

WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service and World Agricultural Outlook Board

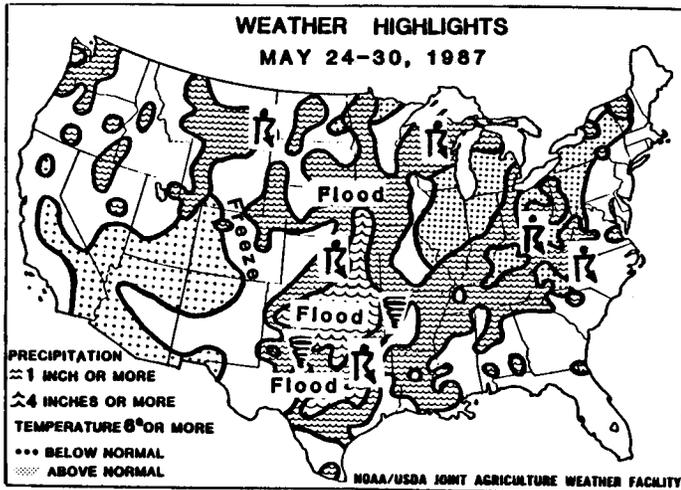
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National Weather Summary

May 24 to 30, 1987



TUESDAY...Thunderstorms covered the Plains, the central and northern Rockies, and from eastern Tennessee and South Carolina to eastern Great Lakes and western New England. Moderate to heavy showers fell from the Texas Panhandle to southern Iowa. It was warm from Texas to Florida and northward into the central Great Lakes, but the rest of the Nation was cool.

WEDNESDAY...The storm areas were over about the same parts of the Nation as Tuesday, except that thunderstorms covered all the East Coast States. Severe weather covered most of Oklahoma and into Missouri. Cool weather prevailed from the western Plains westward, along the northern border, and through the Northeast.

THURSDAY...Cool air continued to push into the Plains triggering severe thunderstorms, the worst of which were from central Texas to southwestern Missouri. Lighter storms reached to the western Great Lakes, through the Rockies, the Appalachians, and along the east coast. Warm air covered the East.

FRIDAY...Oklahoma and Kansas had some respite from severe thunderstorms, but intense storms hit again in central Texas. Lighter, more widely scattered storms covered most of the Rockies, the Mississippi Valley, and the Northeast. Some moderate storms developed in Nebraska and South Dakota.

(Continued to p. 9)

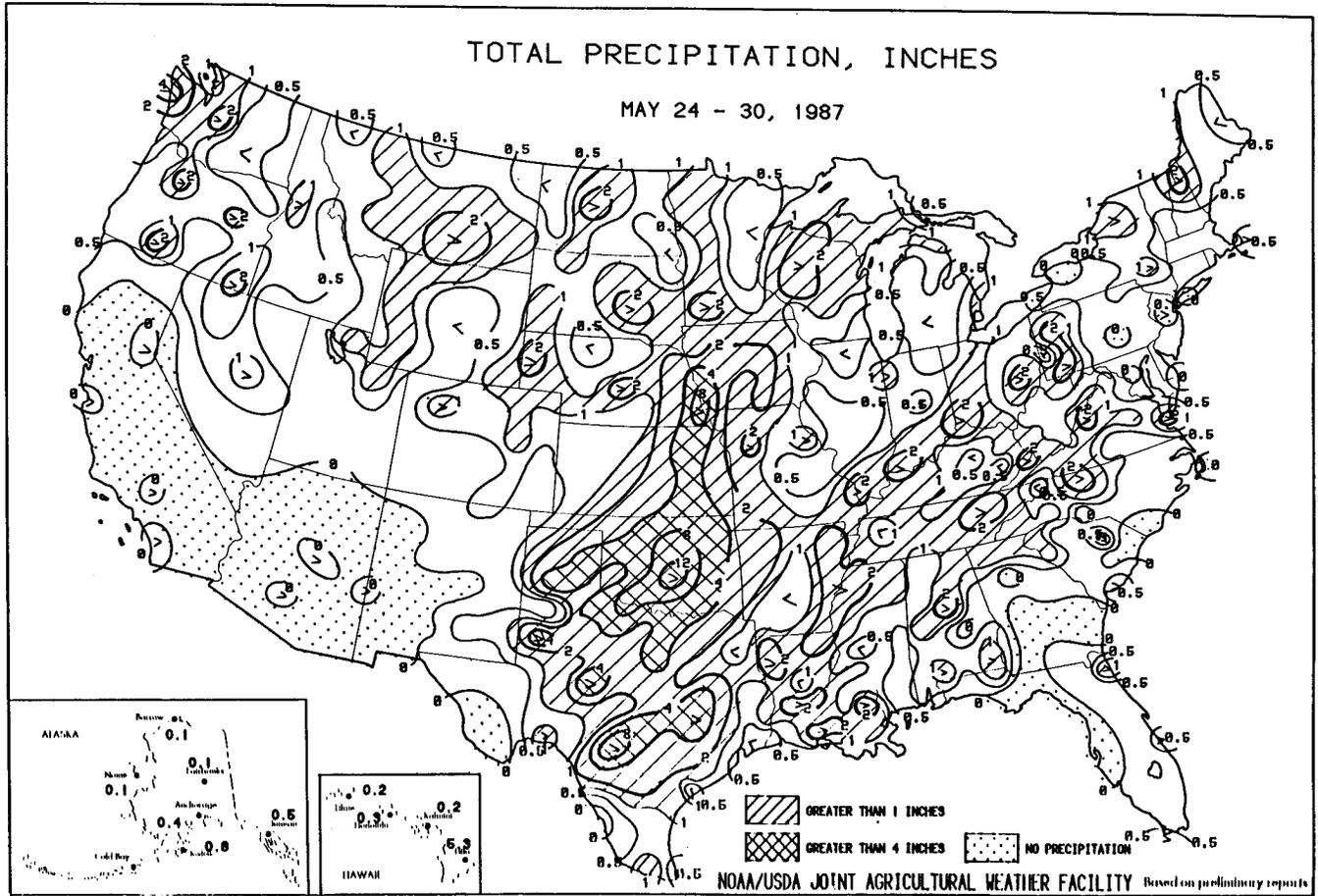
HIGHLIGHTS: Warm, moist air from the Gulf of Mexico moved northward through the Great Plains and then slowly eastward. As the air heated further during the day, intense thunderstorms and heavy rain resulted. The heaviest downpours occurred from central Texas to southeastern Nebraska, where over 4 inches of rain accumulated. Central Oklahoma accumulated over 12 inches in 4 days of the week. Showers and thunderstorms accompanied the warm, moist air as it moved eastward, but the heaviest rain remained west of the Appalachian Mountains. Pacific storms brought showers and thunderstorms to the Northwest and the Northern Rockies. Temperatures were as much as 9 degrees warmer than normal in the upper Ohio Valley and 9 degrees cooler than normal in the central Rockies.

SUNDAY...Severe thunderstorms continued to be widespread through the Great Plains but with some abatement in southern Texas. The most severe weather reached from central and eastern Oklahoma to western Iowa and from eastern Colorado to South Dakota. Other severe storms suddenly occurred in the central and lower Mississippi Valley. Beneficial showers reached from Kentucky and Tennessee to Virginia and Maryland. Needed showers also fell in Idaho, Oregon, and the northern Rockies.

MONDAY...Thunderstorms covered nearly all of the Nation. The most severe storms and heaviest rain were through Nebraska, from Iowa into Minnesota, and from the lower Mississippi Valley to the central Ohio Valley. Warm weather covered the South and Southeast, but cool weather dominated most of the Nation. Freezing temperatures occurred in the northern Great Lakes and southern Rocky regions.

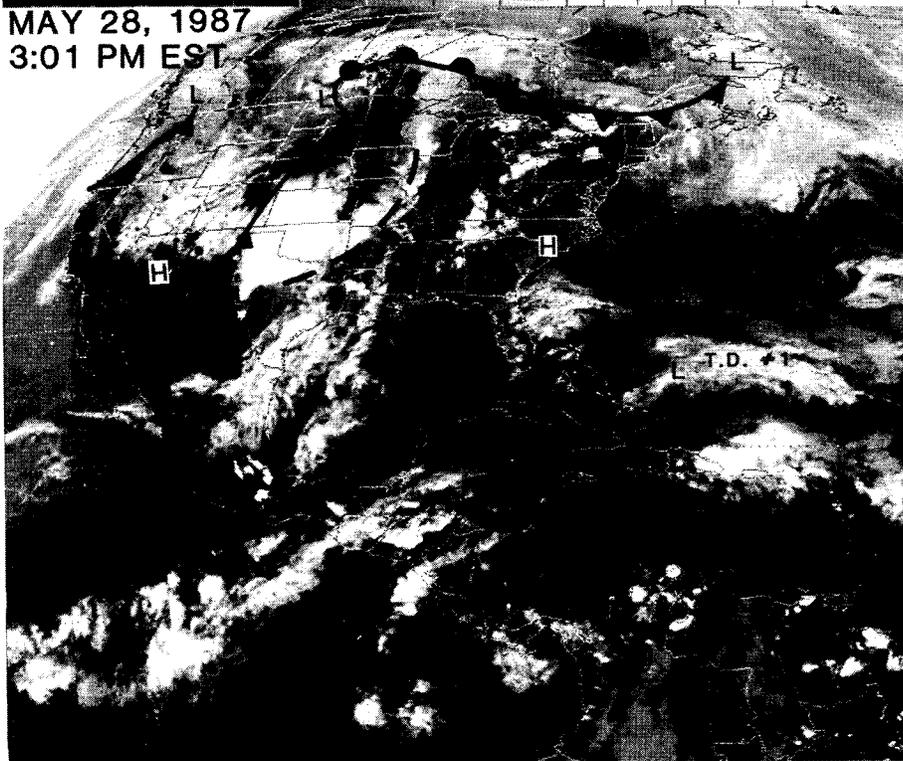
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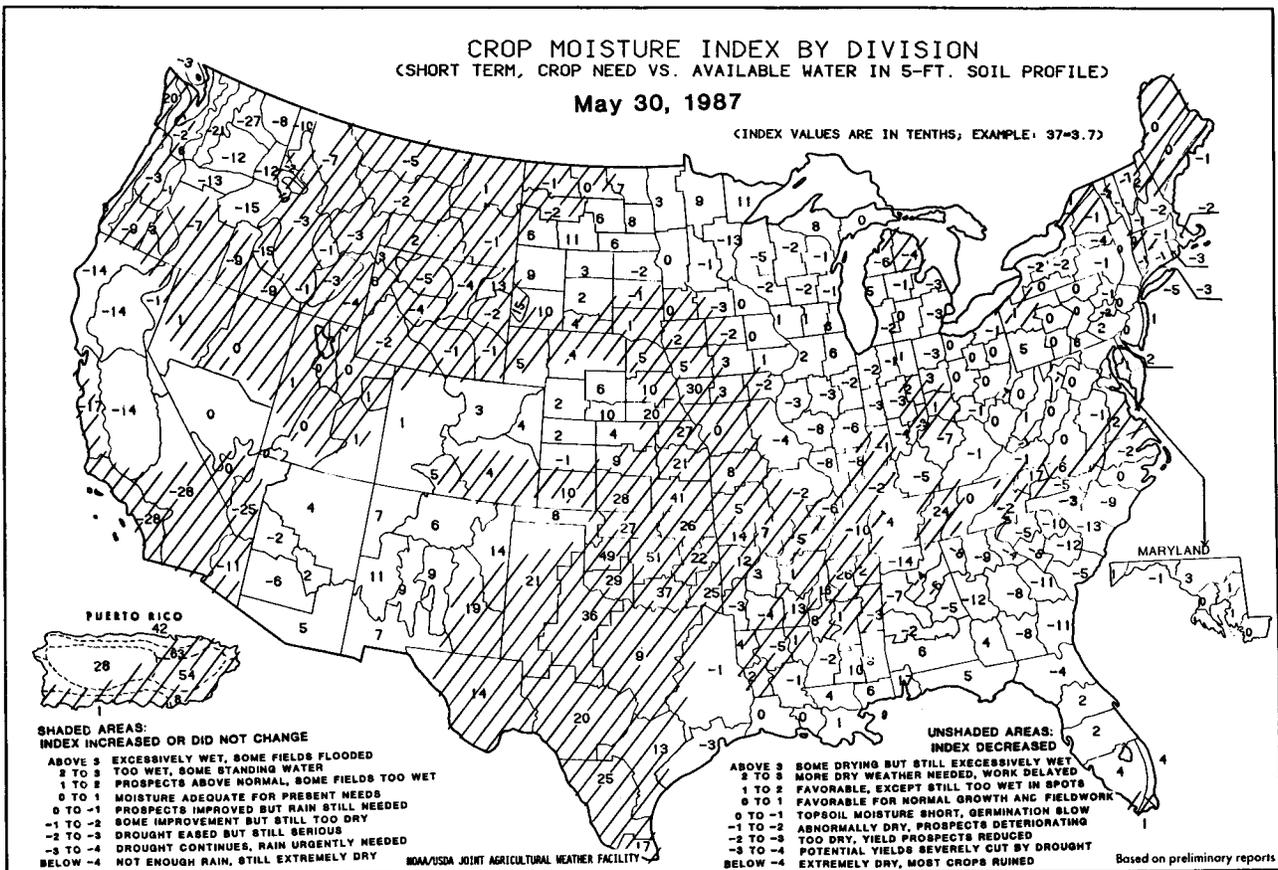
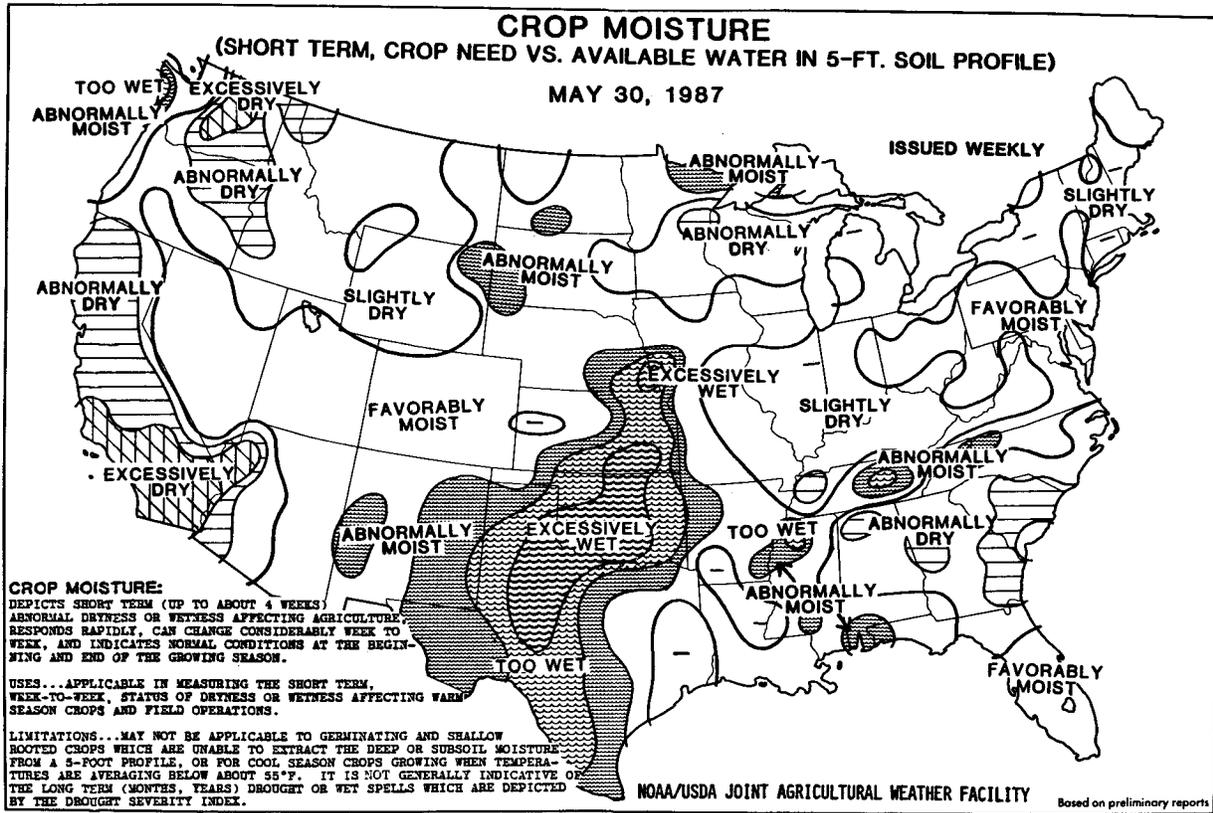
HEAVY RAIN FALLS FROM SEVERE THUNDERSTORMS OVER CENTRAL TEXAS AND OKLAHOMA. A LINE OF SHOWERS AND THUNDERSTORMS EXTEND FROM NORTHWESTERN ARKANSAS TO WESTERN WISCONSIN.

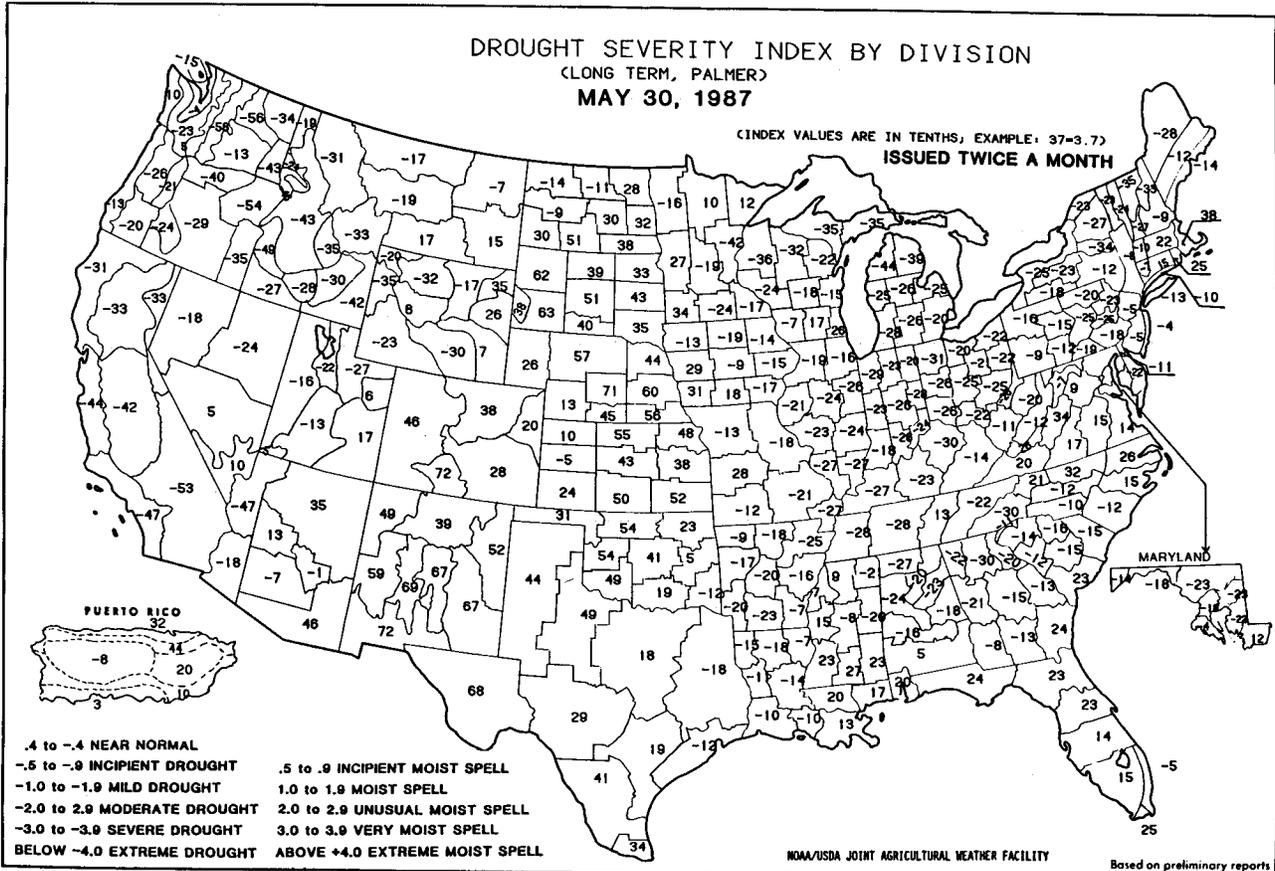
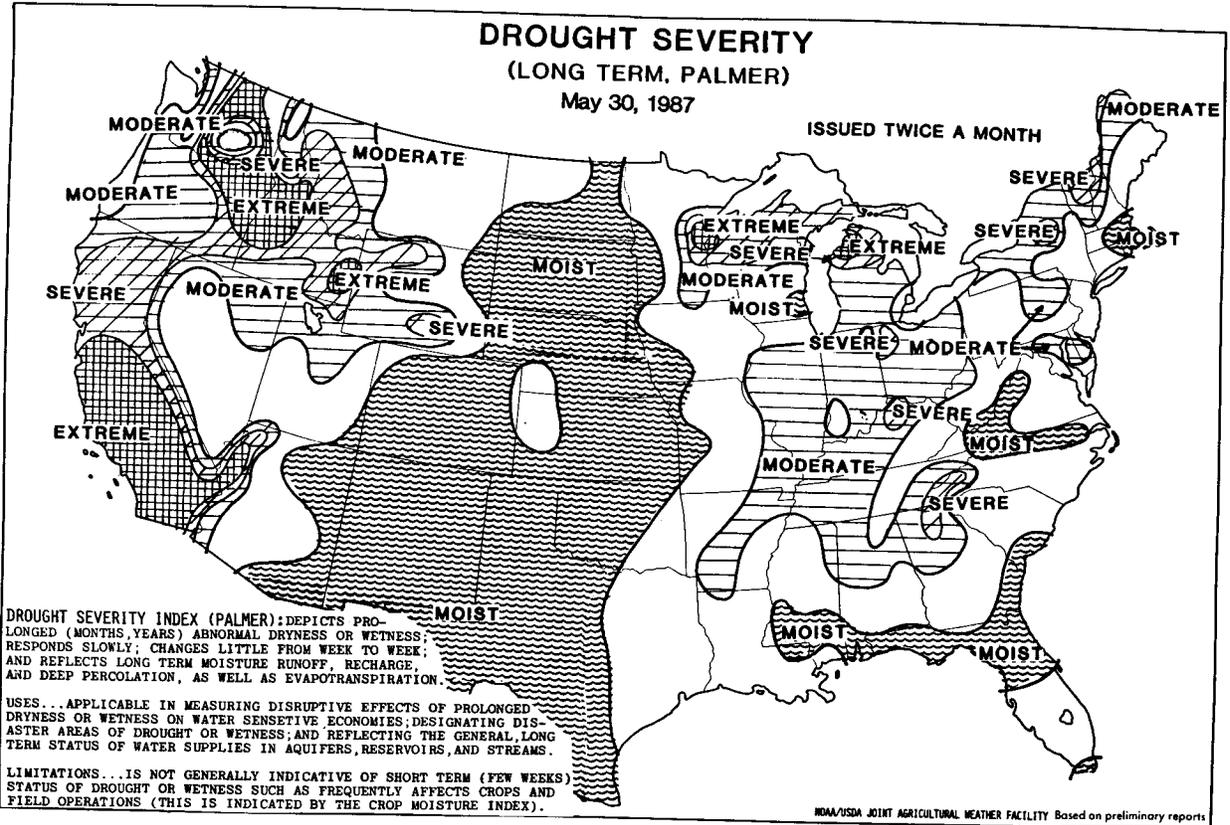
A PACIFIC STORM BRINGS RAIN TO THE NORTHWEST AND BRITISH COLUMBIA

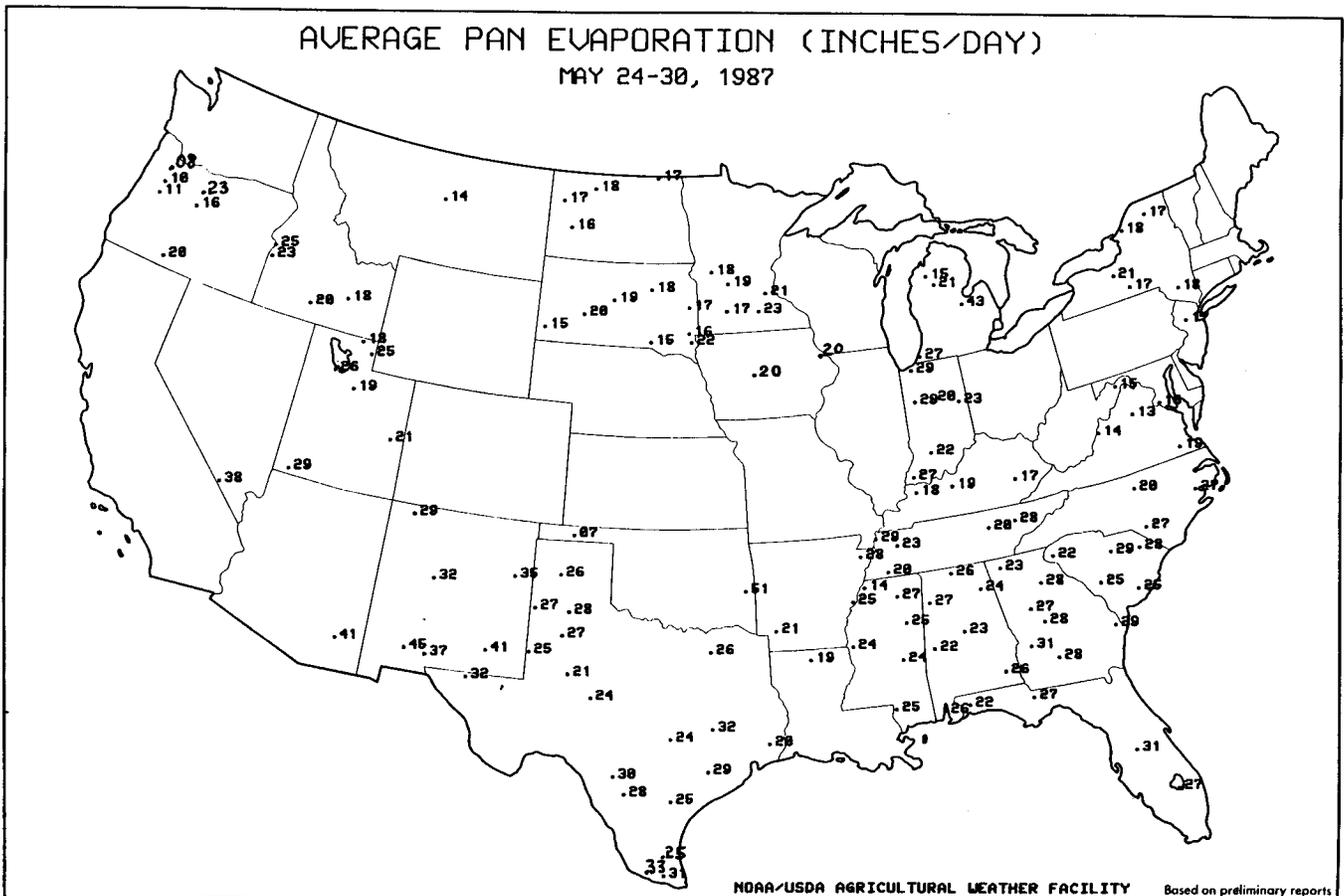
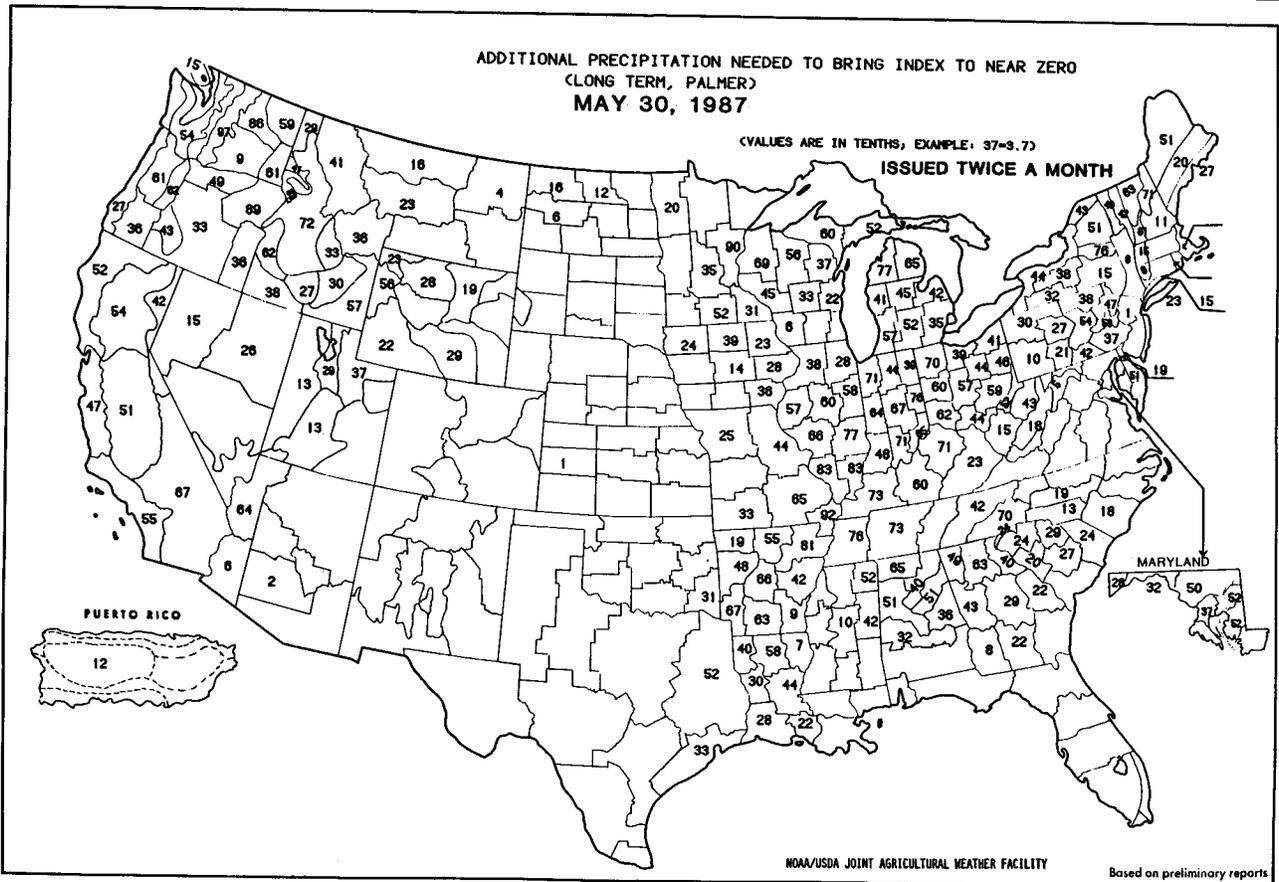
RAIN AND THUNDERSHOWERS ARE SPREAD FROM THE NORTHERN GREAT PLAINS ACROSS SOUTHERN CANADA TO LABRADOR.

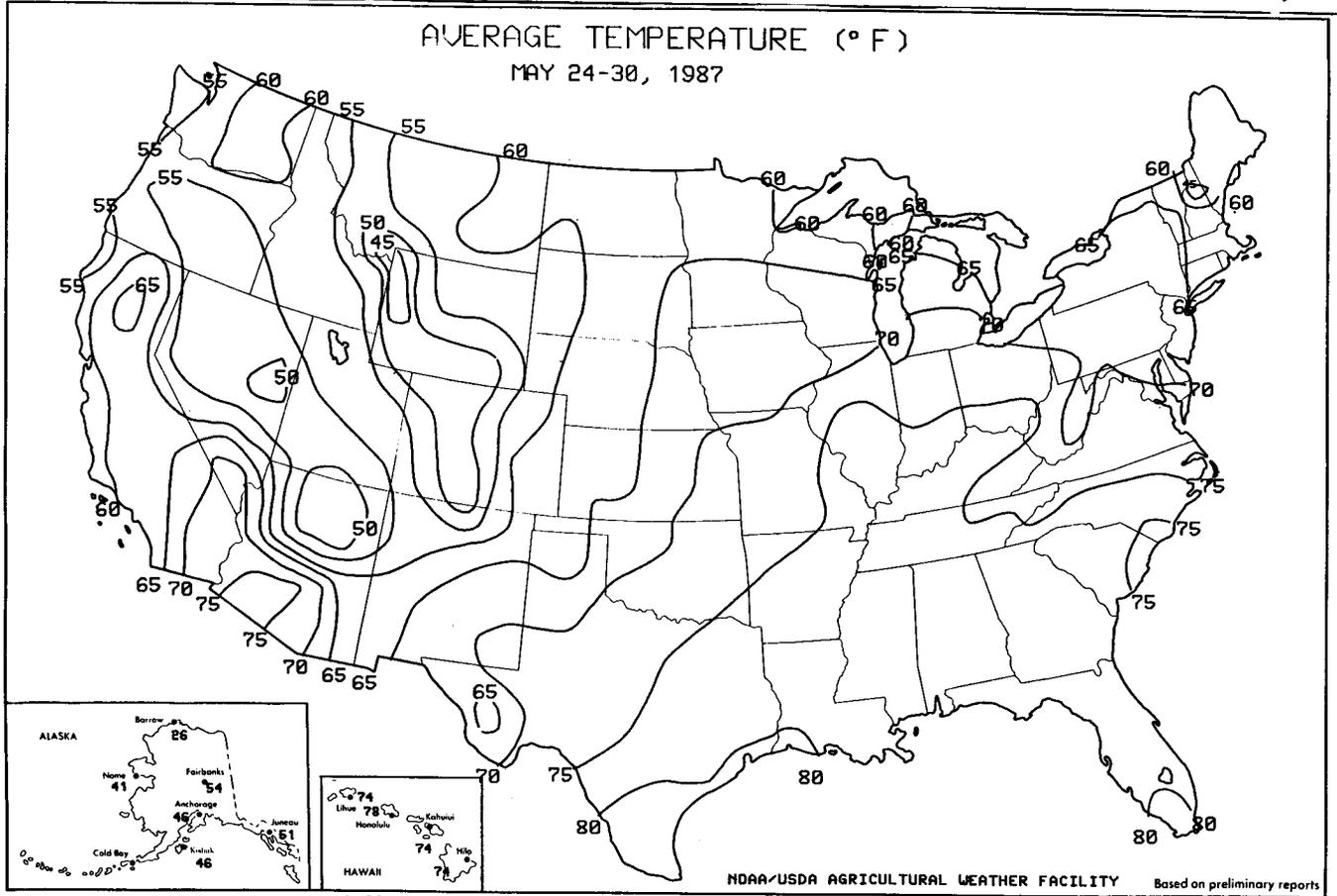
A HIGH PRESSURE SYSTEM CENTERED OVER THE CAROLINAS DRAWS WARM, MOIST AIR FROM THE GULF OF MEXICO INTO THE EAST AS THUNDERSTORMS ARE SCATTERED IN THE OHIO VALLEY AND OVER THE GREAT LAKES.

THE FIRST TROPICAL DEPRESSION OF THE SEASON IS EAST OF THE BAHAMAS, AND THUNDERSTORMS BRING HEAVY RAIN TO PUERTO RICO AND THE DOMINICAN REPUBLIC.

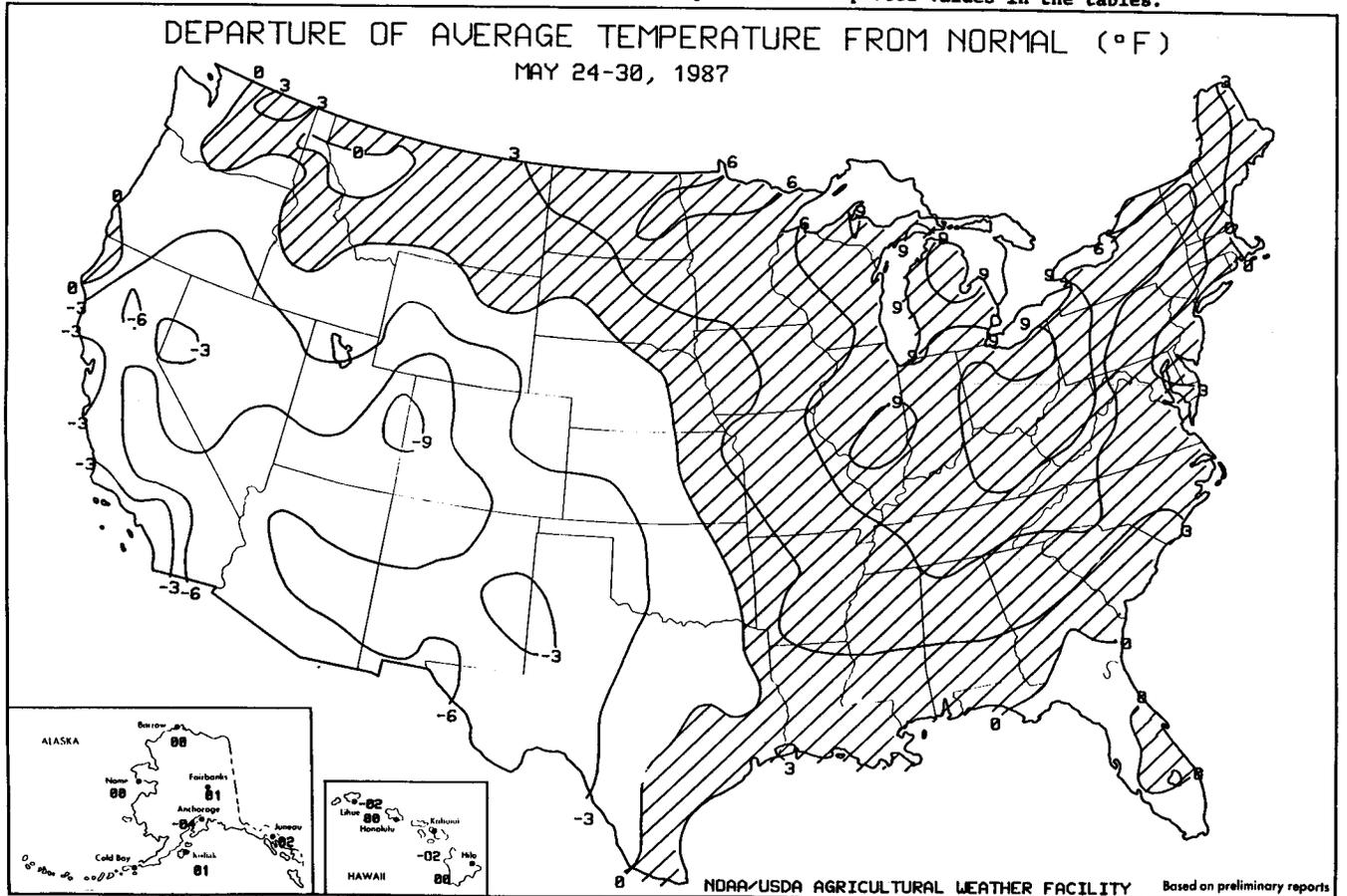


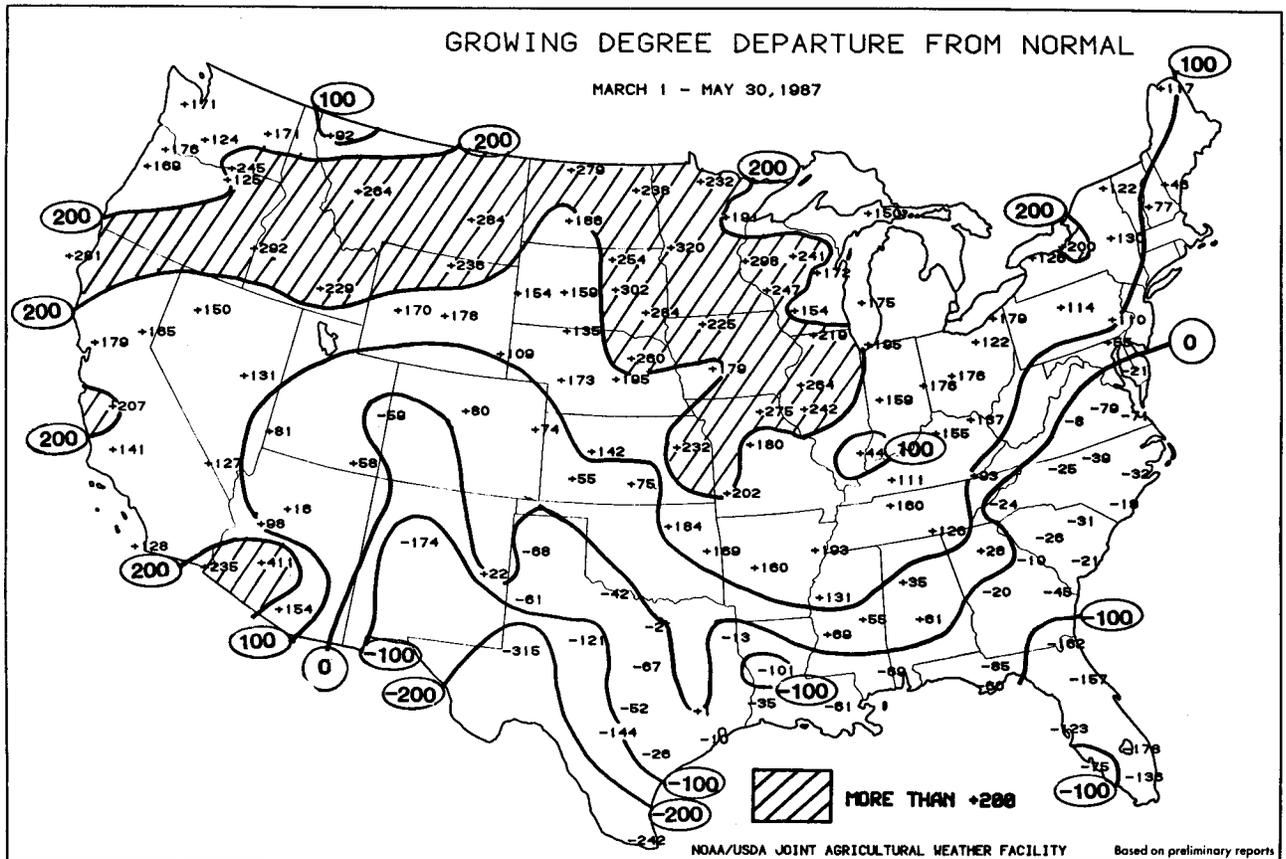
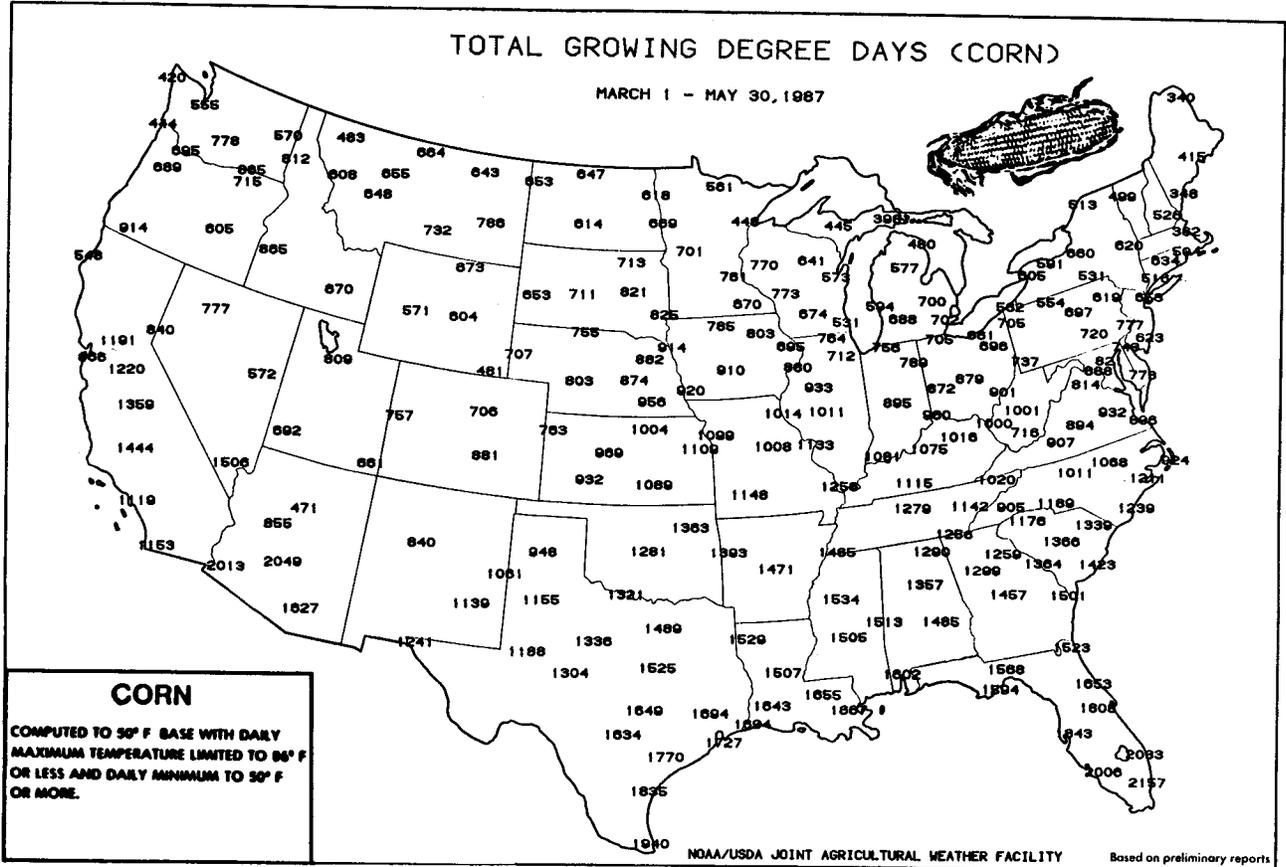


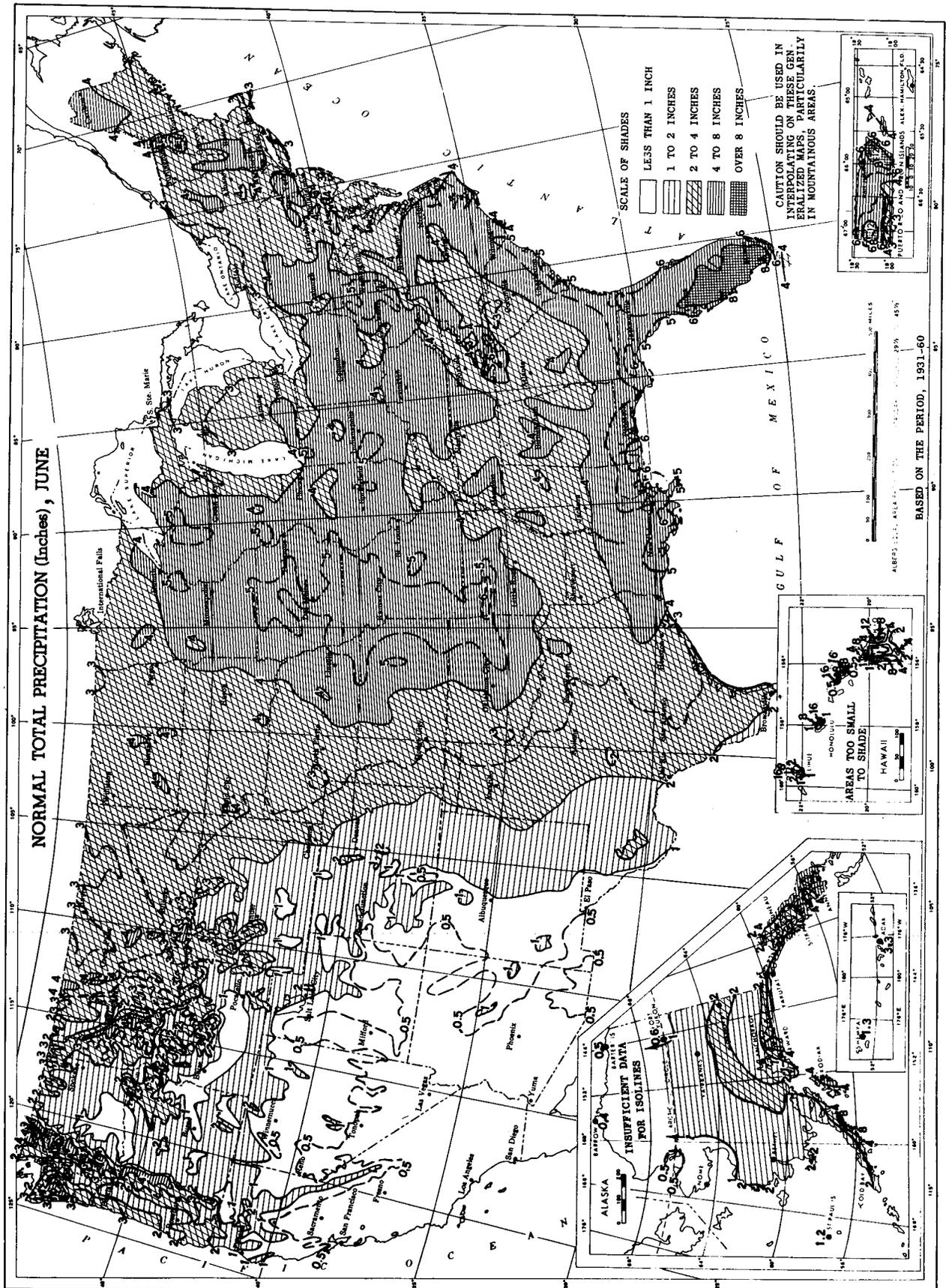




Point values may differ on these computerized maps from the reported values in the tables.







National Weather Data for Selected Cities

Weather Data for the Week Ending May 30, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR. 1	PCT. NORMAL SINCE MAR. 1	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	89	66	92	63	77	5	1.8	.8	1.7	11.0	69	22.8	88	93	45	1	0	2	1
MOBILE	87	68	89	66	77	0	.9	-.3	.8	17.9	105	32.3	122	98	53	0	0	2	1
MONTGOMERY	89	65	90	62	77	2	0	-.9	0	10.4	73	27.3	120	97	49	1	0	0	0
AK ANCHORAGE	53	39	64	34	46	-3	.4	-.3	.3	1.1	60	2.9	85	89	50	0	0	0	0
BARROW	29	24	34	20	26	1	.1	-.1	.1	.2	35	.4	44	96	83	0	7	3	0
FAIRBANKS	64	44	72	36	54	1	.1	-.1	.1	.2	13	.9	42	74	31	0	0	1	0
JUNEAU	56	46	67	44	51	2	.5	-.2	.3	7.1	75	14.3	85	98	76	0	0	5	0
KODIAK	52	40	63	35	46	1	.8	-.4	.5	14.3	113	29.2	124	92	56	0	0	6	0
NOME	48	34	51	29	41	0	.1	-.1	.1	.9	56	2.4	82	91	57	0	4	2	0
AZ PHOENIX	89	65	98	57	77	-4	0	0	0	.4	36	3.2	128	36	14	3	0	0	0
FRESNOCO	72	41	80	35	56	-4	0	-.1	0	1.1	38	4.6	76	51	16	0	0	0	0
TUCSON	86	55	91	50	71	-6	0	0	0	2.4	213	4.6	181	53	11	2	0	0	0
YUMA	86	62	96	58	74	-7	0	0	0	.1	41	.5	58	47	18	2	0	0	0
AR FORT SMITH	83	65	87	62	74	2	2.7	1.6	1.4	11.5	91	17.4	103	97	59	0	0	4	2
LITTLE ROCK	85	69	87	65	77	4	.5	-.6	.3	6.9	45	15.2	66	88	59	0	0	5	0
CA BAKERSFIELD	78	52	85	48	65	-9	0	0	0	1.2	66	3.7	97	71	29	0	0	0	0
EUREKA	60	51	63	48	56	2	.4	-.1	.3	7.7	81	17.5	81	88	67	0	0	2	0
FRESNO	78	52	85	49	65	-6	0	0	0	3.3	110	6.6	96	81	30	0	0	0	0
LOS ANGELES	67	55	70	54	61	-3	0	0	0	.9	34	2.9	34	60	58	0	0	0	0
REDDING	77	55	84	50	66	-6	0	-.2	0	7.2	79	19.1	81	69	30	0	0	0	0
SACRAMENTO	75	50	82	49	63	-5	0	0	0	3.4	92	8.8	83	89	36	0	0	0	0
SAN DIEGO	67	59	69	57	63	-1	0	0	0	1.9	72	5.1	83	75	61	0	0	1	0
SAN FRANCISCO	64	53	69	51	59	0	0	0	0	2.2	49	8.5	69	83	57	0	0	0	0
CO DENVER	70	46	75	40	58	-3	.6	-.1	.6	7.0	131	8.9	137	84	32	0	0	3	1
GRAND JUNCTION	67	43	78	40	55	-10	.1	0	.1	3.9	181	5.4	163	81	29	0	0	4	0
PUEBLO	77	45	80	37	61	-4	.2	-.2	.1	2.8	92	4.8	135	85	23	0	0	2	0
CT BRIDGEPORT	72	55	92	50	64	2	.1	-.6	.1	10.4	95	15.6	91	88	55	1	0	2	0
HARTFORD	77	56	93	49	66	3	.4	-.3	.3	11.9	105	18.5	103	91	52	2	0	2	0
DC WASHINGTON	82	65	97	59	74	4	T	-.8	T	6.3	65	13.4	89	92	55	2	0	0	0
FL APALACHICOLA	84	69	85	67	76	0	T	-.7	T	12.8	127	23.0	133	92	56	0	0	0	0
DAYTONA BEACH	83	72	84	68	78	1	T	-1.0	T	10.3	122	19.1	137	82	56	0	0	1	0
JACKSONVILLE	86	63	87	59	74	-3	T	-1.1	T	7.2	68	17.7	104	100	48	0	0	1	0
KEY WEST	85	76	85	75	80	-1	.8	-.2	.6	12.3	209	13.7	143	86	62	0	0	4	1
MIAMI	85	73	87	71	79	0	.5	-1.3	.3	8.5	75	12.0	78	87	52	0	0	3	0
ORLANDO	87	68	89	67	78	-1	.1	-1.0	0	13.3	146	16.3	113	93	45	0	0	3	0
TALLAHASSEE	89	63	90	58	76	0	0	-1.3	0	13.1	90	25.7	106	95	39	1	0	0	0
TAMPA	88	69	90	67	78	-1	0	-.9	0	15.3	181	20.1	147	94	45	1	0	0	0
WEST PALM BEACH	84	74	85	71	79	0	.1	-1.5	0	15.7	135	18.1	107	80	55	0	0	2	0
GA ATLANTA	87	68	89	66	77	5	T	-.9	T	9.4	66	21.1	90	85	42	0	0	0	0
AUGUSTA	90	63	92	60	77	3	.1	-.8	.1	6.6	56	22.8	115	99	41	5	0	1	0
MACON	90	66	91	63	78	3	T	-.9	T	7.7	62	21.7	103	97	39	3	0	0	0
SAVANNAH	86	66	87	64	76	0	0	-1.2	0	9.7	84	22.7	128	93	46	0	0	0	0
HI HILO	81	68	83	64	75	0	5.3	3.5	4.0	27.7	77	41.0	70	91	65	0	0	5	2
HONOLULU	85	70	92	67	78	0	.3	0	.1	1.4	23	2.6	21	87	49	1	0	3	0
KAHULUI	82	67	88	62	75	-1	.2	.2	.1	8.0	186	12.3	109	86	55	0	0	2	0
LIHUE	79	70	81	67	74	-2	.2	-.4	.1	6.9	65	10.8	52	88	66	0	0	2	0
ID BOISE	70	50	79	44	60	0	.6	.3	.5	3.0	90	5.0	84	89	41	0	0	2	1
LEWISTON	69	52	77	46	61	0	T	-.3	T	2.1	59	3.1	53	83	41	0	0	1	0
POCATELLO	68	44	75	38	56	-1	.2	0	.1	3.3	103	5.1	98	89	37	0	0	2	0
IL CHICAGO	80	61	89	47	70	8	.5	-.2	.3	6.1	64	8.8	71	94	56	0	0	3	0
MOLINE	80	61	90	48	70	5	.5	-.2	.4	7.1	66	8.9	65	92	56	1	0	2	0
PEORIA	83	63	90	48	73	8	.6	-.2	.3	5.5	53	7.8	58	88	52	1	0	3	0
QUINCY	82	64	88	50	73	6	.6	-.4	.3	6.3	56	8.5	61	96	59	0	0	5	0
ROCKFORD	78	60	89	46	69	6	.3	-.6	.2	7.6	73	9.4	72	93	61	0	0	2	0
SPRINGFIELD	88	66	93	49	77	10	T	-.7	T	5.2	51	7.4	55	90	44	4	0	1	0
IN EVANSVILLE	88	66	93	62	77	8	2.3	1.3	1.4	7.7	59	11.9	63	100	55	3	0	4	2
FORT WAYNE	83	60	89	46	72	8	.4	-.4	.2	6.9	70	9.5	69	94	52	0	0	2	0
INDIANAPOLIS	85	63	90	51	74	8	.4	-.5	.3	6.3	59	9.1	58	96	47	1	0	2	0
SOUTH BEND	83	62	90	41	72	10	.6	0	.6	7.4	75	11.0	78	93	51	1	0	3	1
IA DES MOINES	77	60	81	51	69	3	1.6	.7	1.0	9.4	102	11.2	99	96	62	0	0	6	1
SIOUX CITY	74	59	83	54	67	1	1.9	1.1	.9	10.7	147	11.3	128	98	67	0	0	4	2
WATERLOO	75	59	83	50	67	4	1.7	.8	1.2	7.0	72	8.4	73	89	59	0	0	3	1
KS CONCORDIA	77	59	83	57	68	1	2.0	1.0	1.3	17.3	217	18.8	199	94	59	0	0	4	1
DODGE CITY	74	54	80	50	64	-4	1.5	.7	.9	7.8	122	9.8	133	98	57	0	0	5	1
GOODLAND	73	51	79	49	62	-1	.5	-.2	.2	6.5	131	7.8	138	96	47	0	0	3	0
TOPEKA	80	63	84	61	72	3	2.3	1.3	1.2	12.6	138	16.4	148	95	60	0	0	4	2
WICHITA	77	59	83	56	68	-1	2.8	1.9	1.2	12.8	156	17.5	180	99	63	0	0	5	3
KY BOWLING GREEN	86	65	91	64	76	6	1.2	.2	.8	9.1	66	15.9	71	99	53	2	0	4	1
LEXINGTON	88	66	92	61	77	10	.3	-.7	.1	7.2	55	12.1	61	96	52	2	0	3	0
LOUISVILLE	87	67	91	61	77	8	.8	-.1	.7	7.0	55	12.3	63	96	49	3	0	3	1
LA ALEXANDRIA	85	69	86	67	77	0	.1	-1.2	.1	10.7	65	25.2	95	89	62	0	0	1	0
BATON ROUGE	87	70	89	68	78	1	.6	-.3	.6	11.6	78	26.6	109	95	52	0	0	2	1
LAKE CHARLES	88	71	89	70	80	3	.6	-.7	.3	8.2	66	20.7	102	97	59	0	0	3	0
NEW ORLEANS	88	70	89	67	79	2	1.2	-.1	1.2	10.1	72	26.3	109	96	55	0	0	3	1

Based on 1951-80 normals.

(Continued from front cover)
SATURDAY...A large part of the central Plains enjoyed another day of respite from severe weather. However, thunderstorms covered eastern Nebraska and intense storms covered much of Texas. Thunder-

storms also reached from eastern Arkansas to the southern Appalachians and northward to the upper Ohio Valley and southern New York. High temperatures in the low nineties covered much of the east coast.

Weather Data for the Week Ending May 30, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE 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	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	87	68	88	66	77	2	2.4	1.4	1.4	8.5	66	18.6	91	99	60	0	0	6	1
ME CARIBOU	69	47	76	30	58	3	.1	-.6	0	4.3	56	6.9	57	89	45	0	1	3	0
PORTLAND	68	49	86	39	59	2	.5	-.2	.3	13.2	120	18.5	101	94	55	0	0	4	0
MD BALTIMORE	78	61	93	57	70	3	.1	-.7	.1	7.0	67	15.0	92	95	60	2	0	1	0
SALISBURY	80	59	95	55	70	3	0	0	0	9.0	85	18.3	106	95	58	2	0	0	0
MA BOSTON	69	52	93	44	61	3	.4	-.4	.2	15.5	138	23.5	125	93	56	1	0	3	0
CHATHAM	63	48	75	43	55	-2	.6	-.2	.6	16.1	139	26.4	132	91	67	0	0	2	1
MI ALPENA	78	49	89	32	63	8	1.3	.7	.5	3.8	54	5.6	56	98	53	0	1	3	0
DETROIT	83	59	92	48	71	9	.9	-.3	.8	6.8	82	9.7	82	98	50	3	0	4	1
FLINT	82	61	90	49	72	11	.3	-.3	.3	5.4	69	7.0	65	97	54	4	0	2	0
GRAND RAPIDS	81	60	90	41	71	9	T	-.6	T	4.6	51	5.6	45	86	47	2	0	1	0
HOUGHTON LAKE	77	56	86	39	66	9	.3	-.4	.3	2.8	40	4.5	46	88	53	0	0	1	0
LANSING	82	61	90	47	72	11	.1	-.5	.1	3.9	52	5.2	50	88	45	2	0	1	0
MARQUETTE	77	51	87	29	64	10	1.3	-.6	-.6	8.3	112	11.3	105	97	48	0	1	5	1
MUSKEGON	77	60	86	44	69	9	.1	-.4	-.1	6.8	84	9.0	75	87	55	0	0	1	0
SAULT ST. MARIE	74	49	88	34	62	8	.3	-.4	.3	4.4	62	7.0	63	98	56	0	0	2	0
MN ALEXANDRIA	73	56	80	49	65	5	1.3	.5	1.1	5.4	87	6.7	87	95	58	0	0	3	1
DULUTH	69	48	80	32	59	5	.5	-.3	.2	4.7	69	5.7	64	99	60	0	1	6	0
INT'L FALLS	74	52	82	38	63	8	.5	-.1	.3	3.3	66	4.0	62	97	53	0	0	5	0
MINNEAPOLIS	75	59	84	47	67	5	.2	-.6	.1	2.7	40	3.5	41	93	57	0	0	4	0
ROCHESTER	73	57	80	44	65	4	1.0	.2	.4	4.4	58	5.3	58	99	65	0	0	5	0
MS GREENWOOD	88	69	90	65	79	4	1.0	0	1.0	12.9	78	22.5	86	93	55	1	0	2	1
JACKSON	89	67	90	64	78	3	.1	-.9	.1	11.7	73	26.6	105	97	51	4	0	1	0
MERIDIAN	87	65	89	62	76	2	T	-.9	T	10.6	66	30.7	119	98	50	0	0	0	0
MO CAPE GIRARDEAU	85	68	92	66	77	-1	2.8	1.8	1.4	8.0	56	12.1	60	92	55	2	0	3	2
COLUMBIA	82	64	86	57	73	5	.4	-.6	-.3	6.4	55	9.4	62	95	57	0	0	2	0
KANSAS CITY	82	64	85	59	73	3	1.6	.5	.8	9.4	92	12.4	98	94	57	0	0	5	1
SAINT LOUIS	85	68	90	56	76	7	T	-.8	T	5.9	58	9.3	66	86	49	1	0	1	0
SPRINGFIELD	81	64	84	61	73	5	1.3	.3	.6	11.5	99	18.9	123	98	59	0	0	3	1
MT BILLINGS	69	51	79	47	60	1	2.1	1.6	1.5	5.6	106	6.1	88	92	48	0	0	5	1
GLASGOW	71	50	84	46	60	2	.7	.3	.5	3.4	133	3.6	113	90	48	0	0	2	0
GREAT FALLS	67	47	77	41	57	0	1.2	-.6	-.6	4.8	100	5.1	79	85	49	0	0	4	1
HAVRE	73	48	82	38	60	2	.2	-.2	.2	2.1	62	2.3	53	85	40	0	0	2	0
HELENA	67	46	76	40	57	2	-.6	.1	.4	3.8	111	3.8	84	94	50	0	0	4	0
KALISPELL	65	45	76	36	55	0	.3	-.2	.1	4.8	134	6.1	98	93	48	0	0	4	0
MILES CITY	72	54	82	50	63	3	1.9	1.3	.9	5.2	123	5.3	99	88	43	0	0	4	2
MISSOULA	65	45	76	36	55	0	.6	.2	.3	2.7	79	3.3	59	95	51	0	0	5	0
NE GRAND ISLAND	74	57	83	54	66	1	.9	.1	.4	12.9	168	13.7	152	96	62	0	0	4	0
LINCOLN	75	60	83	55	68	2	2.8	1.9	1.5	12.6	149	13.2	130	97	65	0	0	4	2
NORFOLK	72	57	82	53	65	0	2.5	1.5	1.3	13.6	187	14.6	171	98	67	0	0	5	2
NORTH PLATTE	73	53	80	46	63	1	.6	-.3	.4	5.9	96	7.6	108	97	68	0	0	4	0
OMAHA	73	60	82	54	67	0	4.4	3.3	3.1	12.7	141	13.4	126	94	69	0	0	6	2
SCOTTSBLUFF	70	47	75	41	59	-2	2.1	1.4	-.6	9.3	188	11.5	199	94	48	0	0	6	3
VALENTINE	74	49	81	44	61	0	.2	-.5	-.2	5.0	91	6.4	104	89	49	0	0	2	0
NV ELY	61	34	71	27	48	-6	-.8	-.6	-.5	3.6	126	5.0	117	93	43	0	2	5	1
LAS VEGAS	81	58	90	53	70	0	T	0	T	1.6	200	3.2	186	47	15	1	0	0	0
RENO	67	42	74	35	55	-3	T	-.2	T	3.6	194	4.9	122	76	27	0	0	0	0
WINNEMUCCA	64	44	75	40	54	-4	1.3	1.1	.7	5.2	239	6.3	169	91	47	0	0	2	2
NH CONCORD	75	51	92	43	63	4	.1	-.5	.1	9.2	105	12.2	87	95	47	1	0	3	0
NJ ATLANTIC CITY	74	57	95	52	66	2	.1	-.5	.1	12.1	119	20.0	118	95	59	2	0	1	0
NM ALBUQUERQUE	75	49	79	41	62	-7	.1	-.1	.1	1.6	123	2.9	139	53	14	0	0	1	0
CLOVIS	80	58	84	54	69	1	.3	-.2	.3	3.3	99	5.3	124	85	28	0	0	2	0
ROSWELL	82	56	86	47	69	-3	.4	-.3	.4	1.9	131	4.2	184	81	21	0	0	1	0
NY ALBANY	77	58	92	54	67	6	.3	-.5	-.2	7.8	86	12.3	90	97	58	2	0	2	0
BINGHAMTON	73	56	88	48	65	6	.3	-.5	-.1	7.4	81	11.1	80	96	62	0	0	3	0
BUFFALO	80	59	90	48	69	9	T	-.6	T	8.4	96	12.2	86	92	54	1	0	0	0
NEW YORK	77	59	96	53	68	3	T	-.7	T	10.4	94	16.7	97	90	58	2	0	0	0
ROCHESTER	79	58	94	46	69	8	T	-.6	T	6.3	83	8.8	72	92	57	2	0	0	0
SYRACUSE	78	59	93	51	69	8	.6	-.2	.5	6.6	69	10.2	70	90	56	2	0	2	1
NC ASHEVILLE	82	60	84	58	71	5	.9	-.1	.3	8.4	69	18.1	97	100	56	0	0	5	0
CHARLOTTE	87	67	91	65	77	6	T	-.8	T	6.9	59	16.9	89	90	47	1	0	0	0
GREENSBORO	84	66	89	63	75	6	2.4	1.6	2.0	13.8	134	22.3	130	97	56	0	0	3	1
HATTERAS	81	65	86	63	73	3	0	-.1	0	15.3	138	30.2	152	97	58	0	0	0	0
NEW BERN	87	66	91	65	77	5	T	-.1	.1	9.7	90	20.8	111	94	49	3	0	1	0
RALEIGH	84	65	90	64	75	5	T	-.8	T	8.8	87	20.8	122	95	56	1	0	1	0
WILMINGTON	85	65	86	62	75	2	0	-.1	0	6.6	60	17.5	97	96	49	0	0	0	0
ND BISMARCK	69	54	80	50	62	3	.7	.1	.5	5.7	132	7.5	142	95	58	0	0	3	1
FARGO	73	56	83	52	65	5	.8	.3	.8	4.1	84	5.2	91	96	59	0	0	4	1
GRAND FORKS	73	56	83	51	64	6	1.1	-.6	.4	4.4	110	5.9	113	95	59	0	0	4	0
WILLISTON	73	50	83	46	62	3	.4	-.1	.3	3.7	105	4.2	94	95	49	0	0	2	0
OH AKRON-CANTON	81	59	86	46	70	8	.6	-.2	.4	9.5	95	11.7	80	99	57	0	0	2	0
CINCINNATI	87	65	91	58	76	10	2.5	1.6	1.7	10.2	92	12.7	75	91	49	2	0	3	2
CLEVELAND	81	60	91	46	71	8	.5	-.2	.4	9.1	96	11.5	82	95	54	1	0	3	0
COLUMBUS	86	62	91	54	74	9	.8	-.1	.5	6.9	68	8.7	57	99	55	1	0	4	0

Based on 1951-80 normals.

Weather Data for the Week Ending May 30, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE 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
DAYTON	85	63	89	50	74	8	1.0	.2	.5	8.1	81	10.2	70	96	54	0	0	3	1
TOLEDO	82	57	92	48	70	7	.1	-.5	.1	5.8	70	8.2	68	99	51	3	0	3	0
YOUNGSTOWN	81	57	88	40	69	9	1.0	.3	.8	8.8	89	11.2	76	99	54	0	0	3	1
OK OKLAHOMA CITY	77	62	83	57	70	-2	8.4	7.2	5.4	14.5	142	21.0	169	99	65	0	0	5	3
TULSA	80	64	85	60	72	0	6.3	5.1	3.0	12.0	98	19.0	124	96	60	0	0	4	4
OR ASTORIA	59	49	61	46	54	0	1.4	1.2	1.0	15.0	259	30.5	233	95	63	0	0	4	1
BURNS	62	41	71	35	51	-4	.4	.2	.2	2.9	114	5.1	93	***	***	0	0	5	0
MEDFORD	68	49	78	42	58	-2	.5	.3	.2	2.7	66	7.8	82	89	37	0	0	3	0
PENDLETON	68	49	75	43	59	-3	.3	.1	.2	2.7	88	4.8	82	80	42	0	0	4	0
PORTLAND	65	51	72	48	58	-1	.6	.1	.5	8.3	105	17.8	99	87	53	0	0	3	0
SALEM	65	48	71	38	56	-1	.8	.4	.7	7.6	89	18.8	93	90	54	0	0	4	1
PA ALLENTOWN	76	59	94	54	68	4	T	-.7	T	8.9	79	13.8	79	92	56	2	0	1	0
ERIE	78	59	88	42	69	9	T	-.7	T	7.8	82	11.0	79	91	57	0	0	1	0
HARRISBURG	78	62	94	56	70	5	T	-.9	T	8.1	79	13.3	84	95	61	2	0	0	0
PHILADELPHIA	78	60	94	54	69	3	.1	-.6	.1	8.0	77	13.7	84	93	57	2	0	1	0
PITTSBURGH	84	60	91	49	72	9	.2	-.6	.1	10.1	98	13.0	84	95	47	2	0	3	0
SCRANTON	75	56	91	50	66	4	.2	-.6	.2	7.7	89	11.1	86	96	59	1	0	1	0
RI PROVIDENCE	74	53	93	46	64	2	.5	-.3	.2	14.4	125	19.5	101	93	55	1	0	3	0
SC CHARLESTON	85	66	87	63	76	1	.3	-.9	.3	9.2	82	21.0	118	99	54	0	0	2	0
COLUMBIA	91	66	93	63	78	4	T	-.9	T	6.9	55	20.6	99	93	38	6	0	1	0
FLORENCE	89	65	92	63	77	3	T	-.8	T	6.2	60	16.7	98	95	44	3	0	0	0
GREENVILLE	89	64	92	62	77	5	.2	-.7	.2	8.6	61	20.6	91	99	47	2	0	1	0
SD ABERDEEN	73	55	81	51	64	4	.6	0	.4	4.1	76	5.3	82	98	59	0	0	3	0
HURON	74	56	84	51	65	4	1.6	.9	1.2	7.6	131	8.9	128	98	61	0	0	4	1
RAPID CITY	69	48	74	43	58	-1	1.6	.9	.8	4.5	83	6.3	97	95	56	0	0	4	2
SIoux FALLS	72	57	81	51	64	2	1.3	.5	.8	6.5	93	6.9	82	98	68	0	0	4	1
TN CHATTANOOGA	88	67	90	65	77	7	1.6	.7	1.0	11.8	80	25.3	103	100	54	2	0	5	1
KNOXVILLE	87	64	90	62	76	6	2.0	1.2	1.8	9.7	75	19.1	88	98	53	1	0	3	1
MEMPHIS	87	69	90	65	78	4	2.2	1.2	.8	9.8	61	17.4	70	92	53	2	0	3	3
NASHVILLE	87	67	90	65	77	6	.9	-.1	.8	6.4	44	12.8	56	97	53	2	0	3	1
TX ABILENE	80	64	85	60	72	-3	2.1	1.4	1.7	7.0	107	11.1	130	93	61	2	0	3	1
AMARILLO	74	53	79	47	63	-6	2.5	1.8	1.2	5.8	127	7.9	141	98	61	0	0	6	2
AUSTIN	85	70	89	64	77	0	4.6	3.6	3.8	8.3	94	12.1	94	96	64	0	0	3	2
BEAUMONT	86	73	88	69	80	2	.2	-1.0	.1	5.2	43	20.9	103	92	61	0	0	2	0
BROWNSVILLE	88	76	91	73	82	1	.1	-.5	.1	3.4	83	8.1	119	94	59	1	0	1	0
CORPUS CHRISTI	86	73	88	67	80	0	1.1	.2	1.0	4.4	74	12.6	141	95	65	0	0	2	1
DEL RIO	83	68	89	65	76	-4	.5	.1	.5	6.2	141	9.9	170	86	66	0	0	2	1
EL PASO	84	51	89	45	68	-8	.1	0	.1	.9	129	1.4	95	46	13	0	0	1	0
FORT WORTH	84	66	89	61	75	-1	3.7	2.9	2.9	7.7	73	12.6	89	96	58	0	0	4	1
GALVESTON	85	76	89	69	80	2	.2	-.6	.2	3.4	43	12.1	91	83	59	0	0	2	0
HOUSTON	87	70	92	65	79	1	1.1	0	1.1	6.7	61	13.4	75	96	56	2	0	2	1
LUBBOCK	79	60	85	56	69	-3	.5	-.2	.4	2.8	64	4.8	91	100	62	0	0	4	0
MIDLAND	81	62	88	55	72	-3	.8	.3	.6	5.1	154	7.1	169	97	51	0	0	2	1
SAN ANGELO	81	62	85	57	72	-5	6.2	5.7	2.3	13.4	273	18.5	290	94	60	0	0	4	3
SAN ANTONIO	85	71	89	64	78	0	4.0	3.1	3.5	13.2	174	19.1	174	95	58	0	0	3	1
VICTORIA	86	71	90	65	79	0	1.9	.8	1.7	5.3	64	11.9	96	96	62	1	0	3	1
WACO	86	67	91	62	76	-1	1.5	.5	.8	8.4	82	12.4	88	98	61	3	0	5	1
WICHITA FALLS	80	63	88	59	72	-3	6.2	5.3	2.7	12.4	138	18.3	169	98	60	0	0	5	4
UT BLANDING	67	39	77	36	53	-8	.1	0	.1	2.5	121	5.0	115	86	32	0	0	1	0
CEDAR CITY	66	40	77	36	53	-7	.1	-.1	.1	3.0	107	4.8	111	85	32	0	0	1	0
SALT LAKE CITY	69	49	79	46	59	-3	.3	.1	.2	4.7	89	7.6	96	72	31	0	0	4	0
VT BURLINGTON	74	56	92	48	65	6	.6	-.1	.4	4.2	54	6.6	58	96	57	1	0	2	0
VA NORFOLK	81	64	92	60	73	3	1.3	.4	.9	8.8	86	21.8	127	96	63	3	0	2	1
RICHMOND	81	63	92	59	72	4	1.2	.3	.9	11.7	118	19.8	122	97	62	2	0	3	1
ROANOKE	82	64	89	62	73	5	.6	-.2	.6	18.2	180	27.3	169	100	65	0	0	3	1
WA COLVILLE	70	50	75	45	60	3	.6	.2	.4	5.5	145	7.8	104	83	44	0	0	4	0
QUILLAYUTE	59	46	63	44	53	0	3.6	2.7	2.0	28.1	116	50.5	99	98	70	0	0	5	3
SEATTLE-TACOMA	63	48	71	45	55	-2	1.3	1.0	1.2	10.4	139	18.5	104	96	55	0	0	3	1
SPOKANE	67	48	73	43	57	0	.6	.2	.5	4.1	111	6.5	84	87	37	0	0	3	0
YAKIMA	74	50	80	38	62	2	.1	0	.1	2.1	136	3.8	104	74	29	0	0	1	0
WV BECKLEY	81	61	85	59	71	9	.6	-.2	.4	12.0	111	18.9	108	96	55	0	0	3	0
CHARLESTON	88	65	91	64	76	10	.7	-.1	.3	7.9	71	14.4	82	100	53	3	0	3	0
HUNTINGTON	87	64	90	62	76	8	1.2	.4	1.2	10.8	96	16.6	96	100	59	1	0	3	1
PARKERSBURG	87	63	92	58	75	8	.6	-.3	.4	7.4	72	10.5	67	98	50	2	0	3	0
WI GREEN BAY	75	56	86	45	66	7	1.2	.4	.4	6.3	84	7.2	74	99	63	0	0	4	0
LACROSSE	76	60	84	45	68	5	.5	-.4	.4	8.8	104	10.2	100	94	58	0	0	3	0
MADISON	76	57	85	42	66	5	.8	0	.4	8.3	99	9.6	91	99	64	0	0	3	0
MILWAUKEE	77	58	89	40	67	9	.2	-.5	.1	9.4	111	11.8	104	95	61	0	0	2	0
WAUSAU	75	56	85	40	65	6	1.5	.7	.7	5.3	63	5.9	58	96	56	0	0	5	1
WY CASPER	66	43	75	39	55	-2	.4	-.1	.2	3.2	71	6.0	109	90	37	0	0	5	0
CHEYENNE	62	41	67	36	52	-4	1.0	.4	.4	6.3	140	7.3	138	86	46	0	0	7	0
LANDER	65	43	74	40	54	-2	.5	-.1	.3	6.0	101	8.6	122	86	34	0	0	3	0
SHERIDAN	68	46	77	41	57	1	1.2	.7	.8	3.7	69	4.9	71	96	45	0	0	3	1
PR SAN JUAN	90	76	93	75	83	2	5.0	3.7	2.6	23.4	204	25.8	156	93	79	4	0	5	3

Based on 1951-80 normals.

Cooling Degree Day Summary Table

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

LAST DATE OF DATA COLLECTION PERIOD IS 5-30-1987
ACCUMULATIONS ARE FROM JANUARY 1
** = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL, WEEK TOTAL, WEEK DEV FROM NORM, WEEK DEV FROM L YR, CUM TOTAL, CUM DEV FROM NORM, CUM DEV FROM L YR, CUM DEV FROM NORM L YR, CUM DEV FROM L YR PRCT, CUM DEV FROM L YR PRCT. Lists 100+ cities and their cooling degree day data.

National Agricultural Summary

May 25 to 31, 1987

HIGHLIGHTS: Rain promoted small grain development and crop growth in the central and northern Great Plains and in the Corn Belt. Heavy rain caused flooding in Oklahoma and Texas, but crop damage was minimal thus far. Some reseeded may be necessary in the central and southern Plains. Fieldwork averaged 5 to 6 days, except in the Great Plains where farmers worked 3 days or less. Soil moisture was becoming surplus in the central Plains, but additional moisture is needed in the Appalachian States, the Southeast, and in Western States.

Corn was mostly good. Rain promoted growth in the central Plains and Corn Belt. Corn reached the soft-dough stage in Texas. Sorghum was 58 percent (%) planted, compared with the 49% 5-year average. Heading was underway in Texas. Despite rain, soybean planting jumped 12 points ahead of the previous week to 75% completion. This was 20 percentage points ahead of 1986 and 23 points above the average. Cotton planting fell 4 points behind normal. Rain damaged cotton in Texas and held planting at a standstill in Oklahoma. Wheat heading gained momentum, increasing 11 points from the previous week. Wheat harvest continued spreading across the southern half of the Nation. Livestock was mostly good.

SMALL GRAINS: Winter was mostly good, except in the Delta where conditions were fair to good. Rain provided additional moisture throughout much of central and northern Great Plains, and the Corn Belt. The crop was 86% headed, compared with 81% in 1986 and 74% normally. Heading surged 11 points ahead of the previous week. Wheat turned color as far north as Illinois, Kansas, and Nebraska. Wheat began turning color in Nebraska, while 15% started turning color in Kansas and 25% in Illinois. Wheat harvest climbed as far north as Arkansas and stretched to California. Harvest began in California and was 35% finished in Arizona. Wheat was 28% harvested in both Louisiana and Alabama. Harvest reached 15% completion in Georgia, 11 points behind average.

Spring wheat was mostly good to excellent. Twenty-five percent of Minnesota's spring wheat was jointing, and 2 percent was heading. Spring wheat was mostly emerged in the 5 major producing States.

CORN: Corn was mostly good to fair. Moisture and warm temperatures promoted growth in the Corn Belt and central and northern Great Plains. Rain benefited corn growth in the southern Great Plains and Delta. Some early planted corn reached the dough stage, and many fields were tasselling in Texas. Fifteen percent of Alabama's corn was silking, compared with 11% normally. Silking was 19 points behind normal in Georgia. Silking was becoming more prevalent in the Southeast and Delta. Illinois and Indiana corn was 2 times taller than normal.

SORGHUM: The 11 major sorghum producing States seeded 58% of their acreage, surpassing the average by 9 points, but was 1 point below last year. Seeding lagged 25 points behind normal in Oklahoma at 20% completion. Heavy rain held planting progress to a 2 point gain from the previous week in Texas and only 5 points in Oklahoma. Most sorghum in central Texas was in boot stage, and some early planted sorghum was heading.

SOYBEANS: Precipitation hindered planting a little in the central Plains and some Corn Belt States, but progress jumped 12 points ahead of the previous week. Seeding was 75% finished in the 19 major producing States, 23 points above normal. Planting was ahead of normal in all States except Louisiana, Mississippi, and North Carolina. Heavy rain caused some replanting in Arkansas.

COTTON: Cotton was 71% planted, 4 points below normal. Rain hampered seeding in the Delta and southern Plains. Planting fell 10 points behind normal in Oklahoma, remaining at 30% completion. Heavy rain and hail damaged cotton in the Trans-Pecos and Plains areas of Texas. Some replanting may be necessary. Cotton began setting bolls at Coastal-Bend and in the Rio Grande Valley. Squares were present in California and Georgia, and bolls began forming in Arizona.

OTHER CROPS: Peanut planting approached completion in the Southeast except South Carolina that was 5 points behind normal. Rain slowed planting in many areas of Texas. Emerged peanuts grew well.

Rice emergence neared completion except in California. Fertilization continued in Texas, and permanent flooding increased. Rice growers applied broadleaf weed controls in California. In Arkansas, uneven rice stands caused weed control problems.

Burley tobacco transplanting was 34 points ahead of normal in Kentucky. Tennessee's tobacco was 65% average. South Carolina's tobacco was fair to good but showed some signs of drought stress.

FRUIT AND NUTS: Limited rain caused irrigation in most citrus producing areas of Florida. New foliage growth continued. Valencia oranges showed some softening and regreening. Very little grapefruit remained to be harvested.

California's apple crop sized well along the north coast. Bing cherry and apricot harvests were active in the San Joaquin Valley. Grape harvest was underway in the Coachella Valley. Valencia harvest accelerated, but naval orange harvest neared completion. Grapefruit movement was light in Arizona, but some valencia oranges were shipped from the central valley. Citrus groves were good, and new crop fruit sized well.

VEGETABLES: Florida's vegetable harvest declined seasonally. Potatoes, watermelon, tomatoes, sweet corn, cucumbers, celery, and peppers were volume leaders. Watermelon harvest moved into west central areas of Florida.

Wet soils delayed vegetable harvest in Texas. The humid weather caused diseases in watermelons.

California vegetable harvest consisted mostly of lettuce, celery, broccoli, cauliflower, and sweet corn. Strawberry harvest continued in the Sacramento Valley.

PASTURES AND LIVESTOCK: Pastures were mostly good. Additional moisture is needed in the Delta and Southwest. Livestock was mostly good. Movement to summer pasture continued in the northern areas of the Nation.

CROP PROGRESS

FOR WEEK ENDING MAY 31, 1987

	COTTON % PLANTED		
	1987	1986	AVG.
ALA	99	90	97
ARIZ	100	99	100
ARK	99	99	97
CALIF	100	100	100
GA	88	77	92
LA	97	99	94
MISS	99	99	NA
MO	100	100	97
N MEX	88	80	78
N C	98	100	99
OKLA	30	45	40
S C	99	100	100
TENN	97	94	94
TEX	54	55	62

14 STATES 74 75 NA

EXCL. STATES WITH NA 71 72 75

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

NA - NOT AVAILABLE.

	SPRING WHEAT % EMERGED		
	1987	1986	AVG.
IDAHO	100	84	89
MINN	99	56	81
MONT	89	84	83
N DAK	95	77	75
S DAK	100	83	95
5 STATES	96	75	81

THESE 5 STATES PRODUCED 94% OF THE 1986 SPRING WHEAT CROP.

	WINTER WHEAT % HEADED		
	1987	1986	AVG.
ARK	100	100	NA
CALIF	99	100	99
COLO	72	77	65
GA	100	100	100
IDAHO	28	0	5
ILL	98	96	87
IND	98	96	75
KANS	100	99	85
MICH	45	20	20
MO	100	98	85
MONT	8	1	1
NEBR	95	76	44
N MEX	100	98	NA
N C	96	100	NA
OHIO	80	85	61
OKLA	99	100	99
OREG	78	40	44
S DAK	54	25	32
TEX	99	100	98
WASH	65	30	30

20 STATES 87 82 NA

EXCL. STATES WITH NA 86 81 74

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

NA - NOT AVAILABLE.

	RICE % EMERGED		
	1987	1986	AVG.
ARK	94	92	78
CALIF	80	55	44
LA	94	97	93
MISS	99	100	86
TEX	99	100	97
5 STATES	93	89	79

THESE 5 STATES PRODUCED 97% OF THE 1986 RICE CROP.

	SOYBEANS % PLANTED		
	1987	1986	AVG.
ALA	51	42	45
ARK	52	43	33
GA	50	25	47
ILL	92	83	69
IND	92	52	54
IOWA	87	53	59
KANS	45	40	20
KY	50	32	30
LA	47	69	56
MICH	80	30	45
MINN	98	59	68
MISS	44	38	46
MO	69	46	37
NEBR	70	68	48
N C	40	37	46
OHIO	90	70	63
S C	42	34	40
S DAK	86	25	54
TENN	45	35	30

19 STATES 75 55 52

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

	GRAIN SORGHUM % PLANTED		
	1987	1986	AVG.
ARK	95	87	NA
ILL	75	62	43
KANS	40	35	20
LA	91	98	91
MISS	93	88	75
MO	77	60	55
NEBR	65	78	48
OKLA	20	45	45
S DAK	65	21	37
TENN	80	75	70
TEX	69	77	78

11 STATES 60 60 NA

EXCL. STATES WITH NA 58 59 49

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

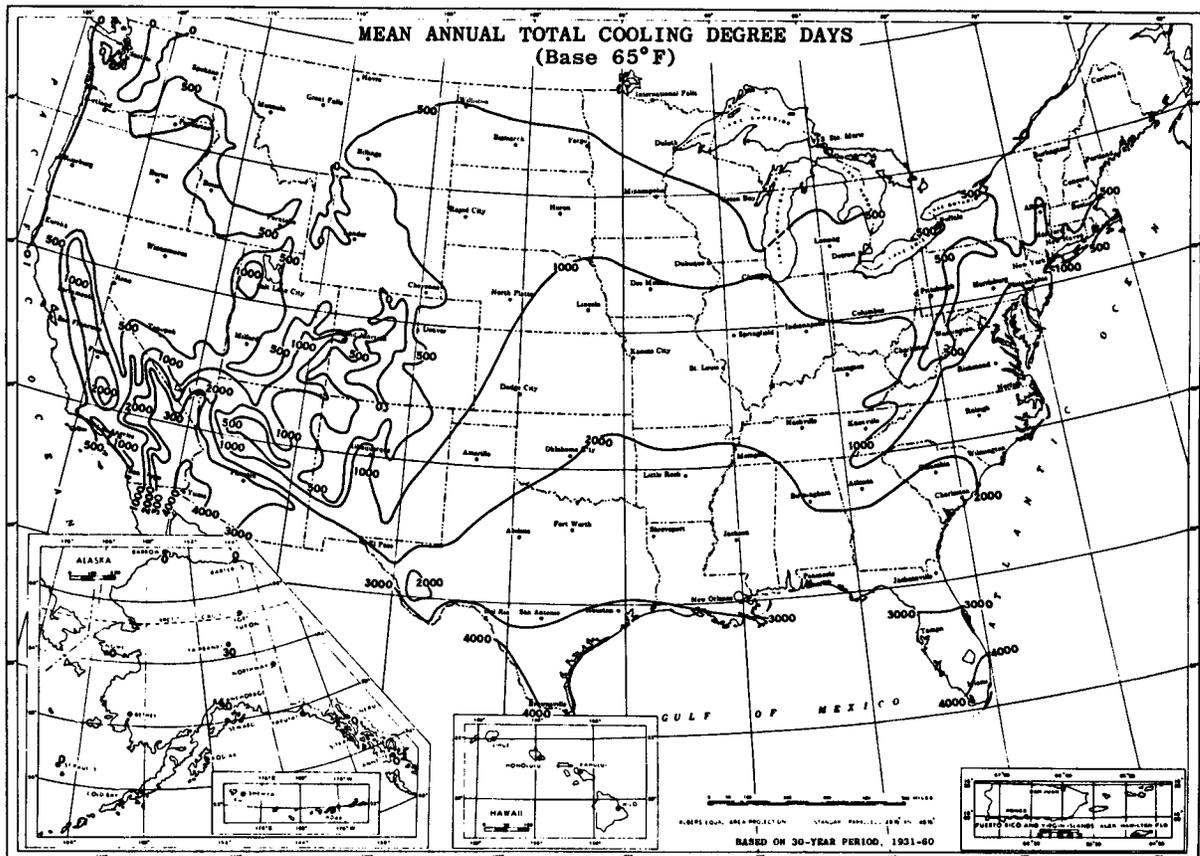
NA - NOT AVAILABLE.

CROP CONDITION PERCENT
FOR WEEK ENDING MAY 31, 1987

WINTER WHEAT						COTTON						CORN					
STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX
ARK	10	9	72	6	3	ALA	0	0	46	51	3	COLO	0	3	17	63	17
CALIF	0	5	10	80	5	ARIZ	0	0	15	75	10	GA	0	1	46	49	4
COLO	1	4	23	59	13	ARK	0	13	28	49	10	ILL	0	0	17	73	11
GA	0	2	35	63	0	CALIF	0	0	0	50	50	IND	0	0	24	68	8
IDAHO	0	1	20	59	20	GA	0	0	49	51	0	IOWA	0	1	26	63	10
ILL	0	0	24	64	12	LA	0	12	39	49	0	KANS	1	0	1	34	64
IND	0	0	20	72	8	MISS	0	5	39	48	8	KY	0	4	42	52	2
KANS	0	2	3	41	54	MO	0	0	64	36	0	MICH	1	4	20	55	20
MICH	5	10	30	45	10	N MEX	0	0	29	71	0	MINN	0	2	36	54	8
MO	2	17	54	27	0	N C	0	0	38	62	0	MO	0	5	44	50	1
MONT	0	0	9	76	15	OKLA	0	15	10	50	25	NEBR	0	0	30	60	10
NEBR	0	0	20	73	7	S C	0	0	57	43	0	N C	0	2	37	60	1
N MEX	0	0	33	67	0	TENN	2	20	40	38	0	OHIO	0	2	15	64	19
N C	0	0	18	75	7	TEX	4	20	43	32	1	S DAK	0	0	15	72	13
OHIO	0	3	18	65	14	WASH	0	0	20	70	10	TEX	0	1	20	55	24
OKLA	0	15	55	30	0							WISC	1	1	6	63	29
OREG	0	0	13	72	15												
S DAK	0	5	45	43	7												
TEX	2	11	51	25	11												
WASH	0	0	20	70	10												

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

RICE						SPRING WHEAT					
STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX
ARK	0	0	57	43	0	IDAHO	0	2	33	47	18
CALIF	0	0	0	40	60	MINN	0	0	45	50	5
LA	0	1	24	75	0	MONT	0	0	9	69	22
MISS	0	2	33	60	5	N DAK	0	0	16	80	4
TEX	0	0	18	75	7	S DAK	1	1	23	63	12



State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall totals averaged 0.50 in.; local amounts 1.00 to 3.00 in. Temperatures averaged 3 to 6° above normal, near normal extreme south.

Days suitable for fieldwork 5.7. Soil moisture 32% short, 56% adequate, 2% surplus. Dry, hot weather allowed good progress all field activities; additional moisture needed many areas. Corn 15% silked, 8% 1986, 11% avg.; 2% poor, 30% fair, 66% good, 2% excellent. Cotton 99% planted, 90% 1986, 97% avg.; 46% fair, 51% good, 3% excellent. Sorghum 56% planted, 52% 1986, 55% avg. Peanuts 94% planted, 63% 1986, 90% avg. Soybeans 51% planted, 42% 1986, 45% avg. Wheat 87% turning color, 96% 1986, 88% avg.; 28% harvested, 18% 1986, 15% avg.; 2% poor, 55% fair, 43% good. First hay 56% harvested, 31% 1986, 40% avg. Primary activities: Planting, cultivating row crops; applying herbicides; harvesting hay, vegetables, wheat, peaches; spraying orchards; fertilizing pastures; routine care of livestock, poultry.

ALASKA: Generally cool, cloudy conditions. Temperature lows ranged from 3° below normal to 7° warmer than normal, highs ranged 3° below normal to 4° above normal. Seasonal precipitation totals ranged from 0.85 in. drier than normal to 0.51 in. wetter than normal.

Days suitable for fieldwork 5.0. Topsoil moisture 7% short, 89% adequate, 4% surplus. Subsoil moisture 12% short, 86% adequate, 2% surplus. Most areas continued to be up to 10 days ahead of schedule. Barley, oats for grain seeding wrapping up for year. Commercial potato planting over 95% complete. Crop growth mostly slow to moderate due to cool temperatures, dry conditions.

ARIZONA: Cool low pressure system over western State 26th, 27th caused scattered light rain extreme north; skies mostly sunny elsewhere. Maximum temperatures early week 10 to 18° below seasonal norms; minimums 8 to 14° below average. Low pressure weakened 28th to 30th, pronounced warming trend set in. Mostly sunny skies south, partly cloudy with isolated light showers north. By 30th, temperatures back to normal. Average temperatures 3 to 8° below normal.

Cotton 40% squared, 65% 1986, 40% avg.; 1% set bolls. Squaring, flowering, boll setting progressed gradually with cooler temperatures. Cultivation, irrigation continued. Watergrass, ground cherry reported some fields. Small grains 96% turning color, 98% 1986, 97% avg.; 35% harvested, 55% 1986, 45% avg. Wheat, barley maturing rapidly, harvest active. Some fields prepared for next crops. Alfalfa excellent. Hay harvest continued Yuma County, winds moved some windrows. Excellent growth sudan grass; hay harvest continued, yields good. Regrowth following cutting good. Steady movement spring lettuce Willcox, volumes light. Carrots, green onions, squash, few greens shipped central valley. Harvest dry onions active. Sweet corn packed. Grapes sizing well, approaching maturity. Perlette harvest continued Hyder. Peach harvest complete Queen Creek; harvest of plums expected 1st. Movement chipper potatoes strong Queen Creek, harvest table stock continued. Grapefruit movement light; some valencia oranges shipped central valley. Citrus groves good, new crop sizing well. Melons good, few canary picked Yuma County. Watermelon harvest continued Yuma, few picked central valley. Cattle and calves 0% poor, 23% fair, 69% good. Range excellent southeast.

ARKANSAS: Near to slightly above normal temperatures with scattered showers, thunderstorms. Temperature extremes 57°; 93°. Rainfall 0.24 to 5.32 in.

Days suitable for fieldwork 4.0. Cotton 96% emerged. Uneven rice stands caused weed control problems. Soybeans 43% emerged. Heavy rains caused some replanting. Wheat 7% harvested. Reduced yields from freeze damage, dry weather. Major activities: Cutting hay; planting pastures, soybeans; applying fertilizer, herbicides; harvesting wheat.

CALIFORNIA: Low pressure trough resulted below normal temperatures, southern desert. Some showers mountain areas, northern, central State. By 29th, weak cold front passed dropping light rain along north coast.

Cooler temperatures slowed growth. Small grains matured, harvest began. Rice broad lead controls applied. Cotton two weeks ahead, squares reported. Corn germinated. Alfalfa cut. Safflower headed out. Blackeyes, limas planted. Apple crop sizing well, north coast. Apricot, bing cherry harvests active, San Joaquin Valley. Hass avocados picked, southern area. Coachella Valley perlette, flame seedless grape harvest underway. Kiwifruit set highly variable, Sacramento Valley. Desert Valley grapefruit, lemon harvests continued. Navel orange harvest neared completion. Valencia harvest accelerating, good quality. Limb breakage continued due to heavy almond set. Walnut crop, excellent. Artichokes fairly light, good quality, Salinas. Asparagus, Delta, treated for aphids. Strawberry harvest continued, Sacramento Valley. Broccoli fairly heavy Salinas, Santa Maria, quality variable, good, respectively. Small quantities carrots bunched Salinas, good quality. Harvest practically over Imperial-Coachella Valley. Cauliflower fairly heavy Salinas; moderate Santa Maria good quality. Celery light, good quality, Santa Maria, Oceano. Packing started Salinas, Watsonville very light, good quality. Sweet corn harvest begin mid-June, Westside. Lettuce fairly heavy Salinas, moderate Santa Maria, variable quality, appearance, weight. Melon fields progressed well statewide; some late fields being planted, Merced-Atwater, Modesto-Turlock. Imperial Valley cantaloup harvest picked up, good quality; honeydew volume light; watermelon movement picked up. Red, yellow onion digging continued, Fresno. Dry onion harvest winding down, variable quality, Imperial-Coachella Valley. Dehydrator onion fields progressed normally, Westside. Pepper planting continued, Delta. Blooms dropping, Merced-Atwater due to fluctuating weather. Fall potato planting 95% completed Tulalake-Butte Valley; earlier varieties emerged, looking good. Packing sheds continued to move 1986 crop full time. Sweetpotato growers finished planting 1987 crop statewide. Processing tomatoes, fresh market progressed well statewide; some planting still going on Delta, transplanting fresh market fields, Modesto-Turlock. Irrigated pasture good. Range land feed dry. Livestock good, moved to pasture. Water 50% of normal. Cattle placements active.

COLORADO: Temperatures 1 to 9° below normal. Showers throughout week; 0.04 to 2.49 in., 0.50 average for State.

Days suitable for fieldwork 4.0. Soil moisture, adequate. Small grains, livestock good. Corn 97%

planted, 77% emerged. Spring plantings of small grains completed.

FLORIDA: Mostly warm, dry. Limited rainfall, mainly light showers along lower east coast. Tropical depression increased winds. Few brief, heavy showers far south. Temperatures near normal.

Soil moisture short to adequate. Dryland corn stressed, irrigated corn generally good. Cotton planting nearly complete. Soybean planting active. Peanuts, tobacco, sugarcane progress favorable. Pastures mostly good. Abundant grazing available except localized areas. Cattle fair to mostly good. Limited rain citrus areas; irrigating most sections. New foliage growth continued. Valencia oranges showed some softening, regreening; harvest mostly for processing. Grapefruit movement very slow with very little remaining. Warm days, mild nights continued vegetable producing areas. Widely scattered showers, light breezes weekend. Harvest declined seasonally. Volume leaders: Potatoes, watermelons, tomatoes, sweet corn, cucumbers, celery, peppers. Good supplies cabbage, squash, radishes, carrots, snap beans, eggplant available. Watermelon harvest underway west central area.

GEORGIA: Scattered thunderstorms limited to north, mainly north of Atlanta to Athens area. Rainfall 1.00 to 2.00 in. common extreme north, local totals exceeding 2.00 in. Most of central, south received no rain. Temperatures 4 to 6° above normal north to near normal extreme south. Warmest temperatures from mid 80s northeast mountains to low 90s central, south. Coolest temperatures mostly 60s except 50s mountains.

Days suitable for fieldwork 6.1. Soil moisture 15% very short, 47% short, 37% adequate, 1% surplus. Corn 4% silked, 19% 1986, 23% avg.; none dough, none 1986, 3% avg. Cotton 1% squaring, 2% 1986, 7% avg. Sorghum grain 2% poor, 46% fair, 52% good; 62% planted, 50% 1986, 57% avg. Peanuts 25% fair, 75% good; 94% planted, 87% 1986, 96% avg.; 4% blooming, 3% 1986, 12% avg. Tobacco 42% fair, 58% good. Watermelons 37% fair, 63% good. Wheat 15% harvested, 30% 1986, 26% avg. Rye 3% poor, 45% fair, 52% good. Other small grains 2% poor, 34% fair, 64% good. Apples 4% poor, 10% fair, 86% good. Peaches 1% poor, 14% fair, 85% good; 9% harvested, 14% 1986, 12% avg. Pasture 5% poor, 35% fair, 58% good, 2% excellent. Cattle 25% fair, 72% good, 3% excellent. Hogs 10% fair, 80% good, 10% excellent. Main activities: Harvesting small grains, peaches; haying; planting; spraying weeds, insects.

HAWAII: Variable weather. Showery early week. Hot, humid beginning at midweek. Record high temperatures on 28th, 29th, 31st. Regular irrigation continued. Crop fair to good. Trade winds 5 to 20 mph. Temperatures ranged mid 60s to low 90s. Rainfall ranged none to 4.60 in.

Days suitable for fieldwork 7.0. Banana production steady. Papaya production increased. Chinese cabbage harvesting active. Watermelon production increased.

IDAHO: Temperatures averaged near normal statewide; east 2 to 5° below normal. Southwesterly flow brought showers, thundershowers to most areas.

Days suitable for fieldwork 3.4. Potatoes 96% planted, 74% 1986, 82% avg. Potatoes 66% emerged, 26% avg. Spring wheat 100% emerged, 84% 1986, 89% avg.; 2% poor, 33% fair, 47% good, 18% excellent. Winter wheat 28% headed, 5% avg.; 1% poor, 20% fair, 59% good, 20% excellent. Livestock good.

ILLINOIS: Temperatures averaged 8 to 10° above normal north and central, 5 to 8° above normal south. Precipitation 1.00 in. west central, east central and south, elsewhere 0.10 to 0.75 in.

Days suitable for fieldwork 5.2. Soil moisture 63% short, 28% adequate, 9% surplus. Corn height average all fields 12 in., 12 in. 1986, 6 in. avg.; most advanced fields 20 in., 19 in. 1986, 12 in. avg. Soybeans 3% poor, 40% fair, 57% good. Wheat 75% filled, 77% 1986, 47% avg.; 25% turning yellow, 24% 1986, 9% avg. Oats 45% headed, 28% 1986, 18% avg.; 13% filled, 10% 1986, 5% avg.; 1% poor, 21% fair, 61% good, 17% excellent. Sorghum 36% fair, 64% good. Alfalfa hay 1st crop 60% cut, 43% 1986, 37% avg.; 2% poor, 11% fair, 67% good, 13% excellent. Red clover crop 55% cut, 39% 1986, 29% avg.; 2% poor, 30% fair, 60% good, 8% excellent. Pasture 3% poor, 37% fair, 53% good, 7% excellent.

INDIANA: Temperatures averaged 7 to 10° above normal. Lows 30s, highs mid 90s. Precipitation widespread, totals 0.25 to 2.75 in.

Fieldwork averaged 4.5 days. Topsoil moisture 26% short, 60% adequate, 14% surplus. Subsoil moisture 39% short, 55% adequate, 6% surplus. Corn good; 98% emerged, 94% 1986, 72% avg. Corn 10 in. high, 8 in. 1986, 5 in. avg. Soybeans 86% emerged, 60% 1986, 42% avg. Soybeans 3 in. high, 1 in. 1986, 1 in. avg. Wheat good; 4% turning color, 6% 1986, 4% avg. Alfalfa hay 45% cut, 25% 1986, 30% avg. Oats 35% headed, 13% 1986, 8% avg. Pastures 49% fair, 51% good. Showers slowed field activities.

IOWA: Warm, humid temperatures 6° above normal. Extremes 46° 25th to 90° 27th. Precipitation amounts normal to 6.50 in. 26th at Red Oak, Hastings. Pan evaporation averaged 0.20 in. per day. Flooding on east, west Nishnabotna Rivers.

Days suitable for fieldwork 1.4. Topsoil moisture 6% short, 56% adequate, 38% surplus; subsoil moisture 5% short, 81% adequate, 14% surplus. Oats 1% very poor, 2% poor, 18% fair, 65% good, 14% excellent; 10% headed, none 1986, 4% avg. Winter wheat mostly good. Hay 1% very poor, 1% poor, 21% fair, 63% good, 14% excellent. First crop alfalfa 15% harvested, 6% 1986, 12% avg. Corn stand 91% of normal; 3% replanted; 100% emerged, 78% 1986, 77% avg. Corn cultivated 1st time 15%, 4% 1986, 8% avg. Soybeans 65% emerged, 18% 1986, 28% avg. Livestock good to excellent, with few reports of face fly problems. Pasture mostly good, with some browning extreme southeast.

KANSAS: Temperatures averaged upper 60s to lower 70s; normal to 5° above normal. Warmest east. Heavy rain across State, especially east. Southeast averaged more than 5.00 in. Northeast, south central amounts greater than 5.00 in.

Days suitable for fieldwork 1.5. Soil moisture 3% short, 32% adequate, 65% surplus. Wheat 15% turning, 50% 1986, 10% avg. No major insect problems. Wet weather promoting diseases, leaf rust, barley yellow dwarf most prevalent. Corn planting 99% complete, 98% 1986, 85% avg. No disease or insect problems evident. Alfalfa 1st cutting 60% complete. Regrowth slowed some areas by alfalfa weevils, variegated cutworms. Range, pasture good to excellent.

KENTUCKY: Very warm, humid. Mean temperatures averaged in middle 70s, 4° above normal with highs in low 90s. Rainfall variable averaging slightly over 1.00 in. west, 0.60 to 0.80 in. central and east.

Days suitable fieldwork 5.4. Soil moisture 41% very short, 46% short, 12% adequate, 1% surplus. Corn planting 95% complete, 93% 1986, 80% avg. Mostly silage corn left to plant. Soybeans 50% planted. Moisture needed as double crop planting soon active. Burley tobacco 71% set, 36% 1986, 37% avg. Dark tobacco 62% set; 1% very poor, 8% poor, 52% fair, 37% good, 2% excellent. Small grain potential good. Strawberry harvest continued

production average or better. Hay harvest active. Pastures mostly fair to good.

LOUISIANA: Temperature 1 to 2° above normal. Temperature extremes 62°; 92°. Rainfall averaged 0.62 to 2.02 in.

Days suitable for fieldwork 4.0. Soil moisture 12% short, 65% adequate, 23% surplus. Corn fair to good; 7% silked, 31% 1986, 27% avg. Cotton 97% planted, 99% 1986, 94% avg.; 91% emerged, 99% 1986, 89% avg.; 1% squaring, 13% 1986, 3% avg. Rice 98% planted, 99% 1986, 96% avg.; 94% emerged, 97% 1986, 93% avg. Sorghum 91% planted, 98% 1986, 91% avg.; 77% emerged, 95% 1986, 87% avg. Soybeans fair to good; 47% planted, 69% 1986, 56% avg.; 32% emerged, 58% 1986, 44% avg. Sweetpotatoes 48% planted, 64% 1986, 66% avg. Winter wheat fair; 100% turning color, 99% 1986, 95% avg.; 28% harvested, 53% 1986, 39% avg. Peaches 6% harvested, 17% 1986, 8% avg. Hay 1st cutting 49%, 61% 1986, 57% avg. Sugarcane good. Vegetables, pastures, livestock fair to good. Main activities: Planting cotton, sorghum, soybeans, sweetpotatoes; harvesting hay, peaches, vegetables, wheat; applying fertilizer, herbicides, pesticides.

MARYLAND & DELAWARE: **Maryland:** Temperatures averaged 67°, 73° normal over State; lowest temperature 48°; highest temperature 96°. Precipitation averaged 0.41 in., ranging from 1.88 in. Oakland to none southern counties.

Days suitable for fieldwork 5.8. Topsoil moisture adequate. Subsoil moisture adequate. Wheat, oats, barley, rye good. Corn 95% planted, 95% avg. Soybeans 40% planted, 35% avg. Tobacco 35% transplanted, 35% avg. Alfalfa 55% 1st cut, 55% avg.

Delaware: Temperatures averaged 66°, 68° normal. Precipitation averaged 0.06 in.

Days suitable for fieldwork 7.0. Topsoil moisture short to adequate. Subsoil moisture adequate. Wheat, rye mostly fair to good. Barley fair. Corn 99% planted, 95% avg. Soybeans 30% planted, 40% avg. Sweet corn 90% planted, 90% avg. Snap beans 55% planted, 65% avg. Tomatoes, watermelons, cantaloups 100% planted, 85% avg.

MICHIGAN: Temperatures ranged 8 to 14° above normal. Temperature extremes 32°; 92°. Precipitation ranged from 0.01 to 3.00 in. across State.

Days suitable for fieldwork 6.0. Soil moisture 75% short, 25% adequate. Corn 1% very poor, 4% poor, 20% fair, 55% good, 20% excellent. Planted acres 85% emerged. Soybeans 80% planted, 30% 1986, 45% avg. Wheat 45% headed, 20% 1986, 20% avg.; 5% very poor, 10% poor, 30% fair, 45% good, 10% excellent. Dry beans 15% planted, 3% 1986, 3% avg. Field activities: Soybean and dry bean planting, hay cutting, haylage making, applying anhydrous ammonia and post-emergence herbicides, spraying insecticides. Fruit development, vegetable planting ahead. Asparagus harvest 75% completed.

MINNESOTA: Temperatures averaged 4 to 9° above normal. Temperature extremes 40°; 88°. Precipitation averaged 0.17 to 0.73 in. below normal north central, northeast and east central, near normal to 0.38 in. above normal elsewhere. Precipitation totals averaged 0.22 to 1.23 in. for State. Greatest weekly total 1.77 in.

Days suitable for fieldwork 3.1. Topsoil moisture 3% very short, 18% short, 65% adequate, 14% surplus. Spring wheat 99% emerged, 56% 1986, 81% avg.; 25% jointing, 2% 1986, 5% avg.; 2% heading, none 1986, none avg. Oats 99% emerged, 75% 1986, 88% avg.; 37% jointing, 4% 1986, 6% avg.; 2% heading, none 1986, none avg. Barley 99% emerged, 49% 1986, 78% avg.; 21% jointing, 1% 1986, 4% avg.; 1% heading, none 1986, none avg. Corn 99%

emerged, 55% 1986, 62% avg.; 17% cultivated once, 10% 1986, 6% avg. Soybean 98% planted, 59% 1986, 68% avg.; 66% emerged, 12% 1986, 22% avg.; 5% cultivated once, none 1986, none avg. Sunflowers 95% planted, 25% 1986, 55% avg. Flax 93% planted, 43% 1986, 61% avg. Dry edible beans 86% planted, 68% 1986, 67% avg. Potatoes 93% planted, 77% 1986, 78% avg. Green peas 95% planted, 94% 1986, 90% avg. Sweet corn 73% planted, 69% 1986, 63% avg. Alfalfa hay 1st crop 5% cut, none 1986, none avg. Pasture 8% poor, 44% fair, 45% good, 3% excellent. Field corn 2% poor, 36% fair, 54% good, 8% excellent. Soybeans 2% poor, 49% fair, 48% good, 1% excellent. Spring wheat 45% fair, 50% good, 5% excellent.

MISSISSIPPI: Temperatures 3° below to 5° above normal; extremes 60°; 93°. Greatest 24-hour total rainfall 3.16 in. Greatest weekly rainfall 5.57 in.

Days suitable for fieldwork 3.7, 0.9 1986, 4.5 avg. Soil moisture 7% short, 59% adequate, 30% surplus, 4% excessive. Corn 100% emerged, 96% 1986, 91% avg.; 2% silking, 5% 1986; 2% poor, 24% fair, 67% good, 7% excellent. Wheat 50% mature, 79% 1986, 54% avg.; 5% very poor, 3% poor, 54% fair, 35% good, 3% excellent. Sweetpotatoes 64% planted, 62% 1986, 60% avg. Peanuts 77% planted, 74% 1986, 77% avg. Watermelons 98% planted, 86% 1986. Hay 30% harvested, 23% 1986, 30% avg. Rice 99% emerged, 100% 1986, 86% avg.; 2% poor, 33% fair, 60% good, 5% excellent. Sorghum 93% planted, 88% 1986, 75% avg.; 83% emerged, 84% 1986; 20% fair, 70% good, 10% excellent. Cotton 99% planted, 99% 1986; 90% emerged, 97% 1986; 7% squaring, 3% 1986, 5% avg.; 5% poor, 39% fair, 48% good, 8% excellent. Soybeans 44% planted, 38% 1986, 46% avg.; 27% emerged, 30% 1986, 28% avg.; 1% very poor, 15% poor, 35% fair, 49% good.

MISSOURI: Temperatures averaged 5° above normal. Rainfall ranged 0.02 in. at St. Louis to 3.50 in. in west-central, less than 0.2 in central and east-central.

Days suitable for fieldwork 4.1. Topsoil moisture 48% short, 37% adequate, 15% surplus. Alfalfa hay first cutting 71%, 53% 1986, 45% avg. Other hay 36% harvested, 23% 1986, 18% avg. Pasture 1% very poor, 17% poor, 58% fair, 23% good, 1% excellent.

MONTANA: Moderate to heavy rain nearly entire State. Heaviest south central, 1.50 to 4.00 in., central and northeast about 1.50 in., remainder 0.50 to 1.00 in. Temperatures near normal, cool first warming later.

Days suitable for fieldwork 1.7. Topsoil moisture 5% short, 67% adequate, 28% surplus. Subsoil moisture 9% short, 85% adequate, 6% surplus. Barley 14% fair, 73% good, 13% excellent. Corn 82% planted, 92% 1986, 89% avg. Potatoes 78% planted, 77% 1986, 84% avg. Dry beans 89% planted, 98% 1986, 85% avg. Cattle, sheep 85% moved to summer ranges.

NEBRASKA: Rainfall ranged 1.00 in. west, central to 5.00 in. east. Temperatures ranged near normal west to 3° above normal east.

Days suitable for fieldwork 1.6. Topsoil moisture 65% adequate, 35% surplus. Subsoil moisture 80% adequate, 20% surplus. Winter wheat turning color. Russian aphids remained problem, spraying increased. Corn 90% emerged, 90% 1986, 60% avg. Too wet to cultivate. Soybeans 55% emerged, 40% 1986, 34% avg. Bean leaf beetle reported. Sorghum 45% emerged, 48% 1986, 22% avg. Flooding and erosion damage several districts, replanting necessary. Alfalfa hay mostly good. First cutting 45%, 26% 1986, 18% avg. Weevil damage increased. Wild hay good. Range, pasture feeds adequate.

NEVADA: Week started with below normal temperatures, widespread precipitation, thunderstorms. Thunderstorms midweek north, central areas. Storms hit southern section end of period. Unseasonably low temperatures brought 6 in. snow central mountains, Sierras.

Lower temperatures slowed vegetative growth. Range grasses benefited from series of showers. Some cut hay rain damaged. Cattle, sheep mostly good.

NEW ENGLAND: Precipitation averaged 0.25 to 0.50 in. except for locally higher amounts in thundershowers. Temperatures averaged near normal south to above normal north.

Days suitable for fieldwork 6.0. Soil moisture 20% short, 80% adequate. Grazing availability 20% short, 70% adequate, 10% surplus. Fieldwork 7.0 days ahead Maine, up to 3.0 days behind elsewhere. Maine potatoes 90% planted, 85% 1986, 70% avg. Maine potatoes 15% emerged, 10% 1986, 5% avg. Rhode Island potatoes 100% planted, 100% 1986, 100% avg. Field corn 75% planted, 75% 1986, 70% avg. Field corn 35% emerged, 55% 1986, 40% avg. Maine oats 90% planted, 95% 1986, 75% avg. Sweet corn 70% planted, 70% 1986, 65% avg. Sweet corn 35% emerged, 50% 1986, 45% avg.

NEW JERSEY: Temperatures averaged much above normal. Extremes 46°; 96°. Rainfall averaged 0.06 in. north, 0.11 in. central, 0.13 in. south. Heaviest 24-hour total 0.27 in. on 27th, 28th. Estimated soil moisture percent field capacity averaged 75% north, 62% central, 65% south. Four inch soil temperatures averaged 64° north, 65° central, south.

Hot, humid weekend weather advanced crop growth; adversely affected quality. Vegetable harvest increased. Cabbage, iceberg lettuce harvest began. Apples, peaches, blueberries sizing; spraying active. Strawberry harvest increased. Field corn planting well advanced. Soybean planting general. Hay, rye straw cutting active. Heat caused pasture browning.

NEW MEXICO: Temperatures over State averaged from 1 to 10° below normal. Precipitation ranged from none western half of State to 2.37 in. eastern half.

Days suitable for fieldwork 5.0. Soil moisture 11% short, 67% adequate, 22% surplus. Light wind, hail damage eastside. Alfalfa 13% poor, 38% fair, 49% good. Cotton fair to good; cool nighttime temperatures delaying growth. Barley 14% fair, 86% good. Wheat fair to good. Grain sorghum 33% fair, 67% good; planting continued. Corn virtually all planted; 13% fair, 87% good. Pecans setting nuts. Onions good; harvest started; good market. Lettuce fair to good; some fields plowed under; poor market.

NEW YORK: Temperatures averaged above normal. Cool, cloudy 24th, 25th with lows mid 40s to mid 50s, highs mid 50s to mid 60s. Warm, humid weather began west around 27th. By 29th, entire State experienced midsummer heat, lows 60s, highs mid 80s to mid 90s. Precipitation generally well below normal, although quite variable depending on location.

Days suitable for fieldwork 6.0. Soil moisture short to adequate. Pastures fair to good. Corn 76% planted, 83% 1986, 76% avg. Oat planting virtually complete, slightly ahead of normal. Wheat good, heading out. Hay, haylage harvest underway. Hay crop mostly short, 1st cut yields below normal. Fruit crops good.

NORTH CAROLINA: Temperatures averaged 2 to 4° above normal across State. Temperature extremes 54°; 94°. Precipitation ranged from 0.01 to 3.80 in. across State.

Days suitable for fieldwork 5.8. Soil moisture 3% very short, 38% short, 58% adequate, 1% surplus. Small grains fair to mostly good. Oats 1% poor, 19% fair, 75% good, 5% excellent. Barley 1% poor, 22% fair, 71% good, 6% excellent. Rye 19% fair, 75% good, 6% excellent. Irish potatoes 4% poor, 25% fair, 67% good, 4% excellent. Pasture fair to mostly good. Tobacco plantbeds 2% very poor, 4% poor, 29% fair, 65% good. Tobacco plant supplies 10% short, 85% adequate, 5% surplus. Flue-cured tobacco 92% planted, 100% 1986, 96% avg. Tobacco in field 1% poor, 44% fair, 53% good, 2% excellent. Peanuts 95% planted, 95% 1986, 95% avg. Sorghum 58% planted, 55% 1986, 57% avg. Sweetpotatoes 36% planted, 39% 1986, 40% avg. Major farm activities: Planting soybeans, transplanting flue-cured tobacco, burley tobacco; cutting and baling hay; transplanting sweetpotatoes; cultivating tobacco; planting corn, peanuts, sorghum, truck crops, cotton; sidedressing corn; harvesting small grains; herbicide applications to corn and peanuts; thinning peaches; tending livestock; general farm maintenance.

NORTH DAKOTA: Scattered showers, thunderstorms. Temperatures 3 to 6° above normal. Extremes 33° central to 85° southeast. Varying rain amounts across State. Heaviest south central 2.31 in.

Days suitable for fieldwork 4.9. Topsoil moisture enhanced 8% short, 88% adequate, 4% surplus. Subsoil 2% short, 96% adequate, 2% surplus. Small grain planting essentially completed, row crop planting ahead of normal except soybeans. Spring wheat 99%, 97% 1986, 95% avg.; durum 99%, 96% 1986, 93% avg.; oats 99%, 98% 1986, 94% avg.; barley 100%, 98% 1986, 96% avg.; corn 92%, 74% 1986, 75% avg.; flax 84%, 73% 1986, 70% avg.; soybeans 82%, 70% 1986, 83% avg.; potatoes 100%, 82% 1986, 88%, avg.; sunflower 62%, 52% 1986, 55% avg.; dry edible beans 77%, 70% 1986, 71% avg.; winter wheat 1% emerged through stooling, 18% jointing, 81% boot and beyond; spring wheat 95% emerged, durum 93%, oats 94%, barley 97%. Pastures mostly good. Cutting alfalfa began.

OHIO: Temperatures 8 to 10° above normal. Extremes 40s to 90s. Precipitation widespread; 1.00 to 2.50 in. south central, central, 0.25 to 0.50 in. north.

Days suitable for fieldwork 5.0. Soil moisture 16% short, 69% adequate, 15% surplus. Corn 96% emerged, 92% 1986; early signs of insects, not at economic levels. Corn good. Soybeans 76% emerged, 55% 1986; few bean leaf beetles. Soybeans good. Small grains good; minor powdery mildew problem on wheat. Alfalfa 1st cut 50%, 31% 1986, 28% avg.; other hay 1st cut 25%, 16% 1986, avg. Periodic showers, dew, fog hindered hay curing. Hot, humid weather stressed livestock, poultry.

OKLAHOMA: Temperatures averaged 2° below normal southwest to 3° above normal northeast. Precipitation averaged 1.24 in. Panhandle to 6.23 in. central.

Days suitable for fieldwork 2.1. Topsoil moisture 5% short, 35% adequate, 60% surplus. Subsoil moisture 10% short, 90% adequate. Wheat 15% poor, 55% fair, 30% good; 99% heading, 100% 1986, 99% avg.; none harvested, 5% 1986, 1% avg. Heavy rains, saturated fields delayed harvest, reduced quality. Many bottomland fields flooded. Sorghum 20% planted, 45% 1986, 45% avg. Cotton 15% poor, 10% fair, 50% good, 25% excellent; 30% planted, 45% 1986, 40% avg. Row crop planting at standstill. Pastures improved significantly. Cattle marketings down slightly, prices stable.

OREGON: Temperatures normal along coast, generally 2 to 3° below normal inland except south central up to 5° below normal. Precipitation along coast ranged from 0.75 to 1.25 in. Northwest interior

received about 0.50 in., southwest 0.33 in. Rain in Cascades varied 0.10 to 0.90 in.

Soil moisture 61% short, 39% adequate. Crop development continued ahead of normal, although cooler weather slowed growth. Grain crops mostly good, moisture stress showed shallow eastern soils, some disease problems mainly Willamette Valley. Hay making progressed statewide, some downed alfalfa rained on, some freeze damage high elevations. Grass seed crops mostly good, heading west, flowering central area. Sugarbeets thinned Malheur County. Strawberry harvest neared full swing; quality, yields excellent. Picker availability a question, problems may increase as competing crops ripen. Red raspberries past full bloom, picking should begin earlier than normal. Growers applying pesticides to all canberries. Sweet cherries set very heavy The Dalles, picker shortages concern. Pears, apples doing well Medford, Hood River; thinning continued. Cranberries about 50% bloomed, growers fertilizing south coast. Potatoes planted central area; early fields closed rows, late fields sidedressed Hermiston-Boardman; emerged Klamath Basin. Asparagus harvest continued, quality excellent Hermiston. Continued to plant sweet corn, snap beans, broccoli Willamette Valley; processing contracts being let. Watermelons blooming, condition excellent Hermiston. Livestock, range, pasture generally good. Western pastures maturing much ahead of normal, summer forage expected to be short except where irrigated. Rains helped eastern ranges, except at low elevations where grass already turned brown. Some freezing at high elevations damaged forage.

PENNSYLVANIA: Week started cloudy, cool. Ended warm, muggy. Heavy thunderstorms common. Average temperature 68°, 6° above normal. Temperature extremes 40°; 95°. Average precipitation 0.56 in., 0.27 in. below normal.

Days suitable for fieldwork 4.0. Soil moisture 9% short, 80% adequate, 11% surplus. Plowing 93% complete, 98% 1986, 90% avg. Corn 81% planted, 90% 1986, 76% avg. Potatoes 87% planted, 95% 1986, 86% avg. Oats 100% planted, 100% 1986, 96% avg. Soybeans 48% planted, 58% 1986, 43% avg. Barley 9% pre-boot, 1% 1986; 12% boot, 18% 1986; 79% headed, 81% 1986. Wheat 14% pre-boot, 9% 1986; 26% boot, 25% 1986; 60% headed, 66% 1986. Wheat 1% very poor, 4% poor, 19% fair, 52% good, 24% excellent. Oats 2% poor, 17% fair, 54% good, 27% excellent. Hay stands mostly good to fair. Feed from pastures mostly average to above average. Apples 100% full bloom or past, 100% 1986. Activities: Planting corn, potatoes, soybeans; harvesting hay, haylage; machinery maintenance; caring for livestock.

PUERTO RICO: Island average rainfall 3.23 in., 1.80 in. above normal. Highest weekly total 8.22 in. Highest 24-hour total 5.46 in. Temperature average about 80 to 82° on coasts, 77 to 78° interior divisions. Mean station temperature ranged from 69 to 82°. Extremes 59°; 94°. San Juan mean temperature 82°, 1° above normal. Total rainfall 5.00 in., 3.71 in. above normal.

SOUTH CAROLINA: Widely scattered showers yielded 0.25 to 1.00 in. rainfall; coverage very minimal. Many reporting stations received none. Temperatures averaged 4 to 6° above normal.

Days suitable for fieldwork 5.9. Soil moisture 27% very short, 60% short, 13% adequate. Soybean planting halted some areas due to dry soils; 42% planted, 34% 1986, 40% avg. Cotton cultivation underway; 99% planted, 100% 1986, 100% avg.; 57% fair, 43% good. Tobacco fair to good; showing some drought stress. Peanuts fair to good; 87% planted, 82% 1986, 92% avg. Small grain fair to good; harvest just underway. Pastures fair to good.

SOUTH DAKOTA: Average temperatures normal to 5° above normal. Extremes 37°; 87°. Black Hills low 30°.

Days suitable for fieldwork 3.1. Topsoil moisture short in scattered spots, adequate elsewhere; 2% critical, 23% short, 73% adequate, 2% surplus. Subsoil moisture adequate except for small short spots; 4% short, 94% adequate, 2% surplus. Corn planting complete. Some reports of poor stands due to previous dry spell. Calving 96%; lambing 98% complete. Livestock good to excellent. Range, pastures fair to excellent. Feed, stock water adequate to surplus.

TENNESSEE: Warm, humid week. Temperatures averaged upper 70s, 5 to 9° above normal. Low 60°, highs 90s. Scattered thundershowers, 0.25 to several inches.

Days suitable for fieldwork 4.9. Soil moisture 14% very short, 46% short, 37% adequate, 3% surplus. Corn 96% planted, 94% 1986, 86% avg. Corn 7% poor, 62% fair, 31% good. Tobacco 65% transplanted, 45% 1986, 55% avg. Tobacco 2% very poor, 7% poor, 42% fair, 48% good, 1% excellent. Wheat 80% turning color, 75% 1986, 50% avg. Wheat 1% very poor, 14% poor, 57% fair, 27% good, 1% excellent. Alfalfa 1st cutting 93%, 85% 1986, 80% avg. Alfalfa 11% poor, 51% fair, 37% good. Cattle mostly good. Pastures 7% poor, 51% fair, 41% good, 1% excellent.

TEXAS: Another warm, humid week. Afternoon, evening thunderstorms early week confined mainly Panhandle. Thunderstorms heavy late week southern, eastern portions. Temperatures below normal Plains, Edwards Plateau, west, portions south. Temperatures slightly above normal east, Upper Coast. Precipitation heavy, except near normal east, Trans-Pecos, Upper Coast, Lower Valley.

CROPS: Corn good start Plains, added moisture improved progress. Growth good Blacklands, central, many fields tasseling. Some early fields dough stage. Fields improved east, Upper Coast, Coastal Bend, Valley. Some fields dough stage these areas. Corn 17% silked, 51% 1986, 42% avg.; 1% dough 17% 1986, 13% avg. Grain sorghum planting Plains, Cross-Timbers slowed by rain midweek. Moisture help planted fields. Good progress Blacklands, greenbug problems. Most fields central boot stage, early fields heading. Fields most other areas improved with rain. Heading continued Coastal Bend, Valley. Sorghum 9% headed, 41% 1986, 29% avg. Sorghum none turning color, 6% 1986, 5% avg. Cotton fields suffered some Plains, Trans-Pecos, heavy rain, hail. Some replanting necessary when ground dries. Planting delayed many areas. Fields continued to square Blacklands, south, east. Fields Coastal Bend, Rio Grande Valley setting bolls. Insect monitoring underway, some spraying. Cotton 9% squaring, 10% 1986, 9% avg.; none setting bolls, 5% 1986, 3% avg. Small grain harvest slow central, southern areas because of rain. Yields fair to good many fields received less freeze damage. Moisture adequate Plains, excellent growth; cooler temperatures growth down. Fields Low Plains, Cross-Timbers ready for harvest as ground dries. Wheat 49% turning color, 87% 1986, 65% avg. Wheat 3% harvested, 30% 1986, 15% avg. Rice fields Upper Coast fair stands. Fertilization continued. Permanent flooding increased. Soybean planting to begin Northern High Plains as ground dries. Many fields Upper Coast emerged to good stands. Wet ground delayed further planting progress. Peanut planting slow many areas because of rain. Planting getting started Cross-Timbers. Growth good planted fields other areas. Other crops planted: Peanuts 27%, 37% 1986, 30% avg. Soybeans 36%, 53% 1986, 36% avg. Sunflowers 25%, 38% 1986, 39% avg. Other crops harvested: Oats 20%, 33% 1986, 23% avg.

Commercial Vegetables: Rio Grande Valley, cloudy, humid weather caused disease on melons.

Harvest delayed by wet ground. Onion harvest about complete. San Antonio-Winter Garden, watermelon vines setting fruit. Wet fields delayed harvest onions, beets. Cucumber harvest underway Coastal Bend. Trans-Pecos, some damage onions, cantaloups. Tomatoes fair progress, minor damage from weather. East harvest slow many truck crop farms. Most sweetpotatoes planted. Watermelons disease problem. High Plains, onions, potatoes normal progress. Irrigation decreased. Spraying pecans for casebearers between showers. Moisture helped developing nuts.

Range and Pasture: Ranges, pastures improved. Rainfall increased growth, greening. Abundant forage available. Haying operations slowed; early yields, quality good. Livestock benefited from increased forage, showed good gains. Markets remained active, prices steady.

UTAH: Precipitation all divisions with maximum 1.09 in. north central. Temperatures 4 to 7° below normal.

Days suitable fieldwork 3.8. Soil moisture 27% short, 60% adequate, 13% surplus. Winter wheat 62% boot, 52% 1986, 35% avg.; 37% headed, 26% 1986, 26% avg. Oats 50% jointed, 24% 1986, 14% avg. Corn 5 in. high. Alfalfa 1st cutting 5% complete. Winter wheat 5% poor, 31% fair, 62% good, 2% excellent. Spring wheat 49% fair, 51% good. Barley 39% fair, 46% good, 15% excellent. Oats 56% fair, 40% good, 4% excellent. Apples, peaches good to excellent, cherries generally good, apricots fair. Range, pastures generally good, lower elevations south dry. Livestock excellent. Movement to summer ranges continued. Major farm activities: Haying, moving livestock, spraying orchards.

VIRGINIA: Cloudy, humid first half period. Rainfall light, few locally heavy thunderstorms. Sunny, hot second half. Record high temperatures, to upper 90s.

Days suitable for fieldwork 4.9. Topsoil moisture 25% short, 63% adequate, 12% surplus. Field crop good to excellent overall, some dry spot crops stressed slightly, in some wet or humid places hay harvest impeded. Corn 88% planted, 93% 1986, 94% avg. Soybeans 34% planted, 43% 1986, 44% avg. Blue-cured tobacco transplanting 64% complete, 87% 1986, 88% avg. Burley 30% transplanted, 18% 1986, 37% avg. Fire-cured tobacco 58% transplanted, 65% 1986, 69% avg. Hay cutting active. Scouted, sprayed wheat for cereal leaf beetle, but not major problem. Some barley lodged due to thunderstorms. Fruit, potatoes, vegetables good to excellent.

WASHINGTON: Rainfall early week east, central. Largest amount 0.18 in. Temperatures below normal east, near normal west. Extremes 36°, 82°.

Soil moisture 40% short, 60% adequate. Winter wheat 65% headed, 30% 1986, 30% avg. Spring wheat, barley also 2 to 3 weeks ahead of normal. Crops mostly good. First cutting grass, mixed hay underway. Livestock grazing on range. Strawberry harvest underway early. Heavy set of apples, pears makes thinning difficult. Cover spray application in progress. Asparagus harvest nearing end. Kittitas Valley sweet corn planting neared completion. Range, pasture lands need more moisture.

WEST VIRGINIA: Average temperature 73°, 6 to 9° above normal. Extremes 50° Weston; 101° Wheeling. Precipitation averaged 0.77 in., above normal except eastern Panhandle where averaged below normal.

Days suitable for fieldwork 4.9. Soil moisture 13% very short, 34% short, 47% adequate, 6% surplus. Wheat, barley, oats good to fair. Oats 100% planted, 93% emerged. Corn fair to good; 82% planted; 72% emerged. Tobacco beds fair; 53% set. Hay, pasture good to fair. Farm activities: Harvesting hay, planting corn, setting tobacco.

WISCONSIN: Temperatures averaged 68°, 6° above normal. Extremes 32°, 92°. Rainfall 0.40 to 1.20 in. Thunderstorms, precipitation varied greatly.

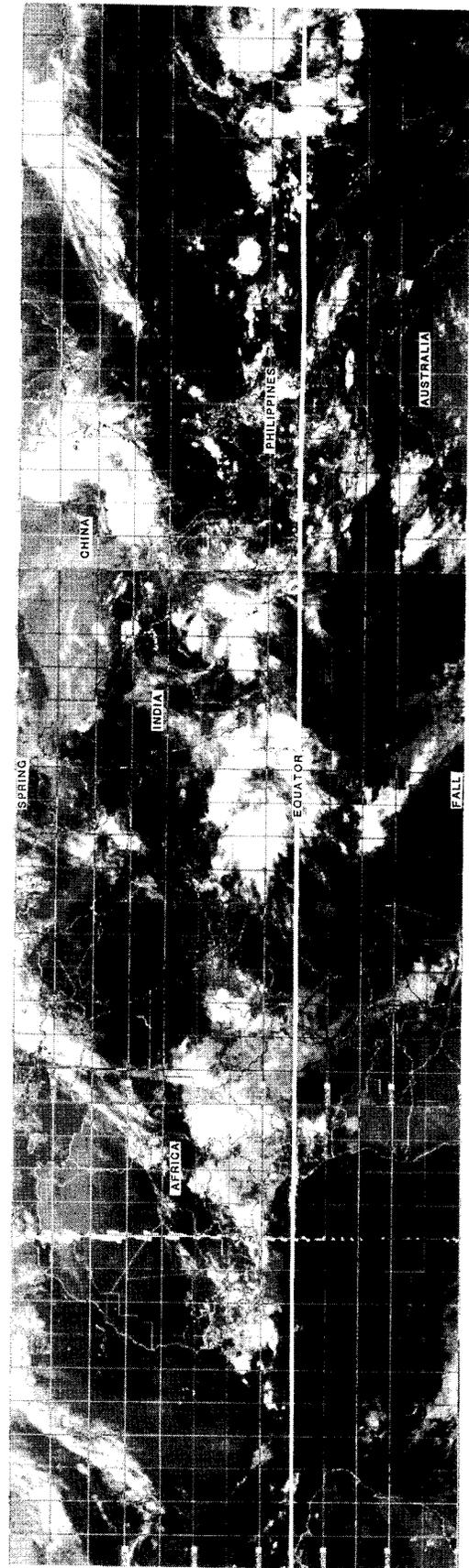
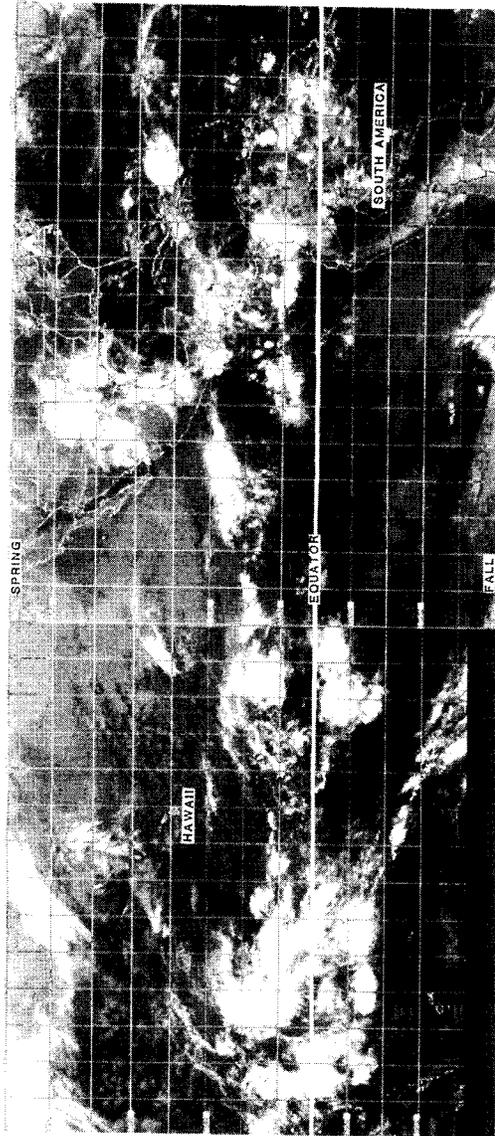
Days suitable for fieldwork 3.1. Soil moisture 20% short, 60% adequate, 20% surplus. Crops 2% very poor, 1% poor, 24% fair, 59% good, 14% excellent. Corn 96% planted, 93% 1986, 84% avg. Corn 1% very poor, 1% poor, 6% fair, 63% good, 29% excellent. Average height 5 in., 2 in. 1986, 1 in. avg. Soybeans 64% planted, 72% 1986, 54% avg. Winter wheat heading. First crop hay delayed wet, humid days; 3% cut, 9% 1986, 6% avg. Peas blooming. Strawberries good set.

WYOMING: Temperatures below normal. Precipitation above normal.

Days suitable for fieldwork 3.0. Topsoil moisture 2% short, 64% adequate, 34% surplus. Spring wheat most planted, most 1986, 95% avg.; 95% emerged, 90% 1986, 80% avg. Oats 95% planted, 95% 1986, 90% avg.; 80% emerged, 75% 1986, 75% avg. Barley most planted, 95% 1986, 95% avg.; 90% emerged, 90% 1986, 85% avg. Corn 85% planted, 85% 1986, 90% avg.; 60% emerged, 65% 1986, 60% avg. Sugarbeets 95% emerged, 95% 1986, 90% avg. Potatoes 70% planted, 75% 1986, 75% avg.; 45% emerged, 35% 1986, 35% avg. Dry beans 40% planted, 25% 1986, 45% avg.; 35% emerged, 5% 1986. Winter wheat mostly good. Livestock good to excellent. Calf, lamb losses light to normal. Ranges, pastures good. Cattle moved to summer range 35%, sheep 25%.

Global Weather Satellite Image

May 31, 1987



International Weather and Crop Summary

May 1987

MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
*** = DATA NOT AVAILABLE

May 24-30, 1987

HIGHLIGHTS:

UNITED STATES ... Rain promotes small grain development and crop growth in the central and northern Great Plains and in the Corn Belt. Heavy rain causes flooding in Oklahoma and Texas, but crop damage is minimal thus far. Some reseeding may be necessary in the central and southern Plains.

U.S.S.R. ... In western U.S.S.R., light-to-moderate showers favor newly emerging crops and winter grains entering the heading stage in the south. In the New Lands, mostly dry weather allows rapid spring crop planting.

CANADA ... Showers help newly emerging crops in the Prairie Provinces.

EUROPE ... Drier weather in the southeast allows some summer crop planting. Light rain and scattered frost cover jointing winter grains in the north.

SOUTH ASIA ... Scattered showers improve pre-planting moisture levels for cotton, groundnuts, and rice.

SOUTHEAST ASIA ... Moderate-to-heavy showers benefit emerging and vegetative rainfed grains in Thailand and the Philippines.

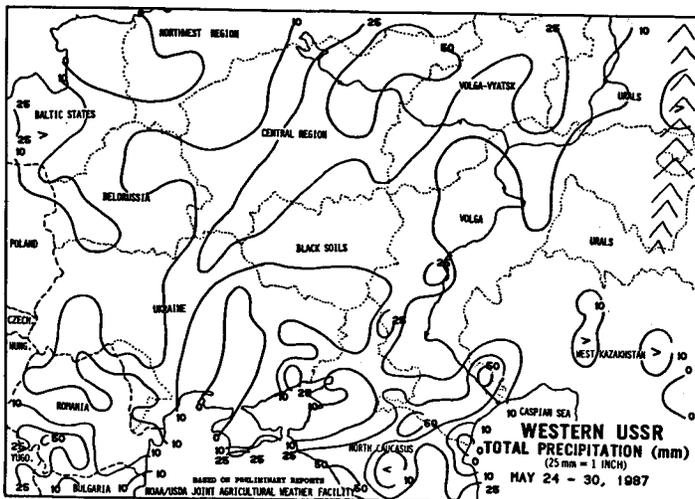
EASTERN ASIA ... Timely rain benefits filling wheat in the North China Plain. Moderate-to-heavy rain covers rice in central and southern China.

SOUTH AMERICA ... Dry, cool weather favors corn and soybean harvesting in Argentina and south-central Brazil.

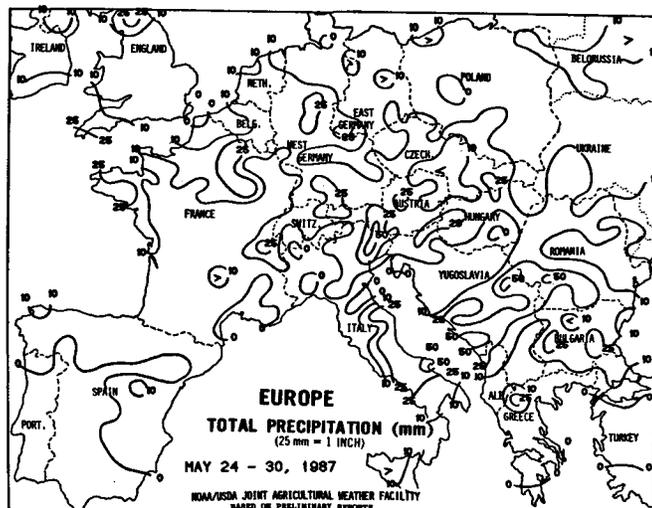
AUSTRALIA ... Moderate showers in southeast Australia improve moisture reserves for emerging wheat. Dry weather elsewhere favors continued planting.

MEXICO ... Mostly light showers help early corn growth in the east, but seasonally dry weather continues in the west.

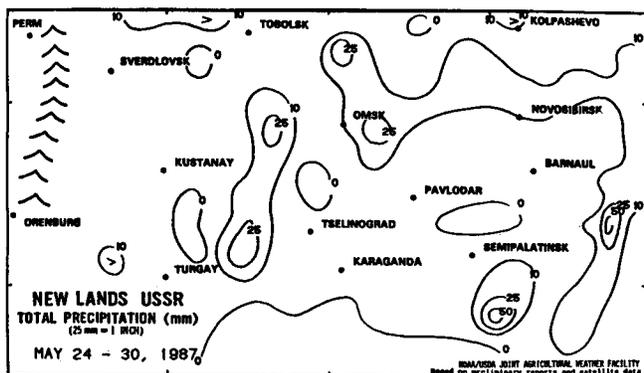
COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG		HI	LO	DPART	DPART	TOTAL	F/NRM
	MAX	MIN	MAX	MIN				
NORWAY OSLO	13	3	25	-2	8	-1.4	57.6	-4.0
SWEDEN STOCKHOLM	13	4	24	0	9	-1.3	42.2	11.6
FINLND HELSINKI	13	4	21	-3	8	-1.1	44.8	10.9
U KING GLASGOW	14	5	18	0	10	-1.7	60.8	-10.3
EDINBURGH	13	5	19	1	9	-1.0	42.5	-8.2
BIRMINGHAM	14	5	21	0	10	-1.0	33.2	-22.6
LONDON	16	6	22	1	11	-0.5	45.6	-10.4
IRELND DUBLIN	14	7	19	3	10	-0.2	24.7	-33.0
ICELND REYKJAVIK	9	4	18	-2	6	-0.1	27.0	-12.9
DENMRK COPENHAGEN	14	6	22	2	10	-2.1	48.7	6.8
LUXEMB LUXEMBOURG	14	6	23	1	10	-2.5	65.9	-0.3
SWITZL ZURICH	15	7	24	2	11	-1.8	140.0	38.2
GENEVA	17	7	26	1	12	-1.8	85.4	16.5
FRANCE PARIS	16	7	25	1	12	-1.7	69.2	14.3
STRASBURG	16	7	25	1	12	-2.0	103.8	41.6
BOURGES	17	7	25	1	12	-1.9	59.3	-12.4
BORDEAUX	19	9	29	3	14	-0.4	23.8	-45.9
TOULOUSE	19	9	29	3	14	-1.0	41.9	-30.6
MARSEILLE	20	10	27	5	15	-1.7	14.1	-28.2
SPAIN VALLADOLID	21	6	29	-1	14	-0.3	7.9	-36.1
MADRID	25	8	32	2	16	-0.3	25.0	-15.3
SEVILLE	27	13	35	10	20	0.4	0.0	-35.5
E GRMY LEIPZIG	15	6	24	1	11	-2.1	61.5	10.8
DRESDEN	15	7	24	3	11	-2.1	60.9	-2.1
W GRMY HAMBURG	14	6	22	1	10	-1.9	58.3	3.8
BERLIN	15	7	24	3	11	-2.5	44.8	-8.7
DUSSELDORF	15	7	25	3	11	-2.5	96.4	36.5
STUTTGART	14	6	23	0	10	-2.8	130.1	50.9
NURNBERG	15	6	26	1	11	-2.1	80.9	21.4
MUNICH	15	5	25	0	10	-2.0	145.6	46.2
AUSTRI VIENNA	17	9	25	5	13	-2.3	102.3	40.3
INNSBRUCK	17	5	26	0	11	-2.1	116.4	31.2
CZECH PRAGUE	15	6	25	2	11	-1.9	96.5	29.5
POLAND WARSAW	17	7	24	3	12	-0.8	63.9	11.7
LODZ	16	6	24	-5	11	-1.8	51.6	0.5
KATOWICE	16	7	24	-1	11	-1.8	84.7	16.6
PRZEMYSL	16	8	21	2	12	-0.8	146.7	76.3
HUNGAR BUDAPEST	19	10	26	3	14	-1.7	123.8	75.3
YUGOSL SARAJEVO	18	7	24	1	13	-1.2	135.4	51.3
ROMANI BUCHAREST	21	10	27	4	15	-1.3	100.0	28.9
BULGAR SOFIA	19	9	25	4	14	-0.6	66.0	-16.4
ITALY MILAN	21	10	26	5	16	-1.0	55.8	-31.7
VERONA	21	10	25	3	15	-1.4	58.3	-22.9
VENICE	20	11	26	7	16	-1.1	109.6	38.9
GENOA	20	13	28	8	16	-1.4	67.9	-40.1
ROME	20	11	25	6	16	-1.6	17.8	-20.1
NAPLES	22	11	26	5	16	-0.6	58.6	6.4
GREECE THESSALONIKA	23	11	29	6	17	-2.8	34.4	-14.9
LARISSA	24	10	30	4	17	-2.9	32.2	-8.1
ATHENS	22	14	27	9	18	-2.8	0.7	-20.3
TURKEY ISTANBUL	20	12	29	5	16	0.4	20.8	-9.2
ANKARA	20	7	29	1	13	-3.6	46.8	4.8
CYPRUS LARNACA	25	14	36	9	20	-1.0	0.4	-10.5
USSR TALLINN	13	5	24	0	9	-0.2	58.1	20.6
LENINGRAD	14	7	26	1	10	0.2	42.3	4.3
KAUNAS	16	7	25	1	12	-0.5	62.8	9.8
MINSK	17	7	23	-7	12	-0.3	51.7	-9.7
KAZAN	20	9	28	4	15	1.7	48.0	9.9
MOSCOW	18	8	27	1	13	0.2	86.6	26.2
SVERDLOVSK	21	8	29	1	14	3.0	13.1	-28.3
OMSK	20	8	31	-1	14	2.3	27.8	1.3
KUSTANAY	21	10	31	0	16	1.6	17.4	-6.1
KRASNOYARSK	17	3	30	-3	10	1.0	62.1	19.0
NOVOSIBIRSK	17	7	27	-2	12	2.6	27.8	-5.2
BARNAUL	19	8	27	0	13	1.4	44.0	8.1
KHABAROVSK	16	4	28	3	10	1.7	46.1	-15.7
VLADIVOSTOK	14	7	23	3	10	0.6	49.8	-23.8
KIEV	19	9	25	3	14	-0.9	78.7	26.9
LVOV	17	7	22	2	12	-0.7	83.1	11.0
KIROVOGRAD	20	9	28	2	14	-0.7	40.4	-7.5



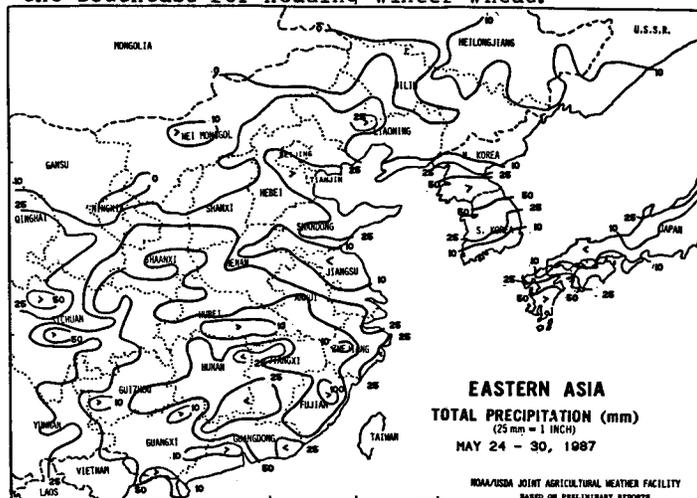
U.S.S.R. ... In western U.S.S.R., an early-week storm, centered over the eastern Ukraine and Black Soils, produced significant rain (13-50mm) northward from the North Caucasus, through the eastern Black Soils, into the Central and Volga Vyatsk Regions. Locally heavy rainfall in excess of 50mm covered the central North Caucasus and the northeastern portion of the Central Region. Light precipitation (less than 10mm) covered most of the Ukraine, maintaining favorable moisture conditions for newly emerging crops such as spring barley, corn, and sugar beets. Winter wheat across the southern Ukraine and North Caucasus was likely entering the heading stage. Winter grains over the remainder of the region were in the jointing stage. Spring planting continued, with delays over the northern half of the region where the heaviest rain fell. Weekly temperatures over the region were 2-4 degrees C below normal in the south and 4-7 degrees C below normal in the north.



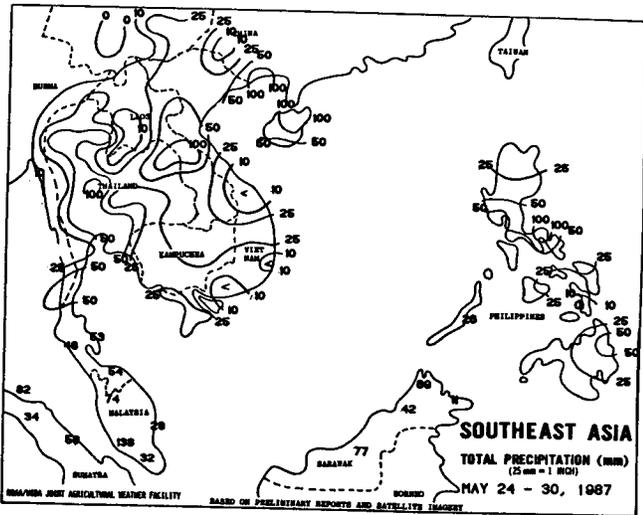
EUROPE ... Light rain (less than 10mm) and temperatures averaging 1-3 degrees C above normal covered England, southern France, and Spain. The warm, dry weather in Spain benefited maturing winter wheat. Light-to-moderate showers (10-35mm), from northern France eastward through central and southern Europe, benefited winter wheat in the heading stage of development. Light rain (less than 10mm) with some scattered frost occurred in the north from northern West Germany through Poland. Winter wheat in northern Europe was in the jointing stage of development. Drier weather improved conditions for summer crop planting in parts of Hungary, Romania, and Yugoslavia, following recent wetness. Moisture levels are adequate in the southeast for heading winter wheat.



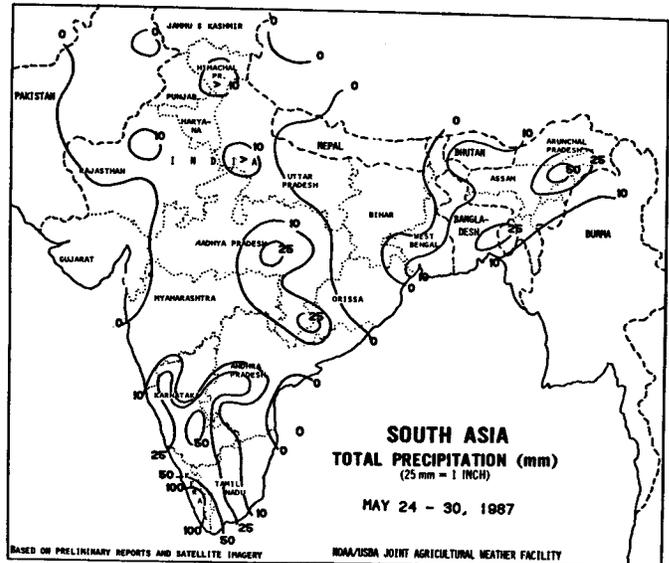
In the New Lands, spring crop planting was well underway in most areas. Mostly dry weather allowed planting to progress with few delays. However, thunderstorms produced localized showers in central and northern areas, which likely caused brief delays in fieldwork. Temperatures over the region were above normal with daily maximum temperatures reaching 30 degrees C at many locations early in the week. Cooler weather moved into the region by week's end.



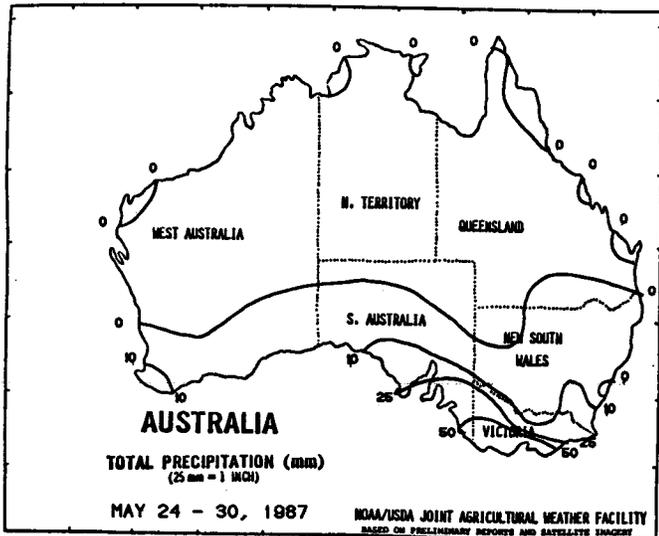
EASTERN ASIA ... Timely rain (10-25mm) over Shandong, northern Henan, and southern Hebei benefited filling wheat as well as cotton and early corn in the vegetative stage. Further south, widespread moderate rain over Shaanxi, southern Henan, and Anhui maintained abundant moisture conditions for filling wheat and summer crops in the vegetative stage. Widespread precipitation covered rice areas in Sichuan, Guizhou, Hubei, Hunan, Jiangxi, southern Anhui, Zhejiang, Guangxi, Guangdong, and Fujian. Rainfall in these areas generally ranged from 30-100mm, with locally heavy rain (greater than 100mm) causing flooding in some areas. Early rice was in the heading to filling stages, intermediate rice was in the vegetative stage, and planting of late single-crop and double-crop rice was well underway. In the Manchurian Valley, dry weather returned to summer crop areas.



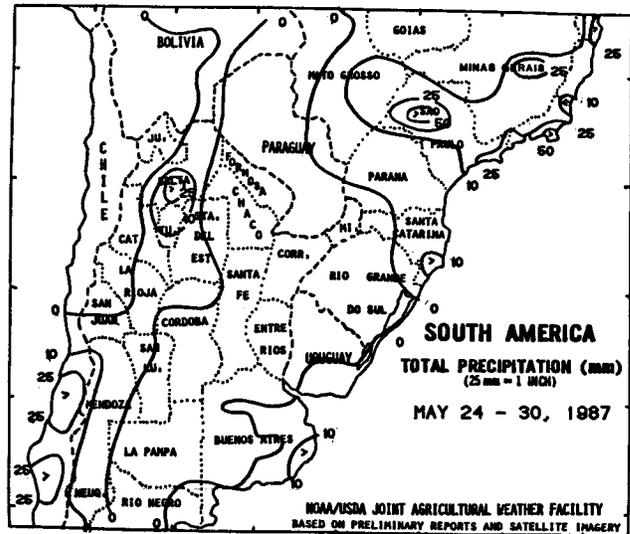
SOUTHEAST ASIA ... Moderate-to-heavy showers (25-138mm) covered Thailand's rainfed corn and rice regions, improving moisture reserves for vegetative crops. Moderate-to-heavy showers (10-62mm) continued in peninsular Thailand. Pockets of light rain (less than 25mm) persisted in some rainfed rice regions of Kampuchea, Vietnam, and Laos. In the Philippines, this season's heaviest rainfall (28 to more than 100mm) covered rainfed corn and rice areas of Luzon and Mindanao, greatly improving conditions for recently planted crops. Dry pockets persisted over some central islands, but rainfall generally averaged more than 20mm. Moderate-to-heavy showers (25 to more than 150mm) fell in western Indonesia and Malaysia, but dry weather continued from central Java eastward.



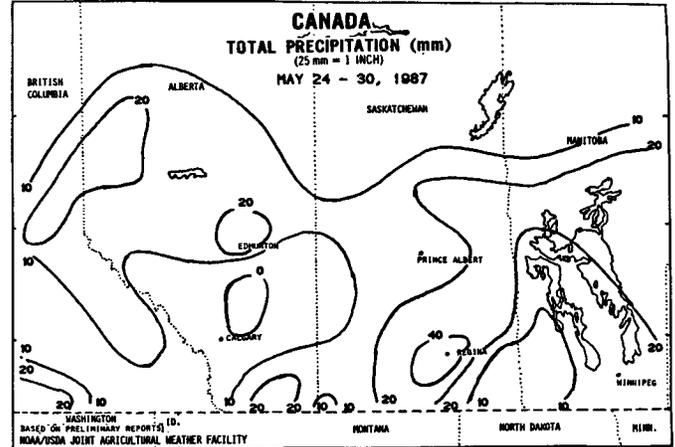
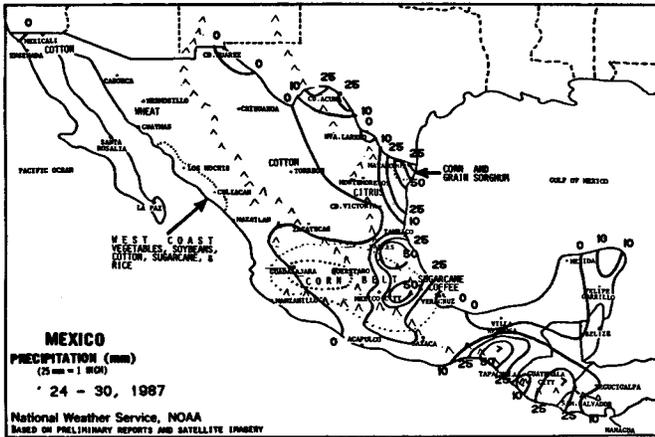
SOUTH ASIA ... Moderate-to-heavy showers (10-79mm), in southern and central India, from Tamil Nadu to Madhya Pradesh, improved pre-planting moisture levels for cotton and groundnuts. Planting of southern India's mostly rainfed summer crops normally begins in June, coinciding with the normal onset of the southwest monsoon. Rice planting is underway in southwestern and eastern India in response to recent weeks of beneficial rainfall. Dry weather along India's east coast promoted summer rice harvesting.



AUSTRALIA ... Moderate showers (10-32mm) in winter grain areas of Victoria and South Australia improved moisture reserves for emerging wheat. Minimal rain (less than 2mm) allowed continued wheat planting in Western Australia, New South Wales, and Queensland. Moisture continues limited, however, for emergence and early vegetative growth in southern Queensland's grain areas. Winter wheat planting, well underway throughout Australia, normally lasts through June. Dry weather covered sugarcane areas along Queensland's coast.



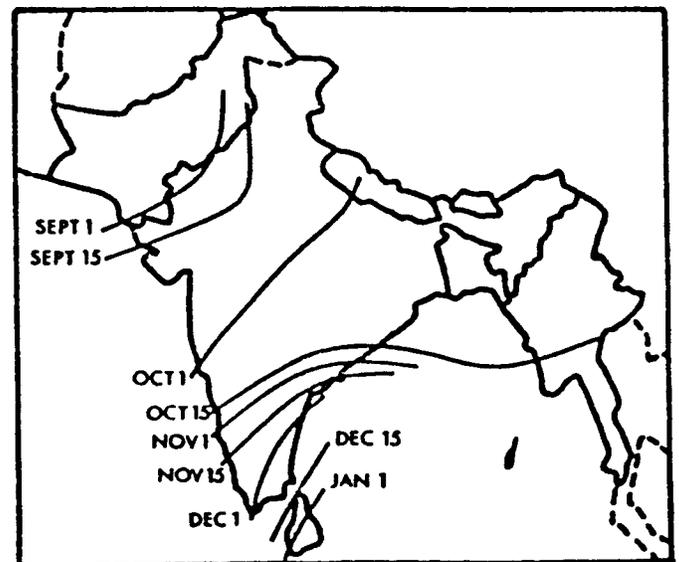
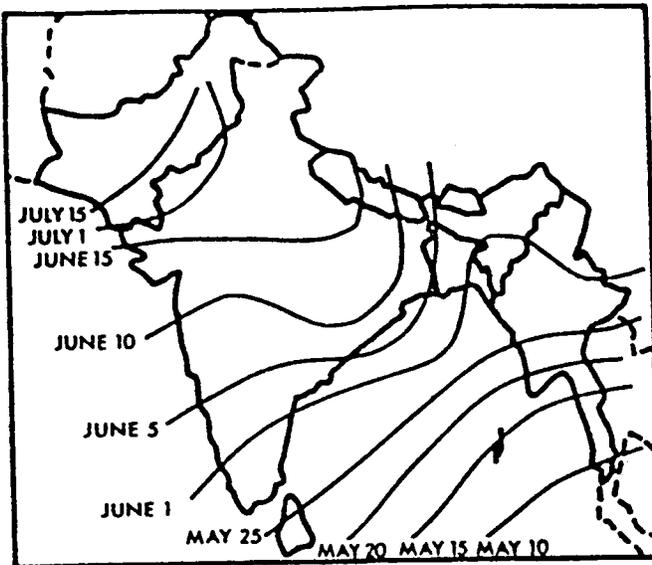
SOUTH AMERICA ... A fair weather pattern dominated the crop areas of Argentina and south-central Brazil. Scattered showers and thunderstorms were concentrated mostly in the Brazilian states of Sao Paulo, eastern Mato Grosso do Sul, and southeastern Minas Gerais. The dryness in Rio Grande do Sul benefited late soybean harvesting, which is now over 95 percent complete. Weekly temperatures averaged below normal in southern Brazil, but scattered, light frost posed no problem for coffee trees. In Argentina, the dryness favored soybean harvesting reaching 60 percent completion and wheat planting getting underway in Buenos Aires province. Corn, sorghum, and sunflower harvesting advanced to about 90, 85, and 98 percent complete, respectively. Weekly temperatures averaged several degrees below normal, with widespread, mostly light frost.



MEXICO ... Light showers (mostly less than 5mm) covered the northeast and the Southern Plateau corn belt, while seasonably dry weather continued along the west coast farming area and the northwest. Locally heavier showers (10-88mm) were confined to an area south of Tampico and Valles along the east coast to the Sierra Madre del Sur, north of Acapulco and west of Oaxaca. The moisture promoted corn planting and vegetative growth in the eastern corn belt. Tropical showers increased in the extreme southern portion of Mexico. Weekly temperatures averaged near to slightly below normal in the northern cotton and rangeland areas, and slightly above normal in the south.

CANADA ... Beneficial rain fell over the Prairie Provinces, bringing some topsoil moisture for crop establishment. The widespread showers produced 10-47mm over most grain areas of Saskatchewan and portions of Manitoba and Alberta. Weekly rainfall averaged less than 10mm in crop areas of southwestern Manitoba, extreme southeastern Saskatchewan, and central grain areas of Alberta, providing minimal topsoil moisture for newly emerging crops in those areas. Temperatures increased from the previous week's frost-producing cold weather. Weekly temperatures generally averaged 1-4 degrees C above normal. Spring grain planting is nearly complete, over a week ahead of normal. Some oilseed planting and replanting continued in more northern crop areas.

MEAN DATES OF THE SOUTHWEST MONSOON'S ARRIVAL AND RETREAT



MEAN DATE FOR ARRIVAL

MEAN DATE FOR RETREAT

The southwest monsoon circulation, generated by differential heating between ocean and land masses, provides South Asia with its summer rainfall. Consequently, the planting of summer crops such as groundnuts, cotton, and

rice coincide with the average arrival of the monsoon to a given area. The enclosed diagrams outline the average onset and withdrawal dates of the monsoon over different areas in South Asia.

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