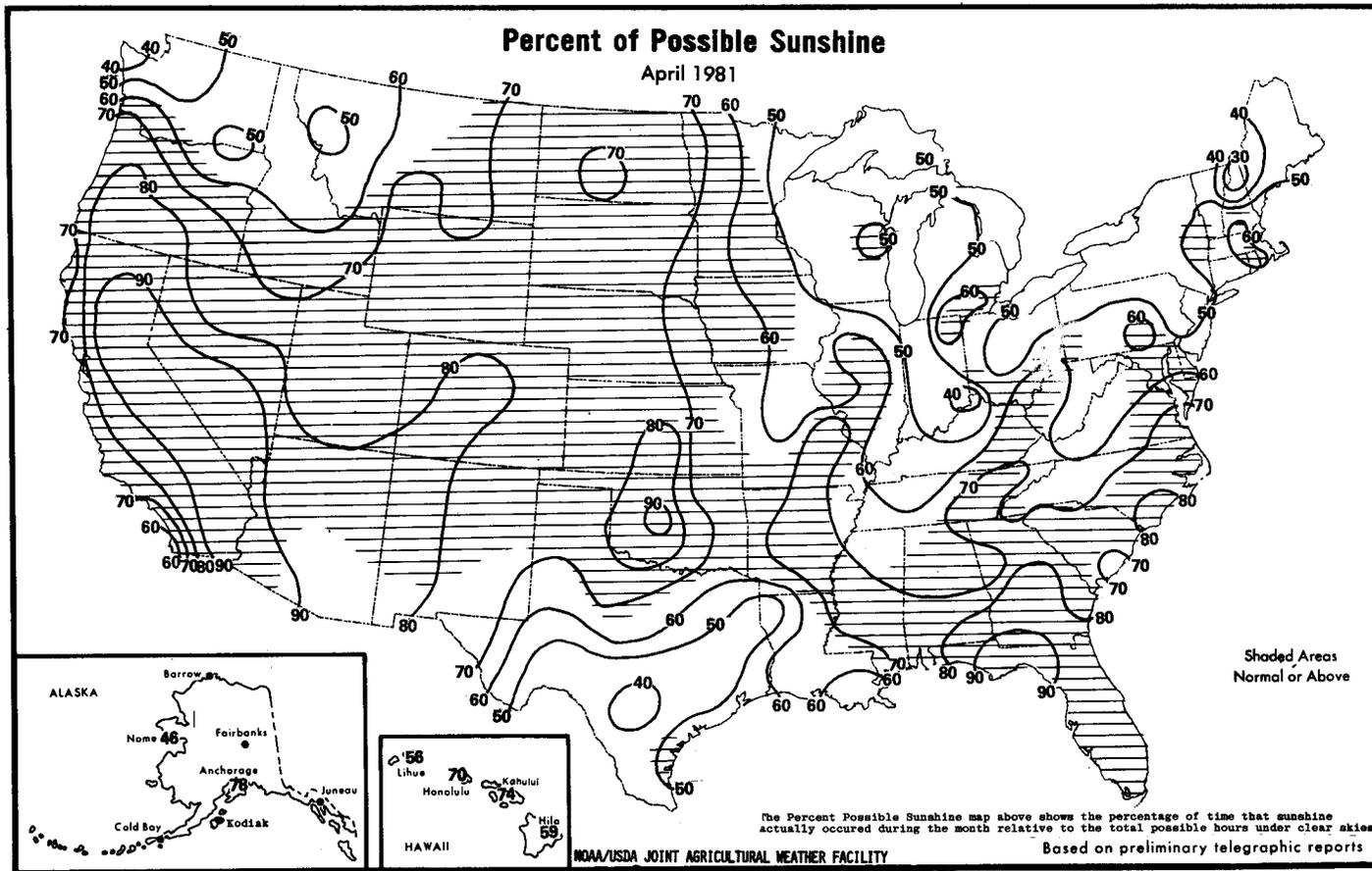
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar. 2	PCT. NORMAL SINCE Mar. 2	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	81	54	91	47	68	-4	1.6	.8	1.2	10.8	81	17.2	73	89	38	1	0	2	1	
AL MOBILE	81	60	88	51	70	-5	2.3	1.3	1.4	14.3	85	24.3	95	94	54	0	0	2	2	
AL MONTGOMERY	82	58	87	51	70	-3	1.1	.4	1.1	12.7	98	20.9	98	86	47	0	0	1	1	
AK ANCHORAGE	57	44	61	40	50	2	.3	.2	.2	1.0	77	3.1	103	79	40	0	0	4	0	
AK BARROW	31	22	39	17	26	4	T	0	T	--	--	--	99	84	0	0	7	0		
AK FAIRBANKS	63	36	67	32	49	-1	T	.2	T	4.3	25	1.3	62	59	28	0	1	0	0	
AK JUNEAU	58	46	64	44	52	4	.4	.4	.2	4.4	49	13.7	84	92	62	0	0	4	0	
AK KODIAK	52	44	57	40	48	4	1.1	.1	.6	15.6	143	34.3	164	89	57	0	0	6	1	
AK NOME	55	41	61	34	47	10	1.1	0	.1	2.5	125	5.4	146	75	42	0	0	4	0	
AZ FLAGSTAFF	65	37	71	27	52	1	.2	.1	T	5.7	154	8.2	112	75	23	0	2	0	0	
AZ PHOENIX	91	66	97	59	78	0	0	0	0	1.2	92	3.1	129	33	10	5	0	0	0	
AZ TUCSON	88	57	93	51	72	-2	0	0	0	2.9	264	5.0	200	36	11	2	0	0	0	
AZ WINSLOW	79	44	84	37	62	-2	T	.1	T	.5	42	1.4	67	--	--	0	0	0	0	
AZ YUMA	91	62	98	56	77	-3	0	0	0	.2	40	1.0	71	43	14	4	0	0	0	
AR FORT SMITH	80	56	86	45	68	-4	.9	.3	.7	9.9	78	14.2	78	90	47	0	0	3	1	
AR LITTLE ROCK	79	56	84	49	68	-3	.1	1.0	.1	11.5	80	17.7	77	95	52	0	0	1	0	
CA BAKERSFIELD	81	59	92	51	70	-1	T	0	T	2.4	126	4.3	110	63	28	1	0	1	0	
CA EUREKA	60	50	65	45	55	2	.7	.3	.4	7.1	75	18.3	82	96	74	0	0	3	0	
CA FRESNO	83	56	93	49	70	1	T	.1	T	3.2	94	7.5	110	71	28	2	0	0	0	
CA LOS ANGELES	69	58	71	55	63	1	0	0	0	2.9	100	6.6	84	80	56	0	0	0	0	
CA RED BLUFF	79	57	88	47	67	-2	2.1	1.9	0	8.9	175	16.3	125	85	37	0	0	3	1	
CA SAN DIEGO	72	63	76	59	67	3	T	0	T	3.0	115	8.5	142	84	61	0	0	0	0	
CA SAN FRANCISCO	67	52	70	50	60	1	T	.1	T	3.9	85	12.2	100	88	53	0	0	1	0	
CA STOCKTON	83	52	93	45	67	1	.1	0	.1	4.1	114	9.2	105	84	33	2	0	1	0	
CO DENVER	68	47	77	42	57	-1	.1	.5	.1	5.8	112	6.5	103	69	32	0	0	2	0	
CO GRAND JUNCTION	74	48	82	42	61	-3	.2	0	.1	3.0	167	3.3	114	74	24	0	0	2	0	
CO PUEBLO	74	50	81	44	61	-2	.2	.1	.2	1.7	52	2.2	54	68	26	0	0	1	0	
CT BRIDGEPORT	68	45	84	43	57	-3	T	.8	T	5.3	55	10.4	69	90	31	0	0	0	0	
CT HARTFORD	75	41	85	36	58	-2	0	.8	0	4.8	48	12.4	74	75	22	0	0	0	0	
DC WASHINGTON	75	54	87	49	64	-3	.5	.3	.3	7.0	80	10.2	73	90	37	0	0	3	0	
FL APALACHICOLA	82	61	85	56	71	-5	.1	.5	.1	3.9	37	8.5	48	91	57	0	0	1	0	
FL DAYTONA BEACH	85	64	93	54	74	-1	T	.6	T	3.4	45	9.2	73	86	47	1	0	1	0	
FL FORT MYERS	91	66	94	61	79	1	.3	.8	.3	1.8	23	4.2	37	93	38	6	0	1	0	
FL JACKSONVILLE	88	58	95	47	73	-2	0	.8	0	6.4	71	12.0	77	95	38	3	0	0	0	
FL KEY WEST	87	77	89	74	82	1	T	.6	T	1.3	23	4.0	43	87	64	0	0	1	0	
FL MIAMI	88	73	93	67	80	2	.4	1.1	.4	5.2	54	10.5	74	82	48	1	0	1	0	
FL ORLANDO	89	65	95	60	77	0	1.2	.5	1.2	3.4	41	8.0	58	92	37	4	0	1	1	
FL TALLAHASSEE	86	55	91	45	71	-5	.1	.9	.1	11.3	88	21.5	100	98	39	1	0	1	0	
FL TAMPA	87	64	91	58	77	-1	.1	.5	.1	2.1	28	7.9	61	93	44	1	0	1	0	
FL WEST PALM BEACH	88	71	91	64	80	1	1.5	.2	1.5	6.2	58	10.8	68	79	47	3	0	1	1	
GA ATLANTA	82	56	90	50	69	-1	.4	.4	.3	7.5	57	15.1	69	85	37	1	0	3	0	
GA AUGUSTA	86	52	92	45	69	-4	T	.7	T	5.4	52	11.5	64	94	30	3	0	1	0	
GA MACON	87	57	96	49	72	-2	.1	.8	.1	8.0	69	17.9	90	83	31	3	0	1	0	
GA SAVANNAH	86	59	89	49	73	-2	.1	.9	.1	7.4	72	11.3	70	84	37	0	0	1	0	
HI HILO	80	67	83	63	74	0	1.3	.9	.8	--	--	--	--	87	57	0	0	6	1	
HI HONOLULU	86	71	87	70	79	3	.1	.2	.1	2.6	49	4.4	35	83	50	0	0	2	0	
HI KAHULUI	88	71	90	64	79	4	T	.1	T	--	--	--	--	72	41	1	0	1	0	
HI LIHUE	84	73	85	70	79	3	.3	.2	.2	--	--	--	--	85	61	0	0	2	0	
ID BOISE	66	48	74	41	57	-1	.4	.1	.3	5.5	172	7.7	128	84	43	0	0	5	0	
ID LEWISTON	69	53	76	51	61	2	.1	.3	.1	3.6	113	5.6	104	86	52	0	0	2	0	
ID POCATELLO	65	44	75	36	55	-1	1.6	1.3	.9	5.8	200	7.2	153	95	51	0	0	5	2	
IL CAIRO	75	57	85	49	66	-5	1.5	.3	1.5	10.	83	15.6	74	--	--	0	0	1	1	
IL CHICAGO	72	48	79	35	60	0	.6	.2	.3	9.2	108	11.5	99	83	39	0	0	2	0	
IL MOLINE	72	48	78	35	60	-3	.5	.4	.4	6.7	73	9.3	76	80	37	0	0	4	0	
IL PEORIA	70	50	77	38	60	-3	.9	.1	.6	12.0	115	14.8	107	80	47	0	0	3	1	
IL ROCKFORD	74	47	80	34	60	0	T	.9	T	7.3	78	9.9	80	86	36	0	0	1	0	
IL SPRINGFIELD	73	51	83	43	62	-3	2.0	1.2	1.4	13.0	135	15.5	117	87	46	0	0	4	2	
IN EVANSVILLE	73	50	84	44	62	-5	3.7	2.7	2.3	11.5	96	14.9	79	97	57	0	0	3	2	
IN FORT WAYNE	71	48	80	40	60	-2	.4	.5	.4	9.7	105	13.4	96	83	35	0	0	1	0	
IN INDIANAPOLIS	74	50	82	42	62	-2	3.0	2.1	1.6	13.7	130	17.0	108	82	40	0	0	4	2	
IN SOUTH BEND	73	50	79	38	61	1	.3	.4	.3	10.4	112	13.1	95	82	37	0	0	1	0	
IA BURLINGTON	69	50	75	40	60	-3	2.6	1.8	1.3	10.6	116	12.4	102	83	44	0	0	3	2	
IA DES MOINES	74	49	79	42	62	-1	1.8	.8	1.2	5.0	60	6.4	60	73	35	0	0	3	1	
IA DUBUQUE	71	51	78	43	61	1	.5	.6	.3	6.9	64	9.7	71	71	38	0	0	2	0	
IA SIOUX CITY	74	47	82	37	61	-2	T	.8	T	4.1	64	4.9	61	78	35	0	0	2	0	
KS CONCORDIA	72	47	85	38	60	-5	2.2	1.1	1.7	8.7	124	8.9	105	92	42	0	0	2	1	
KS DODGE CITY	74	49	89	40	62	-4	T	.7	T	6.0	115	6.4	102	96	39	0	0	1	0	
KS GOODLAND	69	41	79	34	55	-5	1.2	.6	.7	13.8	337	14.8	296	88	37	0	0	3	1	
KS TOPEKA	74	49	87	36	62	-4	2.3	1.4	1.9	9.2	108	9.7	92	89	48	0	0	2	1	
KS WICHITA	74	51	83	40	63	-5	.1	.8	.1	8.5	113	9.0	96	77	41	0	0	1	0	
KY LEXINGTON	70	49	81	42	60	-7	1.8	.8	1.4	9.8	84	14.7	77	87	47	0	0	3	1	
KY LOUISVILLE	73	50	84	45	62	-5	2.3	1.3	1.4	9.1	75	12.7	66	87	43	0	0	2	2	
LA BATON ROUGE	82	60	89	50	71	-5	.1	.9	.1	8.8	63	17.2	74	100	55	0	0	1	0	

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending May 24, 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 Mar. 2	PCT. NORMAL SINCE Mar. 2	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
OR TULSA	79	56	88	42	67	-3	.3	.9	.3	7.0	67	9.4	68	96	48	0	0	1	0
ASTORIA	61	50	65	44	55	-2	1.4	1.2	.6	15.9	120	27.0	87	89	68	0	0	3	0
BURNS	60	43	69	36	52	-2	.6	.3	.6	4.6	230	6.3	126	92	56	0	0	4	0
MEDFORD	70	48	79	42	59	1	.2	.1	.1	2.8	76	5.2	55	99	53	0	0	4	0
PENDLETON	69	51	77	46	60	0	.2	.1	.1	3.5	113	5.8	97	84	45	0	0	3	0
PORTLAND	66	53	77	50	59	2	.8	.3	.5	6.3	86	11.7	68	94	64	0	0	4	0
SALEM	65	50	76	40	58	1	.9	.4	.6	7.5	90	12.9	65	93	64	0	0	5	1
PA ALLENTOWN	75	44	85	33	60	-2	0	0	0	7.7	75	13.0	81	79	25	0	0	4	1
ERIE	69	43	82	32	56	1	0	0	0	9.2	103	15.3	113	74	30	0	1	0	0
HARRISBURG	76	49	85	42	62	-3	0	0	0	5.0	55	11.3	79	78	24	0	0	0	0
PHILADELPHIA	73	48	84	45	60	-4	0	0	0	9.3	97	12.8	85	85	29	0	0	0	0
PITTSBURGH	72	45	86	35	58	-3	0	0	0	7.8	81	12.5	84	72	29	0	0	1	0
SCRANTON	73	44	82	40	58	-2	0	0	0	6.8	82	15.5	125	63	27	0	0	0	0
RI PROVIDENCE	72	43	85	37	58	0	0	0	0	6.2	60	11.8	68	77	23	0	0	0	0
SC CHARLESTON	85	59	88	51	72	-1	.7	.3	.6	7.0	69	10.2	61	91	40	0	0	2	1
COLUMBIA	85	54	93	45	69	-4	.2	.6	.2	5.3	49	10.2	56	92	36	2	0	1	0
GREENVILLE	79	52	85	47	66	-5	.7	.1	.3	6.6	55	10.7	53	87	41	0	0	3	0
SD ABERDEEN	70	44	80	33	57	0	.5	.1	.5	2.8	58	3.2	55	77	42	0	0	2	0
HURON	73	45	83	32	59	0	.4	.3	.3	2.7	54	2.8	45	87	36	0	1	3	0
RAPID CITY	66	43	71	38	55	-2	.4	.3	.2	3.1	60	3.4	55	89	46	0	1	3	0
SIoux FALLS	74	46	81	31	60	-1	T	.8	T	2.9	48	3.4	44	81	30	0	1	1	0
TN CHATTANOOGA	78	53	85	46	66	-4	1.0	.2	.9	10.0	79	17.2	76	91	41	0	0	2	0
KNOXVILLE	77	54	83	48	65	-4	.7	0	.5	9.3	85	14.1	68	99	52	0	0	3	1
MEMPHIS	82	61	87	52	71	-1	0	.9	0	11.7	84	16.7	70	82	46	0	0	0	0
NASHVILLE	78	53	88	47	66	-4	1.6	.7	1.1	10.4	85	15.9	74	93	48	0	0	0	0
TX ABILENE	83	60	94	51	72	-1	.1	.8	.1	6.1	92	8.7	101	79	36	2	0	1	0
AMARILLO	80	50	91	43	65	-2	.5	.2	.5	3.6	95	3.9	83	68	21	1	0	1	0
AUSTIN	85	64	95	55	75	-2	4.8	3.9	4.7	10.8	126	14.2	104	89	47	2	0	3	1
BEAUMONT	81	64	88	54	73	-3	T	1.1	T	7.6	69	14.4	74	93	57	0	0	3	1
BROWNSVILLE	89	75	93	70	82	2	.1	.5	.1	5.0	135	7.6	113	90	61	4	0	1	0
CORPUS CHRISTI	85	70	89	61	78	-1	.3	.5	.3	8.7	158	13.1	142	97	59	0	0	1	0
DEL RIO	88	69	97	63	79	-1	.5	.1	.4	10.7	268	11.6	204	79	41	3	0	2	0
EL PASO	89	60	95	54	74	0	0	.1	0	1.7	155	3.3	165	36	14	2	0	0	0
FORT WORTH	82	59	93	48	71	-3	.7	.3	.4	10.6	104	13.0	90	90	45	1	0	2	0
GALVESTON	79	69	82	59	74	-3	T	.7	T	1.7	23	5.2	39	85	64	0	0	0	0
HOUSTON	83	65	92	54	74	-2	T	1.2	T	12.7	126	17.3	99	90	53	1	0	0	0
LUBBOCK	82	54	91	46	68	-2	.8	.1	.8	4.2	98	5.1	98	69	21	3	0	1	1
MIDLAND	85	58	91	48	71	-2	0	.5	0	3.7	128	5.0	132	72	22	2	0	0	0
SAN ANGELO	83	60	92	51	71	-4	.3	.4	.3	8.6	187	10.9	176	81	39	2	0	1	0
SAN ANTONIO	87	63	97	56	75	-2	2.3	1.6	2.1	7.5	117	11.3	109	92	49	2	0	2	1
VICTORIA	85	66	90	56	75	-2	1.3	.4	1.3	8.1	109	11.5	99	94	57	1	0	2	1
WACO	84	60	93	49	72	-3	1.1	.1	.6	7.4	74	10.6	74	91	46	2	0	2	1
WICHITA FALLS	84	57	100	46	71	-3	1.4	.4	.9	8.0	93	11.5	105	89	41	1	0	2	1
UT BLANDING	70	39	75	32	54	-4	0	.1	0	4.0	182	4.4	102	72	22	0	1	0	2
SALT LAKE CITY	68	48	77	44	58	-2	.8	.5	.6	5.7	112	7.2	94	82	38	0	0	2	1
VT BURLINGTON	70	39	82	30	54	-2	T	.7	T	7.4	110	13.3	132	90	32	0	2	1	0
VA LYNCHBURG	72	48	88	44	60	-6	.5	.3	.4	5.2	61	9.5	67	85	42	0	0	3	0
NORFOLK	72	50	86	47	61	-7	.5	.3	.4	5.8	67	9.1	59	87	44	0	0	3	0
RICHMOND	71	48	85	43	59	-6	1.0	.2	.7	10.0	116	13.4	92	87	47	0	0	2	1
ROANOKE	71	48	85	43	59	-6	1.4	.6	.9	6.7	77	9.5	65	92	50	0	0	3	1
WA COLVILLE	68	50	73	43	59	3	.7	.2	.4	5.8	176	3.6	126	93	72	0	0	6	0
OMAK	74	52	78	48	63	--	.9	.2	.4	1.6	--	4.7	90	90	50	0	0	4	0
QUILLAYUTE	60	48	64	43	54	2	1.5	.6	1.3	28.7	128	44.3	90	97	72	0	0	4	0
SEATTLE-TACOMA	62	50	73	46	56	0	.5	.1	.2	5.1	70	12.0	70	89	64	0	0	4	1
SPOKANE	64	49	69	45	56	0	.3	.1	.3	4.2	105	6.6	80	93	62	0	0	4	0
WALLA-WALLA	70	55	79	50	63	1	.1	.3	.1	5.	12	9.6	120	8	4	8	0	2	0
YAKIMA	72	51	77	38	62	2	.3	.1	.2	.6	50	2.2	67	82	44	0	0	3	0
WV BECKLEY	69	44	80	35	57	-3	1.8	.9	1.2	8.2	79	10.9	63	89	42	0	0	2	2
CHARLESTON	72	48	85	44	60	-6	1.5	.8	.9	9.0	91	14.6	87	89	42	0	0	3	2
HUNTINGTON	72	47	84	41	60	-6	1.4	.5	1.1	11.7	114	16.6	101	99	48	0	0	2	1
PARKERSBURG	72	46	87	41	59	-6	.7	.1	.4	6.9	71	10.9	70	81	35	0	0	2	1
WI GREEN BAY	73	45	80	33	59	3	.2	.5	.2	5.3	77	8.0	87	77	34	0	0	2	0
LA CROSSE	75	49	83	37	62	1	1.6	.7	1.6	6.7	92	9.0	89	86	35	0	0	1	1
MADISON	75	44	80	33	60	2	.1	.7	.1	4.1	57	6.6	69	79	29	0	0	2	0
MILWAUKEE	69	45	79	36	57	1	.1	.5	.1	7.5	109	10.7	109	80	37	0	0	2	0
WY CASPER	61	39	70	32	50	-4	1.5	1.0	.5	5.1	128	5.8	118	94	51	0	1	6	1
CHEYENNE	59	41	67	37	50	-4	.2	.4	.2	5.8	126	6.3	115	88	50	0	0	3	0
LANDER	62	44	67	41	53	-1	.7	.1	.5	6.2	111	7.1	111	88	51	0	0	5	0
SHERIDAN	67	42	77	35	55	0	1.5	.9	1.1	4.9	94	5.5	82	96	50	0	0	2	1
PR SAN JUAN	90	77	94	74	83	0	2.3	.8	.9	16.6	161	22.0	133	90	66	3	0	6	2

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS



WATER SUPPLY OUTLOOK FOR THE WESTERN UNITED STATES
 by NOAA National Weather Service
 and USDA Soil Conservation Service

Issued as of May 1, 1981

The table shows the runoff forecast in percent of the 15-year (1963-77) average. The forecasts are for the remainder of the water year, except for the full water year for the Sacramento and San Joaquin Basins; May 1 to September 30, 1981, for the Columbia, Missouri, Yellowstone, and North Platte Basins; May 1, 1981, to July 31, 1981, for the Snake; November 1, 1980, to June 30, 1981, for the Little Colorado Basins; and January 1 to June 30, 1981, for the Gila Basin. The publication "Water Supply Outlook for the Western United States," issued as of May 1, 1981, contains the complete water supply forecasts for about 375 stations in the Western United States.

River	Station	Forecast 1,000 Acre-Feet	Percent 15-Year Average
Columbia	Grand Coulee, WA	54000	79
Columbia	The Dalles, OR	71900	69
Snake	Lower Granite, WA	12800	55
Sacramento	Red Bluff, CA	5800	65
San Joaquin	Big Creek, CA	900	70
Weber	Gateway, UT	86	36
Jordan	Utah Lake, UT	105	60
Truckee	L. Tahoe-Farad	130	48
Colorado	L. Powell infl.	2800	40
Green	Green River, UT	1450	49
San Juan	Bluff, UT	375	43
Rio Grande	San Marcial, NM	6500	19
Arkansas	Pueblo, CO	6500	25
Missouri	Ft. Peck, MT	1545	36
Yellowstone	Sidney, MT	3343	46
North Platte	Glendo, WY	256	27

National Agricultural Summary

May 18-24, 1981

HIGHLIGHTS: Heavy rains again delayed planting activities in many areas of the Nation, but helped relieve dry conditions in the northern Plains, Midwest, and South. Soil moisture supplies were adequate to surplus in most of the east north central region, and in Missouri, West Virginia, Kentucky, and western Montana; moisture was very short to short in Minnesota, South Dakota, and Georgia; and short to mostly adequate elsewhere. Farmers in Illinois, Indiana, Ohio, Missouri, Nebraska, Virginia, West Virginia, Kentucky, Tennessee, and much of the West had only up to 3 days suitable for fieldwork. In other areas of the Nation, 4 to 7 days were available. Corn planting was 78% finished, less than last year's 92% and the 83% average. Soybean planting reached 31%, behind last year's 48% and the 47% average. Grain sorghum seeding was 42% finished, slightly less than last year and average. Winter wheat was 73% headed, well ahead of last year's 47%. Spring wheat seeding neared completion and 87% of the acreage had emerged. Cotton was 82% planted, compared to 64% a year earlier. Rice was 93% planted and 80% of the acreage had emerged. Pastures were in good to excellent condition in the Corn Belt, poor to fair in the northern Plains and parts of the Southwest, and fair to mostly good elsewhere.

CORN: Corn planting in the 17 major producing States was 78% complete, 14 points behind last year and 5 points behind average. Planting in Georgia and North Carolina was finished. Planting progressed slowly during the week in Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, and Virginia due to heavy rains and wet field conditions. Producers in Michigan and Wisconsin planted 30% of their acreage during the week and those in Ohio planted 25%. The crop was in fair to good condition. In the South silking had started in early fields.

SOYBEANS: Soybean seeding in the 18 major producing States was 31% complete, behind last year's 48% and the 47% average. Progress in all States except Minnesota and Mississippi was slower than average. Ohio growers were 48 points behind average; Indiana growers, 40; Illinois, 34; Missouri, 21; and Nebraska, 20 percentage points slower than average. Wet conditions throughout the season have delayed progress in these areas.

SMALL GRAINS: Winter wheat was in fair to mostly good condition in all major producing areas. Heading was underway in all States except Montana. In the 15 major States, heading was 73% complete, compared to only 43% last year. Much of the wheat was turning color and in the extreme South harvesting was underway. Spring wheat seeding neared completion and 87% of the acreage had emerged, 10 points ahead of a year earlier. More rain is needed in the northern Plains.

COTTON: Cotton planting was 82% complete in the 14 major producing States, ahead of last year's

64%. Planting was finished in California, Georgia, North Carolina, and South Carolina. Cool soil temperatures in parts of Texas delayed seeding activities. High winds and blowing sands necessitated some replanting on the High and Low Plains of Texas. Fields in Georgia were starting to square.

OTHER CROPS: Grain sorghum planting progress advanced to 42% in the seven major producing States, 3 points behind last year and 2 points behind average. Progress was 20 points slower than average in Nebraska, 10 points in Kansas, 5 points in Missouri, and 3 points slower in South Dakota. In Texas, 87% of the crop was in the ground, and 17% was headed. Stands in Texas were generally in good to excellent condition.

Rice seeding reached 93% complete in the five major producing States, 1 point behind a year earlier. Eighty percent of the acreage had emerged, also 1 point behind last year. Some replanting was necessary in Texas.

Peanut planting ranged from 31% complete in Texas to 95% in North Carolina. In Virginia, 5% of the acreage was blooming and plants were in fair to good condition.

FRUITS AND NUTS: Deciduous fruit trees reached full bloom in northern production areas. Orchards were generally in good condition. Peach harvest was underway across the South reaching as far north as South Carolina. Growers continued spraying and thinning fruit and nut trees.

Rain improved the condition of citrus groves in most areas of Florida, but more is needed to relieve dry conditions. The Valencia orange harvest was active in all areas, but the picking of grapefruit slowed as supplies ran out. Arizona's Valencia orange and grapefruit harvest advanced seasonally. California producers harvested apricots, avocados, Bing cherries, Maybelle nectarines, citrus, and Freestone peaches. Thinning was underway in Clingstone peach orchards.

VEGETABLES: Growers in northern production areas harvested early vegetables and continued to plant a wide variety of mid- and late-season crops. Florida vegetable shipments decreased 1% from the previous week. Volume declined for snap beans, cabbage, carrots, escarole, lettuce, okra, parsley, peppers, potatoes, radishes, southern peas, squash, and tomatoes. Irrigation remained active. California growers harvested asparagus, cantaloup, watermelons, carrots, sweet corn, lettuce, onions, and some market tomatoes.

PASTURE AND LIVESTOCK: Pastures rated good to excellent in the Corn Belt, poor to fair in the northern Plains and parts of the Southwest, and fair to mostly good elsewhere. Supplemental feeding was necessary in the northern Plains and some producers began reducing herd sizes. Movement of livestock to summer pastures continued.

CROP PROGRESS
FOR WEEK ENDING MAY 24, 1981

WINTER WHEAT % HEADED				CORN % PLANTED				SOYBEAN % PLANTED				COTTON % PLANTED			
	1981	1980	AVG.		1981	1980	AVG.		1981	1980	AVG.		1981	1980	AVG.
CALF	100	100	NA	COLO	83	54	76	ALA	40	36	47	ALA	96	95	95
COLO	34	1	10	GA	100	100	100	ARK	22	13	25	ARIZ	98	98	98
IDA	2	10	1	ILL	75	97	85	GA	39	43	52	ARK	99	93	90
ILL	88	64	70	IND	30	95	80	ILL	21	71	55	CALF	100	100	NA
IND	40	20	75	IOWA	96	99	93	IND	5	50	45	GA	100	98	100
KANS	95	45	75	KANS	65	75	80	IOWA	57	66	66	LA	89	72	88
MO	95	64	74	KY	82	88	74	KANS	10	20	20	MISS	96	89	91
MONT	0	0	0	MICH	65	80	76	KY	18	30	26	MO	98	99	92
NEBR	65	20	20	MINN	93	92	87	LA	33	19	44	N MEX	90	95	97
OHIO	15	10	20	MO	75	91	71	MICH	20	35	35	N C	100	100	94
OKLA	100	90	100	NEBR	85	90	85	MINN	69	76	65	OKLA	25	15	30
OREG	48	53	NA	N C	100	100	100	MISS	36	25	35	S C	100	100	100
S DAK	34	31	9	OHIO	45	90	85	MO	19	49	40	TENN	95	90	88
TEX	98	75	NA	PA	64	62	66	NEBR	20	45	40	TEX	75	47	60
WASH	17	10	13	S DAK	79	83	69	N C	37	47	45	14 STATES	82	64	NA
15 STATES	73	47	NA	VA	91	82	83	OHIO	7	55	55	EXCL. STATES WITH NA	79	60	69
EXCL. STATES WITH NA	68	41	55	WIS	90	95	67	S C	37	34	40				
				17 STATES	78	92	83	TENN	26	28	27				
								18 STATES	31	48	47				

THESE 15 STATES PRODUCED 88% OF THE 1980 WINTER WHEAT CROP.
 THESE 17 STATES PRODUCED 93% OF THE 1980 CORN CROP.
 THESE 18 STATES PRODUCED 95% OF THE 1980 SOYBEAN CROP.
 THESE 14 STATES PRODUCED 99% OF THE 1980 COTTON CROP.

NA - NOT AVAILABLE

NA - NOT AVAILABLE

RICE % PLANTED				RICE % EMERGED				SORGHUM % PLANTED				SPRING WHEAT % EMERGED			
	1981	1980	AVG.		1981	1980	AVG.		1981	1980	AVG.		1981	1980	AVG.
ARK	93	90	90	ARK	84	79	NA	COLO	44	10	16	IDA	90	98	74
CALF	80	91	NA	CALF	40	60	NA	KANS	10	20	20	MINN	97	87	76
LA	97	90	96	LA	92	86	91	MO	34	58	39	MONT	80	75	NA
MISS	97	93	92	MISS	89	83	79	NEBR	20	45	40	N D	80	64	54
TEX	99	100	99	TEX	93	99	NA	OKLA	40	20	35	S DAK	100	95	NA
5 STATES	93	92	NA	5 STATES	80	81	NA	S DAK	17	34	20	5 STATES	87	77	NA
EXCL. STATES WITH NA	96	92	93	EXCL. STATES WITH NA	91	85	88	TEX	87	74	77	EXCL. STATES WITH NA	86	73	62
								7 STATES	42	45	44				

THESE 5 STATES PRODUCED 98% OF THE 1980 RICE CROP.
 THESE 5 STATES PRODUCED 98% OF THE 1980 RICE CROP.
 THESE 7 STATES PRODUCED 92% OF THE 1980 SORGHUM CROP.
 THESE 5 STATES PRODUCED 92% OF THE 1980 SPRING WHEAT CROP.

NA - NOT AVAILABLE

NA - NOT AVAILABLE

NA - NOT AVAILABLE

State Summaries of Weather and Agriculture

ALABAMA: Temperatures 5° below normal. Rainfall totaled 1.00 to 2.00 in. Heaviest 6.50 in. Fair-hope. Fieldwork 4 days. Soil moisture adequate. Corn silking 10%. Soybeans 40% planted; 36% 1980; 47% average. Cotton 96% planted; 95% 1980; 95% average. Peanuts 92% planted; 91% 1980; 87% average. Wheat heading 99%; turning 86%, 70% 1980, 70% average. Sorghum 49% planted; 32% 1980. Hay 24% harvested. Conditions: Corn, peanut, wheat mostly good; cotton, pasture, livestock mostly fair.

ALASKA: Scattered showers and rain halted fieldwork over the weekend in the Delta Junction area. Field activity continued ahead of schedule in the Matanuska Valley. Small grain seeding made excellent progress with barley seeding 75% complete compared with 65% last year and 55% last week. Early seeded fields were emerging. Commercial potato planting was nearly finished. Crop growth ranged mostly moderate to rapid. Topsoil moisture supplies mostly short to adequate.

Tanana Valley: Mild days and normally cool nights prevailed. High temperatures averaged 5° above normal. Precipitation generally light and spotty.

Matanuska Valley: Mostly mild and dry. Temperatures averaged 2° above normal. The only measurable rain fell over the extreme southern sections towards the beginning and end of the week.

Kenai Peninsula: Temperatures near normal. Precipitation ranged from a little over 0.10 in. in the north to a little over 0.50 in. in the south.

Kodiak Island: Daily high temperatures averaged 3° above normal. Some rain fell each day with the weekly total just over 1.00 in.

ARIZONA: Sunny skies mostly during week. Some afternoon cloudiness, isolated showers, Mogollon Rim, White Mountains and the northeast. Average temperatures 1° above to 6° below normal. Cotton planting 98% complete, squaring, blooming, boll setting excellent progress stub cotton, squaring, blooming accelerating in

planted fields. Small grain harvest increasing. Alfalfa haying excellent progress, ahead normal. Sugarbeet harvest steady rate, good yields reported. Safflower, corn, sorghum growing well. Lettuce harvest central areas virtually complete. Harvest Willcox area good progress. Harvest mixed vegetables seasonal progress. Potato, dry onion harvest full swing. Cantaloup, watermelon harvest active. Valencia orange, grapefruit harvest advanced normally. Grapes good growth. Poor to fair ranges. Soil moisture and water supplies short. Cattle fair to good. Sheep good condition.

ARKANSAS: Another cool week. Highest temperature 88°, lowest 38°. All normals ranged from 0 to -6°. Most rainfall 4.50 in., least zero.

Cool, wet weather delayed planting and hampered crop development. Soybeans 22% planted, 13% 1980, 25% average; emergence 14%. Rice 93% planted, 90% 1980, 90% average; emergence 84%, 79% 1980. Cotton producers replanting weak stands. Soil moisture adequate. Four days available for fieldwork. Cattle condition good with adequate forage cover on pastures.

CALIFORNIA: Cool everywhere except isolated localities along Central and South Coasts. Averages close to 5° below normal and northeast corner of State reported below freezing temperatures. Some rainfall all districts except South Coast; Desert had only sprinkles. Sacramento and San Joaquin Valleys showed isolated locally heavy amounts as did the extreme North Coast. Rain fell in first half of week and temperatures zoomed toward end of week as skies cleared.

Rice crop hampered by cold, windy weather. Crop 80% planted, 40% emerged, compared to 91% planted, 60% emerged last year. Shrimp and leafminer treatments being applied. Small grains doing well. Wheat 100% headed and 76% turning color, 100% and 91% last year. Field corn planting underway with 10% emerging. Sugarbeets doing well. Cotton crop 17% emerged and in various stages of growth. Alfalfa undergoing second cutting. Apricot, avocado, Bing cherry, Maybelle nectarine, citrus and Freestone peach harvest continued. Clingstone peach thinning underway. Light rains caused additional sulphuring of grape vineyards. Asparagus harvest decreasing seasonally. Brussels sprouts being planted Central Coast. Cantaloup and watermelon harvest light Imperial Valley. Carrot harvest decreasing Desert; increasing San Joaquin Valley. Sweet corn harvest full swing Coachella Valley. Lettuce good supply. Market onion harvest decreasing Desert; increasing San Joaquin Valley. Volume spring potatoes leveled off awaiting better maturity. Planting fall potatoes well along. Market tomato harvest still light Desert areas. Rains mountain areas beneficial to summer ranges. Movement livestock summer pastures peak levels. Bee colonies being moved melon fields for pollination.

COLORADO: Temperatures averaged 3 to 6° below normal in the east, 2 to 4° below in the west. Widespread precipitation eastern areas early in week and western areas at midweek. Scattered Statewide precipitation on weekend. Rainfall totals averaged about 0.50 in.

Winter wheat jointed 91%, 63% 1980, 70% average; headed 34%, 1% 1980, 10% average. Spring barley seeded 98%, 89% 1980, 90% average; emerged 93%, 78% 1980, 79% average. Spring wheat seeded 95%, 77% average. Corn seeded 83%, 54% 1980, 76% average; emerged 59%, 18% 1980, 36% average. Sorghum seeded 44%, 10% 1980, 16% average. Dry beans seeded 16%, 1% 1980, 7% average. Fall potatoes seeded 65%, 63% 1980, 66% average. Summer potatoes seeded 91%, 91% 1980, 88% average. Three days suitable for fieldwork. Livestock good condition.

FLORIDA: Warm, sunshiny days continued with highs from the 80's north and 90's elsewhere. Nighttime lows in the 60's and 70's predominated with no rain. The exception occurred on the 20th as a

small low pressure system moved across the State from west to east bringing cloudiness and a few showers to the central portion and east coast. A few central localities received around 1.25 in. with most of the east coast having nearly 0.50 in.

Soil moisture short to very short over most of the State. Rainfall during the week brought temporary relief to some areas. Corn poor to fair condition depending on moisture. Early corn tasselings. Cotton, peanut, soybean planting continues. Good progress made most areas following showers. Wheat; oat harvest continues, interrupted briefly by rain. Tobacco fair to good condition. Sugarcane mostly good condition. Water in irrigation canals getting low, could be a factor later if rainfall continues short in area. Scattered midweek rains, most of Panhandle, central, southern Peninsula brought temporary relief to parched pastures. Conditions poor to fair, most of Panhandle, lower southeast Peninsula, but severe drought elsewhere burned some high ground pastures, increased supplemental feeding. Pasture establishment, renovation slowed in many areas due to lack of rain. Cattle mostly fair condition, but showing stress, some weight loss in drier areas. Rain improved citrus grove conditions most areas. More rain needed. Dieback continues on freeze damaged trees. Valencia harvesting continues active all areas. Picking of grapefruit slowing as supplies run out. Warm days, clear skies prevailed most of week in vegetable areas. A low pressure system at midweek brought a few showers central portion and east coast. The west coast remained dry. Irrigation continued active in fields still under harvest. Total shipments down 1% from previous week. Harvest gained Chinese cabbage, sweet corn, eggplant and watermelons. Supplies about steady celery and cucumbers. Volume declined snap beans, cabbage, carrots, escarole, lettuce, okra, parsley, peppers, potatoes, radishes, southern peas, squash, and tomatoes. Watermelon harvest very active. Volume increasing. Quality, size, fair to good.

GEORGIA: Rainfall averaged 0.75 to 1.00 in. northern quarter and near 0.25 in. both southeast and southwest. Elsewhere, little or none. Temperatures averaged 6 to 8° below normal north, ranging to around 3° below normal southeast. Weekend was dry, with near-normal temperatures.

Soil moisture very short to short. Rain needed Statewide. Averaged 5.0 days suitable for fieldwork. Corn fair to good condition, 6% silked. Tobacco fair to good condition. Applying insecticides. Peanuts fair to good condition, 5% blooming, 2% last year, 11% average. Cotton fair to good condition, 5% squaring, 1% last year, 8% average. Soybeans 39% planted, 43% last year, 52% average, mostly fair to good condition. Sorghum 46% planted, 36% last year, 42% average. Hay crops fair to good condition. Wheat 11% harvested, 4% last year, 18% average. Peaches fair to good condition, 3% harvested, 2% last year, 9% average. Apples fair to mostly good. Routine spraying of fruit trees. Vegetables fair to mostly good. Pastures and cattle fair to good. Hogs fair to mostly good.

HAWAII: Weather favorable. Rainfall light. Confined mainly in the windward crop areas. Dry weather returning to some areas affected by the earlier drought. However, reservoirs still full capacity to irrigate. Crop progress fair to good. Spraying frequent to minimize disease and insect infestations. Vegetables: Supplies adequate. Head cabbage, chinese cabbage heavy. Bananas: Supplies light. Papayas: Moderate harvest anticipated. Showers beneficial. Pineapples: active. Sugar: All sugar harvesting in full swing. Pastures: Generally fair to good. Some sections Island of Hawaii need more moisture.

IDAHO: Temperatures at most stations averaged normal or slightly below normal. Precipitation

abundant in most areas. Southeastern stations receiving the most, many reporting over 1.00 in.

Rains have delayed spring planting in most areas. Planting progress: Potatoes 62% planted, 78% 1980, 99% average; dry peas 96%, 100%, 99%; lentils 96%, 100%, 99%; corn 75%, 77%, 83%; dry beans 12%, 22%, 28%. Sugarbeets 22% thinned. Emergence levels of all crops below last year's level. Winter wheat 2% headed, 26% boot, 37% jointed. Two days suitable.

ILLINOIS: Temperatures 1° above to 7° below normal. Precipitation 0.25 in. northern quarter, 1.00 to 2.00 in. central, over 3 in. southern quarter.

Corn planting 75% complete, 97% 1980, 85% average. Soybean planting 21% complete, 71% 1980, 55% average. Winter wheat condition 33% excellent, 63% good, 4% fair; 88% headed, 64% 1980, 70% average. Oats 26% excellent, 67% good, 7% fair; 8% headed, 5% 1980, 9% average. Alfalfa condition 22% excellent, 65% good, 11% fair, 2% poor; first cutting 21% complete, 16% 1980, 20% average. Red clover condition 30% excellent, 64% good, 6% average; first cutting 12% complete, 6% 1980, 16% average. Pastures 33% excellent, 65% good, 2% fair. Soil moisture 2% short, 49% adequate, 49% surplus. Fieldwork: 2.3 days suitable.

INDIANA: Heavy rains in south and central. Temperatures above normal in north, below normal in south and ranged from 33 to 84°. Division rainfall averaged 0.40 in. in northeast to 3.30 in. in southwest.

Fieldwork averaged 2 days. Topsoil moisture and subsoil moisture adequate to surplus. Pasture condition good to excellent. Corn 30% planted, 1980 95%, average 80%. Soybeans 5% planted, 1980 50%, average 45%. Wheat condition good. Wheat 27 in. high, 1980 18 in. Wheat 40% headed, 1980 15%, average 75%. Wheat 90% boot. Oats 11 in. high, 1980 6 in., average 8 in.

IOWA: Seasonal to cool temperatures with most of the shower activity the 22nd to 24th. A few damaging storms with hail, heavy rains and tornadoes the 23rd. Temperatures dropped into the 30's most lowlands and open rural areas the 19th and/or 20th.

Topsoil moisture: 46% short, 51% adequate, 3% surplus. Subsoil moisture: 43% short, 55% adequate, 2% surplus. Corn acreage planted: 96% complete, 1980 99%, normal 93%. Corn emerged: 61% emerged, 1980 71%, normal 67%. Soybeans planted: 57% complete, 1980 66%, normal 66%. Soybeans emerged: 9% emerged, 1980 5%, normal 19%. Fieldwork: 5.6 days suitable. Crop conditions: Pasture, winter wheat, alfalfa hay, clover hay, oats good. Livestock, good condition.

KANSAS: Beneficial to heavy rains continued most of State to relieve critical dryness east and south. Extreme southeast and extreme southwest received the least with generally less than 0.50 in. while 1.00 to over 2.00 in. was common elsewhere to locally over 4.00 in. northeast, east central, and extreme northwest. Temperatures averaged from 58° northwest to 66° southeast and from 2 to 4° below normal.

Attempts to estimate frost damage to wheat continued, but actual damage will not be ascertained until after harvest. Damage may be extensive but appears spotty in some areas. Disease and hail losses also apparent. Wheat headed 95%, last year 45%, average 75%. Wheat turning 5%, last year 0%, average 2%. Corn planted 65%, last year 75%, average 80%. Sorghum and soybean seeded 10%, last year both 20%, average 20%. Rains have replenished many nearly dry stock ponds and improved pasture and range conditions. Fieldwork: 1.5 days suitable.

KENTUCKY: Temperatures averaged 5 to 7° below normal with coldest readings 18th thru 20th. Rainfall occurring mostly 18th and 19th averaged

2.00 to 3.50 in. Most stations received substantial rainfall.

Fieldwork and planting progress delayed by wet field conditions. Farmers again averaged only 2 days in field. Soil moisture 57% surplus, 43% adequate. Corn planting 82% complete, 88% last year, 74% average. Replanting will be necessary in many low-lying areas. Soybean planting 18% complete, 30% last year and 26% average. Tobacco plants getting extremely large, wet weather has delayed setting. Considerable lodging in small grains.

LOUISIANA: Rainfall general and light. Temperatures 6 to 8° below normal. Extremes: 45 and 91°.

Soil moisture adequate. Days suitable: 4.8. Corn emerged 100%, 92% 1980; silked 35%, 0% 1980; dough stage 11%, 0% 1980; condition fair to good. Rice planted 97%, 90% 1980, 96% average; emerged 92%, 86% 1980, 91% average; condition fair to good. Cotton planted 89%, 72% 1980, 88% average; emerged 77%, 59% 1980, 70% average; cool nights hurt growth; condition fair to good. Soybeans planted 33%, 19% 1980, 44% average; emerged 22%, 13% 1980, 29% average; condition fair to good. Sorghum planted 80%, 39% 1980, 55% average; emerged 66%, 35% 1980, 44% average; condition fair to good. Sugarcane condition good. Sweetpotatoes transplanted 79%, 48% 1980, 54% average; condition good. Vegetables fair to good. Wheat harvested 22%, 0% 1980, 17% average. Hay first cutting 59%, 29% 1980. Pastures, livestock fair to good. Peach harvest underway; condition good.

MARYLAND AND DELAWARE: Temperatures averaged near normal. Highs upper 60's to low 70's, lows averaged upper 40's to low 50's.

Topsoil moisture adequate to surplus while subsoil moisture ranged from short to adequate. Good weather late in the week enabled Maryland farmers to plant nearly 90% of their corn and 15% of their soybeans. Delaware farmers had 90% of their corn planted by week's end and 45% of their soybeans. Last year corn was 70% planted in Maryland and 90% in Delaware. The average for corn is 75% for Maryland and 90% for Delaware. Soybeans were 20% planted last year in Maryland and 10% in Delaware. The average for soybean planting is 20% in both States. Small grains in mostly good condition with barley nearly 90% headed and wheat slightly more than 80% headed. Small grains beginning to turn. The first cutting of alfalfa hay was 80% complete and other hay was 25%. Vegetable planting still in full swing with snap beans nearly 90% planted, sweet corn, tomatoes and watermelons nearly 75% and cantaloups 85% complete. Tobacco about 20% transplanted, about 1 week ahead of normal progress.

MICHIGAN: Mild temperatures Statewide. Average temperature near normal to 3° above normal lower two-thirds of Lower Peninsula. Remainder 4 to 5° above normal. Moderate precipitation Upper third and west portion of Lower. Light precipitation remainder.

Fieldwork active last week. Nearly 6 days suitable for fieldwork. Soil moisture short to surplus. Acreage 90% plowed, 90% last year, 89% normal. Corn 65% planted, 80% last year, 76% normal. Potatoes 85% planted, 80% last year, 75% normal. Sugarbeets virtually all planted. Soybeans 20% planted, 35% last year and normal. Asparagus 40% harvested, 55% last year, 44% normal.

MINNESOTA: Temperatures averaged 5 to 10° above normal in the northern third, up to 3° above normal central, near normal elsewhere. Extremes: 89° at Browns Valley and 23° Hibbing. Precipitation averaged 1.00 to 1.50 in. or more above normal northwest and west central, 0.50 to 0.75 in. below normal east central and southwest, near normal elsewhere. Precipitation totals varied strongly with location; 0.50 to 2.50 in. northwest, 0.50

to 0.75 in. north central, 0.25 to 1.00 in. northeast, 0.50 to 1.75 in. west central, up to 0.75 in. central, 0.50 in. east central, 0.25 in. or less southwest, 0.25 to 1.50 in. south central, 0.50 to 1.50 in. southeast. Extremes: 2.47 in. Warroad, 0.04 in. Pipestone.

Most of State remained dry with only light rainfall until weekend. Crop growth virtually at a standstill due to moisture shortage. Late planted seeds have not germinated. Many farmers waiting for rain before planting last of crops. Topsoil moisture rated 40% very short, 42% short, and 18% adequate. Soil temperatures still cool from mid-50's to low 60's. Planted: Field corn 93%, 1980 92%, normal 87%; soybeans 69%, 1980 76%, normal 65%; sunflowers 68%, 1980 84%, normal 66%; potatoes 75%, 1980 84%, normal 70%; flax 83%, 1980 74%, normal 65%; sweet corn for processing 58%, 1980 60%, normal 60%; green peas for processing 95%, 1980 93%, normal 87%. Emerged: Field corn 49%, 1980 50%, normal 49%; soybeans 11%, 1980 14%, normal 21%; spring wheat 97%, 1980 87%, normal 76%; oats 95%, 1980 91%, normal 81%; barley 96%, 1980 86%, normal 72%; flax 36%, 1980 38%, normal 40%. Jointing: Spring wheat 11%, 1980 0%, normal 3%; oats 11%, 1980 0%, normal 3%; barley 7%, 1980 0%, normal 2%; winter wheat 62%, 1980 33%, normal 27%; winter rye 66%, 1980 47%, normal 27%. Heading: Winter wheat 4%, 1980 0%, normal 6%; winter rye 9%, 1980 3%, normal 10%.

MISSISSIPPI: Temperatures 4° below normal. Extremes: 36 and 91°. Cold front early in week brought thunderstorms and rainfall to most sections. Largest rainfall total 4.55 in.

Soil moisture adequate. Fieldwork: 3.6 days suitable. Cotton 96% planted, 89% last year, 91% average; 86% to stand, 73% last year, 70% average; condition fair. Soybeans 36% planted, 25% last year, 35% average; 17% to stand, 11% last year. Rice 97% planted, 93% last year, 92% average; 89% to stand, 83% last year, 79% average; condition fair to good. Corn 97% planted, 95% last year, 93% average; 93% to stand, 86% last year; condition good. Sorghum 57% planted, 40% last year, 45% average. Winter wheat 57% ripe, 4% harvested; condition good. Hay 20% harvested. Pasture condition good.

MISSOURI: Temperatures remained cool, averaging 5 to 8° below normal. Widespread rain in the form of thunderstorms left as much as 6 in. in some parts of the State. Minor flooding occurred most of the State.

Fieldwork: 1.0 day suitable. Corn 75% planted, last year 91%, normal 71%. Grain sorghum 34% planted, last year 58%, normal 39%. Soybeans 19% planted, last year 49%, normal 40%. Wheat 95% headed, last year 64%, normal 74%. Wheat 20% turning color, last year 2%, normal 9%. Alfalfa hay 1st cutting 44% harvested, last year 30%, normal 26%. Cotton 98% planted, normal 92%. Condition of pasture and winter wheat fair to good. Topsoil moisture supply adequate to surplus.

MONTANA: Very heavy rain occurred over portions of southwest, south central and central. Rain totals in excess of 5.00 in. were widespread in central division. Moderate to heavy rains also fell over west and north central. Precipitation generally light over northeast and southeast. The excessive rain caused flooding over wide area. Most flooding was to agricultural lands. Temperatures were cooler over rain area and warmer in dry areas. Northeast, southeast and north central averaged about 5° above normal while west was about 1° below normal. Highest 87° at Glendive, lowest 26° south of Alder.

Topsoil moisture short to adequate eastern third, adequate to surplus elsewhere. Subsoil short in eastern third, adequate elsewhere. Fieldwork: 3.0 days suitable. Winter wheat condition generally good, 75% preboot, 25% boot, heading just starting. Current percent spring

crops planted compared with last year and average: Spring wheat 95, 95, 90; barley 90, 99, 90; oats 90, 95, 85; corn 75, 80, 70; potatoes 60, 45, 60; dry beans 55, 65, 75. Crops emerged compared with last year: Spring wheat 80, 75; barley 75, 85. Range feed and stock water supplies short eastern third, generally adequate elsewhere. Cattle and sheep, 70% moved to summer ranges.

NEBRASKA: Precipitation .50 in. over northeast; 1.00 to 1.50 in. over remainder of State. Temperatures 2° below normal.

Topsoil moisture mostly adequate to surplus for first time this season. Subsoil supplies short to adequate. Corn planting 85%, 90% last year and 85% normal; emerged 45%, 60% last year and 50% normal. Some yellowing of early planted fields due to extended cool wet weather. Sorghum and soybeans 20% planted, 45% previous year and 40% normal; emergence of both crops 5%, 10% last year. Winter wheat mostly fair; heading 65%, 20% last year and normal. Effects of freeze quite variable with southern two tiers of counties appearing to have suffered most severely. Acreage losses and yield reductions difficult to assess until crop reaches normal kernel formation following blooming. Blooming just starting in the southwest. Some wheat being grazed in central areas. Alfalfa 15% harvested, same as last year and 5% is normal. Alfalfa damage widespread due to recent freeze, smaller yields expected. Feed lots very muddy, warm and drying conditions needed. Days suitable: 2.2.

NEVADA: Mostly cool and wet. Maximum temperatures fell 10 to 20° by midweek. Extremes: 89 and 25°. Precipitation abundant, especially north.

Crop growth slowed by low night temperatures early in period. Frequent showers helping summer grazing prospects.

NEW ENGLAND: Readings were cool early week, above normal end of week. Some frost on 18th. Period generally dry except for rain in north on 18th when up to 0.50 in. fell.

Apple trees in full bloom north, petal fall south. Some frost damage to apple blossoms north. Blueberries in early bloom. Some insect damage reported. Light frost damage in some cranberry bogs but crop prospects appear good. Frost damage to some strawberry patches. Asparagus harvest ending. Rhubarb, lettuce and radishes being harvested. Sweet corn 40% planted. Potato planting in northern Maine delayed by weather. Southern New England crop half emerged. Hay crop looks good, some hay being cut. Over 40% of the field corn planted. Fieldwork: 5.0 days suitable, averaging 3 days ahead of schedule. Soil moisture and grazing conditions adequate.

NEW JERSEY: Temperatures averaged 2 to 5° below normal. Extremes: 34° at Newton on 20th and 21st, 88° at Flemington on 24th. Rainfall averaged 0.00 in. north, 0.01 in. central and 0.13 in. south. Heaviest 24 hour total was 0.19 in. at Hammonton on 19th.

Estimated soil moisture, in percent of field capacity, averaged: 89 north, 81 central and 83 south. Four inch soil temperature today averaged: 64 north, 68 central and 66 south. Fieldwork: 5.4 days suitable. Warmer temperature advancing crop growth. Iceberg lettuce harvest begun. Sweetpotato transplanting underway. Strawberry harvest started. Apples, peaches and strawberries sizing. Rye being cut for straw. Hay harvest begun. Grass silage being made. Field corn and soybean planting continues.

NEW MEXICO: The week was dry except for widely scattered showers northern half of the State. Rainfall totals were very light except around 0.33 to 0.50 in. at Raton-Des Moines. Temperatures averaged 2 to 3° cooler than normal with only minor day-to-day changes.

Weather mostly favorable permitting uninterrupted outside activity. Main activity haying, cultivating, irrigating and seeding late crops. Most crops good condition except dryland wheat mostly poor with considerable abandonment. Cotton planting completed with good stands in southern areas, and well advanced more northern. First cut alfalfa hay varies from 30 to 90% south while north getting started. Irrigated wheat, barley mostly headed, coloring well advanced. Corn planting nearly complete, grain sorghum about 40% eastside. Lettuce harvest finishing, onion topping begun but remains very limited until after June 1. Ranges poor to fair condition, need moisture. Livestock mostly good.

NEW YORK: Early week frost and subnormal temperatures, warm late in week. No rain at all in most areas.

Corn 57% planted, 57% 1980, 60% average. Oats 91% planted, 83% 1980, 86% average. Wheat condition good. Early green chopping of hay started. Colorado potato beetle active on Long Island. Upstate potatoes nearly 80% planted. Planting of vegetable crops active. Some frost damage to strawberries. Some frost damage to Lake Champlain fruit. Apple pollination good along Lake Ontario, fair in inland counties.

NORTH CAROLINA: Temperatures 5 to 10° below normal. Precipitation 0.22 in. at Salisbury to 2.46 in. at New Bern.

Fieldwork: 4.0 days suitable. Soil moisture: 5% very short, 33% short, 59% adequate, and 3% surplus. Conditions: Wheat, oats, barley, and rye mostly fair to good; pasture mostly fair to good; tobacco beds fair to mostly good; field tobacco mostly good; corn fair to mostly good; cotton mostly fair to good; Irish potatoes mostly good; peaches fair to mostly good; truck crops fair to mostly good. Supplies: Feed grains mostly adequate; fuel supplies mostly adequate. Plantings: Peanuts 95%, 1980 97%, 78% average; sweetpotatoes 25%, 1980 24%, 40% average; sorghum 64%, 1980 48%, 44% average; soybeans 37%, 1980 47%, 45% average; flue-cured tobacco 99%, 1980 100%, 86% average; burley tobacco 29%, 1980 27%, 32% average.

NORTH DAKOTA: Normal to above normal precipitation fell. Totals ranged from 1.50 in. north central to 0.60 in. south central. Locally heavy amounts up to 3.00 in. Temperatures ranged from normal southwest and south central to 6° above normal northeast. Extremes: 91 northwest and 26° northeast.

Hot, windy weather early week gave way to general showers and cooler temperatures on weekend. Moisture timely as small grain seeding nearing completion and row crop planting underway. Although precipitation since April 1 still below normal, crops prospects brightened considerably for near term from rain. Twenty-seven percent of State short of topsoil moisture, down from 75 last week and 44 average. Southwest still very short. Pastures benefited from rain but more time and moisture still needed. Small grain seeding finishing about two weeks ahead of average. Percents emerged from 76 for durum and oats to 80 for hard red spring wheat. Stands look good with weeds main concern. Percents planted by May 24 with last year and average: Hay red spring wheat 95, 89, 79; durum 94, 87, 73; barley 92, 85, 78; oats 94, 89, 76; flax 45, 35, 40; potatoes 83, 83, 72; corn 57, 56, 50; sunflower 42, 37, 45; soybeans 44, 58, 55; dry edible beans 50, 53, 53.

OHIO: Temperatures were low early in the week; highs were in the 50's. The weather warmed through the week, and highs reached the 80's in most areas by the weekend. Average lows were below normal, by the same amount; mostly in the upper 40's. There was less than 0.10 in. of precipitation at most stations in the northern two-thirds. More

than 1.00 in., however, was recorded at some southern stations.

Soil temperatures at 4 in. under bare ground averaged around 60°. Winter wheat condition was rated good. The leaf blight reported earlier has not become a major threat to the crop, which is further advanced than last year's crop was at this time. Corn planting progressed substantially over the weekend; there were several reports of shortages of short season hybrids. Soybean planting will not be widespread until more corn is in the ground. Some spot replanting of corn will occur. The strawberry crop is nearing harvest. Corn planted 45%, 90% 1980, 85% average. Soybeans planted 7%, 55% 1980, 55% average. Wheat headed 15%, 10% 1980, 20% average. Corn emerged 15%, 60% 1980. Sugarbeets emerged 65%, 75% 1980. Alfalfa 1st cutting 10%, 10% 1980, 10% average. Potatoes planted 65%, 85% 1980, 85% average. Days favorable 2.5. Pasture condition good. Soil moisture 43% adequate, 57% surplus.

OKLAHOMA: Temperatures averaged 2 to 4° below normal. Average precipitation ranged from 0.03 in. Panhandle and north central to 1.57 in. southeastern.

Harvest just getting underway in south central and southwest localities. Elsewhere cool, wet weather slowed maturity of crop but beneficial filling wheat head. Some severe hail damage Panhandle and north central localities. Wheat headed 100% 1981; 90% 1980; 100% average. Wheat soft dough 75% 1981; 15% 1980; 40% average. Sorghum planted 40% 1981, 20% 1980; 35% average. Sorghum up to stand 10% 1981; 5% 1980; 10% average. Cotton planted 25% 1981; 15% 1980; 30% average. Cotton up to stand 10% 1981; 5% 1980; 10% average. Days suitable for fieldwork: 4.6.

OREGON: Temperatures 2 to 5° below normal in all areas. Cool, wet weather Statewide. Coastal stations 1.40 in., southwestern 0.50 in., Willamette Valley 1.00 in., and northern Cascades 1.70 in.

Soil moisture mostly adequate. Few areas short in north central and few scattered areas rated surplus. Winter wheat rated good to excellent; 48% headed. Early barley heading. Planting late seeded spring grains. Some alfalfa and pastures seeded. Mint showing good growth, cutworms a concern. Rust problem in wheat and seed crops. Haying slowed by rain. Apple, pear set good. Spraying continues. Cherry crop fair to good. Peaches sprayed for brown rot. Strawberries continue to bloom. Harvest early June. Cranberries blooming. Walnuts beginning to bloom. Cultivating potatoes in northeast. Planting in Klamath and Crook Counties. Cutworm problem in onions. Green peas blooming; maturity uneven. Vegetable planting rain delayed. Early green peas and corn emerging. Livestock good condition, pastures good to excellent; good growth.

PENNSYLVANIA: A cool and very dry week. Temperatures 2 to 4° below normal but warmest so far this season. Warming trend last half. Extremes: 25 and 89°. Only light rainfall along southern border 19th. Driest week Statewide since end of January.

Six days suitable. Moisture adequate. Activities: Plowing; discing; harrowing; spreading lime and manure; cutting rye and grasses for green chop and silage; spraying; fixing fences and machinery; and planting corn, potatoes, tomatoes, soybeans, and oats. Plowing 91%, last year 89%, average 92%. Soybeans 21% planted, last year 31%. Virtually all oats planted, same as last year. Potatoes 84% planted compared with 75% last year. Corn 64% planted compared with 62% last year and average of 66%. Barley 39% in boot stage and 40% headed, last year 33% in boot and 57% headed. Wheat 45% in boot stage and 7% headed, last year 48% in boot and 36% headed. Feed from pastures mostly average.

Hay condition good to fair. First crop alfalfa 6% cut. Apples 6% pink and 94% in full bloom or past.

SOUTH CAROLINA: Temperatures were slightly cooler than normal. Scattered rainfall was light. Temperatures ranged from 41 to 94°.

Soil moisture short. Five days available for fieldwork. Corn fair to good. Cotton condition fair, some replanting and spraying active. Tobacco good condition, insecticide and fertilizers applied. Peaches good condition, harvesting increasing. All vegetables fair to good condition, some harvesting underway. Small grain condition fair. Wheat turning color, 92%, 84 year ago; ripe, 33%. Oats turning color, 93%, 84% year ago; ripe, 35%.

SOUTH DAKOTA: Precipitation over most of State, generally under 1.00 in. Temperatures slightly below normal. Extremes: 26 and 86°.

Five days suitable for fieldwork. Small grains 100% emerged, flax 67%. Topsoil moisture critically short in north and east, adequate in southwest and central, short elsewhere. Major farm activities: Row crop field preparation and planting, branding and marketing cattle. Drought causing many ranchers to reduce herd size. Ranges and pastures in north and east in poor condition; fair elsewhere. Stock water supplies very short in northwest, west central, and central; short elsewhere. Corn planted 85%, 1980 83%, average 69%. Sorghum planted 22%, 1980 34%, average 20%. Soybeans planted 44%, 1980 56%, average 47%. Sunflowers planted 28%, 1980 36%, average 17%. Flax planted 83%, 1980 78%, average 70%. Winter wheat heading 34%, 1980 31%, average 9%. Winter rye heading 50%, 1980 40%, average 20%.

TENNESSEE: Scattered thundershowers during beginning and latter part of the week. Temperatures averaged 3 to 4° below normal. Precipitation 0.50 in. in west, 1.00 in. in middle and 1.50 in. in east.

Three days suitable for fieldwork. Soil moisture adequate. Spring plowing 93% completed, 1980 89%, average 86%. Corn 91% planted, 1980 88%, average 81%. Cotton 95% planted, 1980 90%, average 88%. Soybeans 26% planted, 1980 28%, average 27%. Tobacco 50% transplanted, 1980 20%, average 35%. Wheat 99% headed, 1980 95%, average 93%. Oats 98% headed, 1980 87%, average 89%. Barley 99% headed, 1980 96%, average 93%. Pastures good. Alfalfa first cutting 80% completed, 1980 66%, average 61%. Armyworms still a problem in wheat, corn and cotton fields. Some replanting of cotton necessary.

TEXAS: Weather: Cold front moved, triggered scattered thunderstorms; some severe Central Texas. Fair weather Statewide 19th, 22nd; few showers West Texas 20th, 21st. Heavy thunderstorms 23rd along weak cold front West Texas moved Central Texas. Thunderstorms 24th. Temperatures below normal across State. Precipitation 0.50 to 0.75 in. above normal North Central Texas; Edwards Plateau, Valley. Near normals Low Plains, East Texas, upper Gulf Coast; 0.33 below normal Trans-Pecos, High Plains.

Commercial vegetables: Rio Grande Valley, harvest of green peppers, cucumbers, onions continued. Potato harvest gained momentum, cantaloups, watermelons developing well. Cantaloups blooming, some melon cutting underway. Coastal Bend, watermelons, cucumbers, other vegetables progressing rapidly. Moisture adequate, temperatures favorable. East Texas, tomatoes developing well, some turning color. Watermelons doing well. San Antonio-Winter Garden area, harvest of carrots continues. Conditions good. Trans-Pecos region, cabbage, onions progressing well. Plains, onions, potatoes continue to develop. Development of peaches continues, harvest of early peaches underway. Pecan producers continue spraying for case-bearer worms.

Range and livestock: Rangeland, pastures continue to provide grazing, in High Plains grazing fallen off due to dry, windy conditions. Cattle, other livestock in good condition.

Crops: Below normal temperatures prevailed across State, lowering soil temperatures, interrupting cotton seeding. High winds Panhandle depleting topsoil moisture. Cotton planting active High Plains; cool soil temperatures delaying seeding some areas. Seed germination poor scattered areas; some fields replanted. High winds, blowing sand necessitated some replanting High, Low Plains. Cool temperatures slowed plant growth Low Plains, Blacklands. South Central Texas, dry, open weather needed. Sorghum good progress South Texas, Lower Valley, some stands turn color. Coastal Bend, South Central Texas, growth hampered cool weather, excessive rainfall. Reported condition Statewide 25% excellent; 67% good; and 8% fair. Corn good progress Panhandle. Southern half State cool temperatures, excessive moisture slowed development. Reported condition Statewide is 22% excellent; 61% good; and 17% fair. Limited wheat harvest underway Low Plains. Panhandle high winds depleting topsoil moisture, further cutting yield potential. Northern High Plains dryland fields being plowed up, others baled for hay. Oat harvest rapid progress Blacklands. Statewide, reported wheat condition 14% excellent; 39% good, 39% fair; and 8% poor. Cool weather slowed rice development Upper Coast. Some replanting necessary. Peanut planting Cross-Timbers slowed cool weather, lack of moisture. Cotton planted 75%, 47% 1980, 60% average. Cotton squaring 15%, 11% 1980. Rice planted 99%, 100% 1980, 99% average. Rice emerged 93%, 99% 1980. Sorghum planted 87%, 74% 1980, 77% average. Sorghum headed 17%, 16% 1980. Wheat headed 98%, 75% 1980. Wheat turning color 51%, 25% 1980. Wheat harvested for grain 6%, 2% 1980, 1% average. Oats harvested 8%, 2% 1980, 9% average. Corn planted 100%, 97% 1980, 98% average. Peanuts planted 31%, 20% 1980, 25% average. Soybeans planted 26%, 11% 1980, 21% average. Sugarbeets planted 100%, 100% 1980, 100% average. Sunflowers planted 44%, 24% 1980, 19% average.

UTAH: Recurring periods rain in valleys and some snow at higher elevations. Accumulated amounts moisture generally moderate to heavy but locally light few localities. Few areas flooding due to rain falling on unmelted snow or locally very heavy moisture accumulations. Temperatures averaged below normal all areas. Average ranging between 1 and 11° below normal. Marked improvement in soil moisture most major agricultural areas.

Only 4.5 days suitable for fieldwork, but showers were welcome. Surface soil moisture rates adequate, but deep moisture still short. Major activities include livestock movement, irrigation, and early hay harvest. Small grains and hay rate good, with barley scoring good to excellent. About a fifth winter wheat and barley heading. Corn about 80% planted, 50% emerged. Progress slowed by cool weather and rains. Frost damage and spring weeds causing early harvest of first crop alfalfa many areas. Early fruit crop rated fair to good. Sweet cherry harvest beginning in Washington County.

VIRGINIA: Temperatures averaged well below normal first portion of period. By end of period temperatures warmed up to near normal levels and some showed temperatures above normal by 24th. Precipitation fell during midweek and gave way to sunny skies by end of period. Precipitation averaged about 1.25 in. Greatest amount in southwest sections.

Most areas received favorable amounts of rain early in the week and topsoil moisture is now rated adequate. The number of days suitable for fieldwork was reduced to 2.9. Corn planting 91% complete, 82% 1980, 83% average. Stand

emergence at 93% of full stand, excellent condition. Soybean planting progress 31%, 24% 1980, 21% average. Peanuts 91% seeded, 89% 1980, 71% average. Germinated fields at 88% of full stand. Flue-cured tobacco 86% transplanted, compared with 32% 1980, 45% average. Fire-cured tobacco 32%, 18% 1980, 26% average. Burley 18%, 2% 1980, 16% average. Sun-cured 29%, 26% average. Cotton stands 90% of full stand. Hay rated good. Pastures rated excellent. Small grains good. Fruit prospects good. Armyworms and cutworms reported in corn. Aphids and cereal-leaf beetles continue to trouble small grains. Almost all areas cutting hay.

WASHINGTON: West: Temperatures generally near normal, except for Puget Sound area where they were 2 to 3° below normal. Precipitation above normal on the coast, and in the interior southward. Below normal rainfall occurred across the northern sections. Seed bed preparation and planting continued, when weather permitted, on light soils. Crops being seeded included peas, corn, strawberries, and beet seed. The harvest of field rhubarb and radishes continued. Strawberries were in full bloom; raspberries were starting to bloom. Cabbage fields and early planted peas in bloom. Cucumber planting may begin this week. Dairy operators continue to green chop. Pasture and hay feed range from short to adequate. Soil moisture was adequate to good.

East: Temperatures were near normal, maybe plus or minus 1 or 2° across the east, except for the Palouse/Blue region where temperatures were 3 to 5° below normal. Precipitation was much above normal along the east slopes of the Cascades and also in spots in the northeast and Central Basin. Below normal rainfall was experienced in the southeast portion. The planting of corn, potatoes, and dry beans continued. Potatoes showing signs of growth in spite of cool temperatures. Asparagus cutting continued. Hop tying continued. Planting of sweet corn was in full swing. Wheat and barley condition were variable, from below average to above average. The threat of rust diseases continued. The cutting of alfalfa continued. Soil moisture ranged from fair to good. Range and pasture conditions remained adequate.

WEST VIRGINIA: Temperatures averaged below normal. High 85°, low 24°. Precipitation above normal except in northwest and northeast areas. Range 1.90 to 0.24 in.

Soil moisture adequate to surplus. Days suitable for fieldwork: 2.4. Major activities: Corn planting, gardens, livestock and general maintenance. Wheat good to fair condition, 31% prejointed, 55% jointed, 14% heading, 28%, 59% and 13% respectively in 1980. Barley good to fair condition, 18% prejointed, 43% jointed, 39% heading, 16%, 27% and 57% respectively in 1980. Oats good to fair condition, 93% planted, 81% emerged, 89% and 75% in 1980. Corn fair to good condition, 50% planted, 36% emerged, 70% and 38%

in 1980. Tobacco fair condition, 100% planted, 95% emerged, 5% set, 95%, 90% and 1% respectively in 1980. Hay fair to good condition, 5% cut, 2% in 1980. Pastures, potatoes and gardens in fair to good condition. Fruit in fair to poor condition. Cool damp condition continues to slow crop progress.

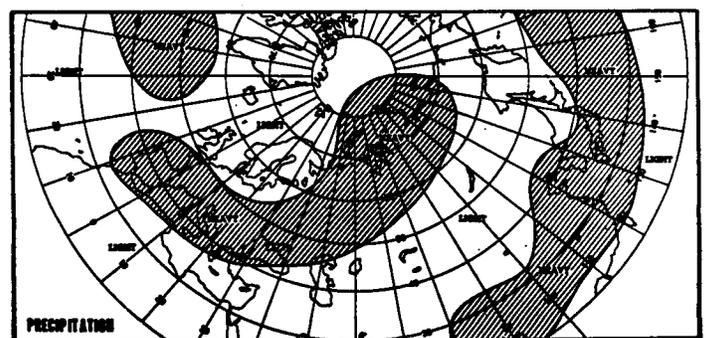
WYOMING: Temperatures again below normal, coldest spot 10° below normal. Warmest spot 87°, coldest 22°. Wet across State, only 2 stations in Belle Fourche Drainage reporting below normal precipitation. Otherwise, most stations much above normal.

Topsoil moisture adequate all areas. Wet fields slowed fieldwork: average 2 days suitable. Spring wheat planting 85%; 87% year ago. Spring wheat emerged 60%; 70% year ago; 71% normal. Oats planting 80%; 80% year ago; 87% normal. Oats emerged 60%, 61% year ago; 71% normal. Barley planting 90%; 87% year ago. Barley emerged 75%; 73% year ago; 77% normal. Corn planting 75%; 72% year ago; 76% normal. Corn emerged 30%; 26% year ago; 30% normal. Potatoes 55% planted, 65% normal, 15% emerged. Dry beans 10% planted, normal 28%. Most sugarbeets emerged. Winter wheat prospects mostly good, 20% crop headed. Prospects spring planted small grains, alfalfa mostly good. Summer grazing prospects mostly good. Stock water adequate most areas. Range ewes 85% lambled. Range sheep 90% shorn.

WISCONSIN: Temperatures 2° above normal. Cool beginning with lows of 25° mornings 18th and 19th north. Warmed to mid 80's after midweek. Extremes: 86 and 25°. Some rain weekend with variable amounts. Heaviest north central where over 1.00 in. but only 0.25 in. south central and southeast.

Planting made rapid progress in dry weather. Fieldwork: 7.0 days suitable. Corn planting 90% completed, 1980 95%, average 67%. Early corn up, late corn needs moisture for germination and activation of herbicides. Soybeans 40% planted, 1980 55%, average 30%. Moisture needed for germination of soybeans. Early oats look good, late oats need rain. Winter wheat doing well. Hay fields below normal growth due to winterkill and cool, dry weather most of May. Some hay fields plowed and planted to corn. A little green chopping of first crop begun. Pasture conditions declining due to dryness. Planting of potatoes made good progress in northeast where previously too wet. Peas, sweet corn, snap beans, and other vegetable crops being planted. More moisture needed for vegetables, irrigation being used where available. Strawberries being irrigated. Cherry trees in full bloom in Door County. Tobacco plants growing better with warmer temperatures. Topsoil moisture 66% short, 34% adequate; subsoil moisture mostly adequate. Soaking rain would be appreciated for all crops.

EURASIA OUTLOOK FOR MID-MAY TO MID-JUNE

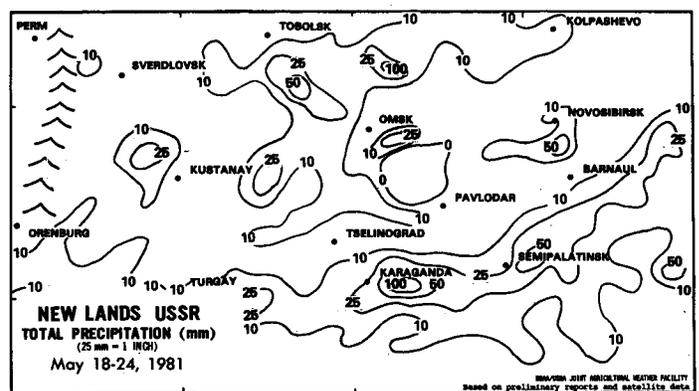
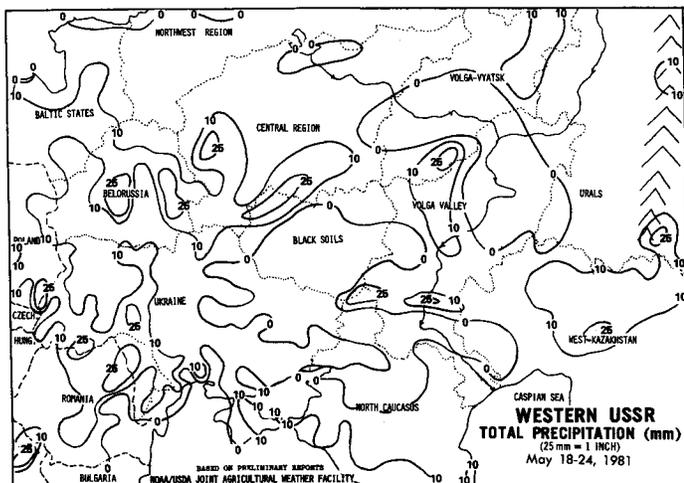


International Weather and Crop Summary

May 18-24, 1981

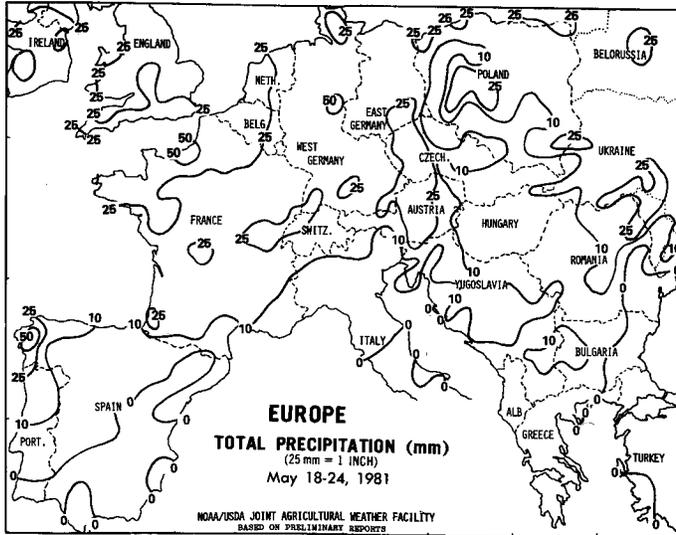
HIGHLIGHTS

- USSR: Continued cold, dry weather in eastern European USSR permitted fieldwork but put crop development further behind normal. Some dry pockets persist in the eastern New Lands.
- EUROPE: Generally favorable conditions prevailed for crop growth.
- CHINA: More rain is needed for winter grains in Hebei; generally favorable conditions prevailed for rice in the south.
- SOUTH ASIA: Premonsoon showers continued in Bangladesh and northeastern India, while the monsoon appeared to be advancing from the southeast.
- AUSTRALIA: Timely rains permitted wheat planting in most areas. More rain needed.
- CANADA: Beneficial moisture in eastern wheat areas improved conditions for crop germination and emergence, while soil moisture conditions continued to deteriorate in south-central Saskatchewan.
- SOUTH AMERICA: Most crop areas had relatively favorable harvest weather although locally heavy showers in Entre Rios impeded crop harvests. Beneficial moisture fell in most wheat areas.
- SOUTHEAST ASIA: Widespread showers throughout the week indicated a good start of the wet season.
- MEXICO: Heavy rains benefited some eastern citrus and cane as well as Torreon cotton. Hot, dry weather increased irrigation needs over most other agricultural areas.

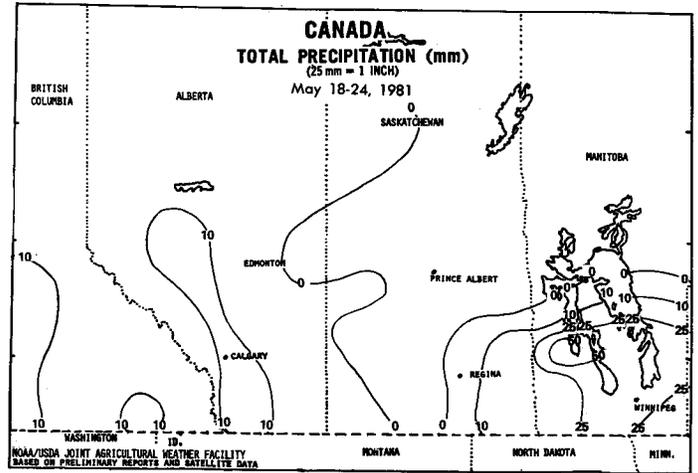


USSR: The same high pressure system continued to dominate European USSR for the entire week. Widespread rainfall was limited to parts of Belorussia and the western Ukraine, but amounts were mostly near normal or less. Only scattered showers to the east allowed fieldwork to continue. However, the high pressure system brought cold air down the Volga Valley into the North Caucasus and eastern and southern Ukraine. Subfreezing temperatures in the Volga Valley may have caused some damage of newly germinated spring crops. On a broader

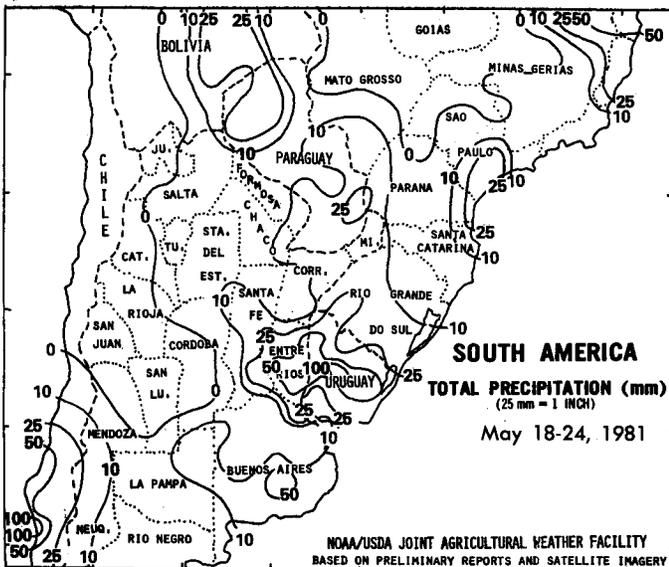
scale, the cold weather will further delay crop development, with lags behind normal now exceeding a week in the Chernozem Region and increasing over the eastern half of European USSR. In the New Lands, with spring grain sowing now underway, colder than normal weather slowed germination and early growth throughout the region. Abnormal rainfall across southern fringes of the region provided good growing conditions. Near-normal rains further improved the outlook over much of the eastern New Lands, but dry pockets still persist in this area. Western portions of the New Lands had variable rainfall which kept soils adequately moist in nearly all areas.



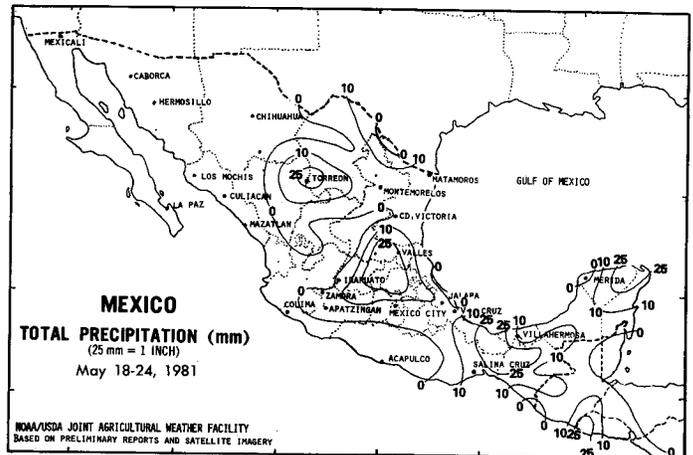
EUROPE: Favorable weather continued over most of the region. Rainfall slackened to near normal in areas where conditions had been a little too wet recently. Only light rain across Spain and Italy favored maturing winter grains, where the dry Mediterranean summer is beginning. Increasing rainfall in Poland improved growing conditions. Relatively dry weather over much of the southeast was favorable for maturing winter grains, and soil moisture remained quite adequate for spring-sown crops. Continued above-normal temperatures across the north kept all crops growing rapidly, while temperatures in the south stayed near normal.



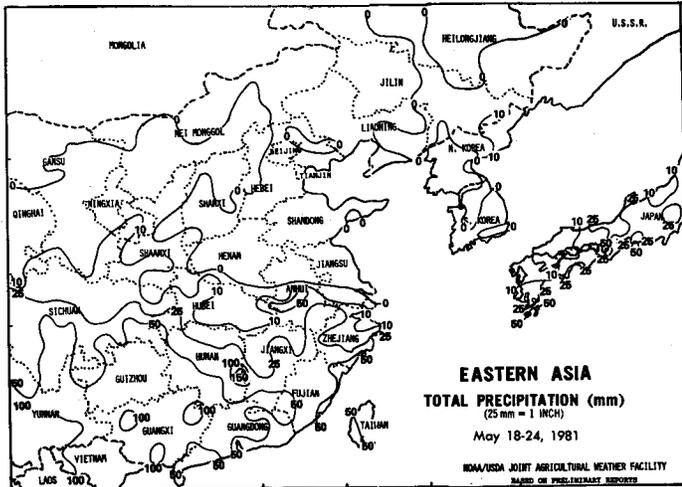
CANADA: The wheat area of Manitoba received 10 to 50 mm of rainfall as a storm system passed through the region late in the week. The wet weather improved soil moisture conditions in the eastern wheat belt. Planting of the spring wheat crop is nearly complete in this area. Weekly rainfall in Saskatchewan was minimal, causing further depletion of soil moisture reserves which were already low in south-central portions of the province. Latest planting reports show spring wheat about 90 percent seeded while sowing of spring crops, in general, is over 80 percent complete. Crop germination was rated good except in south-central Saskatchewan. Weekly rainfall was also light (less than 10 mm) in most of Alberta's wheat growing area where spring planting progress has reached about 75 percent. Soil moisture conditions were favorable for crop growth in Alberta. The one area of concern, at present, is in south-central Saskatchewan where the lack of sufficient soil moisture may cause spotty emergence in drier portions of the wheat area.



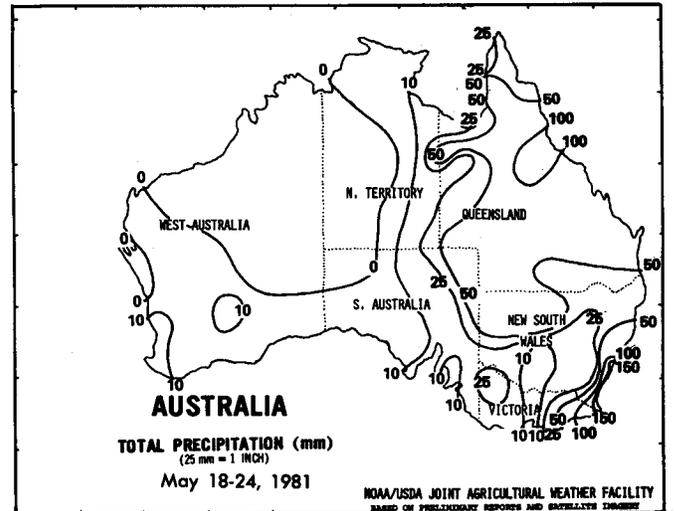
SOUTH AMERICA: Locally heavy showers were confined mostly to Uruguay and eastern Entre Rios province. Weekly rainfall totals generally ranged from 40 to 110 mm in this area. Elsewhere in Argentina, weekly rainfall was generally light (less than 10 mm) in most of the corn and soybean areas of Santa Fe, Cordoba, and northern Buenos Aires. This drier weather aided crop harvests which, for corn and sorghum, are nearly three-quarters complete. Beneficial showers produced 10 to 20 mm of rain in much of the wheat area of La Pampa and southern Buenos Aires. Weekly totals of 10 to 25 mm also fell in southern Rio Grande do Sul in Brazil, but relatively dry weather prevailed in much of the wheat areas of Santa Catarina and Parana. Moisture supplies are generally adequate for planting and early growth of the wheat crop. Cooler weather is keeping crop moisture demands at seasonally low levels.



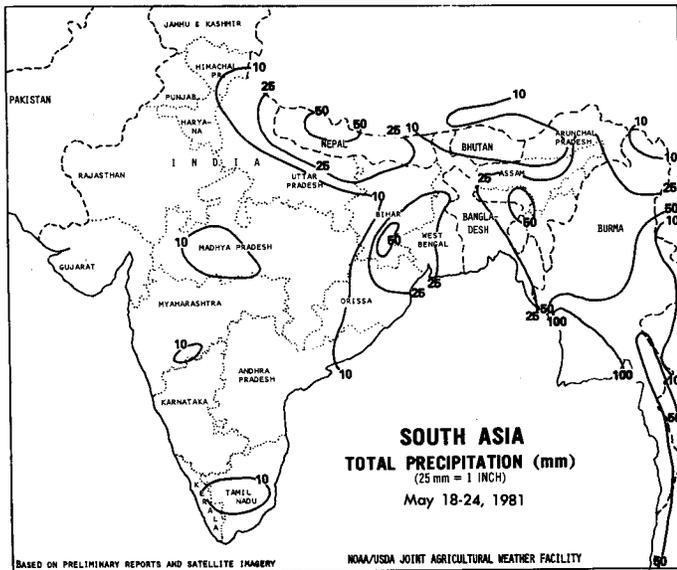
MEXICO: Heavy rain increased some reservoir levels and soil moisture in citrus orchards and cane fields around Valles and cotton fields at Toluca. Also the eastern part of the southern Plateau corn belt received beneficial rains on its young corn while the western section remained dry with crops probably under moisture stress. Sunny, hot weather over the northwest should result in good development of cotton, soybeans, and summer crops with increasing need for irrigation water; spring vegetable harvesting was decreasing seasonably. Northeastern corn and grain sorghum, still in a high water use stage, had to be irrigated to maintain adequate soil moisture as rains were very light.



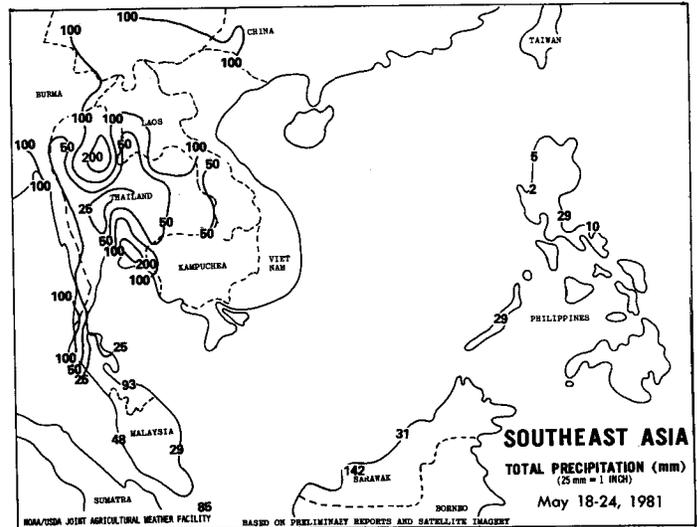
EASTERN ASIA: Very little rain fell in the major winter grain belt on the North China Plain. This benefited the maturing crop in the southern portions, but northern areas could use more moisture to fill out the grains. South of the Yangtze River, rainfall increased somewhat, but did not exceed normal for the most part. However, conditions in Guangxi remained too wet, as above-normal rainfall continued. Rainfall in the Sichuan Valley has been above normal during recent weeks, but conditions should not be too wet for spring-sown crops. In South Korea, drier weather benefited maturing winter grains, but increased rainfall will be needed for rice. Temperatures stayed near normal.



AUSTRALIA: Extremely beneficial rain fell over the wheat areas of Australia during the week. This timely moisture was needed for planting and germination of wheat since soil moisture reserves were low throughout much of the wheat belt. In New South Wales, weekly totals were generally 20 mm in the south and around 40 mm in the northern portion. Coastal areas received much higher amounts as did the state of Queensland where over 50 mm fell in the wheat area. Rangelands also benefited from this precipitation. In South Australia and Victoria, rainfall varied from less than 10 mm to 25 mm in the major wheat growing areas. West Australia's wheat area began to receive much needed rainfall late in the period as a frontal system brushed the southwestern portion of the continent. Additional rainfall will be needed in all areas to relieve drought conditions and sustain growth during the current crop season. But, this past week's rainfall provided the necessary moisture for crop seeding in many areas.



SOUTH ASIA: Premonsoon showers continued in Bangladesh and northeastern India. Rainfall amounts slackened somewhat from the previous week, but kept conditions beneficially moist for early rice. Little rain fell in dry southern and western India. The monsoon seems to be approaching on schedule from the southeast. Thailand has recently been receiving abundant rainfall, and heavy showers have now moved up into Burma.



SOUTHEAST ASIA: Another week of significant rainfall in Thailand signaled a favorable start of the monsoon season for agriculture and other rain-dependent activities. In fact, weekly totals of 100 to 200 mm in northern areas as well as in southeastern Thailand (west of Kampuchea) are equivalent to normal monthly rainfall amounts for May. Elsewhere, weekly rainfall totals averaged 25 to 75 mm in the major corn- and rice-producing region of the Central Plains and eastern Thailand. The normal crop calendar showed corn in the late planting period with early seeded corn in vegetative growth.

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The Weekly Weather and Crop Bulletin is jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44 USC 213), 53rd Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the Bulletin. The contents may be reprinted freely, with proper credit.

Annual subscription: \$13 domestic and \$18 foreign airmail. Draft checks on U.S. banks or international money orders in U.S. funds, payable to U.S. Department of Commerce, NOAA. Order from the NOAA/USDA Joint Agricultural Weather Facility, USDA South Bldg., Room 3526, Washington, DC 20250.

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