

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

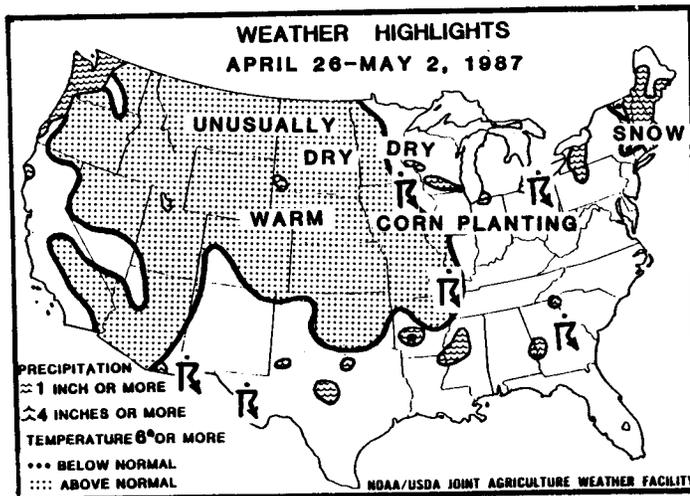
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May 5, 1987

National Weather Summary

April 26 to May 2, 1987



HIGHLIGHTS: A late-season winter storm dropped snow through much of the Northeast. Heavy amounts accumulated in parts of southern New England. Cold weather lingered all week, and freezing temperatures were as far south as the central Appalachians. Unusually warm weather persisted across the South and through the Great Plains. Cooling replaced warm weather in the West, after mid-week. Showers and thunderstorms were widespread east of the Rockies. Severe storms were isolated across the South and in the lower Great Lakes region. Moderate showers fell from southern Wisconsin, through northern Ohio, and to Pennsylvania and western New York. Moderate rain or snow covered New England.

SUNDAY...Cold weather gripped parts of the Northeast as temperatures in New England and parts of New York dropped to the upper twenties. Conversely, afternoon temperatures were unusually warm in the central and western part of the Nation. A few light showers fell from eastern Iowa, to central Indiana, and in the Southwest.

MONDAY...The cold weather spread further in the Northeast. Freezing temperatures were in parts of the central Appalachians. Showers and thunderstorms developed from the eastern Great Lakes to the Tennessee Valley and eastward to the Atlantic Ocean. Warm weather continued across the South and through the West. A few light showers dotted the Rockies and the Plateau.

TUESDAY...Wet snow fell in eastern New York and the higher elevations of southern New England. Light rain covered most of the Northeast from Pennsylvania and eastern Maryland northward. Moderate rain fell in eastern New England. Light rain be-

came more widespread in the West. Unusually warm weather continued across the South and in the West.

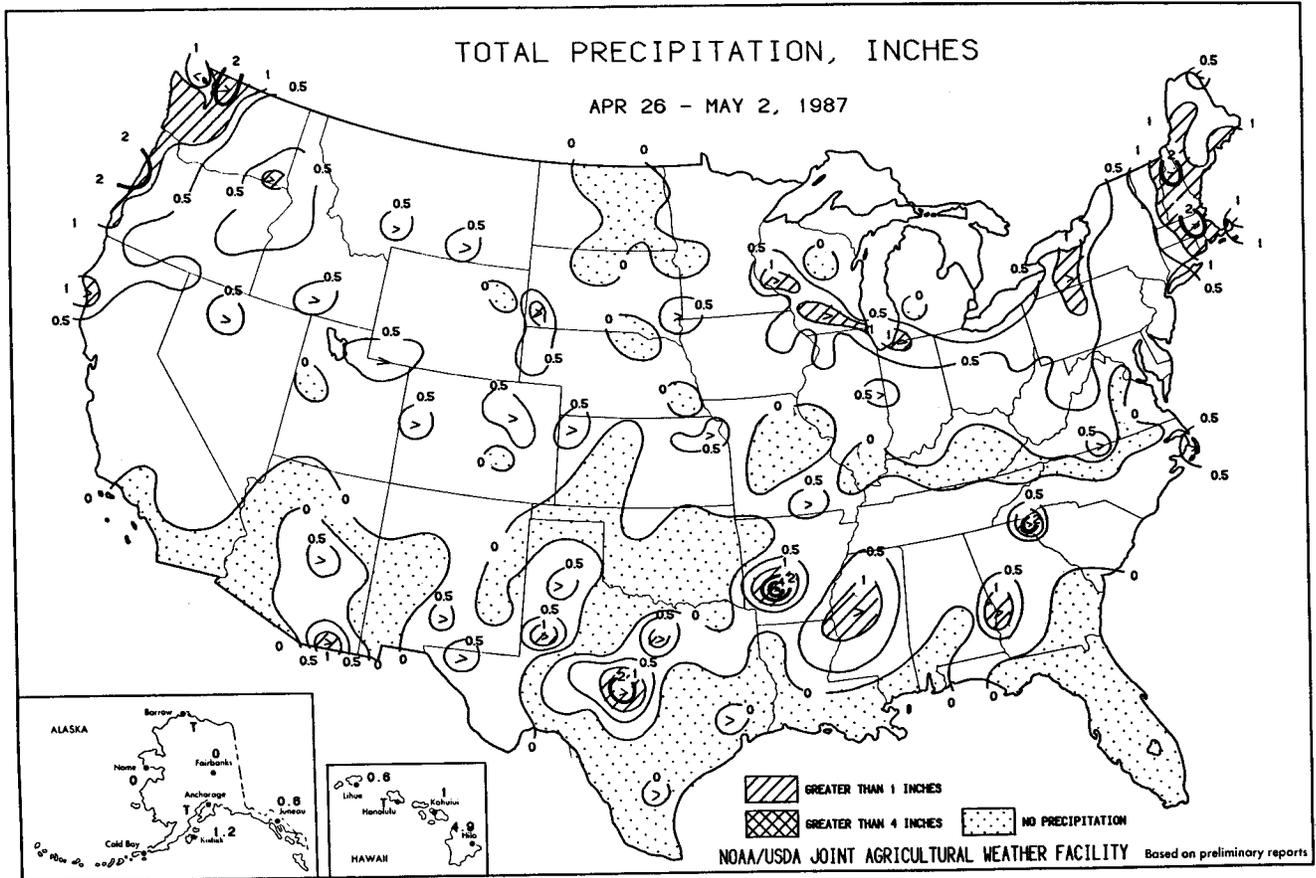
WEDNESDAY...A late-season snowstorm blanketed portions of New England. Heavy amounts accumulated in parts of southern New England. Isolated areas of freezing temperatures reached to the central Appalachians. Rain covered the rest of the area from the upper Ohio Valley and Maryland northward. Another storm, entering from the West, brought widespread light rain to the West coast, the Plateau, and northern Rockies. Unusually warm weather continued in the Great Plains but eased somewhat in the West.

THURSDAY...The Northeast was cold, wet, and windy. Snow was confined to the highest elevations, and light rain moved out to the East. Light showers covered the area west of the Rockies but were moderate in parts of the Northwest. A few showers developed in western Texas, the upper Mississippi Valley, and from Missouri and northern Arkansas into the Carolinas. The West was much cooler, but warm weather spread across the South and through the Plains.

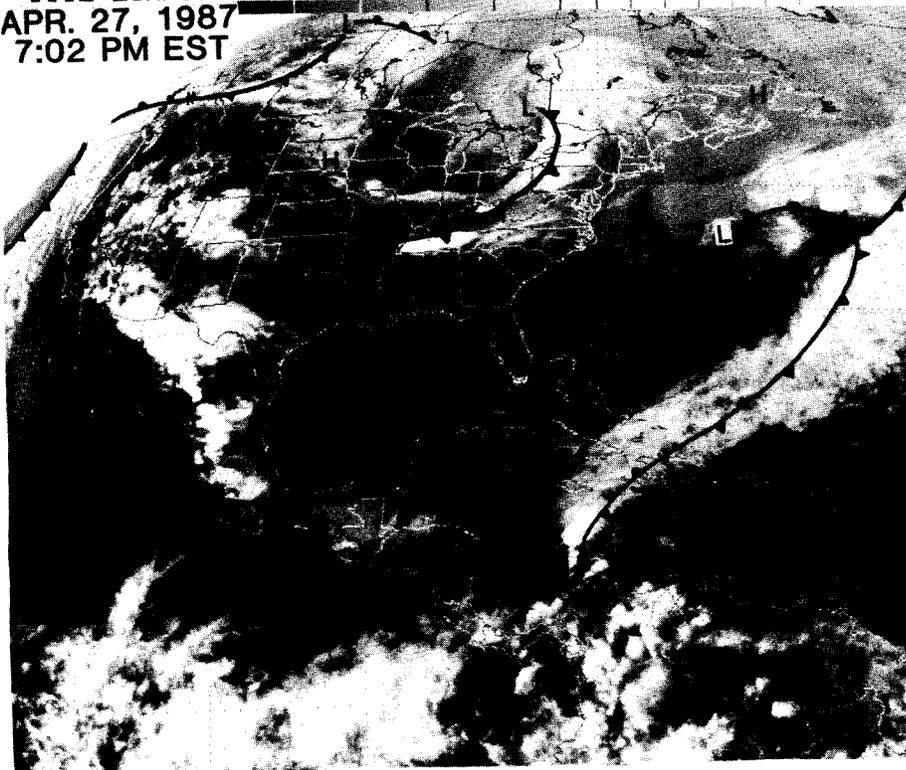
FRIDAY...Showers and thunderstorms were widespread in the East. Showers generally dropped light rainfall, but some moderate precipitation fell in parts of the Southeast and from southern Wisconsin to northern Ohio. Showers covered the Northwest from northern California and the central Plateau northward. Cool weather covered the West, but warm weather continued in the Plains and across the South.

SATURDAY...Showers and thunderstorms developed from the lower Mississippi Valley, to the central Great Lakes, and across the Appalachians to the Mid-Atlantic States. Elsewhere, the Pacific storm moved into the central Plains and triggered severe thunderstorms in Kansas and Nebraska and lighter showers throughout the Plains and in the Northwest. (Continued to back cover)

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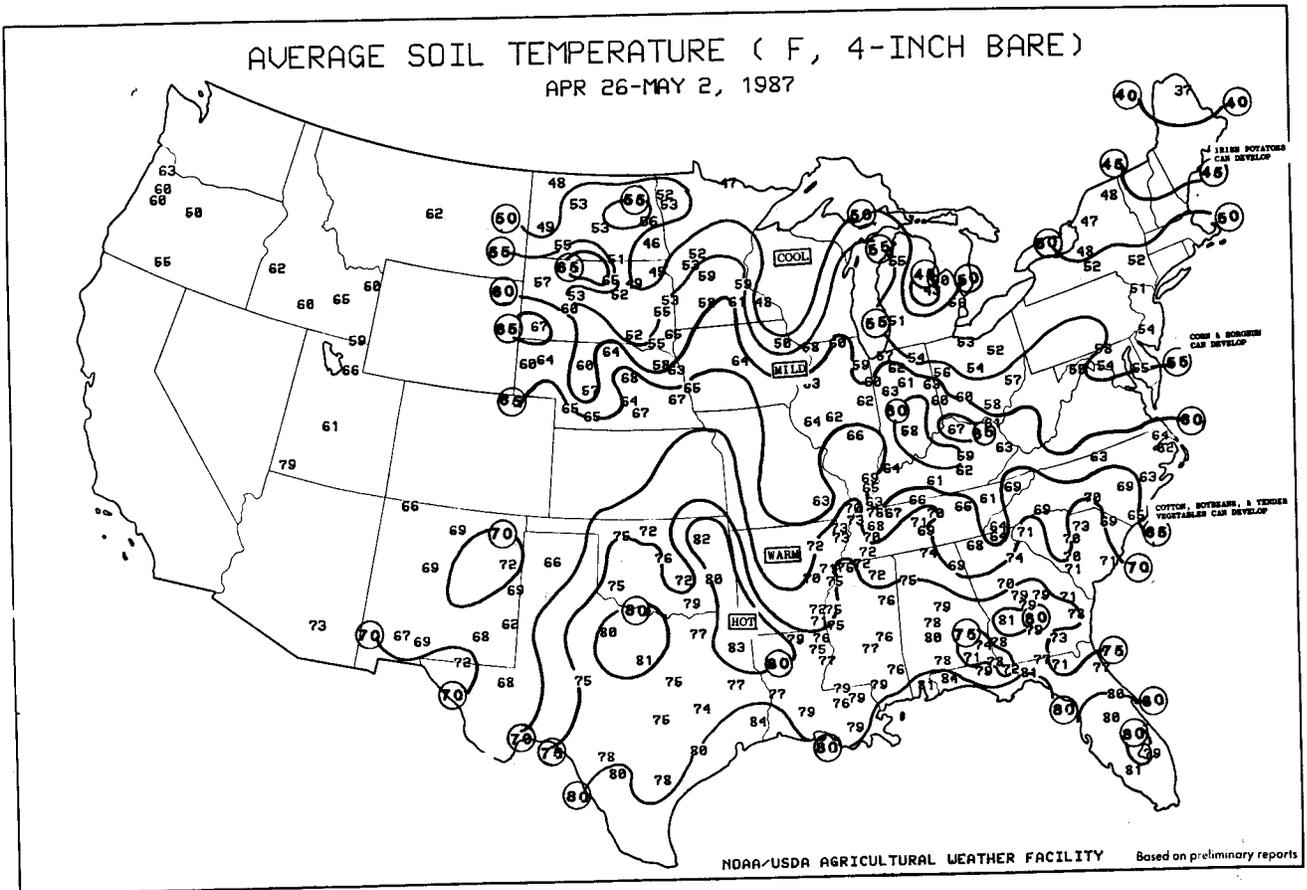
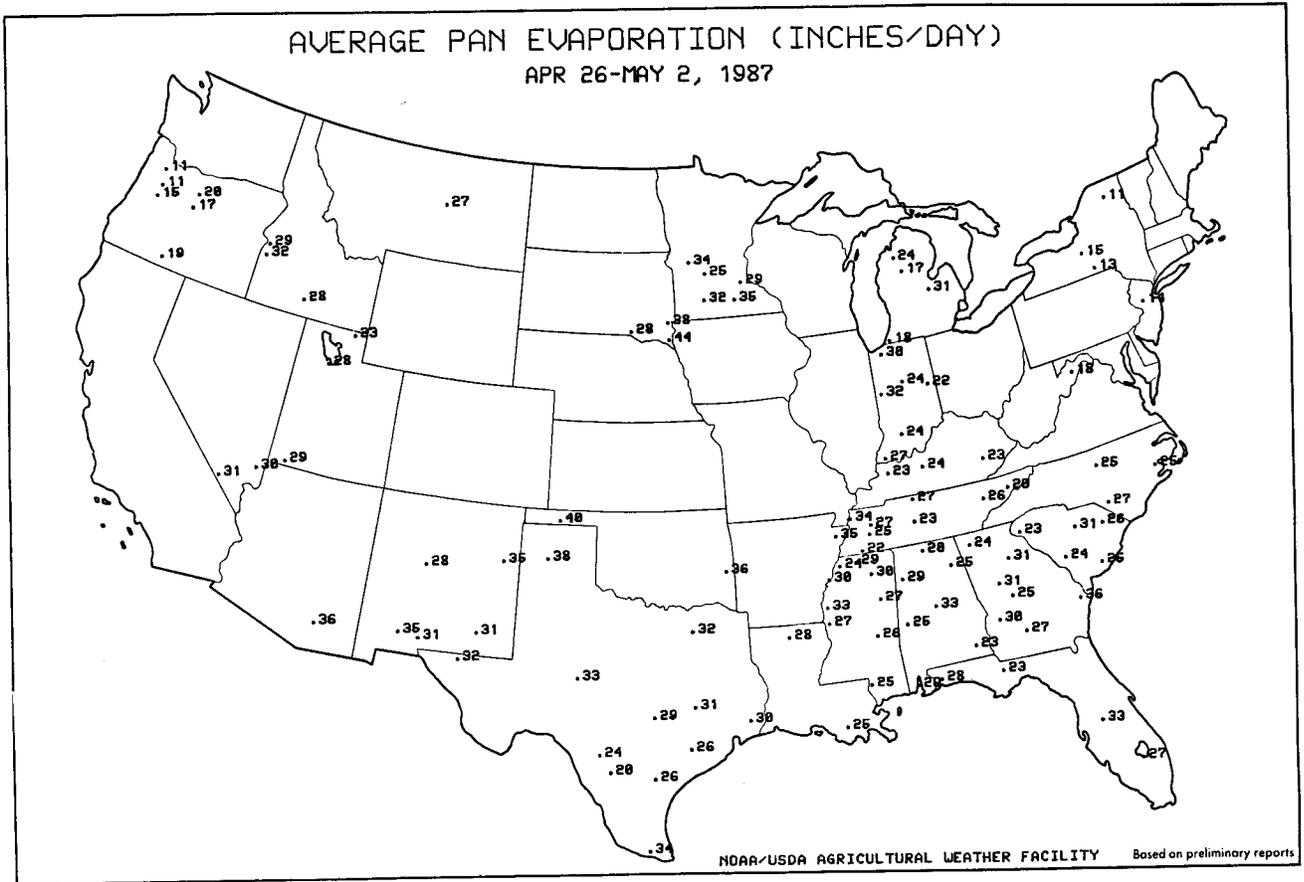
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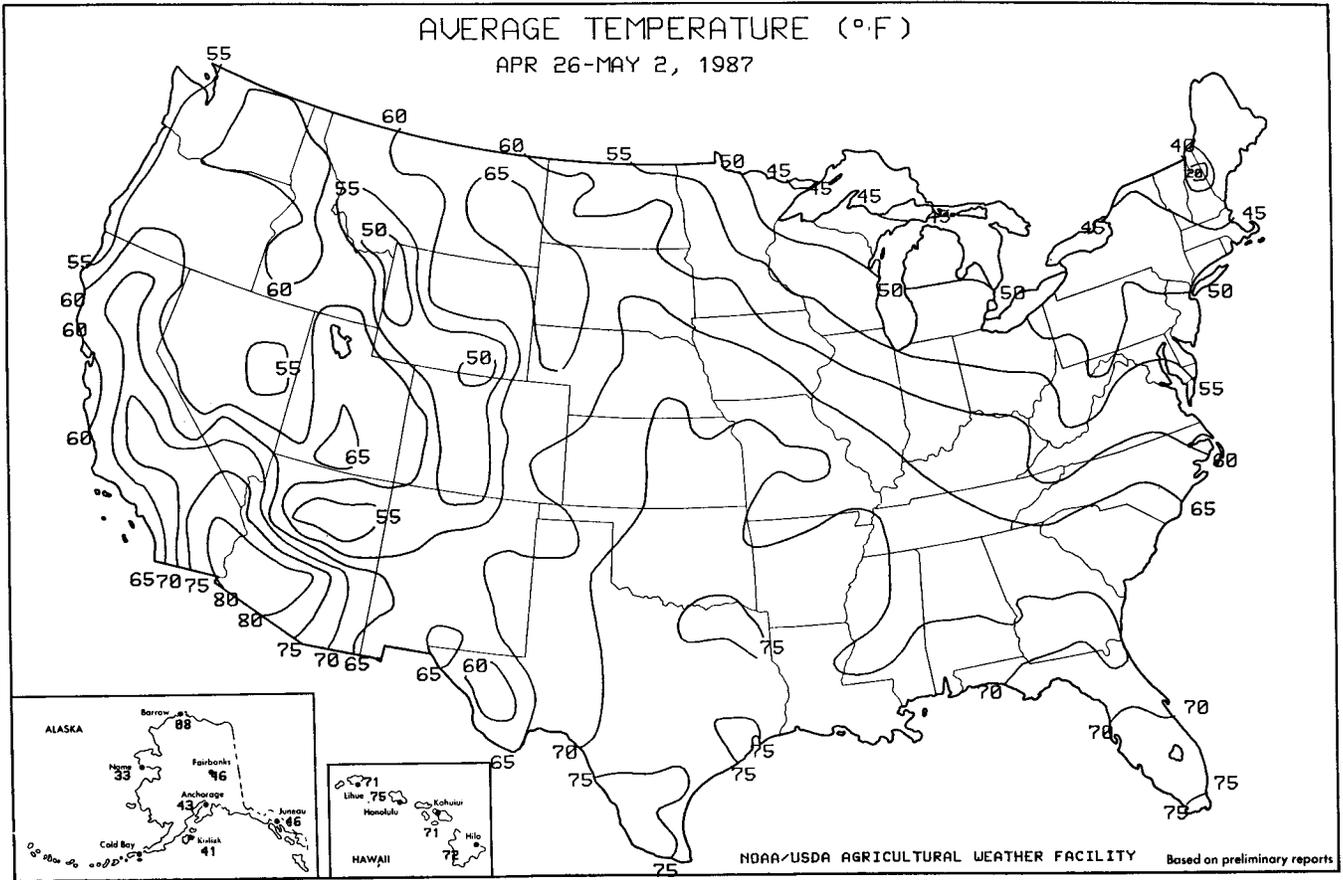


A COLD FRONT TRIGGERS THUNDERSTORMS FROM THE EASTERN GREAT LAKES THROUGH THE UPPER OHIO VALLEY TO THE TENNESSEE VALLEY.

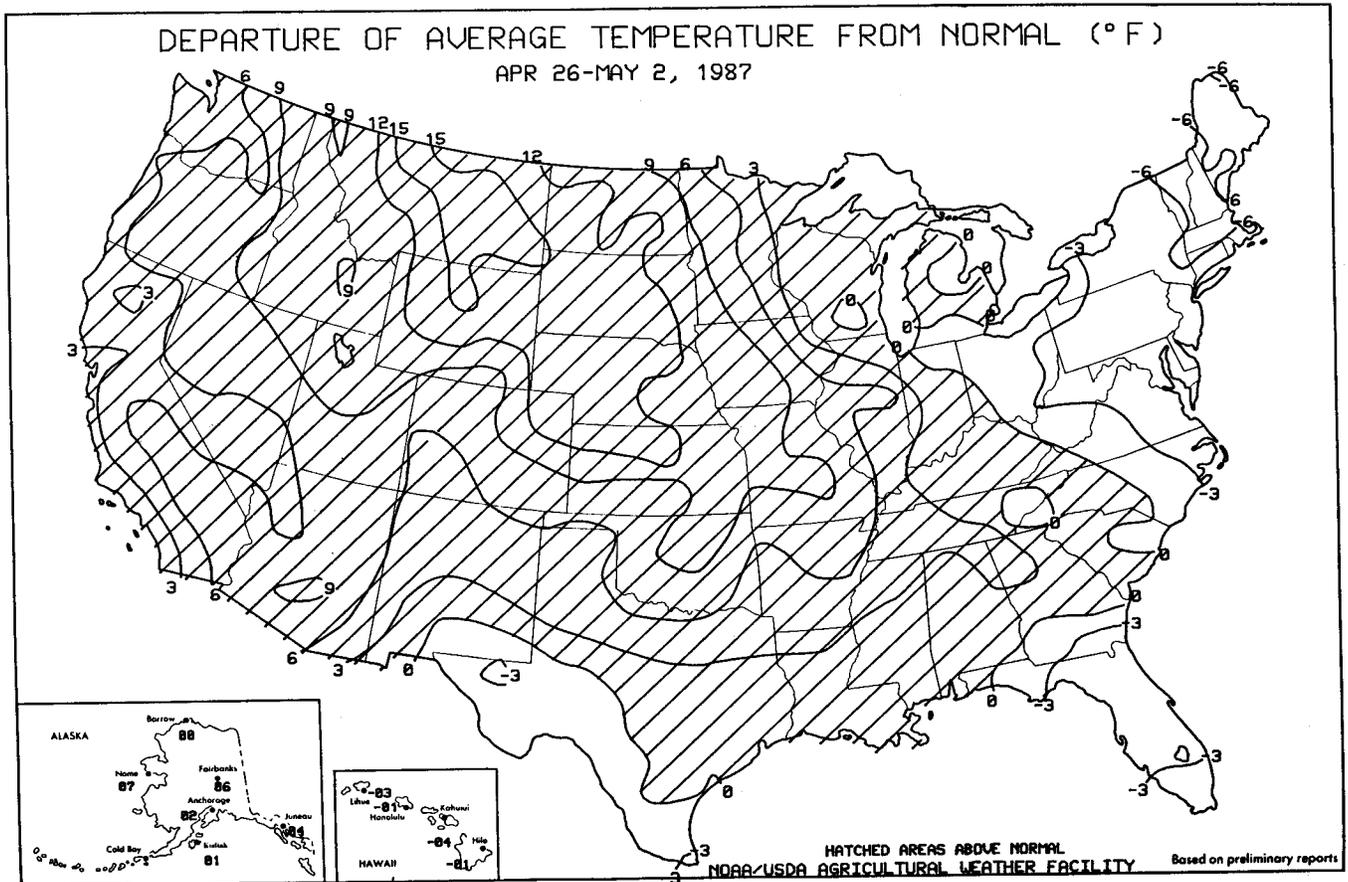
HEAVY THUNDERSTORMS ARE FROM SOUTHEASTERN ARIZONA INTO MEXICO AND SOUTHWESTERN TEXAS.

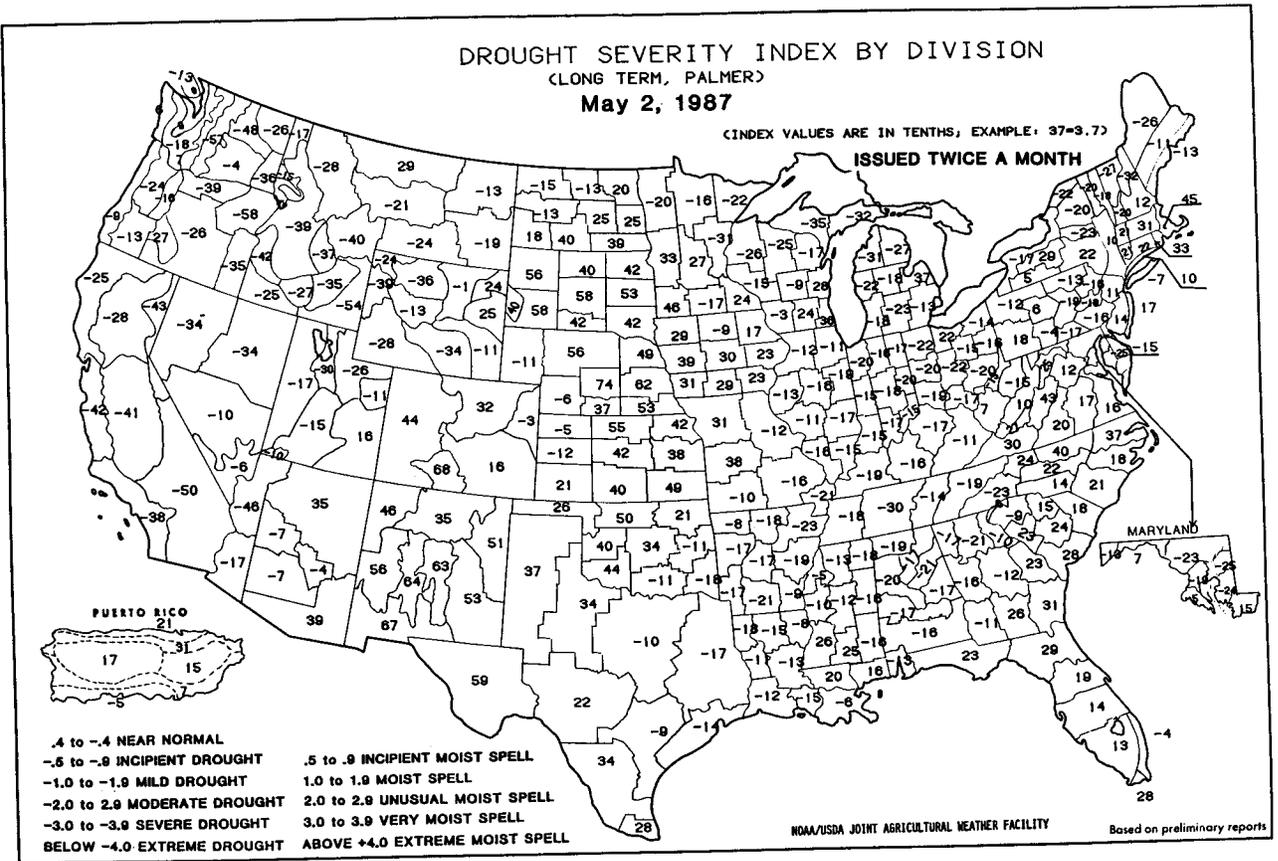
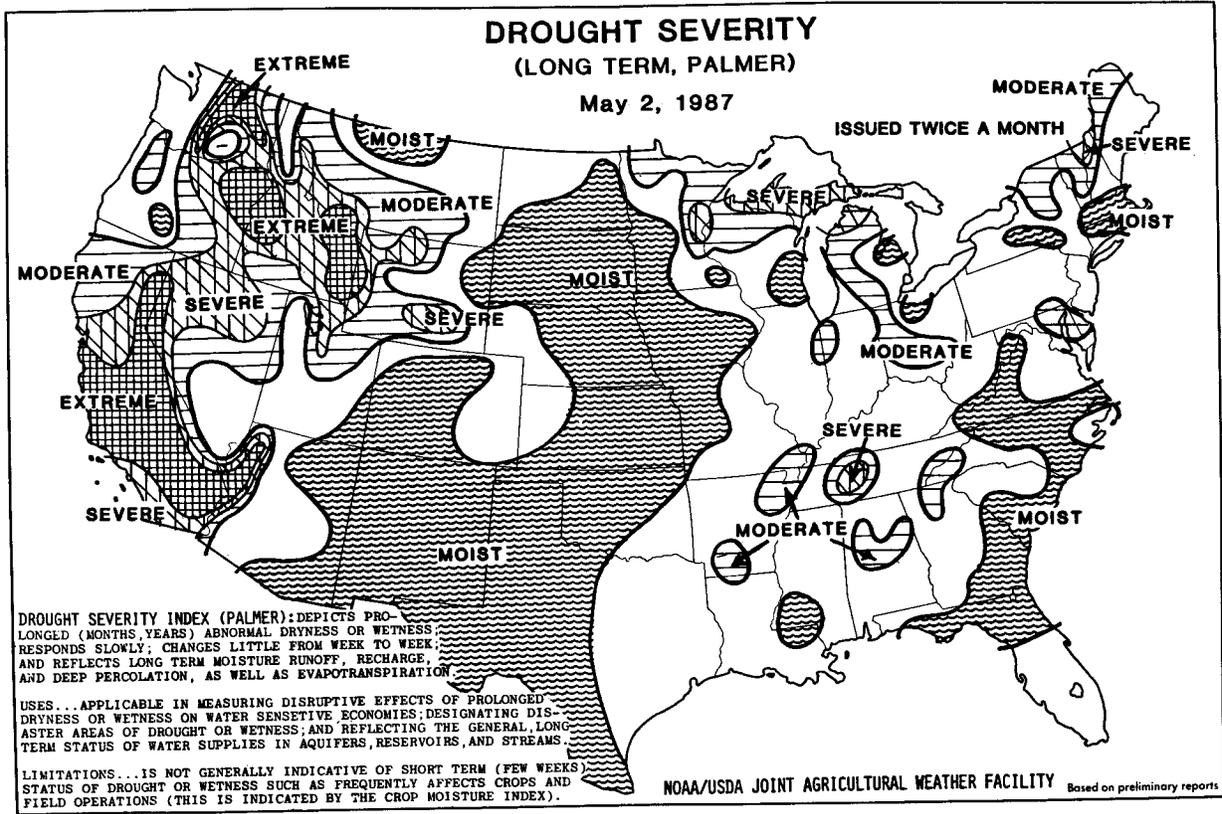
SHOWERS ARE WIDESPREAD IN THE SOUTHWEST, THE GREAT BASIN, AND THE CENTRAL ROCKIES.

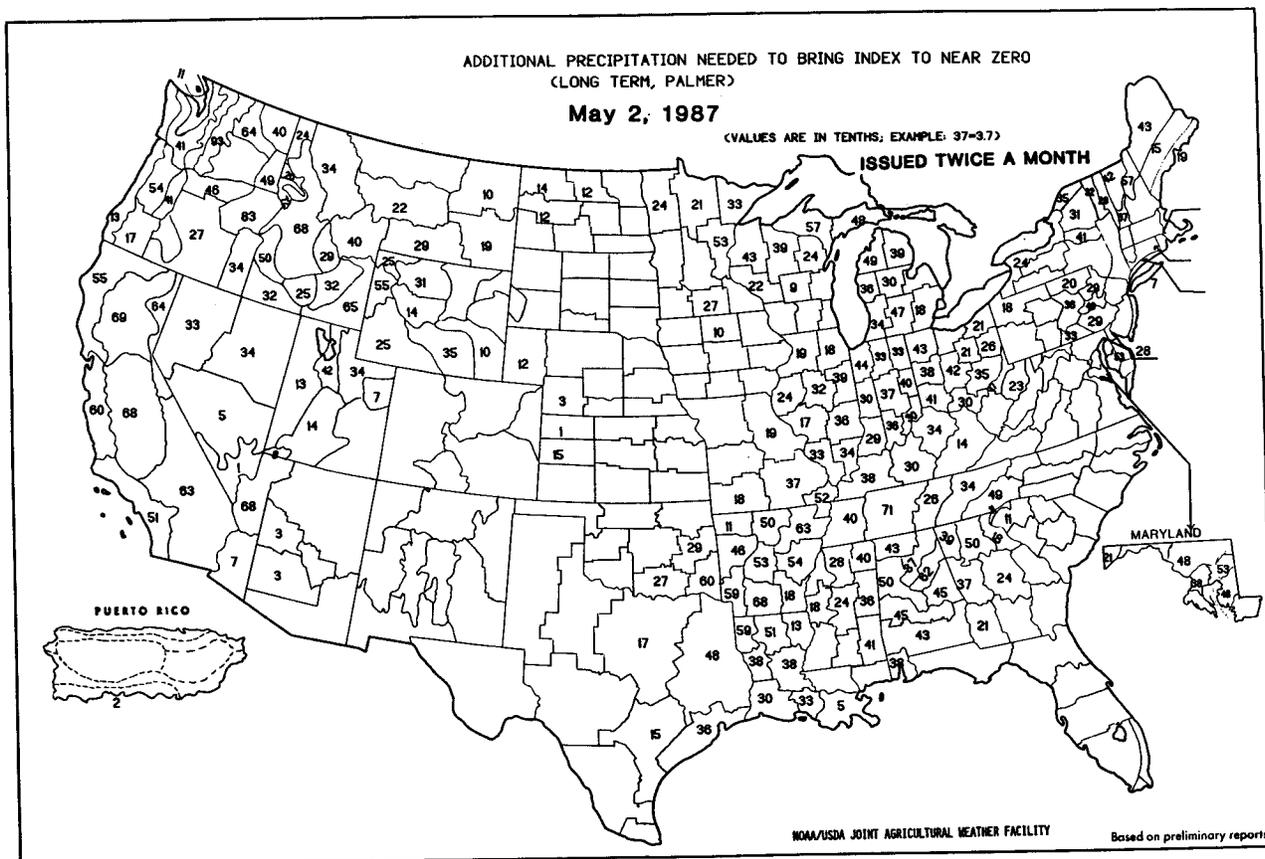




Point values may differ on these computerized maps from the reported values in the tables.







The Crop Moisture Index

Lyle M. Denny and Thomas R. Heddinghaus

Palmer (1968) developed the Crop Moisture Index from moisture accounting procedures used in calculations of the Drought Severity Index to measure the degree to which moisture requirements of growing crops were met during the previous week. The Drought Severity Index (Palmer, 1965) evaluates prolonged meteorological dry or wet periods (see Weekly Weather and Crop Bulletin, April 21, 1987, Vol. 74, No. 16). The Crop Moisture Index gives the status of purely agricultural drought or moisture surplus affecting warm-season crops and field activities and can change rapidly from week to week. Calculations are made for 350 climatic divisions in the United States and Puerto Rico using weekly average temperatures and precipitation totals as input.

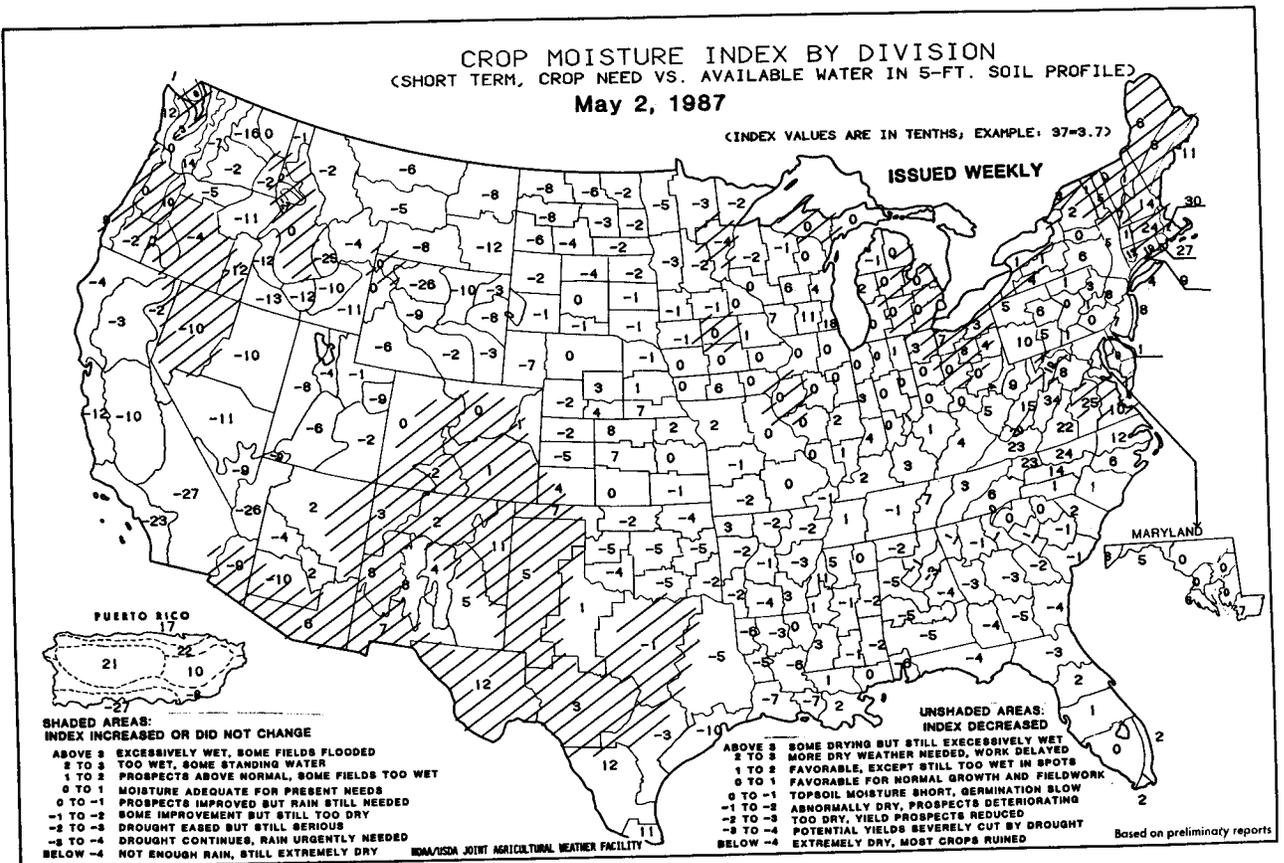
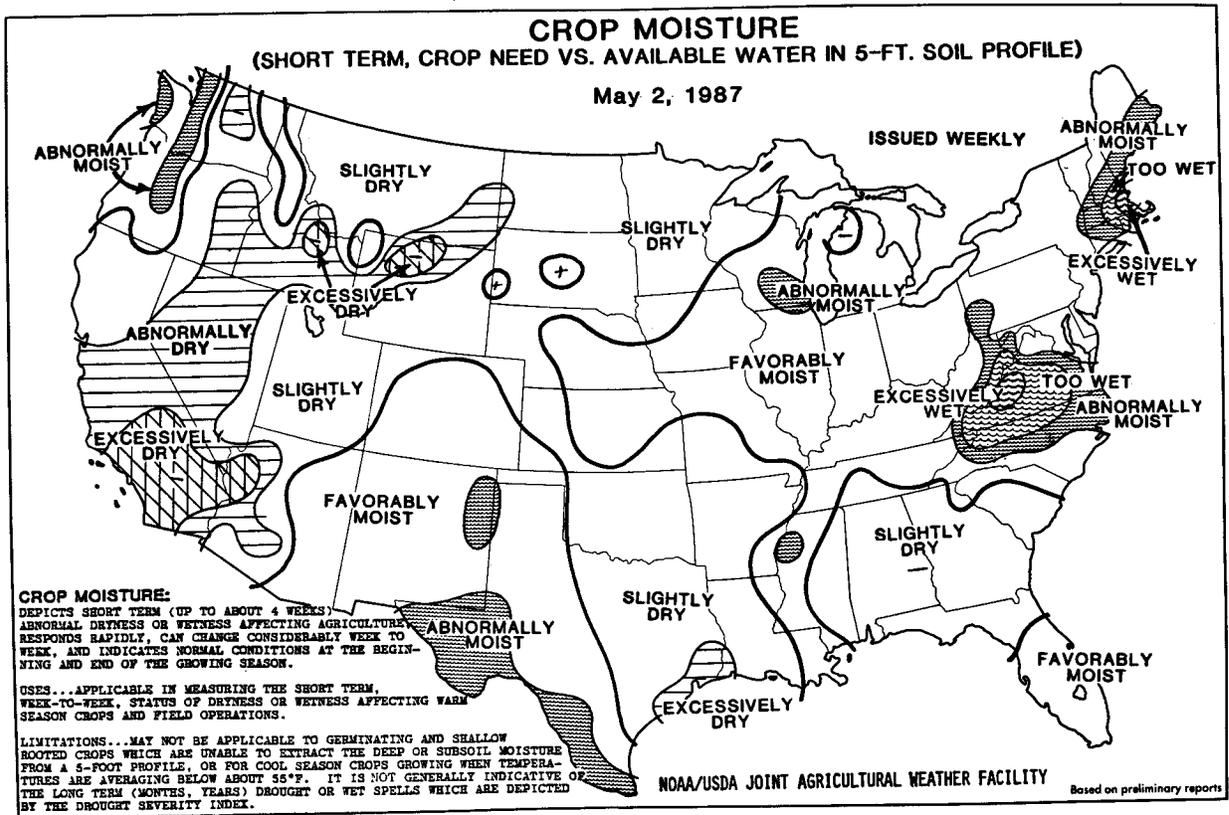
The index is the sum of the evapotranspiration anomaly, which is negative or slightly positive, and the moisture excess (either zero or positive). Both terms take into account the value of the previous week. The evapotranspiration anomaly is weighted to make it comparable for different locations and time of year. If the potential moisture demand exceeds available moisture supplies, the index is negative. If moisture meets or exceeds demand, the index is positive. It is necessary to use two separate interpretations because

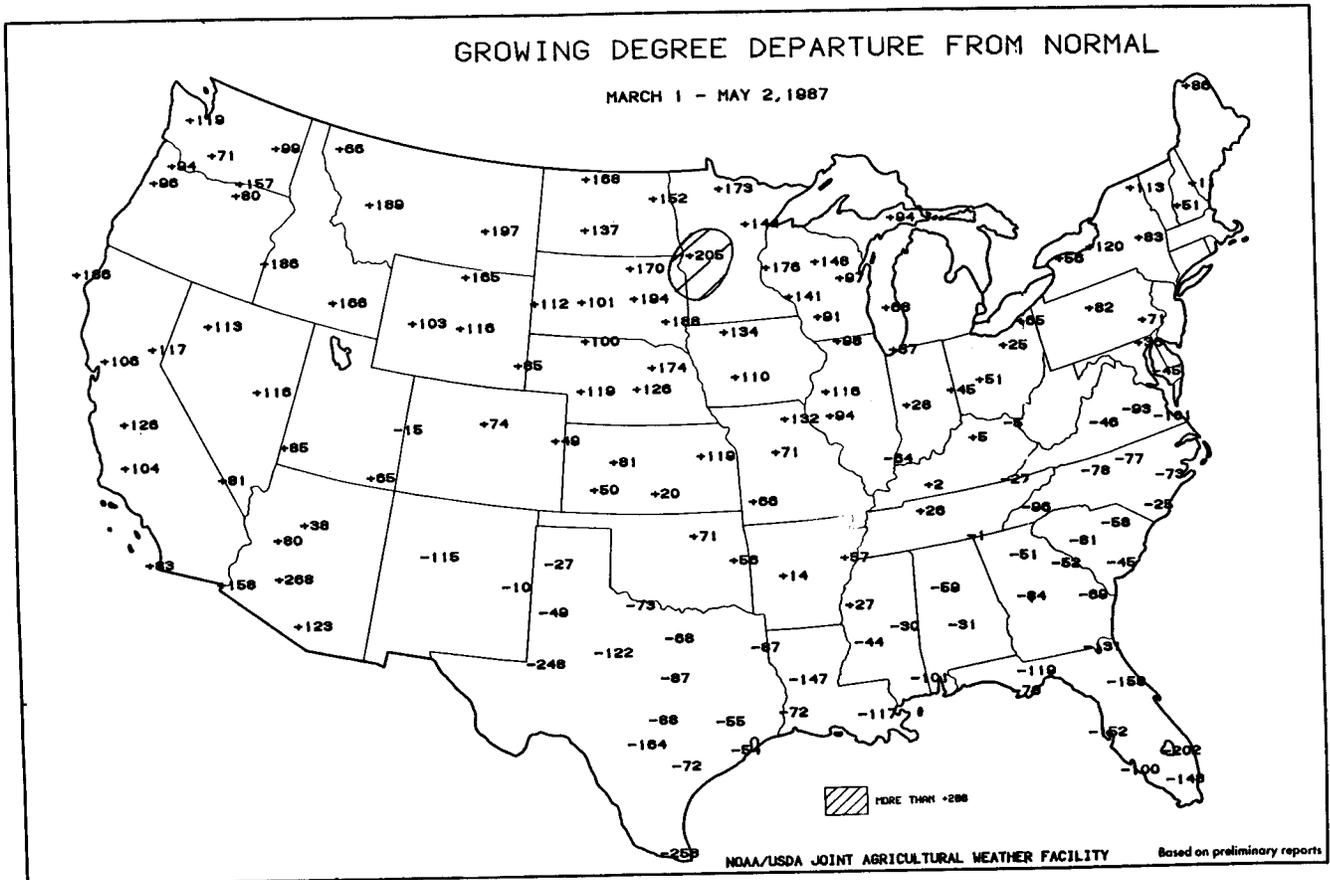
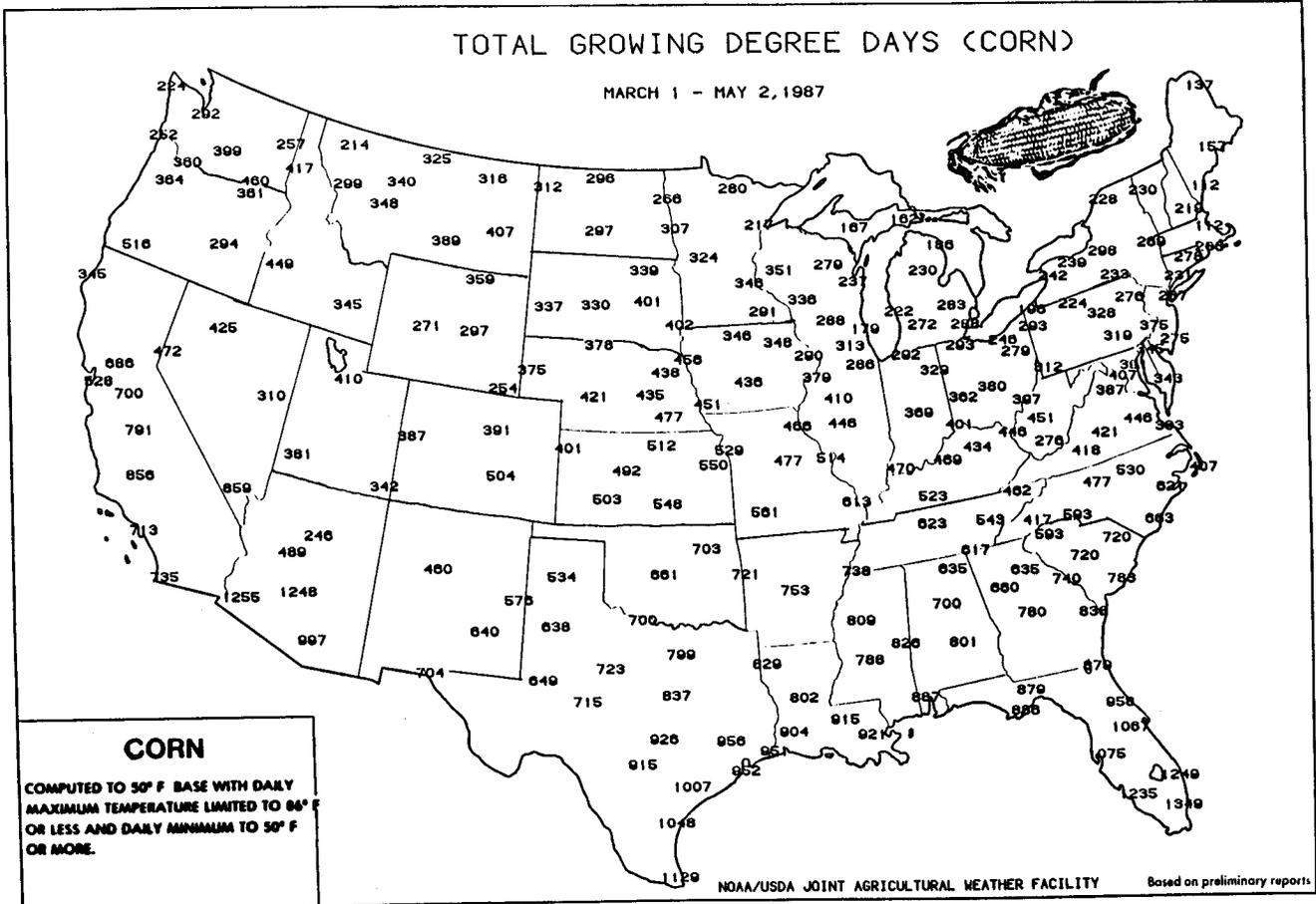
the resulting effects are different when the moisture supply is improving than when it is deteriorating (table of values are given with the accompanying map).

General conditions are indicated and not local variations caused by isolated rains. The stage of crop development and soil type should also be considered in using this index. In irrigated regions, only departures from ordinary irrigation requirements are reflected. The index may not be applicable for seed germination, for shallow-rooted crops which are unable to extract the deep or subsoil moisture from a 5-foot profile, or for cool-season crops growing when temperatures are averaging below 55 F.

References:

- Palmer, W.C., 1965: Meteorological Drought. Weather Bureau Research Paper No. 45, U.S. Dept. of Commerce, Washington, DC, 58pp.
- Palmer, W.C., 1968: "Keeping Track of Crop Moisture Conditions, Nationwide: The New Crop Moisture Index." Weatherwise, 21, 156-161 pp.





National Weather Data for Selected Cities

Weather Data for the Week Ending May 2, 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		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	86	49	91	39	68	1	T	-1.0	T	5.7	48	17.6	81	88	25	2	1	0	0	
MOBILE	87	57	91	49	72	1	T	-1.2	T	7.0	57	21.4	99	92	29	1	0	0	0	
MONTGOMERY	86	53	91	45	70	1	T	-.9	T	5.5	52	22.5	117	92	29	1	0	0	0	
AK ANCHORAGE	52	35	56	26	43	2	T	-.1	T	.4	33	2.3	79	85	38	0	0	2	1	
BARROW	14	1	18	-7	8	0	T	-.0	T	.1	7	.8	47	87	75	0	0	7	1	
FAIRBANKS	58	33	65	27	45	0	T	-.1	T	11	3	.3	43	87	75	0	0	7	1	
JUNEAU	52	41	60	35	46	4	T	-.1	T	5.0	77	12.2	88	92	56	0	0	0	6	
KODIAK	46	36	49	30	41	1	T	-.2	T	18.9	138	25.8	138	96	70	0	0	1	6	
NOME	41	25	49	3	33	7	T	-.1	T	.6	48	2.0	80	84	56	0	0	6	0	
AZ PHOENIX	94	72	100	66	83	11	T	-.1	T	.4	35	3.1	129	47	19	5	0	0	1	
PRESCOTT	74	45	79	38	59	7	T	-.1	T	.8	34	4.3	77	67	24	2	2	0	1	
TUCSON	87	61	93	55	74	6	T	-.1	T	1.6	161	3.8	158	67	21	4	0	0	0	
YUMA	92	69	99	63	81	7	T	-.0	T	.0	0	.4	44	47	19	4	0	0	0	
AR FORT SMITH	87	53	90	47	70	5	T	-1.0	T	5.0	60	11.0	87	90	28	2	0	0	0	
LITTLE ROCK	86	63	92	57	75	8	T	-.9	T	4.1	40	12.4	69	65	39	2	0	0	1	
CA BAKERSFIELD	85	57	97	46	71	5	T	-.1	T	1.1	72	3.6	100	71	29	4	0	0	1	
EUREKA	62	50	64	47	56	5	T	-.5	T	7.3	91	17.2	85	91	66	0	0	0	2	
FRESNO	84	56	98	49	70	7	T	-.1	T	2.5	89	5.8	87	74	25	2	0	0	2	
LOS ANGELES	67	58	70	56	62	1	T	-.1	T	.9	35	2.9	35	95	67	0	0	0	0	
REDDING	80	52	93	45	66	2	T	-.3	T	7.2	91	19.1	85	85	26	2	0	0	2	
SACRAMENTO	78	50	93	44	64	3	T	-.2	T	3.4	99	8.8	86	92	34	1	0	0	1	
SAN DIEGO	66	60	69	59	63	1	T	-.1	T	1.8	76	5.0	85	82	67	0	0	0	0	
SAN FRANCISCO	65	51	69	48	58	2	T	-.1	T	2.2	52	8.5	71	93	55	0	0	0	3	
CO DENVER	76	48	81	46	62	10	T	-.6	T	.4	3.0	96	4.9	114	74	27	0	0	2	
GRAND JUNCTION	75	49	83	39	62	6	T	-.8	T	.4	3.0	203	4.5	173	74	29	0	0	3	
PUEBLO	80	44	85	37	62	6	T	-.3	T	.8	43	2.8	122	82	22	0	0	0	1	
CT BRIDGEPORT	56	41	61	38	48	-5	T	-.2	T	8.1	103	13.4	95	73	40	0	0	1	3	
HARTFORD	59	35	70	30	47	-7	T	-.7	T	9.7	116	16.4	109	82	30	0	0	1	3	
DC WASHINGTON	68	45	77	40	56	-5	T	-.7	T	3.8	58	10.8	91	78	33	0	0	0	1	
FL APALACHICOLA	80	57	84	52	69	-2	T	-.7	T	10.8	145	21.0	143	93	50	0	0	0	0	
DAYTONA BEACH	82	55	89	52	68	-4	T	-.5	T	8.0	149	16.8	154	94	37	0	0	0	0	
JACKSONVILLE	84	53	91	47	68	-4	T	-.8	T	6.4	97	17.0	129	95	32	2	0	0	0	
KEY WEST	82	69	84	64	76	-3	T	-.5	T	9.9	345	11.3	171	88	56	0	0	0	0	
MIAMI	86	64	90	61	75	-2	T	-.4	T	4.3	79	7.8	82	92	39	1	0	0	0	
ORLANDO	85	57	87	55	71	-4	T	-.6	T	12.1	213	15.1	137	95	33	0	0	0	0	
TALLAHASSEE	87	48	92	43	67	-3	T	-.8	T	9.8	98	22.4	114	95	26	3	0	0	0	
TAMPA	83	59	86	55	71	-3	T	-.5	T	12.4	230	17.2	162	94	37	0	0	0	0	
WEST PALM BEACH	86	61	90	58	73	-3	T	-.8	T	10.4	168	12.8	111	92	36	1	0	0	0	
GA ATLANTA	83	55	89	49	69	3	T	-.6	T	6.8	64	18.5	93	76	25	0	0	2	0	
AUGUSTA	84	49	93	40	67	0	T	-.5	T	5.3	63	21.4	130	88	25	3	0	2	0	
MACON	86	52	93	44	69	0	T	-.5	T	5.2	58	19.2	108	87	25	3	0	2	0	
SAVANNAH	84	56	93	49	70	1	T	-.8	T	5.8	80	18.9	140	82	25	3	0	0	0	
HI HILO	78	66	82	64	72	-1	T	4.9	T	2.2	14.9	54	28.1	56	93	61	0	0	5	3
HONOLULU	82	68	85	67	75	-1	T	-.2	T	.7	14	2.0	17	76	44	0	0	0	1	
KAHULUI	77	66	81	64	71	-3	T	1.0	T	3.6	94	7.9	73	85	57	0	0	3	1	
LIHUE	76	67	77	64	71	-3	T	-.6	T	5.7	71	9.6	54	80	57	0	0	3	0	
ID BOISE	78	47	92	31	63	10	T	-.3	T	2.4	107	4.4	90	84	26	1	1	4	0	
LEWISTON	77	50	93	40	64	10	T	-.6	T	1.7	75	2.7	60	76	35	1	0	3	1	
POCATELLO	74	42	85	36	58	9	T	-.3	T	1.3	62	3.1	76	80	27	0	0	3	0	
IL CHICAGO	67	42	83	38	55	1	T	-.6	T	4.5	67	7.2	76	80	33	0	0	2	1	
MOLINE	74	45	87	38	60	4	T	-.5	T	4.3	62	6.2	63	76	27	0	0	2	0	
PEORIA	76	48	89	40	62	6	T	-.8	T	3.8	55	6.1	62	63	27	0	0	2	0	
QUINCY	80	50	88	43	65	7	T	-.8	T	4.6	55	5.5	54	65	27	0	0	0	0	
ROCKFORD	69	41	82	36	55	2	T	-.5	T	3.3	46	6.1	64	74	31	0	0	2	0	
SPRINGFIELD	78	49	88	39	64	5	T	-.9	T	4.4	65	6.9	66	64	24	0	0	1	0	
IN EVANSVILLE	80	47	87	42	63	2	T	-1.0	T	4.7	65	8.7	58	84	30	0	0	1	0	
FORT WAYNE	67	41	83	35	54	0	T	-.5	T	4.0	59	6.6	61	72	26	0	0	2	0	
INDIANAPOLIS	73	45	84	39	59	2	T	-.4	T	4.8	64	7.6	60	72	27	0	0	2	1	
IA DES MOINES	63	42	72	35	53	-1	T	1.0	T	4.9	67	8.5	73	82	39	0	0	1	0	
SOUTH BEND	82	51	90	40	66	10	T	-.4	T	6.3	112	8.1	105	69	25	1	0	1	0	
SIoux CITY	85	50	93	40	67	12	T	-.4	T	6.9	164	7.5	132	67	19	2	0	1	0	
WATERLOO	74	44	82	34	59	6	T	-.5	T	4.5	74	5.8	75	75	30	0	0	2	0	
KS CONCORDIA	84	57	91	48	70	12	T	-.7	T	11.3	260	12.8	221	66	27	1	0	1	0	
DODGE CITY	81	53	86	46	67	8	T	-.6	T	5.5	159	7.5	170	68	30	0	0	0	0	
GOODLAND	82	49	87	46	65	12	T	-.6	T	3.6	155	5.0	167	74	25	0	0	2	1	
TOPEKA	86	55	95	40	71	11	T	-.3	T	8.8	161	12.6	170	71	24	2	0	1	1	
WICHITA	85	53	89	44	69	8	T	-.7	T	4.7	101	9.5	153	80	29	0	0	1	0	
KY BOWLING GREEN	80	47	84	42	64	2	T	-.9	T	4.4	45	11.3	61	85	29	0	0	0	0	
LEXINGTON	75	45	86	41	60	0	T	-.9	T	5.4	59	10.3	65	75	31	0	0	0	0	
LOUISVILLE	78	49	87	42	63	2	T	-.8	T	5.4	59	10.7	68	74	27	0	0	1	0	
LA ALEXANDRIA	86	56	90	48	71	0	T	-.3	T	6.9	63	21.4	102	86	34	1	0	0	0	
BATON ROUGE	88	58	90	52	73	1	T	-.3	T	7.4	70	22.4	111	91	32	1	0	0	0	
LAKE CHARLES	88	60	95	51	74	2	T	-.1	T	5.0	68	17.5	114	93	36	2	0	0	0	
NEW ORLEANS	87	60	91	54	73	2	T	-.1	T	6.7	70	22.8	116	93	38	1	0	0	0	

Based on 1951-80 normals.

Weather Data for the Week Ending May 2, 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	56	92	49	72	3	T	-1.1	T	1.9	22	12.0	74	86	32	1	0	0	0	
ME CARIBOU	45	28	54	25	37	-7	.5	-1	.5	2.9	57	5.6	58	74	42	0	7	2	0	
PORTLAND	51	33	60	28	42	-6	1.1	.3	.7	10.6	131	15.8	103	89	43	0	3	3	1	
MD BALTIMORE	66	41	76	36	54	-5	T	-7	T	2.8	39	10.9	83	78	29	0	0	1	0	
SALISBURY	66	41	80	37	54	-5	.1	-7	.1	6.8	91	16.2	114	88	31	0	0	1	0	
MA BOSTON	52	36	65	35	44	-9	1.9	1.1	1.8	13.7	171	21.8	139	83	43	0	2	2	1	
CHATHAM	51	40	58	35	45	-3	.7	-2	.7	11.6	142	21.9	131	85	62	0	0	1	1	
MI ALPENA	58	34	63	26	46	0	.3	-4	.3	2.1	46	3.9	51	81	27	0	2	2	0	
DETROIT	65	42	75	36	53	1	.1	-6	.1	4.3	74	7.2	77	74	27	0	0	0	0	
FLINT	64	40	73	33	52	1	.2	-5	.2	3.3	62	4.9	59	77	31	0	0	1	1	
GRAND RAPIDS	63	41	72	35	52	0	T	-8	T	3.6	57	4.7	47	68	28	0	0	0	0	
HOUGHTON LAKE	59	36	66	29	48	0	.1	-5	.1	1.6	35	3.3	45	69	27	0	1	1	0	
LANSING	63	39	73	33	51	0	T	-6	T	2.6	48	3.9	46	77	27	0	0	2	0	
MARQUETTE	57	32	72	23	45	0	.2	-4	.2	4.4	91	7.4	91	79	31	0	3	2	0	
MUSKOGON	60	41	70	36	51	0	T	-7	T	4.3	74	6.5	66	72	34	0	0	1	0	
SAULT STE. MARIE	54	32	65	25	43	-1	.3	-3	.3	2.4	54	5.0	60	81	35	0	3	2	0	
MN ALEXANDRIA	70	46	81	40	58	9	T	-6	T	1.5	42	2.8	55	69	28	0	0	0	0	
DULUTH	61	34	75	26	48	3	.1	-5	.1	.8	20	1.8	30	72	28	0	3	1	0	
INT'L FALLS	64	35	79	29	49	5	T	-4	T	1.1	38	1.8	42	77	23	0	2	1	0	
MINNEAPOLIS	69	45	81	34	57	5	.4	-2	.3	1.1	29	1.9	35	70	31	0	0	3	0	
ROCHESTER	67	43	76	34	55	4	.1	-6	.1	2.4	53	3.3	55	79	34	0	0	1	1	
MS GREENWOOD	88	55	93	46	71	3	1.8	.5	1.8	8.1	67	17.8	82	84	24	2	0	1	1	
JACKSON	87	51	93	43	69	1	.9	-4	.9	7.5	65	22.4	108	92	27	3	0	1	1	
MERIDIAN	88	50	92	42	69	1	.3	-8	.3	5.2	42	25.2	115	94	25	3	0	1	0	
MO CAPE GIRARDEAU	84	54	90	46	69	-1	T	-1.1	T	4.3	44	8.4	54	81	39	1	0	0	0	
COLUMBIA	82	51	90	43	67	6	0	-1.0	0	3.5	47	6.5	59	72	31	1	0	0	0	
KANSAS CITY	84	55	93	43	70	9	.1	-8	.1	5.2	84	8.2	94	66	24	2	0	1	0	
SAINT LOUIS	82	56	89	49	69	8	T	-8	T	3.9	55	7.3	67	63	28	0	0	0	0	
SPRINGFIELD	84	52	90	40	68	8	0	-1.0	0	6.1	79	13.4	117	75	32	1	0	0	0	
MT BILLINGS	79	50	88	41	64	15	.4	-2	.3	2.1	69	2.6	55	62	20	1	0	0	0	
GLASGOW	77	50	88	40	64	14	.4	.2	.4	2.1	194	2.3	135	69	29	0	0	1	0	
GREAT FALLS	77	47	87	42	62	15	.5	0	.3	2.8	111	3.1	74	73	21	0	0	0	0	
HAVRE	70	45	85	34	61	12	.3	0	.3	1.7	94	1.9	68	73	24	0	0	2	0	
HELENA	75	44	83	40	59	12	.1	-2	.1	2.0	112	2.1	72	81	24	0	0	1	0	
KALISPELL	72	43	82	29	57	10	.2	-1	.2	3.9	198	5.2	113	86	34	0	1	3	0	
MILES CITY	83	49	90	38	66	15	.2	-3	.2	1.2	56	1.3	39	67	20	1	0	1	0	
MISSOULA	75	41	87	34	58	10	.2	-1	.1	1.8	94	2.4	59	88	34	0	0	2	0	
NE GRAND ISLAND	85	50	92	42	68	12	.1	-7	.1	8.1	185	8.8	157	73	21	2	0	1	0	
LINCOLN	86	49	93	40	68	11	T	-8	T	9.3	187	9.9	150	74	21	3	0	0	0	
NORFOLK	85	49	92	41	67	12	.1	-6	.1	8.0	205	9.1	175	73	20	2	0	1	0	
NORTH PLATTE	84	47	92	41	65	12	.2	-4	.2	2.9	94	4.6	115	82	23	1	0	1	0	
OMAHA	83	56	90	49	70	12	T	-8	T	6.6	130	7.3	109	64	40	2	0	1	0	
SCOTTSDALE	81	47	85	43	64	13	.9	.4	.9	3.0	117	5.2	153	77	24	0	0	1	1	
VALENTINE	81	46	89	39	64	12	.2	-4	.2	3.1	109	4.5	129	68	23	0	0	1	0	
NV ELY	70	35	78	26	53	7	.1	-1	.1	1.2	66	2.6	76	83	28	0	1	1	0	
LAS VEGAS	87	61	94	53	74	6	.1	0	.1	.7	108	2.3	153	51	16	3	0	1	2	0
RENO	73	43	87	31	58	8	.2	.1	.2	1.3	107	2.6	76	75	22	0	1	4	0	
WINNEMUCCA	73	41	88	27	57	8	.5	.3	.2	1.9	125	2.9	97	80	28	0	5	3	1	
NH CONCORD	55	29	69	24	42	-7	1.2	.5	.8	8.2	132	11.2	98	94	34	0	1	1	0	
NJ ATLANTIC CITY	61	38	67	31	58	-5	.3	-4	.3	9.2	123	17.0	120	90	37	0	1	1	0	
NM ALBUQUERQUE	75	51	79	46	63	4	T	-1	T	1.1	120	2.3	144	58	19	0	0	0	0	
CLOVIS	81	50	85	48	66	5	.1	-2	.1	.5	32	2.4	104	64	18	0	0	1	0	
ROSMELL	81	48	86	45	65	1	T	-1	T	.4	53	2.7	169	76	23	0	0	0	0	
NY ALBANY	58	35	71	31	47	-5	.1	-6	.1	6.4	105	10.9	102	86	34	0	1	3	0	
BINGHAMTON	57	34	64	29	46	-4	.1	-6	.1	6.1	99	9.9	90	78	36	0	3	2	0	
BUFFALO	59	39	70	35	49	-1	.7	-5	.5	7.0	114	10.8	93	76	34	0	0	2	1	
NEW YORK	59	43	65	39	51	-5	.3	-5	.3	9.2	115	15.5	109	79	43	0	0	2	0	
ROCHESTER	58	37	70	34	48	-4	1.1	.5	.5	5.8	109	8.2	83	84	39	0	0	3	2	
SYRACUSE	59	38	68	35	48	-3	.5	-3	.2	5.1	77	8.8	75	81	33	0	0	4	0	
NC ASHEVILLE	75	45	85	33	60	0	.4	-5	.4	6.9	81	16.5	111	87	30	0	0	1	0	
CHARLOTTE	78	50	90	40	64	0	.1	-7	0	6.2	75	16.2	103	77	27	1	0	2	0	
GREENSBORO	75	48	86	41	62	-1	.0	-7	0	11.3	157	19.9	141	73	28	0	0	0	0	
HATTERAS	66	50	81	41	58	-5	.6	-2	.6	14.3	193	29.2	179	96	55	0	0	1	1	
NEW BERN	76	51	89	44	64	-2	.1	-7	.1	7.4	108	18.5	125	90	33	0	0	0	0	
RALEIGH	77	46	88	37	62	-2	T	-7	T	7.6	112	19.7	143	74	25	0	0	2	0	
WILMINGTON	79	51	90	42	65	-2	.1	-6	.1	5.6	77	16.5	115	96	33	1	0	1	0	
ND BISMARCK	75	45	89	36	60	11	T	-4	T	1.5	65	3.3	103	69	27	0	0	1	0	
FARGO	73	43	87	40	58	9	.1	-4	.1	.7	26	1.9	51	65	24	0	0	0	0	
GRAND FORKS	72	43	88	41	58	10	T	-4	T	.6	28	2.1	60	69	22	0	0	0	0	
WILLISTON	75	45	88	32	60	11	.3	-1	.2	2.2	117	2.7	93	75	30	0	1	2	0	
OH AKRON-CANTON	62	39	77	35	50	-3	.7	-1	.5	6.7	90	7.8	84	84	43	0	0	3	0	
CINCINNATI	74	44	85	38	59	1	T	-8	T	7.5	97	10.0	74	73	27	0	0	1	0	
CLEVELAND	63	40	77	36	51	-2	.3	-5	.3	6.9	106	9.3	84	83	38	0	0	2	0	
COLUMBUS	69	41	80	37	55	-1	.3	-5	.2	4.3	62	6.0	51	87	33	0	0	3	0	

Based on 1951-80 normals.

Weather Data for the Week Ending May 2, 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
DAYTON	71	42	82	36	56	0	.1	-.7	.1	5.3	80	7.4	65	80	31	0	0	2	0
TOLEDO	66	39	82	35	53	0	.4	-.3	.2	3.8	66	6.2	65	82	34	0	0	3	0
YOUNGSTOWN	62	37	75	31	50	-3	.6	-.2	.5	6.3	91	8.7	74	85	40	0	1	3	0
OK OKLAHOMA CITY	86	59	90	55	73	8	0	-1.0	0	2.7	52	9.3	124	71	27	1	0	0	0
TULSA	88	61	92	51	75	10	0	-1.1	0	2.9	38	10.0	94	61	26	3	0	4	2
OR ASTORIA	63	48	83	45	55	6	1.4	1.0	.6	12.6	263	28.1	232	92	67	0	0	0	0
BURNS	69	40	84	26	54	7	.7	.6	.5	2.4	134	4.6	98	84	34	2	1	4	0
MEDFORD	74	47	93	41	61	7	.2	-.1	.1	1.9	66	7.0	83	84	34	2	2	2	0
PENDLETON	71	47	83	36	59	5	.6	.4	.4	2.1	100	4.2	86	83	43	0	0	4	0
PORTLAND	71	48	86	42	59	6	.6	-.1	.3	7.1	118	16.6	103	90	49	0	0	5	0
SALEM	71	45	85	37	58	6	.5	-.1	.3	6.5	95	17.6	96	94	47	0	0	3	0
PA ALLENTOWN	61	38	68	33	50	-5	.2	-.7	.2	6.2	77	11.2	78	80	33	0	0	2	0
ERIE	58	39	71	35	49	-2	.3	-.5	.3	6.1	92	9.3	84	82	42	0	0	2	0
HARRISBURG	63	42	71	37	53	-4	.1	-.7	.1	4.5	64	9.7	77	77	35	0	0	2	0
PHILADELPHIA	64	42	69	38	53	-4	.3	-.5	.2	4.9	66	10.7	80	81	38	0	0	2	0
PITTSBURGH	62	37	76	32	50	-5	.7	-.6	.4	8.2	115	11.1	90	77	35	0	1	4	0
SCRANTON	61	37	65	35	49	-4	.1	-.6	.0	5.5	95	8.9	88	71	28	0	0	1	0
RI PROVIDENCE	57	37	65	33	47	-6	1.4	.5	1.3	12.6	150	17.7	109	85	36	0	0	2	1
SC CHARLESTON	82	56	91	48	69	1	.1	-.6	.1	7.0	97	18.8	136	91	30	2	0	1	0
COLUMBIA	84	58	94	39	67	-1	.1	-.7	.1	5.9	66	19.6	113	83	20	3	0	1	0
FLORENCE	81	52	92	44	66	-1	.1	-.5	.1	5.8	80	16.4	115	78	29	1	0	2	0
GREENVILLE	80	50	91	42	65	0	.2	-.7	.1	7.4	70	19.4	101	80	29	1	0	1	0
SD ABERDEEN	75	44	87	35	60	9	.1	-.4	.1	2.2	71	3.4	81	72	29	0	0	1	0
HURON	80	47	93	39	63	12	.1	-.4	.1	5.3	160	6.7	149	79	25	2	0	1	0
RAPID CITY	78	49	89	41	63	13	.4	-.2	.4	1.5	49	3.3	80	71	30	0	0	2	1
SIoux FALLS	81	45	93	37	63	11	.8	-.2	.7	4.4	107	4.8	87	72	25	1	0	1	0
TN CHATTANOOGA	84	50	91	39	67	3	.2	-.9	.1	6.9	62	20.4	97	90	27	1	0	1	0
KNOXVILLE	79	46	85	34	63	-1	.2	-.6	.1	5.5	57	14.8	80	96	35	0	0	3	0
MEMPHIS	85	59	92	49	72	5	.1	-.2	.1	7.2	62	14.7	72	71	26	2	0	2	0
NASHVILLE	84	50	89	40	67	3	.1	-.9	.1	2.3	67	6.5	116	77	27	1	0	0	0
TX ABILENE	85	58	90	53	72	3	T	-.7	T	2.4	67	3.6	116	74	23	0	0	1	0
AMARILLO	81	50	84	44	65	5	T	-.4	T	1.5	74	5.6	62	84	34	1	0	0	0
AUSTIN	87	62	91	59	75	3	T	-.9	T	1.8	36	5.6	62	84	34	3	0	0	0
BEAUMONT	88	60	94	53	74	2	0	-1.1	0	1.2	16	17.0	107	94	34	0	0	0	0
BROWNSVILLE	84	63	88	57	73	-4	0	-.4	0	2.0	91	6.7	137	95	48	0	0	0	0
CORPUS CHRISTI	85	61	87	55	73	-3	0	-.6	0	1.6	55	9.8	166	98	45	0	0	0	0
DEL RIO	82	61	85	57	71	-3	T	-.5	T	4.0	152	7.6	190	82	27	0	0	3	0
EL PASO	80	53	82	46	66	-1	.1	0	.8	1.69	1.3	100	82	27	0	0	1	0	
FORT WORTH	88	59	92	52	74	5	.1	-1.0	.1	1.9	28	6.8	66	87	33	3	0	0	0
GALVESTON	81	67	87	63	74	2	T	-.7	T	.7	14	9.4	91	90	49	0	0	1	0
HOUSTON	90	59	95	52	75	2	T	-1.0	T	1.4	21	8.1	60	90	31	3	0	1	0
LUBBOCK	85	53	87	48	69	5	.1	-.3	.1	.6	28	2.6	87	70	20	0	0	1	0
MIDLAND	82	52	86	48	67	-1	T	-.3	T	1.9	131	3.9	163	94	28	0	0	2	1
SAN ANGELO	84	54	88	49	69	-1	1.0	-.4	.6	3.5	132	8.6	210	93	31	0	0	2	1
SAN ANTONIO	86	60	90	55	73	1	T	-.8	T	2.6	61	8.5	112	88	35	1	0	0	0
VICTORIA	87	61	92	56	74	0	T	-.8	T	.4	10	7.1	86	96	38	2	0	0	0
WACO	89	58	94	50	73	3	0	-1.1	0	3.3	54	7.3	74	92	33	3	0	0	0
WICHITA FALLS	89	57	96	52	73	5	0	-.9	0	2.2	44	8.1	117	81	28	3	0	0	0
UT BLANDING	74	45	78	40	59	8	T	-.1	T	2.1	139	4.6	121	72	26	0	0	1	0
CEDAR CITY	71	47	78	38	59	8	T	-.2	T	2.2	102	3.9	111	72	26	0	0	3	1
SALT LAKE CITY	77	52	85	43	65	11	.7	-.2	.5	2.9	72	5.8	87	87	37	0	3	3	0
VT BURLINGTON	53	33	64	27	43	-6	.6	-.1	.4	2.7	53	5.1	59	87	37	0	3	3	0
VA NORFOLK	67	46	87	41	57	-6	.1	-.6	.1	6.1	89	19.2	138	90	38	0	0	1	0
RICHMOND	72	42	85	36	57	-5	.4	-.3	.4	9.4	140	17.5	135	88	28	0	0	2	0
ROANOKE	73	44	85	36	58	-2	.1	-.6	.1	15.5	221	24.5	188	76	29	0	0	3	0
WA COLVILLE	73	48	85	35	61	10	.4	-.1	.2	4.7	200	6.9	115	73	42	0	0	4	1
QUILLAYUTE	63	44	83	35	53	5	1.4	0	.7	21.2	108	43.6	95	95	61	0	0	4	1
SEATTLE-TACOMA	67	46	81	42	57	5	1.2	.8	.9	8.5	140	16.5	101	92	52	0	0	4	1
SPOKANE	73	46	86	35	60	10	.2	0	.1	3.4	135	5.8	89	79	34	0	0	3	0
YAKIMA	76	45	89	32	61	8	.4	.3	.4	2.0	179	3.7	116	83	33	0	1	1	0
WV BECKLEY	68	40	78	34	54	-2	.2	-.5	.2	9.6	125	16.4	115	73	28	0	0	2	0
CHARLESTON	74	42	87	37	58	-2	.1	-.7	.1	5.4	70	11.9	83	92	27	0	0	3	0
HUNTINGTON	75	43	86	40	59	-1	.1	-.7	.1	7.2	93	13.1	95	94	32	0	0	3	0
PARKERSBURG	70	40	79	36	55	-4	.3	-.5	.2	5.6	78	8.7	69	69	34	0	0	3	0
WI GREEN BAY	62	39	71	31	51	1	T	-.7	T	3.7	78	4.6	67	78	29	0	1	1	0
LA CROSSE	68	45	79	35	56	3	.3	-.4	.3	4.9	96	6.3	93	85	33	0	1	2	1
MADISON	65	38	76	30	52	0	1.3	.5	.9	5.7	105	7.0	93	85	33	0	0	2	0
MILWAUKEE	61	40	74	36	51	1	.5	-.2	.3	6.2	102	8.7	97	81	35	0	0	2	0
WAUSAU	63	39	70	33	51	2	T	-.8	T	2.4	47	3.0	43	72	29	0	0	2	0
WY CASPER	76	46	81	38	61	14	.2	-.2	.2	2.0	75	4.8	133	78	25	0	0	3	0
CHEYENNE	71	44	76	41	57	11	.2	-.2	.1	2.1	89	3.1	100	84	26	0	0	2	0
LANDER	74	46	80	41	60	13	.2	-.4	.2	3.9	111	6.5	141	64	17	0	0	2	0
SHERIDAN	76	47	84	40	62	14	.2	-.4	.1	1.8	55	3.0	64	76	31	0	0	2	0
PR SAN JUAN	90	74	92	73	82	3	.1	-1.0	.1	10.4	169	12.8	114	90	75	4	0	2	0

Based on 1951-80 normals.

National Agricultural Summary

April 27 to May 3, 1987

HIGHLIGHTS: Dryness slowed planting, crop growth, and emergence in the Delta, Southeast, and southern Great Plains. Open weather pushed planting ahead of normal in the Corn Belt, and central and northern Great Plains. Topsoil moisture declined in the Southeast, Delta, and central and northern Great Plains. Farmers were able to work 5 to 6 days in most areas of the country. Rain limited fieldwork to 4 days or less in Virginia, West Virginia, and New England.

Planting progress jumped dramatically from the previous week in most areas. Corn planting was up 35 percentage points from the previous week to 48 percent (%) completion, 23 points above the 25% 5-year average. Soybean planting was just beginning and reached 4% completion. Sorghum was 21% seeded, compared with 22% normally. Seeding lagged behind normal in Louisiana and Texas. Cotton planting advanced 20 points to 37% completion, 5 points above the average. Seeding lagged behind normal in most southeastern States. Rice was 67% seeded and 30% emerged. Winter wheat heading was 4 points below the 21% average. Spring wheat planting surged 29 points ahead of the previous week to 72% planted. Emergence was ahead of normal in most States. Peanut planting lagged behind normal in the Southeast and Texas. Pastures and livestock were mostly good.

SMALL GRAINS: Wheat was 17% headed in the 20 major producing States, compared with 41% last year and the 21% average. Heading was behind normal in Georgia, Kansas, Oklahoma, and Texas. Heading had not begun in Colorado, Idaho, Indiana, Michigan, Montana, Nebraska, Ohio, Oregon, South Dakota, and Washington. Wheat was mostly good except in the Delta and southern Great Plains, where condition was fair to good.

Wheat grew rapidly in Kansas. As insect populations increased, many farmers were forced to spray. Heat stressed wheat in Nebraska. Russian aphid population increased, requiring more spraying. Wheat was 67% jointing, 43 points ahead of normal.

North Dakota's wheat development ranged from stooing to jointing. The crop was mostly good. South Dakota's wheat was mostly good to excellent, with very little winterkill.

Dry weather threatened wheat production in Oklahoma. Wheat showed signs of severe moisture shortage in central areas. The lack of moisture caused rapid development. Cool temperatures and moisture are needed to promote proper head filling. Small grains were heading in all areas of Texas. Irrigating increased in the Plains. Small grains were good in the Blacklands, but more rain is needed. Wheat turned color in central and southern areas, but heads were not filling properly.

Small grains matured rapidly in California. Dryland small grains suffered from the lack of moisture. Aphids and chinch bug treatments continued.

Spring wheat seeding climbed 29 points ahead of the previous week to 72% completion. Seeding, normally reaches 45% completion by now, and 30% was seeded in 1986. Seeding jumped more than 20 points from the previous week in all States except Idaho.

CORN: Corn planting advanced 35 points to 45% seeded. Seeding outpaced the average by 23 points and was 13 points ahead of last year. Iowa and Illinois seeded half their acreage in 1 week. Seeding approached completion in Georgia and Texas. North Carolina's seeding progress trailed 21 points behind normal at 54% completion.

Inadequate moisture slowed growth in Texas and the Southeast.

SOYBEANS: Soybeans were 4% seeded, just slightly ahead of normal. Seeding was just beginning in most States. Minnesota had the highest completion rate with 8% of its crop planted.

SORGHUM: The 11 major sorghum States seeded 21% of the sorghum, 1 point below normal. Louisiana's producers planted 27% of their acreage in 1 week but were still 18 points below the 61% average. Seeding lagged 10 points behind normal in Texas. The lack of moisture hurt sorghum and slowed growth in Texas. Planting was underway in the Corn Belt and central Great Plains, but none was seeded in South Dakota.

COTTON: Cotton was 37% seeded, 5 points ahead of the normal pace. Arkansas, Louisiana, Mississippi, Missouri, New Mexico, and Tennessee seeded 25% or more of their acreage the previous week. Despite a 20-point gain in South Carolina, seeding was 24 points behind normal. Georgia and North Carolina were 8 and 13 points behind normal, respectively. Cotton was good to excellent, and plants grew well in Arizona. Cotton producers sprayed for thrips in the Blacklands. Planting was underway in the Plains, but irrigation was necessary to achieve germination.

OTHER CROPS: Rice was 67% seeded and 30% emerged. Emergence equaled the average, but seeding was 21 points above the average. Seeding was nearing completion in Texas. Arkansas' seeding leaped 26 points ahead of the previous week. Inadequate moisture caused flushing in the Delta.

Peanut planting lagged behind normal in the Southeast and in Texas. Planting increased at Cross Timbers, but most producers were awaiting rain. Georgia peanuts were 23% seeded compared with 37% normally. Planting was 8 points behind normal in North Carolina, and 11 points behind in Alabama.

Georgia's tobacco was 98% transplanted, equaling the average. Flue-cured tobacco was 27% transplanted in North Carolina, compared with 36% normally. Burley transplanting is expected to begin in 1 to 2 weeks in Kentucky. Burley transplanting began in Tennessee.

FRUIT AND NUTS: The absence of rainfall required full use of irrigation in Florida's citrus groves. Late orange harvest was very active for processing, but grapefruit harvest declined.

Apricot producers prepared for harvest in California. Cherry harvest began in the San Joaquin Valley. Grape growers applied leafhopper, mildew, and grapeleaf skeletonizer controls. Peach, plum, and nectarine growers thinned fruit. Lemon harvest was 75% finished along the southern coast and over 90% finished in the San Joaquin Valley. Orange and grapefruit harvests slowed in western Arizona but progressed normally in central areas.

Georgia and South Carolina peaches were mostly fair to good. Blueberry and strawberry bloom continued in New Jersey. New York's apples reached the half inch green to pink stage.

VEGETABLES: Irrigation was active in most Florida vegetable producing areas. Harvest was active in most areas consisting mostly of tomatoes, potatoes, sweet corn, peppers, cucumbers, celery, and cabbage. Good supplies of squash, snap beans,

(Continued to back cover)

CROP PROGRESS

	CORN % PLANTED		
	1987	1986	AVG.
COLO	41	48	31
GA	94	94	92
ILL	62	64	37
IND	45	38	18
IOWA	60	17	21
KANS	60	55	25
KY	44	68	32
MICH	20	10	10
MINN	63	3	11
MO	66	66	41
NEBR	30	36	12
N C	54	92	75
OHIO	38	32	32
PA	16	18	14
S DAK	12	1	4
TEX	92	93	90
WIS	13	8	7
17 STATES	48	35	25

THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.

	SPRING WHEAT % PLANTED		
	1987	1986	AVG.
IDAHO	94	75	71
MINN	90	10	42
MONT	64	66	65
N DAK	59	24	31
S DAK	97	21	63
5 STATES	72	30	45

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

	GRAIN SORGHUM % PLANTED		
	1987	1986	AVG.
ARK	61	42	NA
ILL	6	5	1
KANS	4	3	1
LA	43	75	61
MISS	40	55	35
MO	16	17	8
NEBR	2	0	0
OKLA	5	10	3
S DAK	0	0	0
TENN	30	30	15
TEX	55	67	65
11 STATES	23	26	NA

EXCL. STATES WITH NA 21 26 22

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

NA - NOT AVAILABLE.

	FOR WEEK ENDING MAY 3, 1987		
	COTTON % PLANTED		
	1987	1986	AVG.
ALA	73	43	41
ARIZ	89	95	93
ARK	38	32	19
CALIF	90	90	88
GA	25	18	33
LA	44	69	40
MISS	50	55	41
MO	50	34	14
N MEX	47	25	22
N C	30	65	43
OKLA	3	10	3
S C	37	65	61
TENN	50	40	20
TEX	19	22	17
14 STATES	37	40	32

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

	SPRING WHEAT % EMERGED		
	1987	1986	AVG.
IDAHO	66	53	38
MINN	49	2	11
MONT	0	0	0
N DAK	15	6	8
S DAK	62	8	33
5 STATES	27	6	12

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

	WINTER WHEAT % HEADED		
	1987	1986	AVG.
ARK	88	91	NA
CALIF	88	85	79
COLO	0	2	0
GA	84	89	85
IDAHO	0	0	0
ILL	5	14	4
IND	0	0	0
KANS	3	40	10
MICH	0	0	0
MO	27	31	10
MONT	0	0	0
NEBR	0	0	0
N MEX	11	45	NA
N C	26	62	NA
OHIO	0	0	0
OKLA	35	95	45
OREG	0	0	0
S DAK	0	0	0
TEX	44	82	55
WASH	0	0	0
20 STATES	18	43	NA

EXCL. STATES WITH NA 17 42 21

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

NA - NOT AVAILABLE.

	SOYBEANS % PLANTED		
	1987	1986	AVG.
ALA	7	5	4
ARK	3	4	1
GA	4	3	5
ILL	7	5	2
IND	3	3	1
IOWA	3	0	1
KANS	5	5	1
KY	3	4	NA
LA	2	6	2
MICH	0	0	0
MINN	8	0	0
MISS	3	7	4
MO	6	7	4
NEBR	1	0	0
N C	0	0	0
OHIO	5	3	5
S C	0	0	0
S DAK	1	0	0
TENN	3	3	2
19 STATES	4	3	NA
EXCL. STATES WITH NA	4	3	2

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

NA - NOT AVAILABLE.

	RICE % PLANTED		
	1987	1986	AVG.
ARK	77	63	34
CALIF	8	5	4
LA	76	87	74
MISS	60	95	61
TEX	93	99	89
5 STATES	67	66	46

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

	RICE % EMERGED		
	1987	1986	AVG.
ARK	22	33	16
CALIF	0	0	0
LA	60	79	62
MISS	10	64	36
TEX	68	85	68
5 STATES	30	45	30

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

WEEKLY CROP CONDITION PERCENT
FOR WEEK ENDING MAY 3, 1987

WINTER WHEAT					
STATE	VP	P	F	G	EX
ARK	10	6	49	32	3
CALIF	0	0	10	85	5
COLO	1	5	22	62	10
GA	1	9	40	47	3
IDAHO	0	3	17	60	20
ILL	0	0	5	81	14
IND	0	0	16	73	11
KANS	0	5	28	45	22
MICH	5	10	30	45	10
MO	1	7	58	34	0
MONT	0	0	2	86	12
NEBR	0	0	22	76	2
N MEX	0	18	23	59	0
N C	0	0	22	72	6
OHIO	0	3	17	60	20
OKLA	0	0	60	40	0
OREG	0	0	1	86	13
S DAK	0	4	10	60	26
TEX	2	14	48	34	2
WASH	0	0	5	85	10

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

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 mostly under 0.50 in. Temperatures averaged 3° above normal.

Days suitable for fieldwork 6.8. Soil moisture 98% short, 2% adequate. Dry conditions slowed all field activities; fieldwork behind normal. Need for moisture critical many areas. Corn 91% planted, 87% 1986, 77% avg. Cotton 73% planted, 43% 1986, 41% avg. Sorghum 18% planted, 17% 1986, 19% avg. Soybeans 7% planted, 5% 1986, 4% avg. Peanuts 27% planted, 25% 1986, 38% avg. Wheat 78% headed, 81% 1986, 73% avg.; 18% turning color, 19% 1986, 11% avg.; 5% poor, 67% fair, 28% good. Livestock mostly fair. Pastures fair to poor. Pasture feed supply mostly adequate. Primary activities: Land preparation, planting row crops; cultivating corn; cutting, baling hay; irrigating vegetables, hay fields; spraying orchards; applying fertilizer, lime to cropland; routine care of livestock, poultry.

ALASKA: Warm weather prevailed. Most areas drier than normal. Temperatures higher than normal.

Days suitable for fieldwork 7.0. Topsoil moisture 17% short, 53% adequate, 30% surplus. Subsoil moisture 73% adequate, 27% surplus. Most areas of Railbelt 7 to 14 days ahead of schedule. Livestock good to excellent. Hay short to adequate.

ARIZONA: Warm humid monsoon-like weather prevailed southern, central sections 26th to 28th. Strong southeasterly winds fed in moisture from Mexico, setting off afternoon, evening showers, thunderstorms. Southeast accumulated heaviest rainfall, over 3.00 in. Bisbee. Elsewhere, amounts ranged from traces to 0.50 in. Humid, cloudy conditions south caused record high minimum

temperatures several localities. Conditions improved latter part of week with drier, cooler air. Average temperatures 2 to 11° above normal.

Cotton good to excellent. Plants growing well, 3rd pair true leaves developing west; cultivation, irrigation as needed. Alfalfa hay demand heavy, supply moving up to meet demand. Weevil, aphid controls applied west. Sudan grass growing well. Field corn growth advanced west; fields planted south; irrigation, cultivation underway. Peanut planting continued. Small grains 99% heading, 35% turning color. Green color fading, grain filling satisfactorily west. Russian aphid reported Pinal County, damage light. Spring lettuce essentially complete; a few fields may be abandoned due to poor market condition. Vegetable producers between spring, summer deals, shipments light. Artichoke shipments light Parker-Poston. Harvest dry onions light western Maricopa County. Potato harvest advanced central area. Movement valencia oranges, grapefruit slow west, continued central area. Groves good. Early grapes sizing well, harvest expected June 5th to 10th. Peach harvest to begin Queen Creek 8th. Pistachios in bloom southeast. Watermelons, cantaloups growing well west, cooler weather 1st, 2nd slowed growth. Chile ground preparation, planting underway Cochise County. Cattle, calves 4% very poor, 4% poor, 27% fair, 61% good, 4% excellent. Sheep, lambs 43% fair, 57% good. Ranges, pastures ideal throughout most major grazing areas.

ARKANSAS: Temperatures above normal with scattered showers latter part. Temperature extremes 39°; 97°. Rainfall none to 2.52 in.

Days suitable for fieldwork 7.0. Lack of soil moisture caused flushing of rice. Rice 6% poor, 55% fair, 39% good. Sorghum emergence 24%. Sorghum 5% very poor, 6% poor, 44% fair, 45% good. Oats 78% headed. Corn 89% planted. Cotton 9% emerged. Cotton 7% very poor, 44% fair, 49% good. Rain needed to settle seedbeds, activate chemicals, aid emergence. Major activities: Fertilized pastures; control weeds; prepare land for planting; plant corn, cotton, rice, sorghum, cultivate corn.

CALIFORNIA: Warm high pressure dominated brought above normal temperatures coast, inland. Subtropical system, rained northern State. Rains Sacramento Valley, Shasta-Siskiyou range northern Sierra. Mount Shasta City received 1.50 in.; Blue Canyon, 1.30 in.; Yosemite National Park, 0.75 in.

Small grains matured rapidly; dryland grains suffered from moisture lack; aphids, chinch bug, treatment continued. Oat hay, alfalfa hay cutting continued. Cotton planting, thinning, fertilizing, irrigating underway. Rice preparations, seeding intensified; weevil, watergrass controls reported. New plantings corn, sorghum showed good progress. Sugarbeets treated for aphids, irrigated. Apricot producers prepared for harvest. Cherry harvest began, San Joaquin Valley, heavy set. Growers irrigated orchard, vine crops. Grape growers applied materials to control leafhoppers, mildew, grapeleaf skeletonizer. Peach, plum, nectarine growers thinned fruit. Pear orchards treated codling moth, psylla, fire blight. Lemon harvest 75% complete, southern coast, over 90% complete San Joaquin Valley. Almond set very heavy. Growers propping limbs to prevent breakage. Cluster set in pistachio orchards light. Artichokes fairly heavy, good quality, Salinas. Harvest active Santa Cruz-San Mateo coast. Asparagus harvest continued, Sacramento Valley, Delta, Firebaugh District, Los Angeles-Orange County, excellent quality. Harvest nearly complete, Sacramento Valley. Strawberry picking started, Sacramento Valley. Broccoli fairly heavy, Salinas, Santa Maria, good quality. Packing for fresh-market continued, Patterson-Newman. Much of crop Fresno area freezer plants. Carrot harvest started, Sacramento Valley. Digging

continued active, southern districts. Cauliflower fairly heavy, Salinas; moderate Santa Maria, good quality. Celery harvest active, Oxnard, Los Angeles-Orange County, good quality. Sweet corn harvest increased, Imperial, Coachella Valleys, good quality. Fields northern districts continued mature well. Hot house cucumbers, central valley, picked, packed. Lettuce heavy Salinas, fairly heavy, Santa Maria, variable quality. Harvest completed, Westside. Desert melon progressed well, good growing conditions, no disease problems. Early harvesting cantaloupes should start 11th, Imperial Valley; most others start 20th. Light amounts watermelon grown under hot caps shipped, Imperial Valley. Digging sweet red onions gained momentum, Fresno. Dry onion harvesting increased, variable quality, Coachella Valley. Growers Coachella Valley problems, onions going to seed, hot weather. Freezer pea harvest continued, Gustine. Pepper planting progressed, San Joaquin Valley. Fall potato packing sheds, Tulalake-Butte Valley, operating full-time, good demand. Some fields planted, Shasta Valley. Sweetpotato planting, full swing, Merced-Atwater. Planting tomatoes for processing, fresh market continued statewide. Planted fields did well. Greenhouse tomatoes, Fresno being picked. Ranges, pastures continued dry out with warm weather. Movement livestock summer pastures, market increased. Stock water supplies continued below normal levels.

COLORADO: Temperatures 3 to 7° above normal. Showers on 2nd, 3rd; 0.30 to 0.50 in. western area, 2.00 in. Kansas border.

Days suitable for fieldwork 6.0. Soil moisture adequate. Small grains, livestock good. Corn planting on schedule. Calving, lambing approximately 90% complete.

FLORIDA: Mostly dry, seasonably mild with only isolated showers. Temperatures averaged 2 to 4° below normal mostly because of cool nighttime minimums.

Soil moisture short, except adequate few Peninsula areas late March, early April rains heaviest. Corn planting, tobacco transplanting virtually completed; irrigation very active where available. Cool nights continued to slow plant growth, progress. Peanut planting active. Cotton planting underway. Small grain progress mostly good except for Hessian fly damage some wheat fields. Sugarcane progress favorable. Dry soils impeded grass growth. Southern Peninsula grazing fair to mostly good; elsewhere, poor to mostly fair except some north central, very poor. Cattle fair to good. Calf marketings active. High daytime temperatures, absence of rainfall required full use of irrigation all citrus areas to maintain good tree condition. Harvest late oranges very active for processing. Grapefruit harvest declined. Warm days, cool nights prevailed vegetable producing areas. Rainfall extremely limited; irrigation active. Winds light to moderate. Southern area crops declining rapidly. Harvest active all areas. Volume leaders: Tomatoes, potatoes, sweet corn, peppers, cucumbers, celery, cabbage. Good supplies squash, snap beans, lettuce, carrots, radishes, eggplant, strawberries. Immokalee watermelon volume continued light.

GEORGIA: Beneficial rains only few locations. Lizetta in Bibb County 2.10 in. rain; Columbus, Griffin, Titus, Plains 1.00 in. Most totals under 0.33 in. No rain over extreme south, southeast. Temperatures 30° above normal; lowest readings 40s, most locations 90s. Extremes 27° Blairsville on 29th; 95° Blakely, Jesup on 1st.

Days suitable for fieldwork 6.4. Soil moisture 31% very short, 63% short, 6% adequate. Corn 5% poor, 56% fair, 35% good, 4% excellent. Cotton 7% very poor, 1% poor, 88% fair, 4% good. Sorghum

grain 3% poor, 81% fair, 16% good; 19% planted, 20% 1986, 21% avg. Peanuts 1% very poor, 3% poor, 79% fair, 17% good; 23% planted, 27% 1986, 37% avg. Soybeans 4% planted, 3% 1986, 5% avg. Tobacco 7% poor, 41% fair, 52% good; 98% transplanted, 99% 1986, 98% avg. Watermelons poor to good, mostly fair; 89% planted, 91% 1986, 92% avg. Rye poor to excellent, mostly fair. Other small grains very poor to excellent, mostly good. Apples fair to excellent, mostly excellent; 100% blooming, 99% 1986, 97% avg. Peaches 10% very poor, 2% poor, 61% fair, 27% good. Pasture 5% poor, 39% fair, 53% good, 3% excellent. Cattle 27% fair, 69% good, 4% excellent. Hogs 20% fair, 71% good, 9% excellent. Main activities: Spraying, irrigating, planting where soil moisture permitted, preparing land.

HAWAII: Mostly sunny with occasional heavy showers. Gusty winds continued to bruised exposed crops. Overall crop conditions helped by rains. Trade winds 15 to 25 mph. Temperatures ranged mid 60s to mid 80s. Rainfall ranged none to 7.90 in.

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

IDAHO: First half of week dry, second half wet. Rainfall near to above normal, below normal north, east. Above normal temperatures.

Days suitable for fieldwork 6.0. Winter wheat 3% poor, 17% fair, 60% good, 20% excellent. Spring wheat 94% planted, 75% 1986, 71% avg. Spring wheat 66% emerged, 53% 1986, 38% avg. Potatoes 41% planted, 30% 1986, 27% avg. Activities included: Field preparation for potatoes, corn, dry beans, early irrigating, fertilizing, planting. Small grains emerged well. Crop, livestock good.

ILLINOIS: Temperatures averaged 1 to 2° below normal north, 1 to 3° above normal south. Precipitation averaged 0.25 to 1.25 in. west central and northeast, elsewhere 0.25 in. or less.

Days suitable for fieldwork 6.3. Soil moisture 37% short, 61% adequate, 2% surplus. Corn 62% planted, 64% 1986, 37% avg. Soybeans 7% planted, 5% 1986, 2% avg. Winter wheat 5% fair, 81% good, 14% excellent; 5% headed, 14% 1986, 4% avg. Oats 98% seeded, 97% 1986, 86% avg. Alfalfa 7% fair, 80% good, 13% excellent. Pasture 14% fair, 68% good, 18% excellent; supplying 75% livestock roughage requirements, 69% 1986, 63% avg. Sorghum 6% planted, 5% 1986, 1% avg.

INDIANA: Temperatures cooler than normal. Low near freezing, high mid 80s. Precipitation highly variable. Most areas 0.10 to 0.25 in. Northeast, southeast 0.50 to 2.00 in.

Fieldwork averaged 6.3 days. Topsoil moisture 38% short, 62% adequate, none surplus. Subsoil moisture 28% short, 72% adequate, none surplus. Spring cropland 94% tilled, 91% 1986, 81% avg. Wheat mostly good. Wheat 45% jointed, 50% 1986, 45% avg. Wheat 13 in. high, 11 in 1986, 11 in. avg. Oats 99% seeded, 94% 1986, 90% avg. Oats 5 in. high, 4 in. 1986, 3 in. avg. Clover seeding complete. Pastures 1% poor, 33% fair, 61% good, 5% excellent. Excellent week planting, tilling.

IOWA: Warm, dry week. Rain, cooler weekend. Temperatures 30° Cresco, 32° Grinnell lows 28th; 92° Sheldon, Humboldt, Onawa, 1st. Four inch soil temperatures averaged 60s most of State.

Days suitable for fieldwork 6.8. Topsoil moisture 43% short, 57% adequate; subsoil moisture 1% short, 93% adequate, 6% surplus. Winter wheat 2% poor, 12% fair, 70% good, 16% excellent; hay 1% poor, 9% fair, 71% good, 19% excellent. Corn 60% planted, 17% 1986, 21% avg.; 5% emerged, 1% 1986, 2% avg.; soybeans 3% planted, none 1986, 1% avg. Oats 97% sown, 94% 1986, 87% avg.; 70% emerged, 67%

1986, 45% avg. Seedbed preparation 90% completed; fertilizer application 90% completed, 69% 1986, 72% avg. Livestock good to excellent. Little movement due to fieldwork activities. Very little diseases reported.

KANSAS: Temperatures averaged 8 to 12° above normal, 66° northwest, 72° east central. Precipitation light, districts averaged less than 0.10 in., except northwest 0.12 in. Locally heavier amounts widely scattered.

Days suitable for fieldwork 6.5. Soil moisture 57% short, 42% adequate, 1% surplus. Wheat rapid growth, started heading. Insect problems mounted, some natural control but many farmers sprayed for greenbugs. Topsoil moisture showed rapid draw down with warm weather, increased growth. Corn planting excellent progress, emergence good but some problem with crusting. Emerged stands good to excellent. Sorghum, soybean planting 4%, 5% complete respectively. Range, pasture good to excellent.

KENTUCKY: Dry, rain many areas weekend. East amounts mainly 0.25 in. or less not counting heavy showers night of 3rd. West 0.50 to 0.75 in. common, almost exclusively thunderstorm on 3rd. Normal 0.80 to 1.00 in. Temperatures averaged 2 to 6° above normal; lows in lower 40s east to mid 50s west, highs in mid 70s to mid 80s.

Days suitable for fieldwork 5.8. Soil moisture 4% very short, 48% short, 48% adequate. Corn planting progressed well. Planted acreage 14% emerged. Few fields replanted. Soybean planting underway. Tobacco growers watered beds. Transplanting generally 1 to 2 weeks away. Barley headed, wheat 25% headed. Hay, pastures mostly good. Alfalfa harvest underway. Fruit crops 9% poor, 37% fair, 35% good, 19% excellent.

LOUISIANA: Temperature 2° below to 1° above normal. Temperature extremes 44°; 95°. Rainfall averaged none to 0.94 in.

Days suitable for fieldwork 6.8. Soil moisture 92% short, 8% adequate. Spring plowing 93% complete, 96% 1986, 88% avg. Corn fair; 93% planted, 98% 1986, 91% avg.; 84% emerged, 97% 1986, 87% avg. Cotton 44% planted, 69% 1986, 40% avg.; 15% emerged, 44% 1986, 21% avg. Rice 76% planted, 87% 1986, 74% avg.; 60% emerged, 79% 1986, 62% avg. Sorghum 43% planted, 75% 1986, 61% avg.; 30% emerged, 60% 1986, 43% avg. Soybeans 2% planted, 6% 1986, 2% avg. Sweetpotatoes 11% planted, 24% 1986, 18% avg. Winter wheat fair; 97% headed, 98% 1986, 89% avg.; 30% turning color, 47% 1986, 34% avg. Hay first cutting 13%, 11% 1986, 12% avg. Sugarcane fair to good; vegetables fair; pastures fair; livestock fair to good. Main activities: Planting cotton, sorghum, vegetables, rice, soybeans; cutting, baling hay; applying fertilizer.

MARYLAND & DELAWARE: **Maryland:** Temperatures averaged 53°, 58° normal; lowest temperature 27° mountains; highest temperature 80°. Precipitation averaged 0.49 in., ranging from 1.35 in. Salisbury to trace Westminster.

Days suitable for fieldwork 6.8. Topsoil moisture adequate. Subsoil moisture adequate. Acreage prepared for planting 70%. Wheat, oats, barley, rye mostly good to excellent. Corn 20% planted, 25% avg. Sweet corn 30% planted, 40% avg.

Delaware: Temperatures averaged 52°, 58° normal; lowest temperature 34°; highest temperature 70°. Precipitation averaged 0.44 in., ranging from 0.04 in. Milford to 1.11 in. Dover.

Days suitable for fieldwork 6.8. Topsoil moisture adequate. Subsoil moisture adequate. Acreage prepared for planting 70%. Wheat, barley, rye good. Corn 40% planted, 40% avg. Potatoes 90% planted, 90% avg.

MICHIGAN: Temperatures ranged 2° below to 2° above normal. Temperature extremes 23°; 75°. Precipitation ranged from none to 1.03 in. across State. Rain needed upper Peninsula, northern lower Peninsula.

Days suitable for fieldwork 6.0. Soil moisture 45% short, 50% adequate, 5% surplus. Corn 20% planted, 10% 1986, 10% avg. Oats 90% planted, 80% 1986, 60% avg. Potatoes 15% planted, 20% 1986, 20% avg. Sugarbeets 98% planted, 95% 1986, 70% avg. Wheat 5% very poor, 10% poor, 30% fair, 45% good, 10% excellent. Activities: Planting corn, potatoes, oats, sugarbeets, alfalfa, barley. Tilling land, applying pesticides. Fruit development, vegetable planting ahead.

MINNESOTA: Temperatures averaged 2 to 8° above normal. Temperature extremes 26°; 97°. Precipitation averaged 0.08 to 0.55 in. below normal. Weekly totals ranged from none to 1.11 in.

Days suitable for fieldwork 6.5. Topsoil moisture 30% very short, 50% short, 20% adequate. Spring wheat, other small grain planting very active; emergence rapid in warm soil. Oats 92% planted, 33% 1986, 51% avg.; 66% emerged, 17% 1986, 16% avg. Barley 87% planted, 10% 1986, 34% avg.; 32% emerged, 5% 1986, 7% avg. Corn planting very active; soybean planting held back by dry topsoil; other row crop planting very active. Sugarbeets 97% planted, 3% 1986, 39% avg. Potatoes 31% planted, 4% 1986, 10% avg. Hay, pasture growth slowed by lack of rain.

MISSISSIPPI: Temperatures 2 to 3° above normal; extremes 40°; 96°. Large low pressure system over central plains brought rain, thunderstorms to northern and central sections latter part of week. Greatest 24-hour total rainfall 4.20 in. on 3rd.

Days suitable for fieldwork 6.0, 6.0 1986, 3.9 avg. Soil moisture 8% very short, 64% short, 25% adequate, 3% surplus. Corn 8% poor, 46% fair, 46% good; 84% planted, 90% 1986, 75% avg.; 59% emerged, 74% 1986, 56% avg. Wheat 2% very poor, 7% poor, 43% fair, 46% good, 2% excellent; 90% heading, 96% 1986, 85% avg. Watermelons 64% planted, 60% 1986, 56% avg. Peanuts 27% planted, 23% 1986, 23% avg. Sweetpotatoes 23% planted, 15% 1986, 16% avg. Rice 60% planted, 95% 1986, 61% avg.; 10% emerged, 64% 1986, 36% avg.; 47% fair, 53% good. Sorghum 9% poor, 74% fair, 17% good; 40% planted, 55% 1986, 35% avg.; 19% emerged, 38% 1986. Cotton 50% planted, 55% 1986, 41% avg.; 11% emerged, 25% 1986, 19% avg.; 5% very poor, 8% poor, 71% fair, 16% good. Hay, feed grain supplies adequate.

MISSOURI: Temperatures averaged 8° above normal. Rain 0.10 in. southeast, none elsewhere.

Days suitable for fieldwork 6.4. Topsoil moisture 56% short, 42% adequate, 2% surplus. Oats 100% sown, 98% 1986, 85% avg. Tillage spring planted crops 83%, 81% 1986, 76% avg. Pasture fair to good.

MONTANA: Temperatures averaged 10 to 15° above normal. Precipitation across State with amounts west, central around 0.50 in.

Days suitable for fieldwork 6.7. Topsoil moisture 49% short, 48% adequate, 3% surplus. Subsoil moisture 10% short, 87% adequate, 3% surplus. Barley 68% planted, 71% 1986, 66% avg. Sugarbeets 85% planted, 76% 1986, 72% avg. Calving 92% complete, lambing 89%. Cattle on supplemental feed 48%, sheep and lambs 45%.

NEBRASKA: Weekend precipitation produced 1.00 in. rain west and central, 0.25 in. east. Temperatures 10° above normal. Extremes 37°; 93°.

Days suitable for fieldwork 6.0. Topsoil moisture 59% short, 41% adequate. Subsoil moisture 8% short, 83% adequate, 9% surplus. Wheat winter

60% jointed, 17% 1986, 17% avg. Some heat stress. Russian aphid population increased, required more spraying. Oat 95% planted, 96% 1986, 82% avg. Corn planting very active. Soybean, sorghum planting just begun. Hay mostly good. Range, pasture feeds mostly adequate. Calving neared completion. Branding active as cattle moved to summer grass.

NEVADA: Temperatures averaged above normal first half. Cold front midweek dropped temperatures near or below normal. Moderate amounts rain northern areas. High pressure system end of period returned precipitation, temperatures to normal. Extremes 250; 1050.

Good progress planting small grains, potatoes, garlic, onions. Calving, lambing, shearing slightly behind 1986. Livestock mostly good.

NEW ENGLAND: Temperatures averaged 10° below normal; 5° below normal coastal Maine. Average precipitation 0.25 to 0.50 in. northwest; 0.50 to 0.75 in. west, south coastal; 0.75 to 1.50 in. Maine, south central; 1.50 to 2.50 in. Rhode Island, Massachusetts.

Days suitable for fieldwork 3.5. Soil moisture 10% short, 40% adequate, 50% surplus. Grazing availability 15% very short, 35% short, 50% adequate. Fieldwork 7 days ahead of schedule north, 7 days behind schedule south. Maine potatoes 1% planted, none 1986, 1% avg. Connecticut River Valley potatoes 10% planted. Rhode Island potatoes 30% planted, 25% 1986, 35% avg. Field corn planting less than 5% all areas. Early sweet corn 10% planted south. Hay growth good. High bush blueberry winterkill heavy. Low bush blueberry excellent. Asparagus harvest active. Major farm activities: Spreading manure, plowing, fixing fences, repairing machinery, planting corn, setting out early vegetables.

NEW JERSEY: Below normal temperatures. Growers tried to catch up on delayed schedule.

Days suitable for fieldwork ranged 4.0 to 6.0. Fieldwork slightly ahead of normal. Pollinating weather poor. Blueberry, strawberry bloom continued.

NEW MEXICO: Weekly average temperatures slightly above normal northern areas, eastern plains; near normal elsewhere. Temperatures 25° northern mountains, 87° southeastern plains. Showers, thundershowers occurred over most of State late week. Precipitation ranged from trace some localities, southern desert to 1.46 in. northeastern plains.

Days suitable for fieldwork 6.9. Soil moisture 46% short, 46% adequate, 8% surplus. Hail damage none. Wind damage 60% none, 40% light. Alfalfa 8% poor, 54% fair, 38% good. Cotton planting progressed rapidly; some early fields showed good stands. Corn planting 66% complete. Barley 25% fair, 75% good. Wheat starting to head. Pecans fair to good. Assessment of damage due to late season freeze continued. Chile 40% fair, 60% good. Onions 25% fair, 75% good. Lettuce good. Cattle 43% fair, 57% good. Sheep 36% fair, 64% good. Ranges 7% poor, 43% fair, 43% good, 7% excellent.

NEW YORK: Temperatures averaged well below normal. Precipitation 0.50 to 0.75 in. extreme north; 0.10 to 0.50 elsewhere. Most rain midweek.

Days suitable for fieldwork 4.5. Soil moisture mostly adequate. Oats 33% planted, 43% 1986, 18% avg. Corn planting just started. Wheat, hay crops growing rapidly. Apples 100% one-half inch green to pink stage. Pastures good to excellent. Activities: Plowing for corn, planting oats.

NORTH CAROLINA: Temperatures average near to slightly above normal across State. Temperature

extremes 310; 920. Precipitation ranged from 0.01 to 1.28 in. across State.

Days suitable for fieldwork 4.4. Soil moisture 1% very short, 1% short, 62% adequate, 36% surplus. Small grains fair to mostly good. Oats 1% poor, 22% fair, 74% good, 3% excellent. Barley 21% fair, 75% good, 4% excellent. Rye 21% fair, 76% good, 3% excellent. Irish potatoes 36% fair, 60% good, 4% excellent. Pasture fair to mostly good. Tobacco plantbeds 1% poor, 37% fair, 62% good. Tobacco plants 14% short, 83% adequate, 3% surplus. Flue-cured tobacco 27% planted, 44% 1986, 36% avg. Peanuts 12% planted, 31% 1986, 20% avg. Sorghum 10% planted, 22% 1986, 18% avg. Major farm activities: Planting corn; land preparation; tobacco plantbed care; setting tobacco; tending livestock; transplanting Christmas trees, ornamentals; machinery repair, maintenance; planting truck crops, cotton, peanuts; general farm maintenance.

NORTH DAKOTA: Unsettled, warm weather. Temperatures 9 to 15° above normal. Extremes 230; 960. Scattered showers, thunderstorms, most 0.50 in. northeast.

Days suitable for fieldwork 6.4. Topsoil moisture continued to decline, 3% very short, 44% short, 53% adequate. Planting rapid, well ahead of normal, except potatoes. Spring wheat 59%, 24% 1986, 31% avg.; durum 39%, 16% 1986, 20% avg.; barley 61%, 19% 1986, 31% avg.; oats 56%, 33% 1986, 29% avg.; corn 16%, 1% 1986, 4% avg.; potatoes 6%, 5% 1986, 7% avg.; sugarbeets 96%, 7% 1986, 43% avg. Winter wheat 81% emerged to stooling, 19% jointing, 85% good or better. Pastures mostly fair to good.

OHIO: Temperatures averaged 1 to 4° subnormal. Extremes upper 20s to 30s. Precipitation widespread averaging 1.00 in. north, 0.10 to 0.33 in. south.

Days suitable for fieldwork 5.5. Soil moisture 11% short, 80% adequate, 9% surplus. Corn planting moved fast; some night work. Soybean planting underway as some farmers finish corn planting. Oats 88% planted, 91% 1986, 72% avg. Wheat good; 9 in. height, 10 in. 1986; 15% jointed, 11% 1986. Grasslands good; growing well. Fruit crops good. Activities: Prepared seedbeds, plant, apply herbicides, spread fertilizer.

OKLAHOMA: Temperatures averaged 5° above normal Panhandle to 10° above normal northeast. Precipitation averaged none west central, central, southwest to 1.37 in Panhandle.

Days suitable for fieldwork 6.5. Topsoil moisture 70% short, 30% adequate. Subsoil moisture 15% short, 85% adequate. April one of driest on record. Wheat 60% fair, 40% good; 45% heading, 95% 1986, 35% avg.; 5% soft dough, 35% 1986, 1% avg. Dry weather threatening wheat production. Some south central fields severe moisture shortage. Moisture stress caused rapid development. Cool temperatures, moisture needed to promote head filling. Sorghum 3% planted, 10% 1986, 5% avg. Cotton 3% planted, 10% 1986, 3% avg. Pasture growth delayed by early April freeze. Cattle marketings average, prices steady to slightly lower than preceding week.

OREGON: Temperatures above normal, precipitation abundant latter part of week all areas. Daytime highs in 80s, 90s first of week interior areas; cooled to 50s, 60s end of week. Average temperatures 30° above normal coast, 60° above normal interior. Rainfall totaled 1.00 to 1.25 in. coast, about 2.00 in. coast range, 0.25 to 0.50 in. western interior valleys. Cascades, western foothills 1.00 to 1.75 in. East of Cascades 0.25 to 0.70 in., up to 1.00 in. isolated areas.

Soil moisture 73% short, 27% adequate. Barley 94% seeded, 97% 1986, 96% 1985. Crop development up

to 10 days ahead of normal. Incidence of wet weather diseases in wheat, grass seed crops higher than normal west. Moisture stress imminent on spring grains Columbia Basin; short moisture concern on most mature winter wheat fields also. Most irrigation started northeast, central areas. Early grass hay cutting started southwest. Early alfalfa cutting began Hermiston-Boardman. Dry peas in bloom eastern Umatilla County. Crimson clover neared full bloom Willamette Valley. Hop yards strung west. Sugarbeets may be hail damaged Malheur County. Frost damage to date very limited Wasco County cherries, Hood River County apples, pears. Pear thinning sprays applied Hood River. Apple bloom neared completion Umatilla County, western areas. Apple thinning sprays applied Milton-Freewater. All fruit crops doing well Medford area. Strawberries, red raspberries, loganberries bloomed Willamette Valley; fungicides applied. All caneberry crops sprayed for leafrollers. Cranberry development advanced with warmer weather south coast. Some early potato fields cultivated, late plantings neared completion Hermiston-Boardman. Potato planting neared completion Malheur County. Onions emerged at Lake Labish in Willamette Valley, Jackson County, Malheur County. Possible hail or rain damage onions Malheur County. Walla Walla sweet onions excellent Milton-Freewater. Asparagus harvest continued Hermiston area; yields, quality excellent. Green pea seeding neared completion Umatilla County; emerged Willamette Valley. Early snap beans planted west. Sweet corn planted Jackson, Malheur Counties. Livestock mostly good. Range, pasture fair to good. Most lower elevations east of Cascades range began to dry out. High elevations, warm weather promoted good growth. Most cattle now on summer range. Calving, lambing winding up eastern high country.

PENNSYLVANIA: Cool, rather dry week. Scattered showers, few thunderstorms beginning, end of week. Average temperature 49°, 3° below normal. Temperature extremes 24°; 76°. Average precipitation 0.42 in., 0.40 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 15% short, 67% adequate, 18% surplus. Plowing 68% complete, 74% 1986, 57% avg. Corn 16% planted, 18% 1986, 14% avg. Potatoes 59% planted, 46% 1986, 40% avg. Oats 78% planted, 86% 1986, 66% avg. Tobacco beds 96% planted, 81% 1986, 87% avg. Soybeans 7% planted, 12% 1986, 4% avg. Barley 70% pre-boot, 92% 1986; 29% boot, 8% 1986; 1% headed, none 1986. Wheat 89% pre-boot, 97% 1986; 11% boot, 3% 1986. Wheat 1% poor, 21% fair, 57% good, 21% excellent. Oats 2% poor, 16% fair, 54% good, 28% excellent. Hay stands mostly good to fair. Feed from pastures mostly average to above average. Peaches 12% pre-pink, 13% 1986; 23% pink stage, 15% 1986; 65% full bloom or past, 72% 1986. Cherries 9% pre-pink, 4% 1986; 15% pink stage, 16% 1986; 76% full bloom or past, 80% 1986. Apples 17% pre-pink, 22% 1986; 34% pink stage, 23% 1986; 49% full bloom or past, 55% 1986. Activities: Planting corn, potatoes, oats, soybeans; spring plowing; fence repairing; hauling manure; spreading fertilizer; machinery maintenance; caring for livestock.

PUERTO RICO: Island average rainfall 0.24 in., 1.27 in. below normal. Highest weekly total rainfall 1.32 in. Jayuya 1.25 in. Dos Bocas, 1.09 in. Fajardo. Highest 24-hour total 1.32 in. Jayuya. Accumulated total rainfall 18.42 in. 38% above normal. Divisional temperature averaged 81 to 82° on coasts, 75 to 77° interior divisions. Mean station temperature 72° Pico Del Este-Luquillo to 83° Roosevelt Roads. Lowest minimum temperature 56° Adjuntas. Highest maximum temperature 95° several places.

SOUTH CAROLINA: Unseasonably warm temperatures. Scattered thunderstorms northern two-third State, 0.10 to 0.75 in. elsewhere.

Days suitable for fieldwork 5.9. Soil moisture 11% very short, 61% short, 28% adequate. Corn good; 93% planted, 95% 1986, 89% avg. Tobacco fair to good; 75% planted, 89% 1986, 86% avg. Cotton fair to good; 37% planted, 65% 1986, 61% avg. Peanuts fair to good; 31% planted, 26% 1986, 35% avg. Small grains good. Tomatoes good. Peaches fair to good. Pastures fair to good.

SOUTH DAKOTA: Average temperatures ranged 5 to 15° above normal. Extremes 26°; 96°.

Days suitable for fieldwork 6.1. Topsoil moisture short west, adequate southeast; 1% critical, 66% short, 32% adequate, 1% surplus. Subsoil short northwest, adequate elsewhere; 17% short, 73% adequate, 10% surplus. Spring seeding almost complete, row crops began. Range, pastures good to fair. Winter wheat, rye mostly good to excellent, little problem with winterkill.

TENNESSEE: Temperatures near normal east, 8 to 10° above normal west. Averages ranged 61° northeast to 72° southwest. Rainfall below normal 0.50 to 0.75 in., amounts less than 1.00 in.

Days suitable for fieldwork 5.9. Soil moisture 8% very short, 67% short, 24% adequate, 1% surplus. Corn 60% planted, 75% 1986, 40% avg. Corn 6% poor, 45% fair, 46% good, 3% excellent. Tobacco 96% plants up, 85% 1986; 2% transplanted, 1% 1986, 2% avg. Wheat 50% headed, 65% 1986, 40% avg. Wheat 2% poor, 46% fair, 49% good, 3% excellent. Alfalfa 1st cutting 6%, 9% 1986, 7% avg. Alfalfa 3% very poor, 20% poor, 39% fair, 35% good, 3% excellent. Cattle mostly good. Pastures 5% poor, 34% fair, 56% good, 5% excellent.

TEXAS: Weather warm. Few showers, Panhandle, few thunderstorms Rolling Plains, Blacklands. Temperatures above normal. North Central, East temperatures 5° above normal. Trans-Pecos slightly below normal, as southern Lower Rio Grande Valley. Precipitation near to below normal. Greatest departures east along Upper Gulf Coast.

Crops: Corn planting advanced rapidly Plains. Pre-plant irrigation necessary. Dry weather slowed growth Blacklands, Central cultivation active. Upper Coast, lodging due lack of rain poor root development. Fields South Rio Grande Valley became stressed for moisture. Grain sorghum hurting from lack of moisture. Blackland, Central producers sprayed insects busy cultivating. Growth slowed. Fields South good slow growth. Sorghum none headed, 5% 1986, 1% avg. Cotton planting underway Plains some irrigation necessary to help germination. Spraying thrips occurred Blacklands. Planting continued. Insect controls Coastal Bend. Upper Coast irregular lack moisture. Scattered showers Trans-Pecos helped condition. Small grain heading all areas. Irrigating increased Plains aphids increased many fields. Fields Blacklands good, need rain. Rust increased. Many fields turned color all areas. Heads not filling well. Wheat 5% turned color, 30% 1986, 11% avg. Wheat none harvested for grain, 2% 1986, none avg. Rice planting progressed last week. Flushing continued emerged fields. Emergence slow because dry weather. Rice 68% emerged, 85% 1986, 68% avg. Some soybean fields Upper Coast up stands, other fields slow emerge. Most fields need rain. Peanut planting increased Cross-Timbers, most producers prepared land awaiting rain. Planting continued South. Peanuts 5% planted, 8% 1986, 8% avg. Sugarbeet planting neared completion many fields showed good emergence. Sugarbeets 95% planted, 99% 1986, 95% avg. Other field crops: Soybeans 20% planted, 24% 1986, 5% avg. Sunflowers none planted, 16% 1986, 7% avg. (Continued to p. 23)

International Weather and Crop Summary

APRIL 1987

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

April 26-May 2, 1987

HIGHLIGHTS:

UNITED STATES ... Dryness slows planting, crop growth, and emergence in the Delta, Southeast, and southern Great Plains. Open weather pushes planting ahead of normal in the Corn Belt and central and northern Great Plains.

WESTERN U.S.S.R. ... Rapid warming and dry weather, in the last half of the week, promote winter wheat growth and help to dry soils for spring planting.

CANADA ... Warm weather dries topsoils and promotes early spring planting.

EUROPE ... Mostly dry weather allows spring and summer crop planting to progress rapidly. Soil moisture is adequate to abundant for crop growth in most areas, except Spain where continued dry weather stresses filling wheat.

SOUTH ASIA ... Showers in northern Pakistan and northern India delay wheat harvesting.

SOUTHEAST ASIA ... Showers continue in most rainfed crop areas of Thailand. Rain in the Philippines likely improves irrigation reserves for rice and corn.

EASTERN ASIA ... Wet weather in Sichuan benefits crop growth. Drier weather covers crops in the North China Plain. Substantial rain in the Yangtze Valley provides abundant moisture for intermediate rice.

SOUTH AMERICA ... Late-week rain slows summer crop harvesting in Argentina and Brazil.

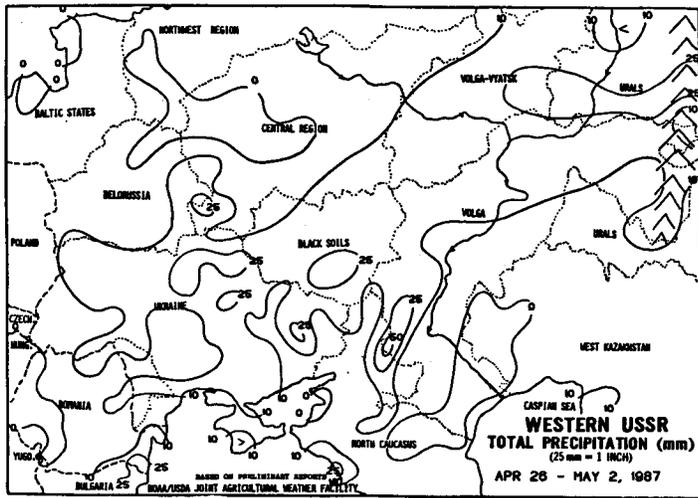
AUSTRALIA ... Showers improve preplanting soil conditions in Australia's wheat belt but likely cause harvesting delays in the eastern summer crop areas.

MEXICO ... Showers help early crop growth in the interior while dry weather prevails over both west and east coasts.

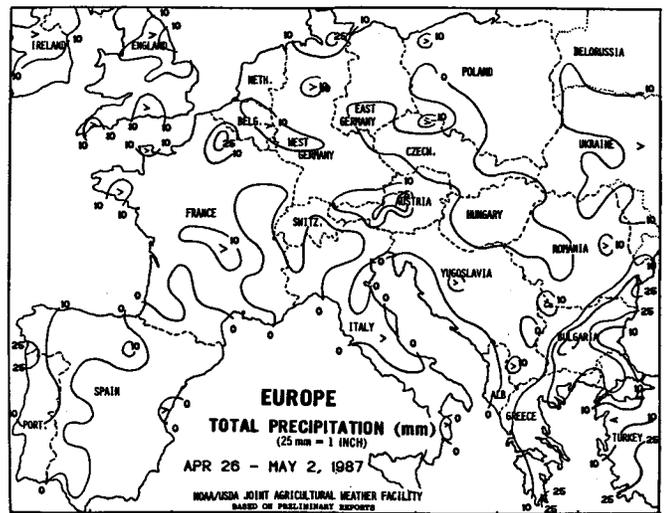
NORTHWESTERN AFRICA ... Dry weather aids crop maturation and harvesting.

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG	AVG	HI	LO	DPART	TOTAL	DPART	F/NRM
	MAX	MIN	MAX	MIN	AVG			
NORWAY OSLO	9	-1	19	-6	4	1.2	26.6	-22.0
SWEDEN STOCKHOLM	9	0	22	-7	5	0.4	9.0	-22.8
FINLND HELSINKI	8	-2	21	-10	3	0.2	2.8	-38.1
U KING GLASGOW	13	5	23	-2	9	0.3	45.8	-17.2
EDINBURGH	13	4	23	-3	8	1.0	43.0	4.5
BIRMINGHAM	15	5	21	0	10	2.3	69.2	25.6
LONDON	15	5	23	1	10	2.3	50.2	-5.9
IRELND DUBLIN	13	6	21	0	10	1.7	74.4	27.3
ICELND REYKJAVIK	5	1	9	-6	3	-0.5	88.4	31.1
DENMRK COPENHAGEN	10	2	19	-4	6	-0.5	35.3	-2.8
LUXEMB LUXEMBOURG	14	6	22	0	10	1.6	38.6	-10.1
SWITZL ZURICH	16	5	25	-2	11	2.5	75.5	-15.9
GENEVA	16	4	24	-2	10	0.9	52.1	-6.3
FRANCE PARIS	17	7	26	1	12	2.4	31.6	-4.1
STRASBOURG	17	4	26	-2	11	1.4	23.2	-19.7
BOURGES	17	6	27	1	12	2.0	44.3	-2.3
BORDEAUX	19	9	27	3	14	2.8	43.4	-16.0
TOULOUSE	19	8	26	2	13	2.5	72.1	16.2
MARSEILLE	18	9	25	1	13	0.4	44.8	2.4
SPAIN VALLADOLID	17	7	25	1	12	2.0	65.1	29.4
MADRID	20	7	30	1	13	0.9	51.0	7.7
SEVILLE	24	12	33	6	18	1.6	49.1	-3.2
E GRMY LEIPZIG	15	5	26	0	10	1.6	18.2	-22.6
DRESDEN	14	5	25	1	10	1.4	46.1	0.1
W GRMY HAMBURG	14	5	25	-2	9	2.1	45.2	-1.8
BERLIN	14	6	27	0	10	1.2	42.4	2.1
DUSSELDORF	17	7	27	1	12	2.3	25.2	-25.9
STUTTGART	15	4	24	-3	10	0.8	36.8	-17.7
NURNBERG	15	4	25	-3	10	1.6	27.6	-16.0
MUNICH	15	4	23	-5	9	1.6	66.8	-5.7
AUSTRI VIENNA	15	5	23	1	10	0.2	18.1	-24.8
INNSBRUCK	16	4	26	-2	10	1.3	36.2	-29.5
CZECH PRAGUE	14	4	23	0	9	1.1	29.8	-8.2
POLAND WARSAW	11	3	23	-3	7	-0.2	29.8	-4.5
LODZ	11	4	23	-3	7	0.2	31.2	-18.8
KATOWICE	13	4	23	-2	8	0.6	43.3	-10.8
PRZEMYSL	11	4	21	-2	8	-0.4	14.6	-33.1
HUNGAR BUDAPEST	16	6	23	2	11	0.3	105.1	66.0
YUGOSL SARAJEVO	15	4	23	-1	9	-0.1	68.8	-7.1
ROMANI BUCHAREST	15	4	25	-3	10	-1.7	69.3	24.7
BULGAR SOFIA	14	5	22	-3	10	-0.8	110.4	63.3
ITALY MILAN	18	8	22	0	13	0.6	82.8	5.2
VERONA	18	8	22	1	13	0.7	69.6	9.0
VENICE	17	8	25	3	13	0.4	41.2	-30.6
GENOA	17	11	22	6	14	-0.8	115.2	29.6
ROME	19	8	24	1	14	0.4	32.0	-17.3
NAPLES	20	9	25	3	15	1.7	5.3	-68.8
GREECE THESSALONIKA	18	8	23	4	13	-1.2	70.3	34.2
LARISSA	19	7	25	2	13	-1.4	71.5	43.1
ATHENS	18	11	22	6	14	-2.2	116.4	99.3
TURKEY ISTANBUL	14	7	21	2	10	-0.5	41.7	3.7
ANKARA	13	2	21	-6	8	-3.6	54.1	28.1
CYPRUS LARNACA	21	10	24	7	16	-1.2	7.7	-12.4
USSR TALLINN	8	-1	22	-9	3	0.2	5.5	-29.9
LENINGRAD	7	-1	19	-7	3	-0.5	18.5	-16.8
KAUNAS	9	1	23	-3	5	-1.1	23.8	-15.7
MINSK	8	0	22	-4	4	-1.6	40.6	0.2
KAZAN	4	-3	15	-12	1	-3.7	30.6	-1.0
MOSCOW	7	-1	21	-6	3	-2.7	18.2	-19.7
SVERDLOVSK	4	-3	10	-18	1	-3.6	28.9	3.4
OMSK	4	-3	19	-18	1	-2.4	6.1	-13.6
KUSTANAY	4	-4	16	-19	0	-4.7	27.6	6.0
KRASNOYARSK	5	-4	17	-23	1	-0.6	23.4	-2.4
NOVOSIBIRSK	3	-4	10	-22	0	0.4	31.7	19.0
BARNAUL	6	-3	17	-20	1	-1.6	51.1	23.6
KHABAROVSK	9	-2	24	-9	4	0.2	18.0	-19.4
VLADIVOSTOK	8	1	17	-4	5	0.4	39.2	-23.2
KIEV	9	1	20	-4	5	-3.5	55.2	15.3
LVOV	11	3	22	-3	7	-0.5	14.5	-33.5
KIROVOGRAD	9	1	19	-4	5	-3.7	31.3	0.0

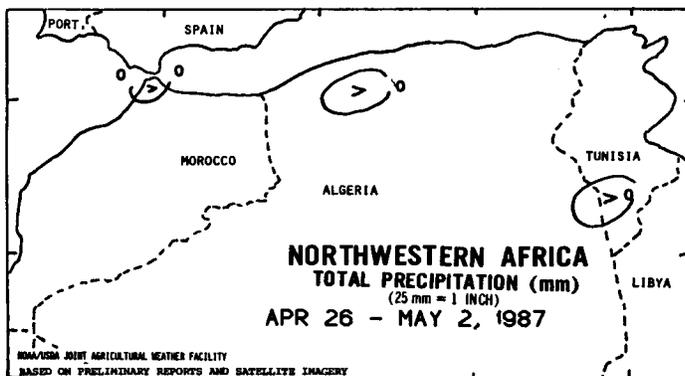
COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG MAX	AVG MIN	HI	LO	DPART	AVG	F/NRM	DPART		AVG MAX	AVG MIN	HI	LO	DPART	AVG	F/NRM	DPART
USSR ODESSA	11	2	19	-2	7	-2.1	38.8	7.7	TANZAN DAR ES SALAAM	32	23	36	21	28	1.0	145.6	-124.8
YALTA	12	6	19	0	9	-1.7	50.8	18.8	GABON LIBREVILLE	31	24	32	22	27	0.3	655.6	309.0
VORONEZH	7	-2	19	-9	3	-4.8	47.0	11.5	TOGO LOME	34	26	35	23	30	2.2	22.4	-77.2
SARATOV	5	-1	19	-8	2	-4.7	22.3	-4.8	B FASO OUAGADOUGOU	40	25	43	21	33	0.3	0.0	-23.7
KHARKOV	6	0	18	-7	3	-5.5	32.8	3.3	IVRY C ABIDJAN	33	27	35	23	30	2.2	94.7	-68.3
VOLGOGRAD	6	-1	18	-10	2	-6.4	33.7	10.4	MOZAMB MAPUTO	30	21	36	17	25	2.0	35.7	-23.0
ROSTOV	7	1	18	-7	4	-6.4	60.5	22.2	ZAMBIA KABWE	27	14	29	13	20	0.2	0.0	-23.4
ASTRAKHAN	13	2	20	-3	7	-3.4	3.2	-12.3	ZIMBAB HARARE	28	14	31	11	21	2.4	0.8	-45.5
KRASNODAR	14	4	22	-1	9	-2.8	83.6	30.7	S AFRI PRETORIA	27	15	33	10	21	4.0	29.0	-29.1
ORENBURG	6	-2	13	-11	2	-5.2	26.3	2.9	KROONSTAD	27	11	33	4	19	2.9	32.6	-10.3
TSELINOGRAD	4	-5	16	-23	-1	-3.6	35.8	21.7	JOHANNESBURG	25	13	29	6	19	3.6	10.7	-46.8
KARAGANDA	7	-3	20	-16	2	-2.6	33.6	9.9	BETHAL	25	11	30	4	18	3.3	38.6	0.5
TBILISI	15	5	22	1	10	-2.2	67.5	16.4	DURBAN	27	19	32	13	23	1.8	37.6	-49.0
TASHKENT	18	9	30	2	13	-1.8	49.2	-10.1	CAPE TOWN	23	12	29	3	17	0.6	36.9	-7.7
ASHKHABAD	21	9	35	1	15	-1.3	10.1	-33.2	CANADA TORONTO	14	3	29	-7	9	2.5	49.8	-20.2
SYRIA DAMASCUS	22	6	28	1	14	-1.8	0.0	-13.0	MONTREAL	15	4	28	-5	9	3.7	36.8	-37.4
ISRAEL JERUSALEM	19	8	26	3	13	-2.4	2.0	-26.2	WINNIPEG	16	2	31	-13	9	5.5	1.1	-37.4
PAKIST KARACHI	35	22	42	19	29	0.6	0.0	-1.6	REGINA	17	1	29	-8	9	5.6	12.5	-11.3
INDIA AMRITSAR	34	16	41	10	25	-0.1	3.8	-8.3	SASKATOON	15	0	27	-8	8	4.2	13.7	-6.9
NEW DELHI	37	22	42	17	29	0.5	4.0	-2.6	LETHBRIDGE	17	2	31	-6	10	4.7	19.1	-23.6
AHMEDABAD	40	24	44	21	32	0.7	0.0	0.0	CALGARY	15	0	28	-6	8	4.4	22.1	-10.5
INDORE	39	21	43	18	30	0.3	0.0	-2.0	EDMONTON	15	1	27	-4	8	3.7	22.5	0.8
CALCUTTA	36	25	40	21	30	-0.7	85.7	50.9	VANCOUVER	14	6	25	3	10	1.5	65.4	5.8
VERAVAL	32	23	40	19	27	0.2	0.0	0.0	MEXICO GUADALAJARA	30	10	34	5	20	-2.1	2.0	-6.4
BOMBAY	34	24	39	15	29	0.6	0.0	-0.4	MEXICO CITY	25	12	29	8	19	0.9	23.3	10.3
POONA	38	20	42	17	29	-0.4	4.0	-12.4	ACAPULCO	33	23	36	19	28	0.7	0.0	-5.2
BEGAMPET	39	25	41	21	32	1.3	9.7	-11.8	BERMUD ST. GEORGES	22	18	25	14	20	1.0	90.8	10.2
MADRAS	36	26	40	23	31	0.7	10.0	-5.5	BAHAMA NASSAU	27	17	31	6	22	-1.8	26.0	-28.7
MANGALORE	34	26	37	23	30	0.6	5.0	-34.9	CUBA HAVANA	26	20	32	16	23	-1.4	20.5	-29.8
H KONG HONG KONG	24	21	30	14	22	0.3	276.4	136.9	JAMAIC KINGSTON	31	24	33	16	28	0.8	51.1	12.3
N KREA PYONGYANG	15	2	22	-5	8	-0.1	65.0	3.0	P RICO SAN JUAN	31	23	33	21	27	1.3	129.8	37.9
S KREA SEOUL	16	7	25	1	12	1.1	55.6	-12.5	GUADEL RAIZET	32	24	33	20	28	2.7	11.8	-46.3
JAPAN SAPPORO	11	2	23	-2	7	0.4	54.0	-11.2	MARTINQ LAMENTIN	32	25	33	21	28	3.4	2.0	-76.1
NAGOYA	20	10	27	-2	15	1.4	54.5	-98.8	BARBAD BRIDGETOWN	31	26	32	24	28	1.5	7.4	-39.0
TOKYO	18	11	27	2	15	0.8	43.5	-84.7	TRINID PORT OF SPAIN	33	24	34	21	29	2.4	5.2	-45.0
YOKOHAMA	18	11	25	5	14	0.8	72.0	-70.7	COLOMB BOGOTA	20	9	23	1	14	0.6	92.5	4.3
KYOTO	20	9	27	1	15	0.9	48.0	-115.2	VENEZU CARACAS	31	24	34	20	27	1.4	1.3	-17.6
OSAKA	19	11	26	2	15	0.3	46.0	-99.4	F GUIA CAYENNE	30	24	32	21	27	1.4	330.6	-98.8
THAILN PHETCHABUN	38	24	42	20	31	0.8	101.0	26.6	BRAZIL FORTALEZA	30	24	32	23	27	0.7	150.9	-215.3
BANGKOK	35	27	37	24	31	0.6	55.1	-9.1	RECIFE	30	24	31	22	27	0.6	259.8	-21.5
MALAYS KUALA LUMPUR	32	24	35	23	28	1.2	291.1	12.7	BELO HORIZONTE	28	19	32	16	23	1.9	92.9	27.8
VIETNM HANOI	27	22	35	15	24	0.4	118.4	37.1	CAMPO GRANDE	30	20	33	16	25	3.0	92.0	-9.1
CHINA HARBIN	13	0	25	-8	7	0.8	5.0	-18.8	FRANCA	27	18	29	14	22	2.4	75.7	-5.3
HAMI	22	8	30	-3	15	1.9	0.1	-2.0	RIO DE JANEIRO	29	24	35	20	26	2.1	183.2	69.0
LANCHOW	20	7	28	1	13	1.6	26.4	8.9	LONDRINA	28	18	33	8	23	2.3	119.1	24.1
BELJING	19	8	28	-1	14	0.4	43.3	23.9	SANTA MARIA	25	16	32	9	21	1.8	212.3	70.3
TIENTSIN	20	9	28	3	14	0.8	70.7	49.7	PORTO ALEGRE	26	18	35	13	22	2.5	120.8	17.7
LHASA	15	1	21	-2	8	0.0	14.6	10.6	PERU LIMA	26	20	29	18	23	2.6	0.0	0.0
KUNMING	23	11	28	7	17	1.2	25.2	4.0	BOLIVI LA PAZ	14	3	18	-3	8	-0.4	17.8	-12.1
CHENGCHOW	21	9	29	-1	15	0.2	15.4	-38.3	CHILE SANTIAGO	24	7	32	2	16	1.4	0.3	-13.1
YEHCHANG	22	12	32	2	17	0.4	90.3	-14.2	ARGENT IGUAZU	26	18	32	14	22	***	137.3	****
HANKOW	21	12	31	2	16	0.4	137.5	-2.6	FORMOSA	26	20	35	14	23	1.6	220.7	83.7
CHIHKIANG	22	13	33	4	17	0.9	112.7	-55.5	CERES	24	16	34	6	20	1.3	84.4	12.1
SHANGHAI	18	10	27	3	14	0.1	160.8	57.4	CORDOBA	24	12	32	6	18	1.2	30.9	-15.7
NANCHANG	21	14	31	5	17	0.2	204.2	-21.2	RIO CUARTO	23	13	31	5	18	1.7	35.8	-15.1
TAIPEI	25	19	33	13	22	1.3	109.1	-58.8	ROSARIO	23	13	33	3	18	1.5	58.5	-26.5
CANTON	26	19	32	12	23	0.6	248.4	69.7	BUENOS AIRES	22	14	28	6	18	2.1	76.9	-9.2
NANNING	27	19	35	12	23	1.1	74.7	-15.2	SANTA ROSA	23	11	30	4	17	1.8	8.3	-43.3
CNRY I LAS PALMAS	23	17	27	15	20	1.9	0.6	-5.5	TRES ARROYOS	21	11	27	1	16	2.0	12.3	-51.7
MOROCC CASABLANCA	21	13	24	6	17	1.4	18.8	-19.5	MIDW I MIDWAY ISLAND	23	19	26	16	21	1.1	22.0	-39.6
MARRAKECH	29	14	37	9	22	4.8	0.0	-34.6	N CALD NOUMEA	27	21	30	19	24	0.2	73.2	-41.5
ALGERI ALGER	23	10	37	4	17	1.8	0.4	-81.2	FIJI NAUSORI	28	23	31	18	26	0.2	129.0	-210.3
BATNA	20	7	31	-5	14	1.6	16.4	-11.5	SAMOA PAGO PAGO	30	26	32	22	28	0.9	205.2	-105.9
TUNISI TUNIS	21	10	26	5	15	0.3	37.2	-10.7	TAHITI PAPEETE	31	24	33	23	28	0.8	613.7	499.9
NIGER NIAMEY	41	26	44	21	33	-0.3	0.0	-4.1	N ZEAL AUCKLAND	19	13	23	6	16	-0.6	169.8	59.0
MALI TIMBUKTU	39	21	42	13	30	-1.1	0.0	-1.4	WELLINGTON	17	10	20	6	13	-0.1	130.0	23.5
BAMAKO	40	27	47	21	34	2.1	0.0	-16.4	PA N G PORT MORESBY	29	24	31	22	27	0.1	124.3	6.2
MAURIT NOUAKCHOTT	38	22	45	16	30	4.5	0.0	0.0	AUSTR L DARWIN	32	26	35	23	29	0.8	96.9	-0.9
SENEGL DAKAR	27	20	32	18	24	2.2	0.0	0.0	MOREE	27	16	29	6	21	1.6	1.7	-22.5
CHAG A DIEGO GARCIA	31	27	32	24	29	1.0	452.3	270.8	BRISBANE	25	18	28	15	22	-0.2	44.0	-28.1
LIBYA TRIPOLI	25	10	33	5	17	-1.0	0.1	-18.9	PERTH	25	14	33	8	19	0.7	86.0	38.6
BENGHAZI	21	11	28	7	16	-2.7	0.3	-6.9	CEDUNA	23	13	32	8	18	0.6	14.3	-7.6
EGYPT CAIRO	26	13	34	10	20	-1.7	0.5	-0.7	ADELAIDE	21	14	32	6	17	0.3	21.4	-25.0
ASWAN	31	18	37	13	25	-2.8	0.0	-0.3	MELBOURNE	19	11	30	3				



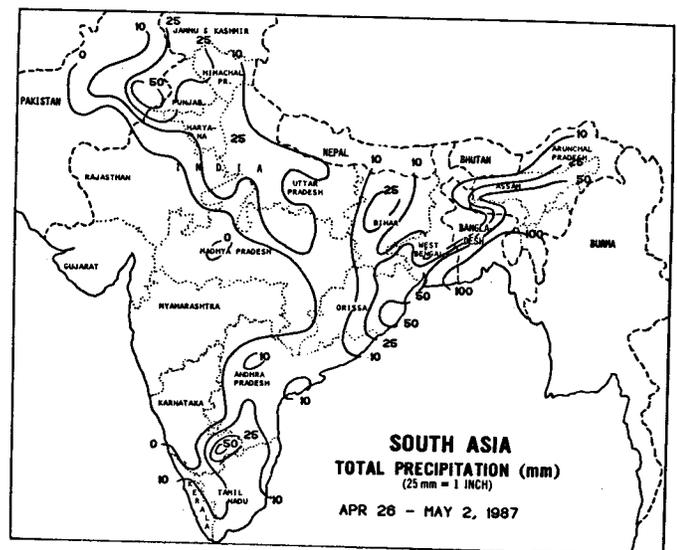
WESTERN U.S.S.R. ... A storm system developed over the region early in the week, providing above-normal precipitation. Greatest rainfall (10 to 32mm) occurred in a band, which stretched northeastward from the southern Ukraine, through the eastern Ukraine, northern North Caucasus, Black Soils, Volga, and into the northern Urals. In the last half of the week, fair weather accompanied rapid warming. Greening of winter crops occurred in the Baltic States, Belorussia, the Black Soils Region, parts of the Central Region, and Volga about 2 to 3 weeks later than usual. The warm, dry weather by week's end in the south promoted vegetative wheat growth and helped to dry soils for spring planting, delayed previously by unseasonably cool, wet weather.



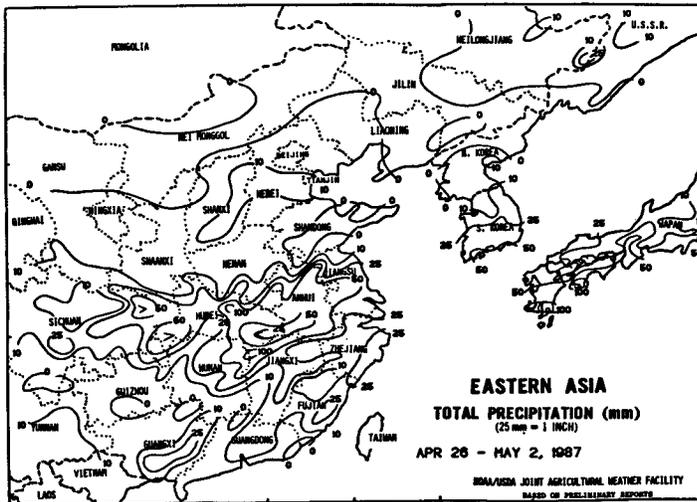
EUROPE ... High pressure dominated the region, keeping most crop areas dry. The most significant precipitation occurred over Bulgaria, Greece, and southeastern Romania (10 to 27mm) late in the week, which likely slowed fieldwork for summer crop planting. Mostly dry weather over central and northern Europe allowed spring and summer crop planting to progress at a rapid pace. Soil moisture was adequate to abundant for crop growth. In Spain, dry weather continued to stress wheat in the filling stage. Average weekly temperatures were above normal in the west and central areas, near normal in the northeast, and below normal in the southeast.



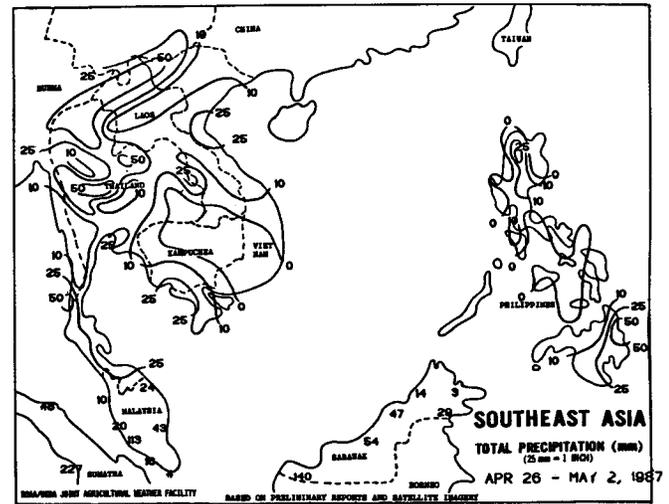
NORTHWESTERN AFRICA ... Dry weather covered winter grains over much of the region. Dry weather in Morocco and western Algeria favored harvest activities. The dry weather in eastern Algeria and northern Tunisia favored crop maturation.



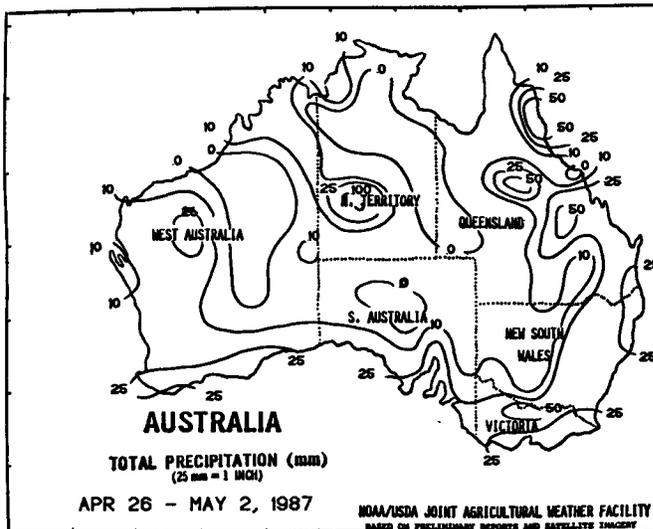
SOUTH ASIA ... Showers (5 to 44mm) in northern Pakistan and northern India delayed wheat harvesting. From southern India, through Bangladesh, and into the eastern states, variable scattered showers (5 to more than 50mm) improved irrigation reserves for grainfilling summer rice. The southwest monsoon normally advances into southeast India by early June and as far north as Pakistan by mid-July.



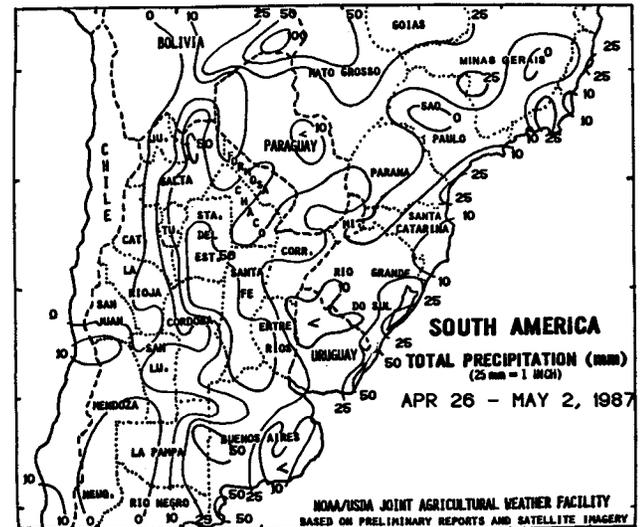
EASTERN ASIA ... Early-week dry weather benefited fieldwork for spring and summer crop planting over much of the region. By week's end, shower activity increased, providing substantial rainfall (25 to 86mm) for intermediate rice planting along the Yangtze Valley. Wet weather (30 to 60mm) in eastern Sichuan benefited early corn in the tasseling stage and winter wheat in the late-filling stage. In the North China Plain, widespread showers (10 to 25mm) in southern areas benefited wheat in the heading stage. Lighter rainfall (less than 10mm) covered central growing areas, and rain is needed for wheat in the heading stage as well as cotton, early corn, and early soybeans in the vegetative stage. In the Manchurian Valley, dry weather aided summer crop planting.



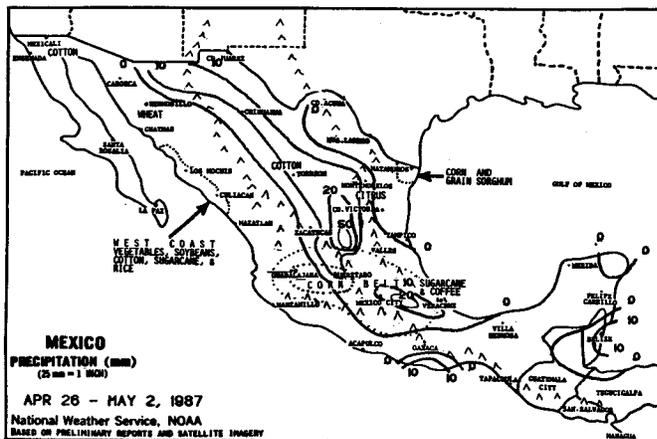
SOUTHEAST ASIA ... Beneficial showers (10 to 82mm) in Thailand's rainfed rice and corn areas provided sufficient moisture for the planting of corn and rice, usually under way by May. Dry weather, however, persisted in rainfed rice areas from eastern Thailand to southern Vietnam. In the Philippines, showers in eastern Mindanao and central Luzan likely improved irrigation reserves for corn and rice. Light rain (less than 10mm), however, persisted elsewhere. Rainfed corn and rice planting is normally under way by May but may be delayed in some areas due to insufficient preplanting rainfall. Seasonable showers fell in Malaysia and western Indonesia as light rain continued to the east.



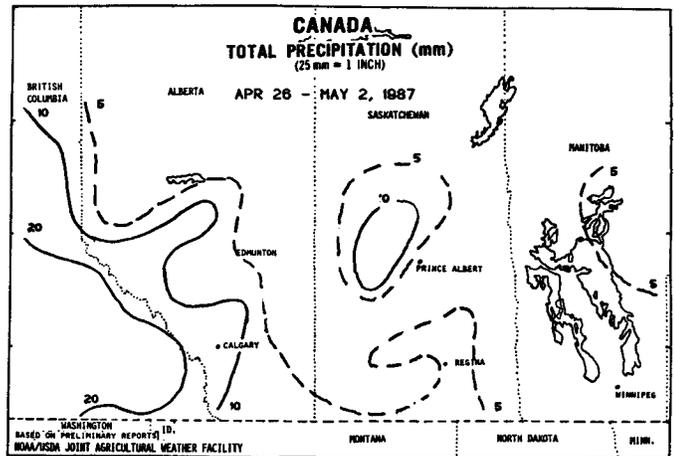
AUSTRALIA ... Moderate to heavy showers (10 to more than 50mm) swept through Australia's winter grain belt, improving preplanting soil conditions in West Australia, South Australia, Victoria, and New South Wales. Winter wheat planting usually lasts from April through June. The rain in New South Wales delayed harvesting of summer grains and cotton. Showers (10 to more than 50mm) benefited vegetative sugarcane along Queensland's coast, but rainfall continued to average below 10mm in central coastal areas.



SOUTH AMERICA ... Showers and thunderstorms developed late in the week over Argentina's major crop areas, slowing the harvest. Weekly rainfall averaging 20 to 75mm followed 2 weeks of favorably dry harvest weather in Buenos Aires, and southern portions of Cordoba, and Santa Fe. The corn, sorghum, sunflower, and soybean harvests reached 70, 45, 80, and 10 percent completion, respectively. Showers (10 to 30mm) in northern cotton areas disrupted fieldwork again. In Brazil, showers averaging 15 to 25mm kept Rio Grande do Sul's crop area unfavorably moist for soybean harvesting. Brazil's soybean harvest (65 percent complete) lags the average pace (75 percent) most notably due to wetness in the south. Widespread showers produced variable rainfall (10 to 50mm) throughout Brazil's center south. The rain benefited newly planted wheat in Parana.



MEXICO ... Scattered showers covered central Mexico between the Sierra Madre Occidental and Sierra Madre Oriental mountain ranges. Weekly rainfall generally averaged 10 to 20mm in the north-central cotton and rangeland areas, and isolated amounts of 25 to 67mm in the eastern half of the Southern Plateau corn belt. The moisture helped corn planting and early growth. Dry weather continued in the western corn belt, the mostly-irrigated west coast farming region, and northwestern wheat area, which favored harvesting. Dry weather also covered the east coast from the northeast grain sorghum area to the Yucatan peninsula.



CANADA ... Light showers and warm weather prevailed over the Prairie grain belt. Weekly rainfall averaged 2mm or less in Manitoba, 1-9mm in Saskatchewan except for an isolated heavier shower (16mm) in the northwest, and 1 to 12mm in Alberta. The mild weather, with weekly temperatures averaging 2 to 8 degrees C above normal, continued to promote early spring fieldwork. Spring wheat and barley planting was well underway across the southern half of the grain belt, while sowing is beginning in the north. Extreme maximum temperatures reached 24 to 30 degrees C in southern portions of the Prairie Provinces. Moisture has been drawn rapidly from the topsoils. Soil moisture reserves are reportedly good in all areas.

(Continued from p. 18)

Commercial Vegetables: Rio Grande Valley onion harvest continued some seed stem problems many fields. Prices good. Cabbage, carrot harvest final stages. Melons good progress, will be late. San Antonio-Winter Garden onion harvest later than normal. Quality good. Other vegetables, melons good, need rain. Trans-Pecos chili emergence slow. Onions later normal. East most vegetables watermelons need moisture. Sweetpotato planting soon. High Plains onions, potatoes good; irrigation necessary. Other planting begin soon. Pecans blooming many areas. East trees pollinating stage. Many producers applying zinc.

Range and Pasture: Native grasses good; growth slowed. Moisture Plains, Trans-Pecos improved growth. Spraying weeds continued. Producers continued bale wheat, oats damaged by freeze. Rain needed all areas. Livestock good body condition despite short grazing. Prices good. Supplemental feedings slowed.

UTAH: Precipitation none to light. Temperatures 8 to 140 above normal.

Days suitable fieldwork 6.7. Soil moisture 65% short, 29% adequate, 6% surplus. Spring wheat 95% planted, 77% 1986, 67% avg.; 71% emerged, 63% 1986, 37% avg. Barley 92% planted, 72% 1986, 67% avg.; 68% emerged, 58% 1986, 34% avg. Oats 69% planted, 61% 1986, 57% avg.; 42% emerged, 28% 1986, 7% avg. Corn 27% planted, 7% 1986, 7% avg. Winter wheat 8 in. height, alfalfa 7 in. height. Apples, pears, peaches past bloom. Calving, lambing, shearing neared completion. Livestock generally good to excellent. Ranges, pastures started early but need rain. Major farm activities: Planting corn, irrigating alfalfa, small grains, seedbed preparation, spraying weeds, fertilizer application, care of livestock.

VIRGINIA: Unsettled weather. Flooding early period. Scattered showers mid period. Sunny end period, evening thunderstorms. Cool early period with subfreezing overnight lows north. Warming trend late period, temperatures reached 80s. Temperatures averaged 5° below normal. Precipitation averaged 1.50 in.

Days suitable for fieldwork 3.0. Topsoil moisture 70% adequate, 30% surplus. Wet fields hampered fieldwork. Corn planting 26% complete, 57% 1986, 58% avg. Corn fair to good. Peanut planting began, pace 1 week behind normal. Little or no soybeans planted. Tobacco transplanting not active yet. Small grains, hay, pastures good to excellent. Some wheat, barley lodging from heavy rainstorms. Pastures, hay lush growth from ample rain. Heavy bloom on fruit, good to excellent prospects, some sprayed. Scattered minor frost damage. Many cattle moved to pasture. Livestock good to excellent.

WASHINGTON: Mild temperatures, rain. Low temperatures 30s; high temperatures 70s. Precipitation normal. Drought conditions southeast.

Soil moisture 30% short, 60% adequate, 10% surplus. Winter wheat none headed, none 1986, none avg. Spring wheat 98% seeded, 62% emerged. Major activities; spring planting, irrigation, weed control. Apples, pears, full bloom. Frost protection mostly unnecessary. Livestock turned out to spring pasture.

WEST VIRGINIA: Average temperature 55.0, 20 above to 70 below normal. Extremes 22° Circleville; 88° Creston, Ripley. Precipitation averaged 0.07 in. above normal northwest, 0.18 in. above normal central, 0.73 in. above normal northeast, 0.16 in.

(Continued to back cover)

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(Continued from p. 12)

lettuce, carrots, radishes, eggplant, and strawberries were available.

Most vegetables need moisture in Texas. Sweetpotato planting is expected to start soon in eastern areas. Cabbage and carrot harvests neared completion in the Rio Grande Valley.

California vegetable harvest consisted mostly of artichokes, asparagus, cauliflower, celery, sweet corn, and lettuce. Strawberry picking moved into the Sacramento Valley.

PASTURES AND LIVESTOCK: Pastures were mostly good. The lack of moisture was beginning to take its toll in the Delta, Southeast, and southern Great Plains. Livestock was mostly good.

(Continued from p. 23)

Sugarbeets 90% planted, 85% 1986, 75% avg.; 25% emerged, 20% 1986, 20% avg. Corn 15% planted, 15% 1986, 20% avg. Potatoes 25% planted, 20% 1986, 20% avg. Dry beans 10% planted, small amount average. Alfalfa prospects mostly good. Winter wheat mostly good. Livestock good. Calves 85% born, 90% 1986, 85% avg. Calf losses light to normal. Farm flock: Ewes 95% lambed, 95% 1986, 90% avg.; 90% shorn, 90% 1986, 85% avg. Range flock: Ewes 60% lambed, 60% 1986, 55% avg.; 70% shorn, 65% 1986, 60% avg. Lamb losses light to normal. Ranges, pastures fair to good. Grasshoppers started to hatch.

WYOMING: Temperatures above normal. Precipitation below normal except northwest corner. Days suitable for fieldwork 6.0. Topsoil moisture 49% short, 51% adequate. Spring wheat 65%

planted, 70% 1986, 60% avg.; 30% emerged, 35% 1986, 30% avg. Oats 50% planted, 60% 1986, 50% avg.; 25% emerged, 30% 1986, 20% avg. Barley 80% planted, 75% 1986, 65% avg.; 50% emerged, 50% 1986, 40% avg. below normal north central, 0.29 in. below normal south. Precipitation averaged 0.87 in. statewide. Days suitable for fieldwork 3.5. Soil moisture 12% short, 68% adequate, 20% surplus. Wheat, barley mostly good to fair. Oats 65% planted, crop good to fair. Corn planting, ground preparation gained momentum. Corn 14% planted. Tobacco beds fair to good, 96% seeded; 74% emerged. Hay, pasture mostly fair to good. Feed supplies mostly adequate. General farm activities consisted of fence, machinery repair, livestock care, fertilizer application.

WISCONSIN: Temperatures normal 52.0. Extremes 21.0; 85.0. Rainfall none to 1.20 in. North remained dry.

Days suitable for fieldwork 5.8. Soil moisture 35% short, 58% adequate, 7% surplus. Northwest 100% short, north central 86% short. Spring plowing 62% complete, 54% 1986, 41% avg. Corn 13% planted, 8% 1986, 7% avg. Oats good; 77% planted, 64% 1986, 54% avg. Alfalfa damage from wet fall greatest central, east central. Winter wheat mostly good. Apple trees blooming south, budding north. Tobacco beds being seeded.

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