

WEEKLY WEATHER AND CROP BULLETIN

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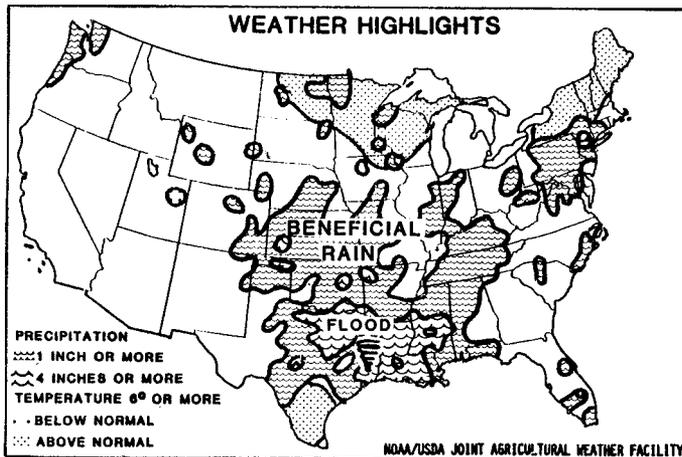
Washington, D.C.

May 23, 1989

National Weather Summary

MAY 14-20, 1989

CYCLONE HITS THE PHILIPPINES AND CHINA



HIGHLIGHTS: A low pressure system continued to bring drenching rain to the Middle Atlantic States early in the week. Violent weather struck from the southern Plains into the Southeast with tornadoes and torrential rain. Severe flooding occurred in the Red River Valley. Much needed rain soaked the parched central Plains and lower Missouri Valley, and thunderstorms caused locally heavy rain over dry southern Florida. Temperatures were unseasonably high from the northern Plains to New England and along the Gulf coast, while a powerful cold front brought cool air into the Intermountain Plateau during the latter part of the week.

SUNDAY: Showers on Mother's Day reached from the Southeast into the northern Atlantic Coast States and from the Great Basin to the central High Plains. Snow blanketed the central Rockies, and severe thunderstorms were scattered across the southern Plains.

MONDAY: A low pressure system developed over southern Georgia, moved up the coast, and gave more soaking rain to the Middle Atlantic Coast States and upper Ohio Valley. Severe thunderstorms developed in the central and southern Plains, while showers were scattered in the Rockies and High Plains. Late season rain fell across southern California.

TUESDAY: Showers continued to soak the Middle Atlantic States as the low pressure system moved up the coast. Rain fell over Pittsburgh, PA for the 16th straight day. A large outbreak of violent weather raged across the central and southern Plains into the Delta. Flooding resulted from rains of up to 11 inches in the Red River Valley. Rainfall was widespread over the northern Plains, Rockies, and Southwest. Heavy rain fell along the southeastern Florida coast.

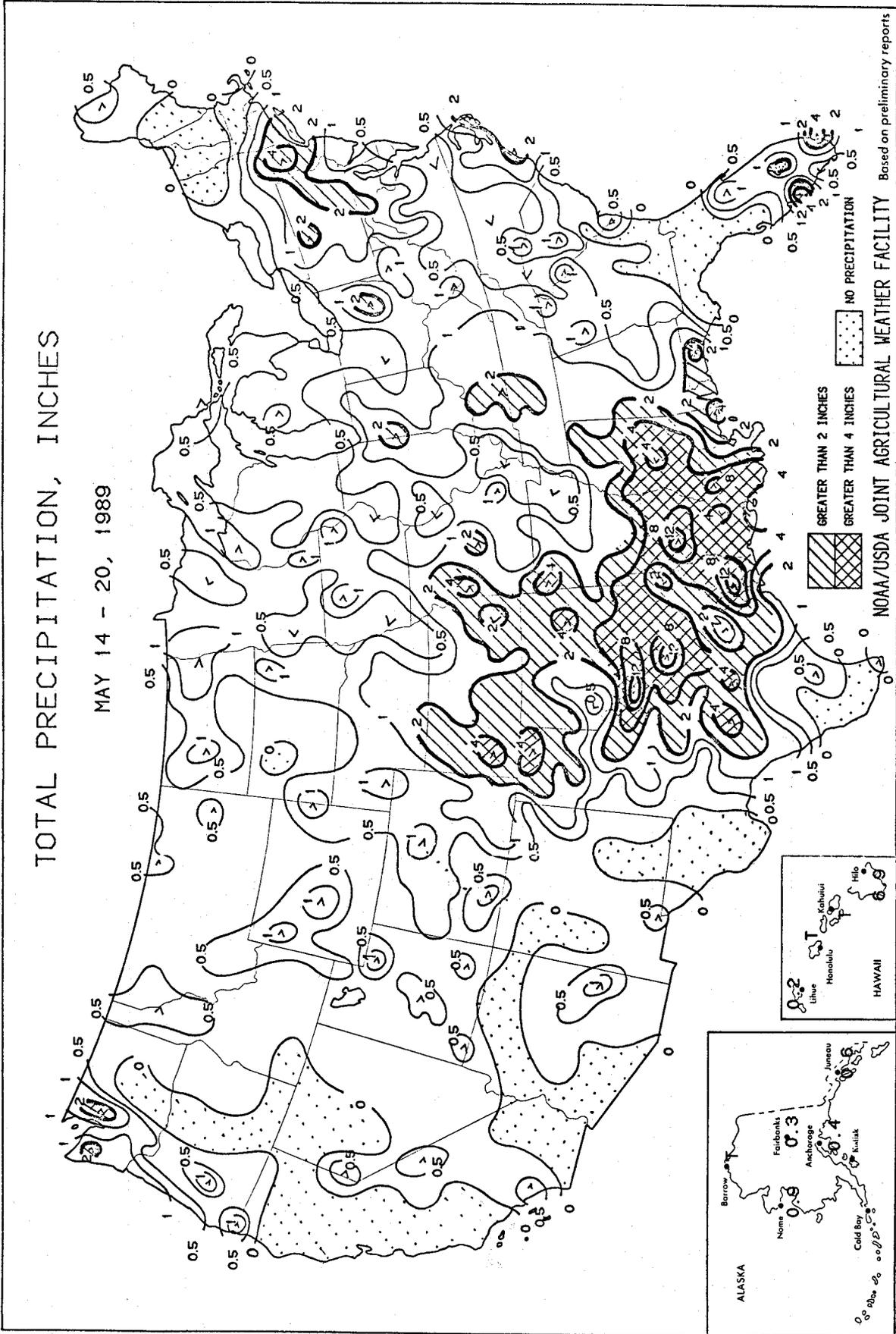
WEDNESDAY: Morning showers drenched southern New York and New Jersey as the low pressure system spun into the Atlantic. The large high pressure system, responsible for persistent dry weather in the western Corn Belt, shifted eastward, pulling more moist Gulf air into the Central States. Severe thunderstorms produced tornadoes and torrential rain across eastern Texas into Louisiana. Much welcomed rain fell through the central Plains and western Mississippi Valley. A strong Pacific front brought rain into the Northwest.

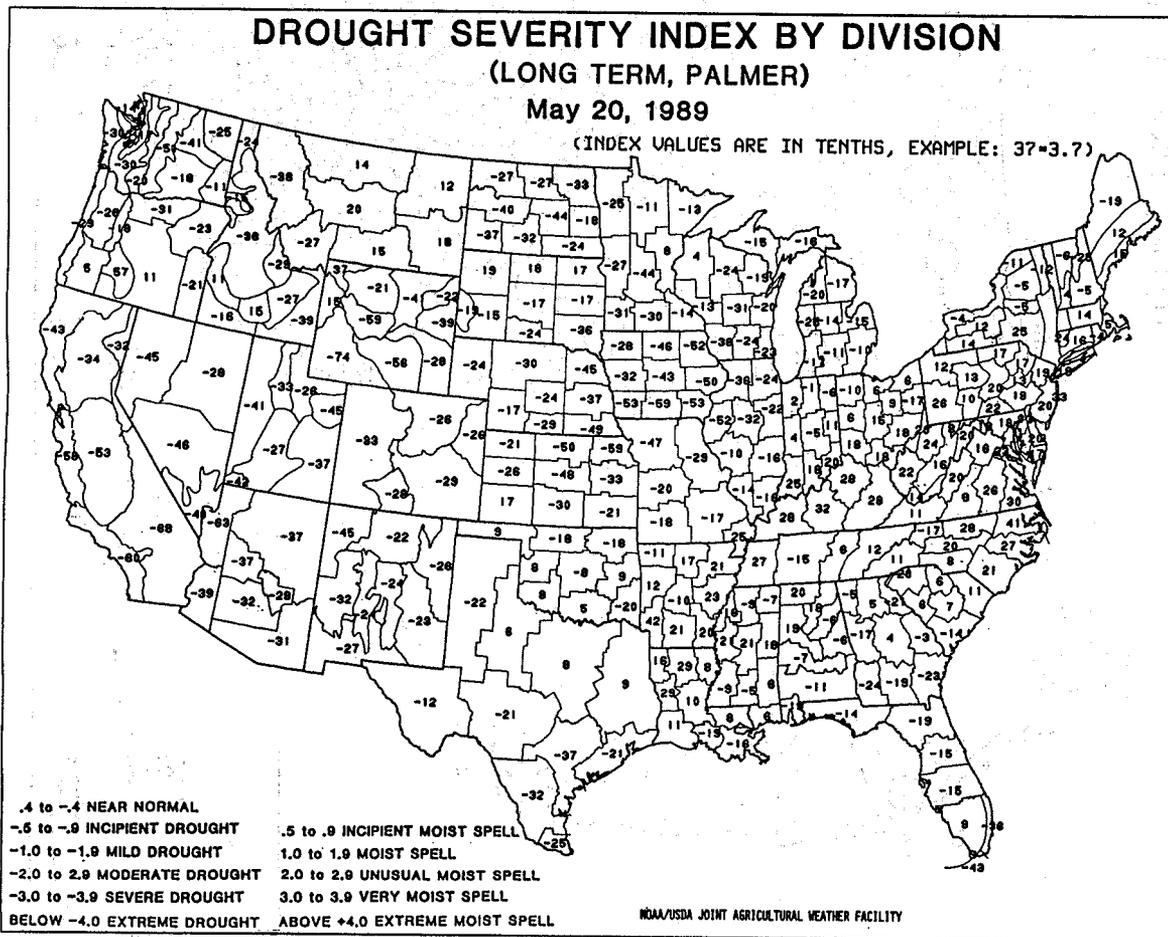
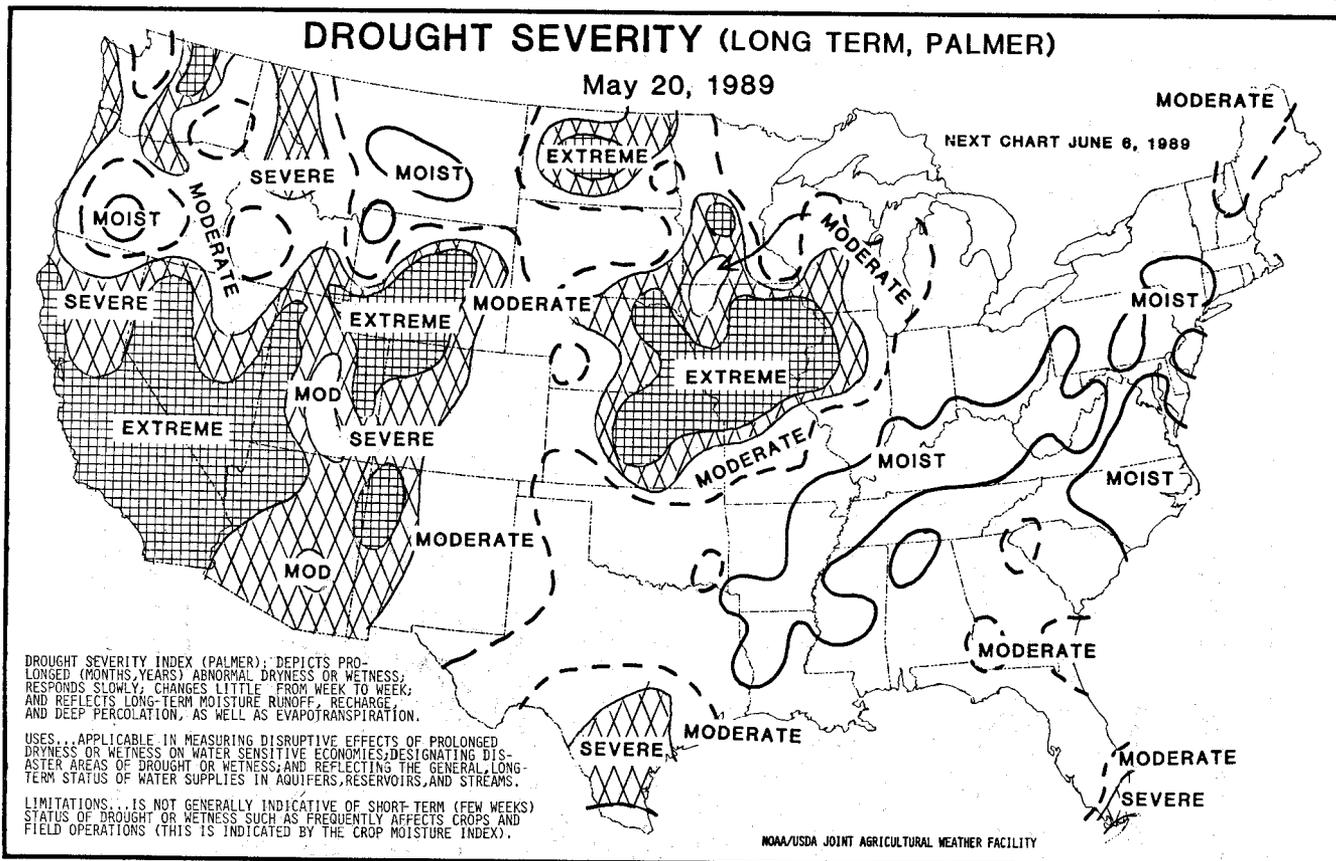
THURSDAY: The weather system crept eastward, spreading needed rain over the central Plains into the lower Missouri Valley. Over 2 inches of rain fell in Kansas City, MO, the heaviest 24-hour rainfall in 8 months. Severe thunderstorms continued to plague the Central Gulf Coast States with inundating rain. Fort Meyers, FL, was drenched with 7.75 inches of rain. Showers were scattered from the Pacific Northwest to the Great Lakes.

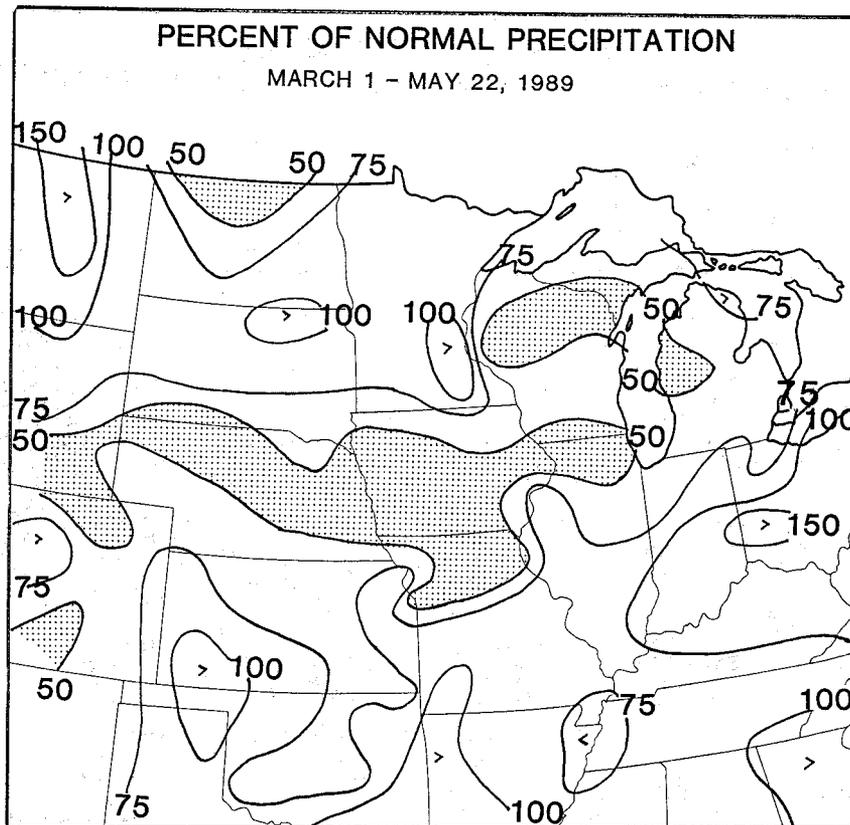
FRIDAY: Rain extended from the Great Lakes to the eastern Gulf coast. Thunderstorms spawned tornadoes in the Ohio Valley. A powerful cold front produced gusty winds but little rain in the northern and central Plains.

SATURDAY: Rain showers again reached from the Great Lakes to the Gulf coast. Thunderstorms erupted during the early morning in the Tennessee Valley. Dry weather prevailed throughout the western third of the Nation.

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Percentage of Normal Precipitation, March 1-May 22, 1989

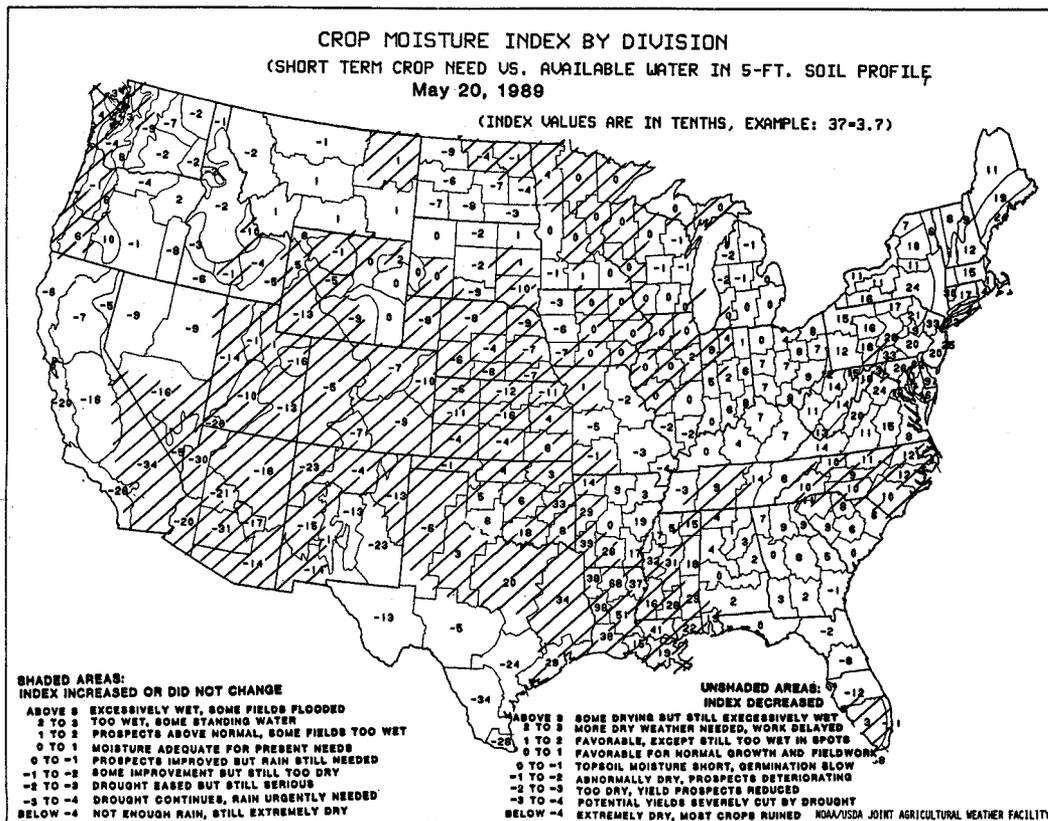
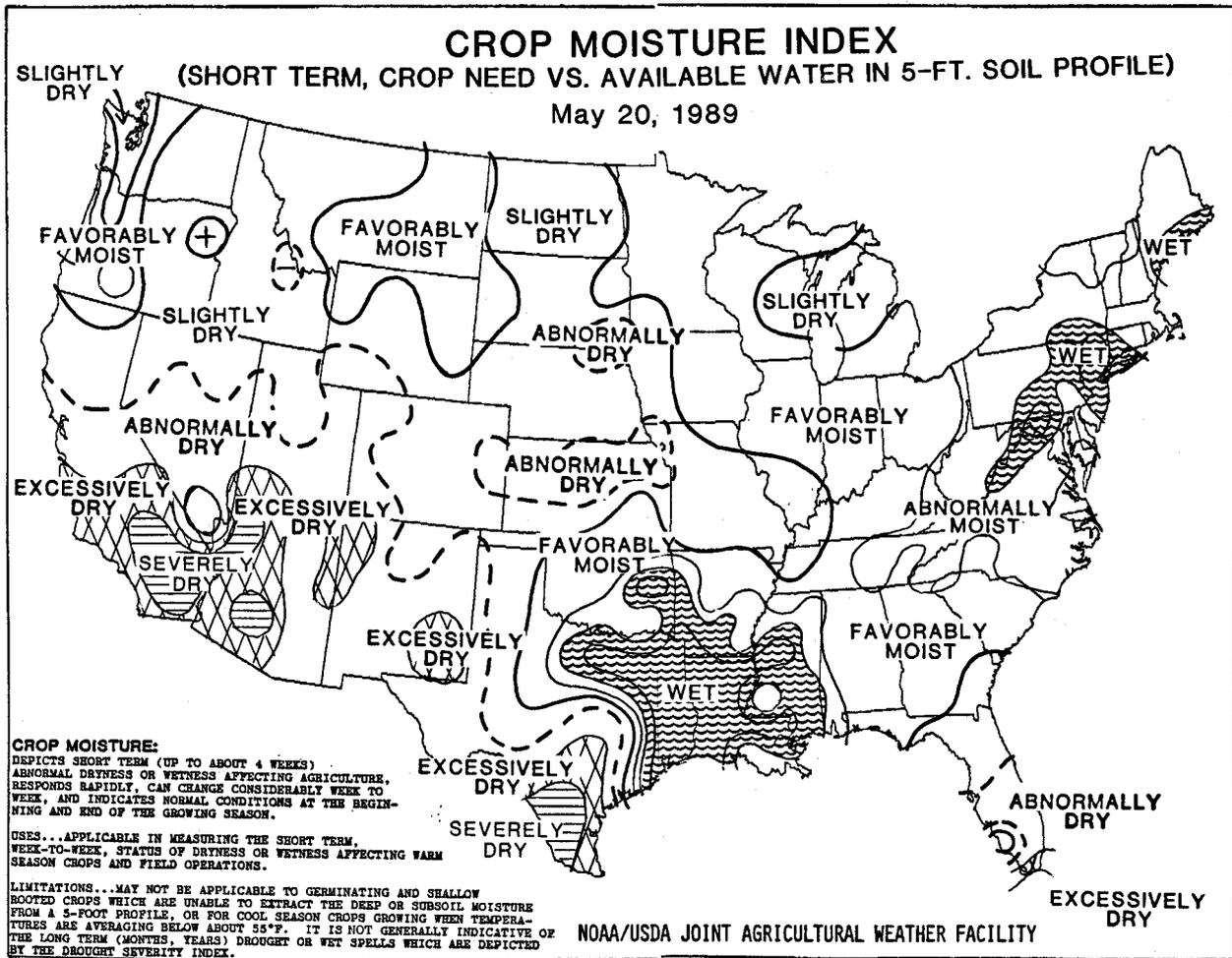
One indication of top soil conditions is the percentage of normal precipitation received in recent weeks. Figure 1 depicts the percentage of normal precipitation from March 1 through May 22, 1989. This period includes the heavy rains that fell across much of Kansas and Missouri on May 21-22, when amounts of 1-4 inches were commonplace. Because the cutoff time for the regular *Weather and Crop Bulletin* maps is Saturday, these rains are not reflected in the Drought Severity and Crop Moisture maps published in this issue. Note that the driest areas are now located in Iowa, northern Illinois, Wisconsin, Nebraska, and northeastern Missouri. Precipitation since March 1 has been around half of normal in all these States. In addition, parts of Colorado and North Dakota still need more rain.

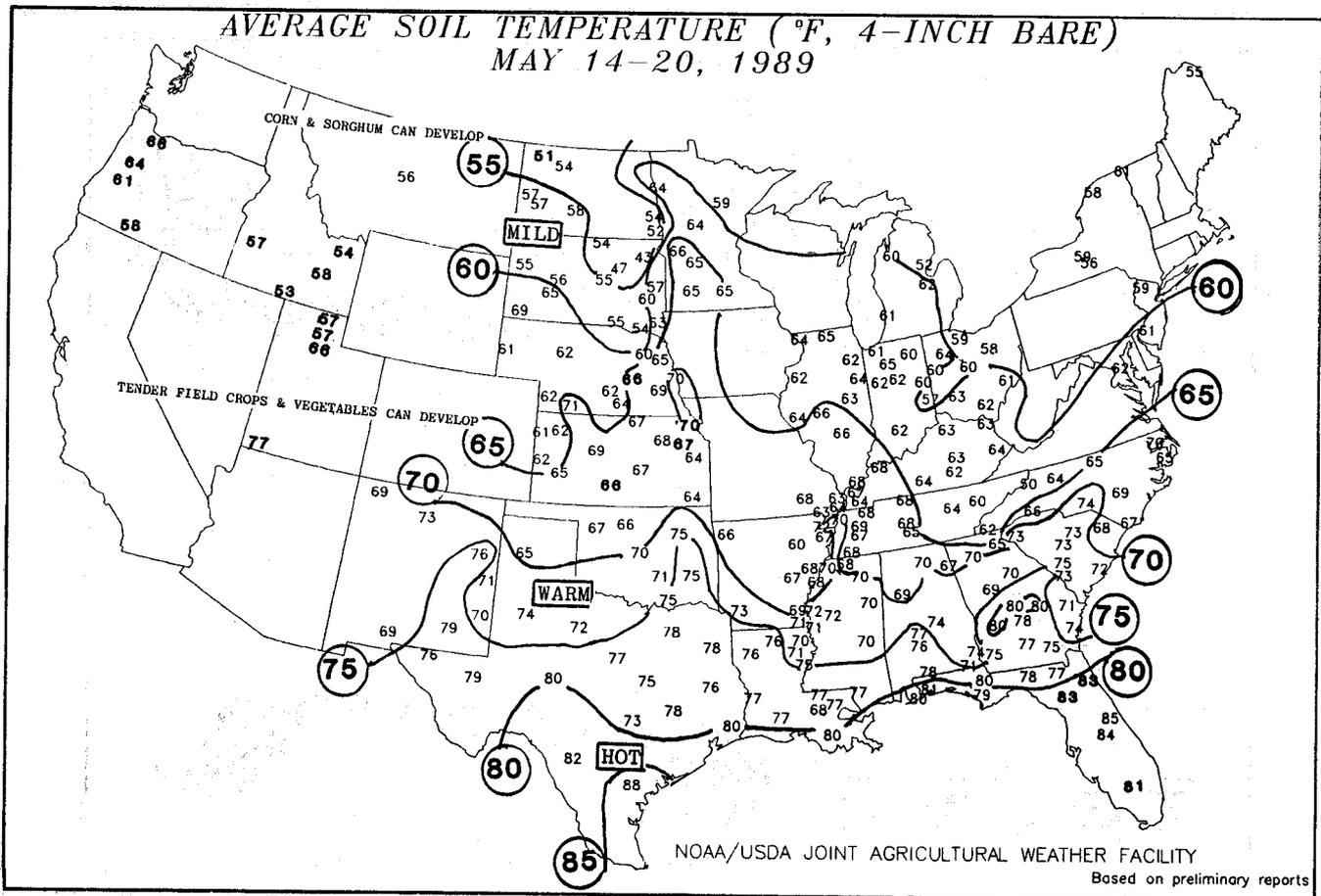
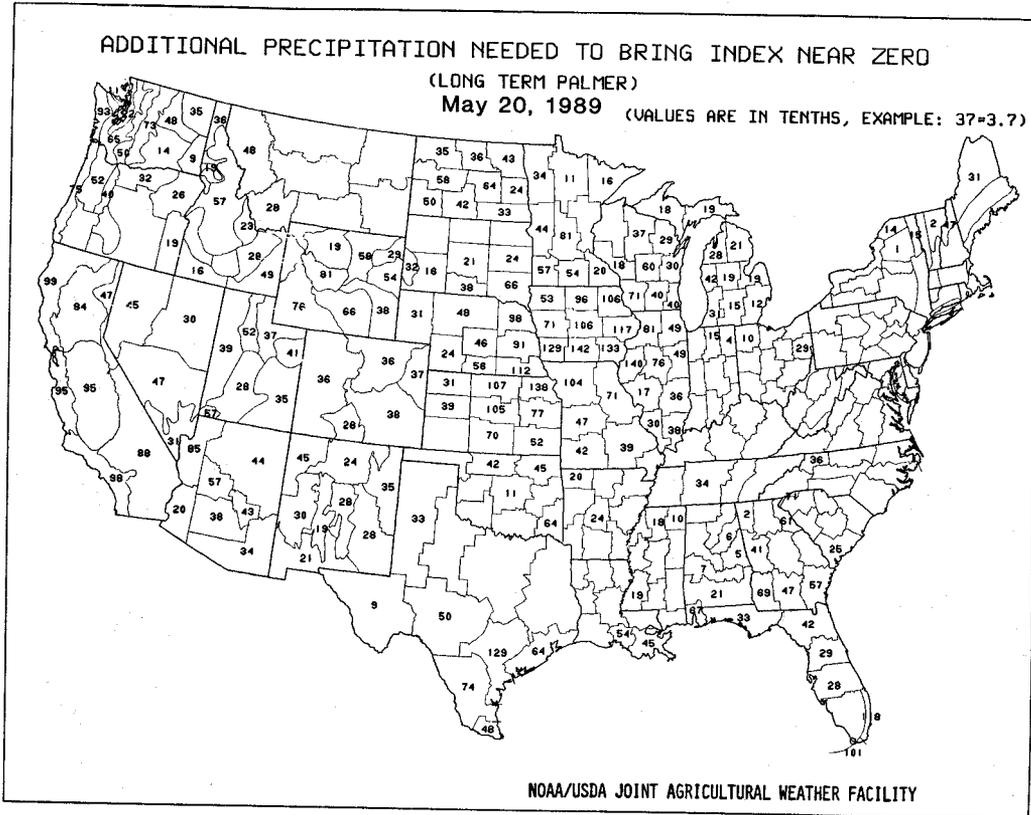
Restrictions in Interpreting the Crop Moisture Index

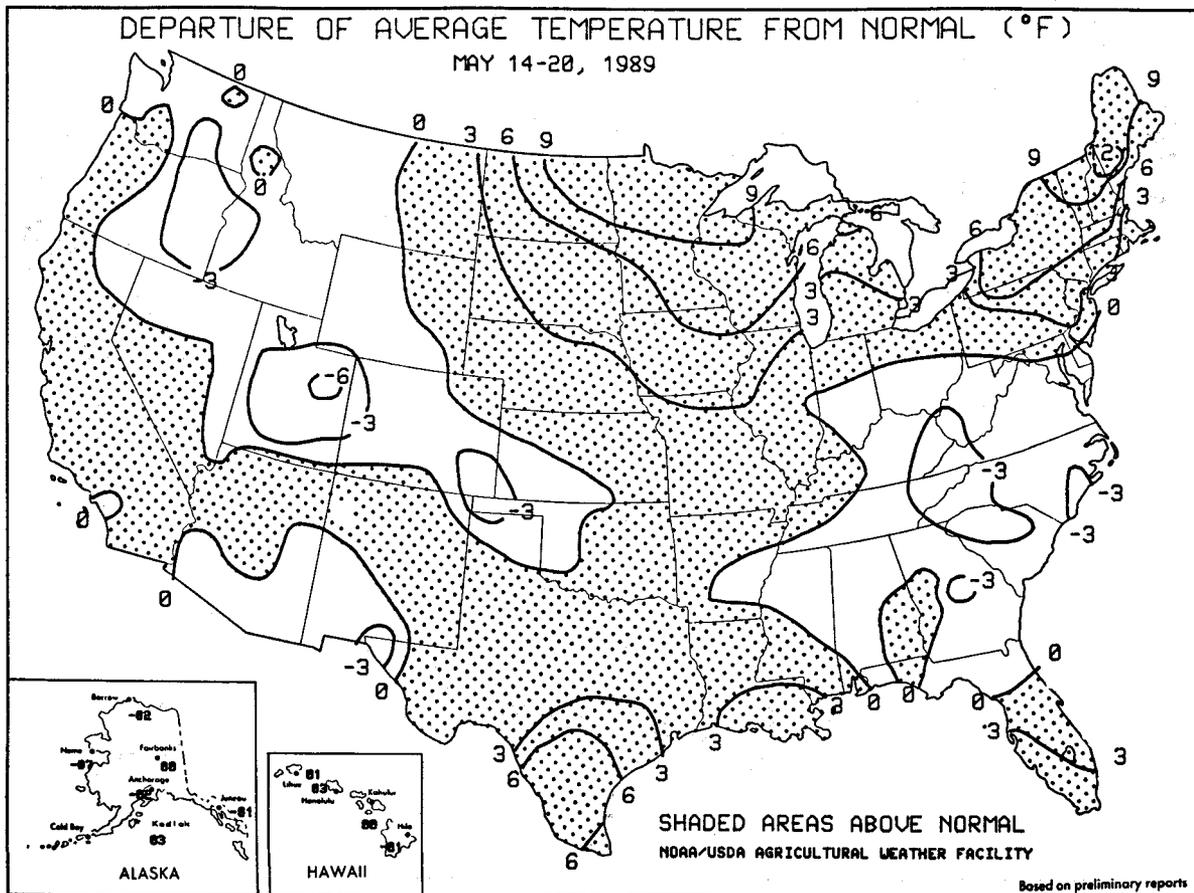
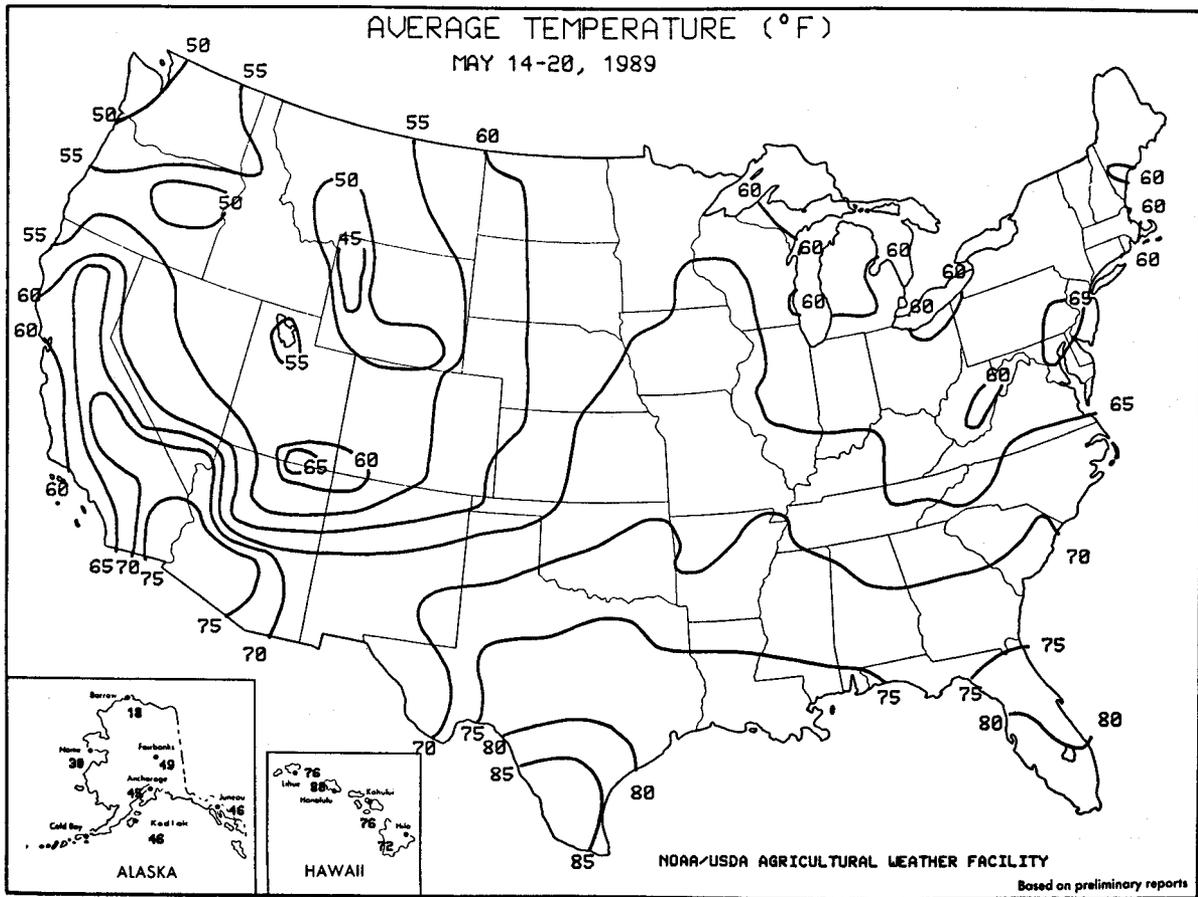
W.C. Palmer developed the Crop Moisture Index (CMI) in 1968 to measure the degree to which moisture requirements of mature, fully rooted crops were met during the previous week. The index is the algebraic sum of an evapotranspiration anomaly and a wetness index. During periods of below-normal rainfall, the wetness index is zero while the evapotranspiration anomaly index is negative, with the higher absolute values indicating greater stress on crops. In cool, dry weather during spring, when the evapotranspiration deficit is small, the calculated CMI shows only small negative values, and is not necessarily indicative of the dryness of the top soil. This is particularly evident in the western Corn Belt, where much of the top soil has been very dry. Caution should, therefore, be used in interpreting the CMI, during the spring when crops are shallow rooted or newly planted. See the *Weekly Weather and Crop Bulletin*, May 13, 1986, Vol. 73, No. 16 on the limitations of the CMI, and notice the legend on the Crop Moisture chart.

Reference:

Palmer, W.C. "Keeping Track of Crop Moisture Conditions, Nationwide: The New Crop Moisture Index," *Weatherwise*, Vol. 21, 1968, pp. 156-161.







National Weather Data for Selected Cities

Weather Data for the Week Ending May 20, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F				
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	78	59	83	48	69	-2	1.5	.4	1.1	13.9	95	22.2	90	86	53	0	0	2	1	
MOBILE	85	65	89	60	75	0	3.3	2.1	1.4	14.3	93	17.9	72	99	56	0	0	3	3	
MONTGOMERY	84	60	86	54	72	-1	.1	-.8	.1	16.0	124	20.9	97	96	46	0	0	3	0	
AK ANCHORAGE	53	36	61	32	45	-2	.4	.3	.2	2.3	144	2.7	85	94	45	0	1	4	0	
BARROW	23	14	32	4	18	-2	T	T	T	.6	148	.9	114	91	75	0	7	0	0	
FAIRBANKS	58	39	63	32	49	0	.3	.2	.2	1.0	106	2.5	130	70	33	0	1	2	0	
JUNEAU	52	39	57	32	46	-1	-.7	-.1	.5	4.4	52	11.2	71	97	60	0	1	3	0	
KODIAK	54	37	58	34	46	3	.4	-.8	.4	8.5	78	12.5	58	79	40	0	0	2	0	
NOME	34	26	37	18	30	-7	-.9	-.8	.6	3.6	245	6.5	239	92	78	0	6	2	1	
AZ PHOENIX	91	66	102	61	78	1	T	T	T	1.1	98	2.3	95	42	17	3	0	4	0	
PRESOTT	73	44	86	38	58	1	.4	.3	.4	1.1	43	2.8	48	65	22	0	0	1	0	
TUCSON	87	55	100	51	71	-2	.1	.1	.1	.8	69	2.0	77	51	15	3	0	2	0	
YUMA	92	64	105	58	78	-1	0	0	0	.1	45	.7	81	51	18	4	0	0	0	
AR FORT SMITH	81	62	87	59	72	2	3.6	2.5	1.3	14.0	125	24.0	155	100	59	0	0	7	3	
LITTLE ROCK	76	62	87	57	69	-1	.7	-.5	.3	12.8	94	24.6	115	88	61	0	0	5	0	
CA BAKERSFIELD	85	56	93	50	71	0	0	0	0	1.4	78	2.3	62	73	28	2	0	0	0	
EUREKA	59	50	60	43	55	2	T	-.4	T	9.9	109	17.5	82	82	66	0	0	0	0	
FRESNO	85	55	93	52	70	2	.3	.2	.3	3.2	107	4.8	70	81	23	1	0	1	0	
LOS ANGELES	68	56	72	53	62	-1	0	0	0	.9	33	3.2	39	89	61	0	0	1	0	
REDDING	83	51	89	47	67	-2	T	-.3	T	15.3	176	18.5	79	71	20	0	0	0	0	
SACRAMENTO	82	51	90	48	66	1	0	-.1	0	6.4	179	8.4	80	87	27	1	0	0	0	
SAN DIEGO	68	59	73	57	64	0	T	0	T	.9	31	1.9	30	83	60	0	0	0	0	
SAN FRANCISCO	69	49	79	47	59	2	T	-.1	T	4.8	108	7.3	60	92	48	0	0	0	0	
CO DENVER	69	44	79	42	57	-1	1.9	1.3	1.1	4.2	91	6.0	104	91	39	0	0	3	2	
GRAND JUNCTION	71	46	83	42	59	-4	.5	.3	.4	1.3	70	3.7	119	76	26	0	0	2	0	
PUEBLO	71	47	82	41	59	-2	.5	.2	.4	.9	34	2.0	64	97	45	0	0	3	0	
CT BRIDGEPORT	70	54	78	48	62	4	2.6	1.8	2.5	12.1	122	16.0	99	85	57	0	0	2	1	
HARTFORD	78	50	87	45	64	5	.4	-.4	.3	12.0	116	14.7	87	97	44	0	0	2	0	
DC WASHINGTON	75	56	86	54	66	-1	1.1	.3	.7	13.1	153	18.3	132	97	56	0	0	3	1	
FL APALACHICOLA	82	65	85	56	74	-1	T	-.7	T	7.5	83	10.7	66	94	58	0	0	0	0	
DAYTONA BEACH	86	66	89	60	76	1	0	-.8	0	6.5	91	13.9	111	94	46	0	0	0	0	
JACKSONVILLE	87	61	90	55	74	-1	0	-1.0	0	6.4	71	9.9	64	97	38	1	0	0	0	
KEY WEST	89	79	90	77	84	3	.2	-.6	.2	3.4	73	4.1	50	87	62	3	0	1	0	
MIAMI	90	74	95	71	82	3	.6	-.9	.3	3.7	41	5.1	39	88	48	3	0	4	0	
ORLANDO	90	67	94	64	79	1	1.5	.6	1.5	5.4	71	9.4	73	93	37	4	0	1	1	
TALLAHASSEE	87	59	91	51	73	-1	T	-1.2	T	10.1	78	13.5	60	95	40	1	0	0	0	
TAMPA	91	67	94	60	79	2	0	-.8	0	2.7	38	4.7	38	89	39	5	0	0	0	
WEST PALM BEACH	88	71	94	68	80	2	.5	-.9	.4	9.2	97	11.2	76	91	53	1	0	2	0	
GA ATLANTA	80	60	84	52	70	0	1.0	.1	.7	15.1	117	22.0	99	83	39	0	0	2	1	
AUGUSTA	83	56	85	49	69	-2	.1	-.8	.1	12.5	118	17.2	93	97	40	0	0	1	0	
MACON	83	57	84	53	70	-3	.2	-.7	.2	14.5	130	20.9	105	94	39	0	0	1	0	
SAVANNAH	84	60	88	55	72	-2	.7	-.4	.7	7.9	81	9.1	56	92	38	0	0	1	1	
HI HILO	79	66	80	63	72	-1	6.9	4.9	3.7	56.0	169	90.0	161	94	69	0	0	6	3	
HONOLULU	87	72	88	71	80	2	T	-.3	T	3.9	67	12.4	102	78	49	0	0	0	0	
KAHULUI	84	67	86	62	76	0	T	-.1	T	18.6	446	25.5	230	88	54	0	0	1	0	
LIHUE	80	72	81	70	76	1	.2	-.5	.1	11.2	114	29.6	150	88	70	0	0	2	0	
ID BOISE	71	37	79	28	54	-3	.2	-.1	.2	4.1	140	6.4	114	81	23	0	1	1	0	
LEWISTON	72	47	77	40	59	1	.1	-.3	.1	3.2	105	5.0	94	63	27	0	0	1	0	
POCATELLO	66	37	75	30	51	-3	-.1	-.2	.1	3.5	124	5.5	115	83	33	0	2	3	0	
IL CHICAGO	73	50	80	45	62	2	.4	-.3	.3	3.7	44	5.3	47	91	45	0	0	3	0	
MOLINE	77	53	82	43	65	3	.4	-.5	.4	7.3	78	9.7	79	87	39	0	0	3	0	
PEORIA	76	52	80	42	64	2	.5	-.4	.4	7.0	76	9.1	75	88	44	0	0	2	0	
QUINCY	78	56	83	49	67	3	.4	-.6	.4	3.8	39	5.1	40	84	39	0	0	2	0	
ROCKFORD	75	52	82	44	63	4	.6	-.2	.5	4.4	48	5.8	49	96	50	0	0	2	1	
SPRINGFIELD	75	52	80	43	64	0	.2	-.6	.2	8.4	90	10.5	84	92	43	0	0	1	0	
IN EVANSVILLE	78	57	85	50	67	1	.9	-.1	.6	12.9	112	23.3	133	93	47	0	0	2	1	
FORT WAYNE	72	49	78	43	60	0	.9	-.2	.8	6.9	78	10.0	78	95	51	0	0	2	1	
INDIANAPOLIS	73	51	81	45	62	-1	.5	-.3	.5	10.1	106	13.2	90	94	50	0	0	1	1	
SOUTH BEND	72	49	79	42	61	1	.8	-.1	.7	6.1	69	8.8	66	94	47	0	0	2	1	
IA DES MOINES	79	56	82	50	67	5	.7	-.2	.7	3.9	50	6.3	63	82	38	0	0	2	1	
SIOUX CITY	79	52	84	40	66	4	.2	-.6	.2	2.1	35	3.4	45	80	37	0	0	1	0	
WATERLOO	78	53	84	46	65	6	.8	-.1	.5	4.6	55	5.9	59	91	38	0	0	2	0	
KS CONCORDIA	77	55	82	50	66	2	.9	0	.5	2.6	40	3.7	47	94	46	0	0	3	0	
DODGE CITY	73	54	84	51	64	-1	2.2	1.5	1.2	4.1	77	4.6	73	98	57	0	0	5	2	
GOODLAND	70	49	74	43	59	0	1.7	1.1	.6	3.6	90	3.9	84	98	55	0	0	5	1	
TOPEKA	78	57	82	51	67	2	1.1	.2	1.1	7.2	94	9.3	97	91	46	0	0	2	1	
WICHITA	75	57	84	51	66	0	1.9	1.0	1.0	4.9	72	6.1	73	97	57	0	0	4	2	
KY BOWLING GREEN	79	56	86	47	68	1	2.5	1.6	2.0	12.5	101	29.6	141	95	49	0	0	2	2	
LEXINGTON	73	52	79	44	63	-2	1.6	.6	.7	12.2	105	26.2	143	93	54	0	0	4	1	
LOUISVILLE	75	55	82	47	65	-1	1.3	.4	.7	13.7	119	26.4	146	94	48	0	0	4	1	
LA ALEXANDRIA	84	69	90	63	76	1	6.7	5.6	4.0	17.5	125	31.7	138	97	67	1	0	4	3	
BATON ROUGE	88	68	91	65	78	3	8.0	6.9	3.9	19.3	143	24.9	108	96	63	2	0	4	4	
LAKE CHARLES	85	71	88	66	78	3	5.6	4.3	4.3	14.8	139	20.0	108	96	70	0	0	3	2	
NEW ORLEANS	86	70	87	64	78	3	1.2	0	1.0	12.4	100	15.1	67	98	67	0	0	4	1	

Based on 1951-80 normals

Weather Data for the Week Ending May 20, 1989

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	82	65	91	57	74	0	3.6	2.5	2.4	13.5	117	24.8	130	100	67	1	0	2	2
ME CARIBOU	74	49	83	41	62	11	.1	-.5	.1	6.4	94	9.7	86	91	49	0	0	1	0
PORTLAND	69	47	76	42	58	5	T	-.7	T	13.4	134	17.0	98	99	57	0	0	0	0
MD BALTIMORE	76	56	84	52	66	2	1.3	-.6	1.3	12.8	139	19.2	127	96	48	0	0	4	1
SALISBURY	74	52	82	48	63	0	.1	-.7	.1	12.7	135	17.3	107	95	46	0	0	2	0
MA BOSTON	67	51	79	48	59	0	0	-.8	0	9.7	96	12.8	72	93	56	0	0	1	0
CHATHAM	58	47	66	42	52	-1	T	-.8	T	13.9	133	19.1	101	95	74	0	0	0	0
MI ALPENA	71	44	81	37	58	5	.4	-.2	.3	5.8	94	7.8	85	99	54	0	0	2	0
DETROIT	70	50	78	47	60	2	.3	-.3	.3	5.3	71	7.4	67	92	53	0	0	2	0
FLINT	72	47	81	39	59	2	.3	-.4	.1	4.6	67	6.5	65	94	47	0	0	2	0
GRAND RAPIDS	71	47	81	39	59	1	.5	-.2	.4	4.9	62	6.9	60	98	49	0	0	4	0
HOUGHTON LAKE	71	45	80	36	58	4	.3	-.3	.3	4.3	71	6.0	68	94	48	0	0	2	0
LANSING	71	45	80	37	58	1	.6	-.1	.1	4.7	70	6.5	67	96	47	0	0	2	0
MARQUETTE	72	46	79	38	59	8	.3	-.7	.1	4.7	53	8.2	63	88	38	0	0	3	0
MUSKEGON	69	45	79	38	57	1	.3	-.3	.2	3.2	43	5.8	51	95	48	0	0	2	0
SAULT ST. MARIE	71	46	82	41	59	9	.9	-.2	.2	5.4	87	9.5	94	96	49	0	0	3	1
MN ALEXANDRIA	77	52	86	40	64	8	.8	-.1	.7	4.0	77	4.9	73	93	42	0	0	2	1
DULUTH	71	48	80	45	60	9	.7	0	.5	5.0	86	7.2	91	95	45	0	0	3	0
INT'L FALLS	77	50	85	42	64	12	.6	0	.3	2.1	52	3.8	68	95	40	0	0	5	0
MINNEAPOLIS	76	55	83	47	66	7	.5	-.2	.5	117	8.1	112	86	43	0	0	2	0	
ROCHESTER	75	52	81	47	63	6	1.1	-.4	.6	103	7.4	94	88	43	0	0	2	0	
MS GREENWOOD	80	64	88	58	72	-1	1.0	-.1	.7	11.9	79	25.6	104	90	58	0	0	4	1
JACKSON	82	64	90	61	73	0	3.4	2.3	2.6	14.3	98	21.1	89	100	63	2	0	2	1
MERIDIAN	82	61	92	54	72	-1	4.2	3.3	1.8	18.7	126	25.7	105	98	59	1	0	3	3
MO CAPE GIRARDEAU	81	58	87	49	69	-	.2	-.9	.1	8.7	69	22.6	122	93	43	0	0	3	0
COLUMBIA	77	56	82	50	67	1	1.3	.2	1.2	7.3	72	10.2	74	90	45	0	0	2	1
KANSAS CITY	79	55	83	49	67	1	2.2	1.2	2.2	6.3	72	7.8	70	85	42	0	0	2	1
SAINT LOUIS	79	59	84	49	69	3	.7	-.1	.7	7.8	85	11.8	91	79	37	0	0	2	1
SPRINGFIELD	76	55	80	46	66	1	.7	-.3	.3	6.2	61	9.8	70	79	51	0	0	2	0
MT BILLINGS	68	43	83	38	55	0	.5	-.1	.4	6.0	135	7.9	128	77	35	0	0	3	0
GLASGOW	69	45	83	39	57	2	.4	-.1	.3	3.5	181	4.7	184	88	38	0	0	3	0
GREAT FALLS	61	39	69	35	50	-4	.3	-.3	.3	4.9	126	7.0	126	81	39	0	0	3	0
HAVRE	65	42	71	38	53	-2	T	-.4	T	2.5	93	3.3	89	70	34	0	0	1	0
HELENA	62	38	73	33	50	-2	.3	-.1	.2	2.7	98	4.9	127	78	35	0	0	2	0
KALISPELL	61	41	73	38	51	-1	.3	-.1	.1	4.6	158	7.3	131	83	33	0	0	3	0
MILES CITY	70	46	84	40	58	1	T	-.5	T	5.4	161	6.7	149	67	26	0	0	1	0
MISSOULA	64	38	73	28	51	-1	.3	-.1	.3	4.0	142	5.2	104	86	29	0	1	2	0
NE GRAND ISLAND	76	52	81	47	64	3	1.2	-.4	.9	2.1	32	3.4	44	93	45	0	0	3	1
LINCOLN	79	52	82	44	66	3	.5	-.4	.4	1.3	18	3.3	37	93	40	0	0	2	0
NORFOLK	77	49	82	38	63	2	.9	0	.7	3.1	52	4.9	68	95	41	0	0	3	1
NORTH PLATTE	73	48	78	37	60	2	.7	0	.5	2.2	43	3.4	59	95	42	0	0	4	0
OMAHA	78	56	80	46	67	3	.2	-.8	.2	3.1	41	4.6	50	76	44	0	0	1	0
SCOTTSBLUFF	72	45	80	39	59	1	.6	-.1	.4	3.0	73	4.0	82	89	32	0	0	3	0
VALENTINE	76	47	80	39	59	1	.4	-.3	.2	1.8	41	2.6	51	84	31	0	0	2	0
NV ELY	67	33	76	30	50	-1	T	-.2	T	1.7	67	2.6	68	78	27	0	5	1	0
LAS VEGAS	85	60	97	48	73	-1	.5	.4	.5	1.7	101	2.7	70	71	20	0	0	2	0
RENO	71	41	78	35	56	1	.5	-.4	.5	1.4	70	2.2	65	67	16	0	2	0	0
WINNEMUCCA	71	36	81	27	53	-2	0	-.2	0	9.6	122	12.4	95	97	29	1	0	0	0
NH CONCORD	81	45	91	41	63	8	.4	-.3	.3	12.9	140	18.8	117	98	50	0	0	2	0
NJ ATLANTIC CITY	73	49	79	44	61	0	T	-.1	T	.5	42	1.4	73	49	13	0	0	1	0
NM ALBUQUERQUE	80	49	89	44	64	0	.2	-.3	.2	.5	21	1.2	36	87	23	1	0	2	0
CLOVIS	82	55	90	51	68	2	.2	-.3	.2	.5	21	1.2	36	87	23	1	0	2	0
ROSWELL	87	54	95	48	71	1	T	-.2	T	.3	28	1.1	56	59	12	2	0	0	0
NY ALBANY	81	50	91	42	65	8	.2	-.6	.2	9.9	124	12.0	95	95	36	1	0	2	0
BINGHAMTON	74	53	84	45	64	8	.3	-.4	.2	10.2	128	13.7	107	85	40	0	0	4	0
BUFFALO	75	51	85	42	63	6	.5	-.2	.2	10.0	128	14.4	108	93	43	0	0	4	0
NEW YORK	74	55	86	53	65	3	3.0	2.3	2.1	13.7	136	19.1	118	91	49	0	0	2	2
ROCHESTER	76	50	87	40	63	6	.4	-.2	.2	9.6	142	12.3	108	95	41	0	0	4	0
SYRACUSE	79	50	88	42	65	7	.1	-.6	.1	7.7	92	10.5	77	97	42	0	0	2	0
NC ASHEVILLE	73	49	79	44	61	-3	.4	-.5	.3	10.4	96	16.7	97	93	45	0	0	2	0
CHARLOTTE	79	57	86	53	68	0	.6	-.2	.5	12.7	122	19.0	106	84	41	0	0	2	0
GREENSBORO	76	53	83	48	65	-2	.2	-.5	.2	14.7	161	20.2	126	90	46	0	0	1	0
HATTERAS	72	59	75	53	66	-2	2.0	1.1	2.0	25.2	261	31.7	171	93	55	0	0	2	1
NEW BERN	79	54	85	54	68	-2	1.0	-.1	1.0	14.6	156	21.2	122	94	43	0	0	1	1
RALEIGH	79	54	85	51	66	-1	.3	-.6	.2	14.0	157	21.7	137	94	42	0	0	2	0
WILMINGTON	80	56	86	53	68	-3	2.5	1.5	2.4	17.9	187	22.1	133	90	46	0	0	3	1
ND BISMARK	77	47	83	42	62	7	.1	-.4	.1	2.4	68	3.2	72	85	27	0	0	3	0
FARGO	77	53	86	42	65	9	.9	-.4	.9	3.5	85	5.5	111	85	39	0	0	3	1
GRAND FORKS	76	52	85	42	64	9	1.1	-.6	.5	2.6	80	4.4	96	81	42	0	0	4	1
WILLISTON	74	47	84	42	61	5	.5	-.1	.5	2.5	88	3.9	102	94	32	0	0	4	0
OH AKRON-CANTON	70	52	81	47	61	2	1.1	-.3	.6	9.9	112	14.2	105	89	52	0	0	2	2
CINCINNATI	74	52	81	44	63	-1	.8	-.1	.4	14.5	147	22.4	143	95	52	0	0	4	0
CLEVELAND	70	48	81	39	59	0	.9	-.1	.9	11.4	136	15.2	117	94	50	0	0	2	1
COLUMBUS	72	50	80	44	61	-1	.4	-.4	.4	10.2	113	15.2	110	95	50	0	0	3	0

Weather Data for the Week Ending May 20, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	73	52	80	42	62	0	.1	-7	.1	15.1	171	20.5	152	90	50	0	0	1	0
TOLEDO	72	48	80	42	60	1	.2	-5	.1	7.0	95	9.6	86	96	51	0	0	3	0
YOUNGSTOWN	70	50	83	43	60	2	.6	-2	.3	8.6	98	12.5	91	94	50	0	0	3	0
OK OKLAHOMA CITY	79	60	87	55	69	1	1.6	.3	.9	6.5	77	9.8	92	96	58	0	0	4	2
TULSA	80	61	86	57	70	1	2.4	1.2	1.1	6.5	61	11.7	86	93	55	0	0	4	2
OR ASTORIA	60	43	67	39	52	-1	1.8	1.2	1.3	14.3	103	29.2	90	95	61	0	0	4	2
BURNS	64	34	74	23	49	-4	0	-2	0	4.4	208	4.9	106	76	28	0	3	0	0
MEDFORD	74	40	78	34	57	-1	T	-2	T	7.1	195	10.0	109	87	28	0	0	1	0
PENDLETON	67	43	73	37	55	-4	.1	-2	0	4.3	157	7.6	136	75	37	0	0	2	0
PORTLAND	69	46	79	44	58	0	.3	-2	.2	9.2	127	15.4	89	90	42	0	0	4	0
SALEM	70	41	80	34	55	0	.1	-3	.1	7.7	97	14.1	72	93	40	0	0	2	0
PA ALLENTOWN	75	53	88	49	64	4	1.6	.8	1.1	11.9	118	15.8	96	94	49	0	0	4	1
ERIE	68	51	85	44	59	3	.4	-3	.1	10.1	120	15.0	117	91	56	0	0	3	0
HARRISBURG	74	54	85	51	64	2	2.8	1.9	1.2	13.1	145	17.3	118	95	57	0	0	3	2
PHILADELPHIA	78	54	87	49	66	3	.6	-1	.6	12.5	135	18.2	119	93	47	0	0	3	1
PITTSBURGH	71	53	83	47	62	2	.6	-3	.2	11.8	130	17.2	120	88	48	0	0	4	0
SCHRANTON	75	53	87	48	64	5	1.1	.4	.8	10.3	136	13.1	110	93	43	0	0	4	1
RI PROVIDENCE	72	50	82	47	61	3	.1	-4	0	14.0	133	17.7	97	96	50	0	0	2	0
SC CHARLESTON	83	60	89	56	72	-1	T	-1.0	T	9.9	104	13.0	81	91	38	0	0	1	0
COLUMBIA	82	56	86	49	69	-3	.4	-4	.3	13.5	121	18.6	95	95	37	0	0	3	0
FLORENCE	82	57	87	52	70	-2	T	-7	T	12.0	132	16.5	103	95	40	0	0	3	0
GREENVILLE	78	53	83	47	66	-3	.4	-5	.2	10.8	84	17.2	80	94	44	0	0	3	0
SD ABERDEEN	74	50	82	37	62	5	.7	.1	.6	5.7	128	6.6	119	87	47	0	0	3	1
HURON	75	49	81	37	62	4	.6	0	.6	4.7	97	5.7	95	93	46	0	0	3	1
RAPID CITY	71	44	77	37	58	2	.8	2	.5	3.5	78	3.9	70	85	38	0	0	3	1
SIoux FALLS	76	49	82	37	62	4	.6	-1	.4	3.5	60	4.2	58	89	41	0	0	2	0
TN CHATTANOOGA	78	55	84	47	66	-2	1.1	.2	.9	13.5	100	26.0	111	93	45	0	0	4	1
KNOXVILLE	76	53	82	44	65	-3	1.3	.5	1.0	11.3	97	22.5	110	97	49	0	0	3	1
MEMPHIS	79	61	85	57	70	-1	.4	-.7	.3	8.7	60	27.1	115	90	57	0	0	2	0
NASHVILLE	79	56	83	48	67	-1	2.0	1.0	2.0	11.3	87	25.2	117	88	47	0	0	3	1
TX ABILENE	87	62	98	55	75	2	2.5	1.8	2.0	5.5	100	9.1	122	83	40	2	0	4	1
AMARILLO	76	53	90	50	65	-1	1.2	.5	.6	3.3	93	4.0	88	95	52	1	0	3	2
AUSTIN	89	69	95	62	79	4	2.9	1.9	1.8	11.5	153	16.1	140	99	59	3	0	3	2
BEAUMONT	85	70	87	62	77	2	6.1	5.3	6.4	14.8	142	21.8	116	96	71	0	0	1	1
BROWNSVILLE	89	78	92	77	84	4	T	-.5	T	5.0	150	7.0	116	94	66	4	0	1	0
CORPUS CHRISTI	91	77	96	76	84	6	.1	-.7	.1	3.9	83	6.8	88	99	65	5	0	1	0
DEL RIO	87	70	100	63	79	1	.7	.3	.5	2.5	67	4.5	87	75	38	3	0	3	1
EL PASO	83	55	94	49	69	-4	.2	.1	.2	1.2	203	2.1	146	51	16	2	0	1	0
FORT WORTH	85	67	93	55	76	2	5.6	4.6	3.4	15.2	162	21.4	166	96	57	1	0	3	2
GALVESTON	83	74	84	67	78	2	.7	0	.4	5.8	84	12.2	100	96	75	0	0	3	0
HOUSTON	87	69	93	63	78	2	10.4	9.3	6.2	19.0	201	24.7	152	99	65	2	0	2	2
LUBBOCK	87	55	96	50	71	2	.3	-.3	.2	1.1	32	2.6	60	87	25	2	0	3	0
MIDLAND	91	59	101	48	75	2	T	-.5	T	1.3	51	2.8	79	75	20	4	0	1	0
SAN ANGELO	93	61	102	54	77	3	.4	-.2	.1	4.1	99	7.7	139	80	26	5	0	3	0
SAN ANTONIO	94	72	101	65	83	7	.3	-.6	.3	4.1	64	7.4	75	93	44	4	0	3	0
VICTORIA	91	74	96	68	82	5	.5	-.5	.5	3.5	52	7.9	73	97	57	5	0	2	0
WACO	86	67	93	57	76	2	4.4	3.3	4.2	13.3	149	18.0	143	98	62	2	0	2	1
WICHITA FALLS	84	62	96	57	73	1	.9	-.1	.5	6.3	83	10.9	114	98	53	2	0	3	0
UT CEDAR CITY	69	39	80	36	54	-3	.2	-.1	.2	1.4	55	2.7	67	86	29	0	0	2	0
SALT LAKE CITY	69	43	84	34	56	-3	.3	0	.3	3.4	68	5.4	71	75	28	0	0	1	0
VT BURLINGTON	82	52	91	49	67	11	T	-.7	T	6.8	101	7.9	77	86	29	1	0	0	0
VA NORFOLK	74	55	83	53	64	-3	.4	-.5	.3	14.1	156	23.2	145	94	47	0	0	3	0
RICHMOND	74	53	83	49	64	-2	.8	0	.5	14.2	163	20.4	136	97	54	0	0	4	0
ROANOKE	75	51	84	49	63	-2	.2	-.6	.2	11.4	126	14.7	98	95	48	0	0	2	0
WA QUILLAYUTE	60	40	70	35	50	-1	1.4	.3	1.0	17.7	78	39.6	80	99	55	0	0	4	1
SEATTLE-TACOMA	65	46	76	42	56	0	.8	.4	.7	9.5	135	15.7	91	89	44	0	0	2	1
SPOKANE	65	41	73	34	53	-2	.3	0	.3	4.4	133	6.5	89	80	30	0	0	1	0
YAKIMA	70	39	78	31	55	-3	0	-.1	0	2.0	146	2.9	82	79	29	0	1	0	0
WV BECKLEY	68	50	80	46	59	-1	.1	-.7	.1	11.5	119	17.8	109	87	46	0	0	1	0
CHARLESTON	73	51	85	46	62	-2	.7	-.2	.5	14.7	149	23.6	144	99	57	0	0	3	1
HUNTINGTON	73	51	85	43	62	-3	.5	-.3	.4	12.3	123	24.6	153	95	51	0	0	3	0
PARKERSBURG	72	50	85	44	61	-2	.9	-.1	.4	13.8	151	21.9	150	95	57	0	0	3	0
WI GREEN BAY	73	50	77	44	62	6	.2	-.5	.2	3.9	59	4.7	53	91	41	0	0	3	0
LACROSSE	78	56	84	50	67	7	.1	-.7	.1	4.7	66	5.5	62	86	37	0	0	3	0
MADISON	74	49	80	38	61	4	.2	-.5	.1	3.8	53	5.0	53	93	41	0	0	2	0
MILWAUKEE	66	49	75	45	58	3	.1	-.5	.1	5.0	65	6.5	62	91	54	0	0	2	0
WAUSAU	75	51	81	44	63	7	.2	-.7	.1	3.1	43	4.3	48	95	39	0	0	2	0
WY CASPER	69	39	81	31	54	1	.2	-.3	.2	3.2	83	4.7	97	85	24	0	1	2	0
CHEYENNE	65	41	78	37	53	0	.5	0	.5	1.8	47	3.3	73	88	39	0	0	2	0
LANDER	65	39	80	34	52	-1	1.2	.8	1.2	4.4	86	5.2	83	73	31	0	0	1	1
SHERIDAN	68	40	83	31	54	1	.1	-.5	0	4.9	107	5.7	94	89	32	0	1	2	0
PR SAN JUAN	999	85	999	75	999	-	0	-1.4	0	6.1	64	10.4	72	87	52	0	0	0	0

National Agricultural Summary

MAY 15-21, 1989

HIGHLIGHTS: Rain improved soil moisture in the central and southern Great Plains and slowed fieldwork in the eastern Corn Belt and the Delta. Soil moisture remained mostly short to adequate in the northern Great Plains. Soil moisture was mostly surplus to adequate in the eastern Corn Belt and the Delta. An average of 1-3 days was suitable for fieldwork in the Delta and eastern Corn Belt and 4-6 days in other areas.

Winter wheat was mostly fair to poor, with 64 percent (%) of the acreage headed, 5 percentage points ahead of the 5-year average. Harvest continued in California, Georgia, and Texas and began in Oklahoma. Spring wheat planting was 92% complete, 1 point ahead of normal. Spring wheat was mostly good to fair, with 64% of the acreage emerged, 6 points behind normal. Corn planting was 84% complete, 2 points behind normal. Soybean planting was 39% complete, 2 points behind normal. Cotton planting was 60% complete, 9 points behind normal. Sorghum planting was 40% complete, 2 points ahead of normal. Florida's citrus and vegetable producing areas remained dry.

SMALL GRAINS: Winter wheat was mostly fair to poor, with 64% of the acreage headed, 5 points ahead of normal. Heading had not begun in Michigan, Montana, and South Dakota. Heading lagged behind normal in Colorado, Indiana, Ohio, and South Dakota and was ahead of normal in Kansas, Missouri, Oklahoma, and Oregon. Harvest continued in California, Georgia, and Texas and began in Oklahoma.

In Kansas, rain somewhat improved winter wheat condition, but it was still mostly very poor to poor. Heading was 25 points ahead of normal. Harvest was underway in southern Oklahoma. Flooding and hail damaged winter wheat in some areas of Oklahoma and Texas. Harvest continued in southern Texas and was expected to begin soon in the Blacklands. In Montana, winter wheat condition improved and was mostly good to fair. Winter wheat condition declined slightly in Oregon. In the Willamette Valley, some fields showed signs of moisture stress, and yellow dwarf virus was present.

Spring wheat planting was 92% complete, slightly ahead of the 91% average. Planting was ahead of normal in the five major producing States, except in Montana. Sixty-four percent of the acreage was emerged, 6 points behind normal. Crop emergence was 36 points behind normal in Montana and near normal in the other four major producing States. Spring wheat condition was mostly good to fair.

CORN: Corn planting was 84% complete, 2 points behind normal. Planting was complete in Texas and nearly complete in Georgia, Illinois, Iowa, Kansas, Missouri, and Nebraska. Planting was more than 20 points behind normal in Indiana and North Carolina. Rain again slowed planting in the eastern Corn Belt. Planting was 61 points and 43 points behind normal in Ohio and Pennsylvania, respectively.

SOYBEANS: Soybean planting was 39% complete, 2 points behind normal. Rain slowed planting progress in the eastern Corn Belt. In Ohio, planting was only 6% complete, 50 points behind normal. Planting was 27 points behind the 48% average in Indiana. Planting lagged behind normal in the Southeast.

COTTON: Cotton planting was 60% complete, 9 points behind normal. Planting was complete in California. Planting lagged behind normal in the

Delta and Southeast. Planting was more than 20 points behind normal in Mississippi, North Carolina, and South Carolina. Cold weather and hail damage was expected to force some replanting in portions of Arkansas. Heavy rains may force some replanting in Oklahoma and Texas. Fields continued to square and set bolls in the Coastal Bend area and the Rio Grande Valley of Texas. Fifty percent of the acreage was squaring, 20 points ahead of normal in Arizona.

SORGHUM: Sorghum planting was 40% complete, 2 points ahead of normal. Planting was near or ahead of normal except in Louisiana, Mississippi, Nebraska, and Tennessee. Rain slowed planting in the Delta. In Nebraska, some producers were waiting for rain before planting.

OTHER FIELD CROPS: Rice planting was 89% complete, 1 point behind normal. Planting was complete in Texas but lagged behind normal in Louisiana and Mississippi. Seventy percent of the crop was emerged, 2 points behind normal. In Georgia, peanuts were mostly good to fair. Planting was 92% complete, 5 points ahead of normal. In North Carolina, peanut planting was 57 points behind the 78% average. Tobacco transplanting continued. Crop condition was fair to good. In Kentucky, tobacco transplanting was 10% complete, 7 points behind normal.

FRUIT AND NUTS: Florida's citrus groves needed rain. Irrigation continued in all areas. Valencia harvest continued while grapefruit moment slowed. In Georgia and North Carolina, peaches were mostly good to fair. In South Carolina, peaches were mostly fair to good. Harvest continued in Alabama and Georgia. In Texas, hail and high winds damaged peaches in the Hill Country and the east. Some harvest occurred in the east and was expected to begin soon in the Hill Country. High winds damaged some pecan trees in eastern Texas. Nut sets were mostly fair to good. In western Arizona, grape harvest and shipment continued. Valencia orange and grapefruit harvests were active in both central and western Arizona. In California, table grape harvest continued in the Coachella Valley. Early variety apricot and Bing cherry harvests were active in the San Joaquin Valley. Valencia orange harvest continued in the San Joaquin Valley and south coast area.

VEGETABLES: In Florida, vegetable harvest was active in the central area and beginning in the north. Harvest was complete for most crops in the southern area. In Georgia, watermelons were mostly good to fair and planting was nearly complete. In South Carolina, watermelons were mostly fair to good and planting was 90% complete, slightly behind normal. In Texas, onion harvest was nearly complete and melon harvest was underway in the Rio Grande Valley. In the San Antonio-Winter Garden area, onion, carrot, and cabbage harvests continued as weather permitted. Hail damaged onions and potatoes in the High Plains. Melon harvest and shipment began in western Arizona. Dry onion and potato harvests were active in central Arizona. In southern California, asparagus harvest was complete. Onion and snap bean planting was active in the Willamette Valley of Oregon.

PASTURES AND LIVESTOCK: Livestock was in mostly good condition. Pastures were good to fair in the East and fair to poor in the Great Plains and the West. Herd culling was heavy in portions of Iowa. Supplemental feeding continued in Nebraska.

Crop Progress

FOR WEEK ENDING MAY 21, 1989

COTTON
% PLANTED

	1989	1988	AVG.
ALA	96	97	92
ARIZ	99	98	99
ARK	75	92	91
CALIF	100	98	99
GA	75	77	81
LA	76	83	88
MISS	67	90	91
MO	96	100	95
N MEX	97	90	85
N C	47	77	83
OKLA	25	40	20
S C	64	91	93
TENN	90	94	89
TEX	37	47	46

14 STATES 60 70 69

THESE 14 STATES PRODUCED 99% OF THE 1988 COTTON CROP.

SPRING WHEAT
% PLANTED

	1989	1988	AVG.
IDAHO	96	96	91
MINN	97	99	89
MONT	80	97	92
N DAK	92	94	90
S DAK	99	100	96

5 STATES 92 96 91

THESE 5 STATES PRODUCED 87% OF THE 1988 SPRING WHEAT CROP.

WINTER WHEAT
% HEADED

	1989	1988	AVG.
ARK	100	100	NA
CALIF	98	98	99
COLO	16	12	35
GA	100	100	100
IDAHO	2	1	3
ILL	70	86	72
IND	35	48	48
KANS	90	80	65
MICH	0	4	4
MO	92	92	81
MONT	0	0	0
NEBR	31	35	35
N MEX	100	98	NA
N C	96	91	NA
OHIO	2	21	40
OKLA	99	95	90
OREG	30	22	20
S DAK	0	3	10
TEX	92	74	88
WASH	11	8	6

20 STATES 66 62 NA

EXCL. STATES WITH NA 64 60 59

THESE 20 STATES PRODUCED 90% OF THE 1988 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

RICE
% PLANTED

	1989	1988	AVG.
ARK	88	93	87
CALIF	85	80	80
LA	86	95	94
MISS	90	100	96
TEX	100	100	99

5 STATES 89 93 90

THESE 5 STATES PRODUCED 97% OF THE 1988 RICE CROP.

RICE
% EMERGED

	1989	1988	AVG.
ARK	63	62	66
CALIF	50	45	48
LA	80	81	87
MISS	69	81	79
TEX	97	100	94

5 STATES 70 70 72

THESE 5 STATES PRODUCED 97% OF THE 1988 RICE CROP.

SPRING WHEAT
% EMERGED

	1989	1988	AVG.
IDAHO	76	85	75
MINN	67	94	73
MONT	34	75	70
N DAK	65	73	64
S DAK	90	97	88

5 STATES 64 81 70

THESE 5 STATES PRODUCED 87% OF THE 1988 SPRING WHEAT CROP.

GRAIN SORGHUM
% PLANTED

	1989	1988	AVG.
ARK	86	85	83
ILL	40	75	40
KANS	20	20	15
LA	76	77	85
MISS	66	79	72
MO	56	63	49
NEBR	30	49	36
OKLA	20	15	15
S DAK	14	13	13
TENN	52	68	63
TEX	71	68	70

11 STATES 40 43 38

THESE 11 STATES PRODUCED 96% OF THE 1988 GRAIN SORGHUM CROP.

SOYBEANS
% PLANTED

	1989	1988	AVG.
ALA	32	33	28
ARK	19	21	20
GA	26	32	34
ILL	64	86	63
IND	21	74	48
IOWA	65	84	51
KANS	25	30	15
KY	24	39	22
LA	18	19	34
MICH	40	55	30
MINN	53	74	46
MISS	14	20	25
MO	45	52	34
NEBR	42	52	28
N C	11	25	22
OHIO	6	74	56
S C	10	20	17
S DAK	27	51	23
TENN	24	22	23

19 STATES 39 59 41

THESE 19 STATES PRODUCED 95% OF THE 1988 SOYBEANS CROP.

CORN
% PLANTED

	1989	1988	AVG.
COLO	87	92	90
GA	99	99	99
ILL	96	100	93
IND	65	99	86
IOWA	99	100	92
KANS	96	90	80
KY	79	91	82
MICH	85	90	85
MINN	86	95	80
MO	96	96	87
NEBR	95	94	87
N C	67	99	96
OHIO	24	94	85
PA	19	54	62
S DAK	79	83	59
TEX	100	98	99
WIS	81	89	76

17 STATES 84 95 86

THESE 17 STATES PRODUCED 94% OF THE 1988 CORN CROP.

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 0.67 in. or less; over 3.00 in. Mobile, Baldwin counties. Temperatures near normal.

Days suitable for fieldwork 5.4. Soil moisture 33% short, 60% adequate, 7% surplus. Fieldwork progress 34% behind schedule, 64% on schedule, 2% ahead of schedule. Spring planting 94% prepared, 99% 1988, 94% avg. Corn 97% planted, 99% 1988, 98% avg.; 2% silked, 10% 1988, 6% avg.; 23% fair, 70% good, 7% excellent. Sorghum 53% planted, 48% 1988, 44% avg.; 22% fair, 78% good. Cotton 96% planted, 97% 1988, 92% avg.; 10% poor, 54% fair, 36% good. Soybeans 32% planted, 33% 1988, 28% avg.; 1% poor, 37% fair, 62% good. Peanuts 88% planted, 87% 1988, 77% avg.; 12% fair, 88% good. Winter wheat 99% headed, 99% 1988, 99% avg.; 73% turning color, 68% 1988, 67% avg.; 22% harvested, 25% 1988, 11% avg.; 7% poor, 52% fair, 41% good. First hay 43% harvested, 49% 1988, 35% avg. Livestock, pastures mostly good. Primary activities: Planting, cultivating row crops, vegetables; cutting, baling hay; harvesting peaches, early vegetables, controlling pests cotton, pecans, fruits, vegetables, building fish ponds, monitoring catfish; general care livestock, poultry.

ALASKA: Unusually wet spring combined with lower than normal temperatures Railbelt delayed planting progress slightly, boosted growth to hay fields, pastures. High 3^o cooler than normal to 1^o warmer than normal. Lows 2^o below normal to 3^o warmer than normal. Precipitation above normal except for Kenai 0.21 in. drier than normal. Above normal 0.04 in. Homer to 1.12 in. greater than normal Anchorage.

Days suitable for fieldwork 4.0. Topsoil 2% short, 80% adequate, 24% surplus. Progress farm work behind normal to mostly on schedule. Small grain seed 20% complete compared with 70% 1988. Commercial potato planting one quarter complete. Commercial vegetables planting, transplanting continued. Livestock mostly good.

ARIZONA: Cool upper level low pressure system continued 14th, 15th. Cloudy skies, isolated showers northern two thirds, sunny south. Showers, thunderstorms central, east 16th. Rainfall 0.10 to 0.50 in., 1.06 in. Bisbee. Warming trend over State 18th to 20th. Temperatures 4^o below to 1^o above normal.

Cotton 99% planted, 98% 1988, 99% avg.; good. Cotton 50% squaring, 25% 1988, 30% avg. Post planting irrigation beginning. Alfalfa good; harvesting continued. Hay, roughage adequate. Small grains 85% turning color, 80% 1988; good. Grape harvest, shipping continued west. Honeydew, watermelon, cantaloupe harvest, shipping began west. Dry onion, potato harvest, shipping active central. Vegetables shipped central included broccoli, cabbage, carrots, greens, kale, parsley, turnips. Valencia orange, grapefruit harvest continued western, central areas.

ARKANSAS: Warm, moist air mass covered State. Temperatures near normal. Scattered showers, thunderstorms. Extremes 43^o; 93^o. Rainfall 0.15 to 5.62 in.

Days suitable for fieldwork 3.0. Soil moisture 12% short, 32% adequate, 56% surplus. Main farming activities: Rice, cotton, sorghum, soybean planting, hay cutting, fertilizing

pastures, controlling weeds, sprigging Bermuda grass. Cotton 58% emerged, 67% 1988, 69% avg. Cotton 13% very poor, 43% poor, 39% fair, 5% good. Replanting necessary southeastern areas due to cold weather, hail damage. Rice 63% emerged, 62% 1988, 66% avg. Some fields weed infested, need warm, dry weather to activate herbicides. Sorghum 67% emerged, 65% 1988. Sorghum 7% poor, 55% fair, 38% good. Soybeans 12% emerged, 10% 1988, 10% avg. Planting progress hampered by wet fields. Corn virtually planted, cold weather slowed growth. Corn 25% fair, 75% good. Few wheat fields plowed up due to hail damage, some lodging due to strong winds, heavy rains. Strawberry harvest full swing. Squash planting continued. Peanuts beginning to emerged. Tomatoes being pruned, some fruit set, development slow. Livestock good.

CALIFORNIA: Upper level low pressure system drifted eastward across area scattering few showers over State, especially eastern mountains. High pressure rebuilt providing nearly normal temperatures, dry conditions for most areas midweek. Low pressure trough developed off coast towards weekend, began cooling area.

Beginning week scattered showers slowed field activities San Joaquin, Sacramento valleys. Winter wheat grain harvest pace gained Riverside County. Barley grain harvest began southern San Joaquin Valley. Hay, green chop, silage harvests of small grains, winter forage active. Rice seeding full swing; water grass, shrimp, weevil, broadleaf weed controls applied. Cotton thinning, cultivation active, insect controls applied as needed. Harvest overwintered sugarbeets progressed. Seeding next crop progressed. Alfalfa, other hay crops harvest, normal progress. Some Desert Valley avocado orchards assessed regarding April heat damage. San Joaquin Valley apricot early variety harvest continued. Bing cherries harvested, San Joaquin Valley. Coachella Valley table grape harvest continued. San Joaquin Valley table grapes gibberellic acid applied. Kiwifruit bloom nearly complete. Peaches, plums, nectarines harvested, San Joaquin Valley. Desert grapefruit harvest continued. Valencia oranges harvested, San Joaquin Valley, south coast. Almond orchards treated for mites. Asparagus harvest complete, southern area, continued in upper San Joaquin Valley. Broccoli remained heavy, Salinas area, variable quality; moderate with good quality, Santa Maria area. Earlier planted processing tomato fields Sacramento, San Joaquin Valley progressed. Tomato fields Kingsburg-Dinuba were treated with fungicides. Cauliflower movement Santa Maria, Salinas-Watsonville areas moderate to heavy, variable quality. Potatoes Shasta Valley showed good growth, Tulelake-Butte Valley fields planted. Sweetpotato planting continued West side. Lettuce movement heavy, Santa Maria, Salinas areas, variable quality. Cantaloupe melon fields progressing well, West side area. Sweet corn harvest active Coachella Valley, improving quality. Strawberry harvest continued Sacramento Valley; supplies Santa Maria light, generally good quality. Other vegetables harvested included cucumbers, squash, green onions, sugar peas, green beans. Livestock good. Ranges, pastures continued to dry. Rainfall central San Joaquin Valley reduced quality of already dry grasses,

lower elevations, helped grass growth, higher elevations. Some livestock movement to summer ranges continued, supplemental feeding light. Water good northern counties, dry conditions resulted in below adequate other areas.

COLORADO: Days suitable for fieldwork, 3.7. Soil moisture 17% very short, 42% short, 35% adequate, and 6% surplus. Winter wheat 12% very poor, 24% poor, 38% fair, 25% good, 1% excellent, 79% jointed, 16% headed. Corn 87% planted, 48% emerged. Barley 79% emerged; oats 86% emerged. Dry beans 4% planted, sorghum 15% planted; sugarbeets 3% thinned. Summer potatoes 83% planted, 48% emerged. Fall potatoes 90% planted. Spring wheat 81% emerged. Range, pasture mostly fair to poor. Livestock mostly good.

FLORIDA: Typical summertime weather prevailed. Scattered showers, thunderstorms concentrated over southeast. Rains 1.00 to 3.00 in. Heaviest rain 7.75 in. Fort Meyers, 4.80 in. Homestead Air Base, 4.36 in. Milton Station near Jay. Much of central Peninsula received no rain. Temperatures near normal north, 1 to 3° above normal, Peninsula. Maximums 90s common with some mid to upper 90s across interior, western Peninsula areas.

Soil moisture short to adequate Panhandle; elsewhere mostly short. Corn, sugarcane, tobacco good progress. Tomato spot wilt virus identified some tobacco fields. Cotton, peanut planting nearly complete. Soybean planting active. Winter wheat, hay harvest active. Pasture became more variable, improved few areas receiving ample showers, declined many areas where rain insufficient to promote, sustain forage growth. Pastures severely dry several west central Peninsula areas; some ponds, shallow wells going dry. Lower Peninsula varied fair to excellent, upper Peninsula mostly poor to fair. Panhandle poor to good with topsoil short most areas. Cattle generally good, Panhandle, east coast; elsewhere, good to mostly fair. Very little rain citrus areas. Irrigation continued all areas; some wilt, new crop fruit variable. Fruit softening, dry locations. Valencia harvest continued active, grapefruit movement slowed, caretakers spraying, fertilizing, herbiciding, cultivating. Hot days, warm nights dominated weather over major vegetable producing areas. Rainfall continued limited. Harvest most crops complete southern areas, active central, starting northern. Volume leaders: Potatoes, tomatoes, watermelons, sweet corn, cucumbers, peppers, celery. Also available cabbage, squash, radishes, snap beans, eggplant, carrots. Belle Glade sweet corn harvest at peak.

GEORGIA: Rain 0.25 to 1.00 in. north, under 0.25 in. west central, 0.50 in. or less southwest. East dry. Rainfall 2.56 in. Albany. Rain 1 to 2 days. Temperatures below normal. Extremes 37° Blairsville; 37° Jessup, Savannah.

Days suitable for fieldwork 5.6. Soil moisture 2% very short, 29% short, 69% adequate. Corn 3% poor, 24% fair, 73% good; 1% silked, extreme south. Cotton emerged 10% poor, 32% fair, 58% good; planting active, nearly one quarter seeded. Sorghum grain 30% fair, 70% good. Planting behind 1988, avg. Peanuts 22% fair, 71% good, 7% excellent; 92% planted, 88% 1988, 87% avg.; planting activity heavy. Soybeans emerged 1% poor, 28% fair, 71% good; good planting progress. Tobacco 4% poor, 31% fair, 65% good. Watermelons fair to mostly good, planting nearly complete. Wheat 4% harvested. Rye, other small grains mostly fair to good. Apples 64% fair, 33% good,

3% excellent. Peaches 8% very poor, 14% fair, 66% good, 12% excellent. Pastures, hay good. Cattle, hogs good.

HAWAII: Favorable conditions. Days warm, dry, while nights were cool. Variable winds up to 25 mph. Temperatures high 60s to upper 80s. Daily rainfall none to 6.00 in.

Days suitable for fieldwork 7.0. Crop condition mostly fair to good, heavy spraying for pests, irrigation needed to maintain plant progress. Papaya production steady. Sugar, pineapple production steady. Ginger root harvesting delayed due to wet.

IDAHO: Temperatures 8° above normal to 7° below normal. Precipitation below normal over most of region.

Days suitable for fieldwork 6.0. Soil moisture 6% very short, 16% short, 77% adequate, 1% surplus. Nearly all spring grains planted. Spring wheat 76% emerged, 85% 1988, 75% avg. Spring wheat mostly good. Spring barley 77% emerged, 80% 1988, 67% avg. Oats 70% emerged, 74% 1988, 66% avg. Potatoes 86% planted, 86% 1988, 68% avg.; 13% emerged. Sugarbeets 95% emerged, 22% thinned. Dry peas 72% emerged. Lentils 60% emerged. Corn 71% planted, 84% 1988, 82% avg. Dry beans 14% seeded. First cutting alfalfa hay underway. Winter wheat fair, good; 20% boot, 2% headed. Low concentration of Russian wheat aphids found in North. Early morning frosts damaged seedlings. Windy conditions hampered grain, potato spraying. Nearly all range cattle turned out to pasture. Branding continued. Livestock good. Hay, roughage mostly adequate. Some areas have very short, short supplies.

ILLINOIS: Temperatures 1 to 4° above normal, temperatures mid 70s north to 80s south, lows 50s north mid 50s south. Precipitation less than 0.50 in.

Days suitable for fieldwork 6.0. Soil moisture 71% short, 28% adequate, 1% surplus. Corn 3 in., 4 in. 1988, 4 in. avg.; most advanced 6 in., 8 in. 1988, 7 in. avg.; 2% poor, 51% fair, 46% good, 1% excellent. Winter wheat 19% filled, 31% 1988, 25% avg. Alfalfa 19% 1st cut, 38% 1988, 26% avg.; 5% poor, 30% fair, 63% good, 2% excellent. Red clover 6% 1st cut, 31% 1988, 19% avg.; 1% poor, 29% fair, 66% good, 4% excellent. Oats 1% poor, 22% fair, 71% good, 6% excellent. Pasture 3% poor, 32% fair, 60% good, 5% excellent.

INDIANA: Temperatures above normal. Highs mid to upper 70s, lows, low to upper 50s. Precipitation light to heavy. Rainfall 0.25 to 2.50 in.

Days suitable for fieldwork 4.6. Topsoil moisture 11% short, 77% adequate, 12% surplus. Subsoil moisture 14% short, 78% adequate, 8% surplus. Wheat 95% jointed, 99% 1988, 93% avg. Oats 7 in., 7 in. 1988, 9 in. avg. Pastures 31% fair, 58% good, 11% excellent. Alfalfa hay 12% cut once, 32% 1988, 18% avg. Good week for planting, tilling.

IOWA: Temperatures 4 to 6° above normal. Extremes 39°; 86°. Rainfall 0.03 to 2.10.

Days suitable for fieldwork 5.4. Topsoil moisture 67% short, 33% adequate. Subsoil moisture 95% short, 5% adequate. Oats 2% very poor, 12% poor, 43% fair, 40% good, 3% excellent. Hay 7% very poor, 23% poor, 52% fair, 17% good, 1% excellent. Pasture 20% very poor, 32% poor, 39% fair, 8% good, 1% excellent. Corn 65% emerged, 87% 1988, 67% avg.; 3% poor, 39% fair, 52% good, 6% excellent. Water shortages, feeding hay, culling older cows continues in drier areas.

KANSAS: Temperatures 4° above normal. South central, southwest normal temperatures. Rainfall covered State, low 0.75 in. northeast to high over 4.00 in. southwest.

Days suitable for fieldwork 3.5. Topsoil moisture 48% short, 45% adequate, 7% surplus. Subsoil moisture 90% short, 10% adequate. Wheat condition showed modest improvement due to widespread rain. Remaining stands have better opportunity fill heads, many stands rain too late. Some farmers planning to plow down wheat, plant alternate crop. Corn, sorghum, soybean planting good progress. Early planted corn good growth, later planted corn growth slowed cooler weather. First cutting alfalfa showing poor output, regrowth expected improved. Range, pastures have moisture available spring growth forage, grazing still short. Some feeding, heavy herd culling. Movement to sale barn slowing. Feed grains 1% surplus, 69% adequate, 31% short; range, pasture 1% surplus, 15% adequate, 84% short.

KENTUCKY: Near normal temperatures, precipitation. Highs mid 70s, lower 80s. Lows 50s. Precipitation 0.50 in. west to 1.00 in. central, east.

Days suitable fieldwork 4.1. Soil moisture 1% very short, 18% short, 68% adequate, 13% surplus. Corn emerged 63%. Emerged corn 3% poor, 43% fair, 49% good, 5% excellent. Tobacco set 10% completed, 22% 1988, 17% avg. Tobacco 2% very poor, 3% poor, 25% fair, 65% good, 5% excellent. Plant height 30% greater than 4 in., 48% 2-4 in. Winter wheat 95% headed, 89% avg.; 18% fair, 63% good, 19% excellent. Hay 2% poor, 30% fair, 63% good, 5% excellent. Pastures 2% poor, 23% fair, 66% good, 9% excellent.

LOUISIANA: Temperature 1° above normal. Extremes 55°, 97°. Rainfall 2.38 to 10.84 in.

Days suitable for fieldwork 2.3. Soil moisture 21% adequate, 79% surplus. Spring plowing 95%, 99% 1988, 98% avg. Corn 100% planted, 100% 1988, 99% avg.; 98% emerged, 97% 1988, 97% avg.; 8% poor, 34% fair, 58% good. Cotton 76% planted, 83% 1988, 88% avg.; 70% emerged, 67% 1988, 77% avg.; 45% poor, 45% fair, 10% good. Hay 24% first cutting, 48% 1988, 44% avg. Peaches none harvested, 2% 1988, 2% avg. Rice 86% planted, 95% 1988, 94% avg.; 80% emerged, 81% 1988, 87% avg.; 5% poor, 50% fair, 41% good, 4% excellent. Sorghum 76% planted, 77% 1988, 85% avg.; 69% emerged, 61% 1988, 73% avg.; 14% poor, 55% fair, 27% good 4% excellent. Soybeans 18% planted, 19% 1988, 34% avg.; 8% emerged, 9% 1988, 20% avg.; 17% poor, 48% fair, 35% good. Some replanting needed due to flooding. Sugarcane 29% fair, 71% good. Sweetpotatoes 17% planted, 24% 1988, 42% avg.; 13% poor, 27% fair, 60% good. Wheat 82% turning color, 93% 1988, 92% avg.; 16% harvested, 23% 1988, 19% avg.; 20% poor, 41% fair, 39% good. Lodging in many fields due to heavy rain, wind. Vegetable 10% poor, 33% fair, 57% good. Pasture 32% fair, 66% good 2% excellent. Livestock 2% poor, 14% fair, 84% good.

MARYLAND & DELAWARE: MARYLAND: Precipitation 1.63 in. Temperature 61°, normal 63°. Extremes 38°, 78°.

Days suitable for fieldwork 3.1. Topsoil none short, 62% adequate, 38% surplus. Subsoil 67% adequate, 33% surplus. Corn 47% planted, 69% 1988, 78% avg. Soybeans 4% planted, 11% 1988, 10% avg. Tobacco 8% transplanted, 14% 1988, 15% avg. Wheat, barley, rye good condition. Wheat 52% headed, 59% 1988, 51% avg. Barley 100% headed, 95% 1988, 97% avg.

DELAWARE: Precipitation 0.62 in. Temperature 62°, normal 63°. Extremes 45°, 85°.

Days suitable for fieldwork 4.1. Topsoil 80% adequate, 20% surplus. Subsoil 100% adequate. Corn 58% planted, 79% 1988, 73% avg. Soybeans 2%

planted, 9% 1988, 12% avg. Wheat, barley, rye good. Barley 100% headed, 97% 1988, 95% avg.

MICHIGAN: Temperatures normal to 10° above normal. Extremes 36°, 83°. Precipitation 0.15 to 0.89 in. across State.

Days suitable for fieldwork 6.0. Soil moisture 60% short, 40% adequate. Corn 85% planted, 90% 1988, 85% avg., 15% emerged; 5% poor, 30% fair, 45% good, 20% excellent. Soybeans 40% planted, 55% 1988, 30% avg. Wheat none headed, 4% 1988, 4% avg.; 2% very poor, 8% poor, 25% fair, 45% good, 20% excellent. Major activities: Corn, soybean, potato planting; herbicide application. Hay harvesting started. Rain needed to aid germination, activate herbicides. Warmer temperatures promoted rapid development of fruit crops. Vegetable planting included tomatoes, peppers, cucumbers, onions, carrots.

MINNESOTA: Temperatures 6 to 11° above normal. Extremes 36°, 88°. Precipitation 0.48 to 1.58 in. Rainfall 2.75 in.

Days suitable for fieldwork 5.3. Topsoil 6% very short, 43% short 51% adequate, none surplus. Subsoil 31% very short, 48% short, 20% adequate, 1% surplus. Spring wheat 97% planted, 99% 1988, 89% avg.; 67% emerged, 94% 1988, 73% avg.; 2% jointing, 3% 1988, 3% avg. Oats 99% planted, 99% 1988, 92% avg.; 78% emerged, 96% 1988, 82% avg.; 2% jointing, 7% 1988, 4% avg. Barley 97% planted, 99% 1988, 86% avg.; 70% emerged, 94% 1988, 69% avg.; 2% jointing, 1% 1988, 2% avg. Corn 93% land prepared, 96% 1988, 89% avg.; 86% planted, 95% 1988, 80% avg.; 28% emerged, 65% 1988, 45% avg. Soybeans 75% land prepared, 95% 1988, 67% avg.; 53% planted, 74% 1988, 46% avg.; 3% emerged, 18% 1988, 12% avg. Sunflowers 37% planted, 68% 1988, 44% avg. Flax 44% planted, 60% 1988, 48% avg. Potatoes 62% planted, 81% 1988, 65% avg. Dry edible beans 46% planted, 63% 1988, 41% avg. Green peas 82% planted, 89% 1988, 82% avg. Sweet corn 51% planted, 64% 1988, 52% avg.

MISSISSIPPI: Cool, wet. Heavy rainfall south. Precipitation 2.48 in., 1.36 in. above normal. Temperature 1° below normal. Extremes 39°, 92°.

Days suitable for fieldwork 2.0, 6.5 1988, 4.9 avg. Soil moisture 20% adequate, 50% surplus, 30% excessive. Corn fair; 90% planted, 98% 1988, 97% avg. Cotton poor; 67% planted, 90% 1988, 91% avg. Replanting needed northern, central counties. Hay 18% harvested, 23% 1988, 21% avg. Rice fair; 90% planted, 100% 1988, 96% avg. Sorghum fair; 66% planted, 79% 1988, 72% avg. Soybeans 14% planted, 20% 1988, 25% avg. Sweetpotatoes 34% planted, 64% 1988, 47% avg. Wheat poor; 16% mature, 29% 1988, 22% avg. Pastures, livestock good. Peaches 30% very poor, 15% poor, 30% fair, 25% good. Activities: Limited planting, replanting, haying, preparing to harvest wheat, mostly shopwork. Wet, cool weather caused seedling diseases in cotton.

MISSOURI: Temperatures 3° below normal Bootheel to 2° above normal elsewhere. Precipitation widespread, over 4.00 in. some west central, southwestern counties, 2.00 in. northwest to less than 1.00 in. northeast, less than 0.25 in. southeast.

Days suitable for fieldwork 5.4. Topsoil 67% short, 31% adequate, 2% surplus. Corn planting virtually complete all districts. Corn 2% very poor, 13% poor, 71% fair, 13% good, 1% excellent. Sorghum planting 34% north central, southwest, to 72% southeast. Greenbugs appearing in early sorghum. Single crop soybean planting 40% or more all areas except southwest. First cutting alfalfa 43%, 51% 1988, 36% avg. Other hay 13% harvested,

21% 1988. Pasture 17% very poor, 36% poor, 42% fair, 5% good. Livestock water 27% critically short, 35% short, 38% adequate.

MONTANA: Temperatures west 1° below normal to 2° above. East temperatures normal to 4° above. Southwest area had most precipitation. North central, central, southeast had the least. Rainfall none to 1.09 in.

Days suitable for fieldwork 3.9. Topsoil 8% short, 79% adequate, 13% surplus. Subsoil 22% short, 75% adequate, 3% surplus. Barley 75% planted, 96% 1988, 91% avg. Barley 34% emerged, 74% 1988, 69% avg. Corn 40% planted, 70% 1988, 59% avg. Corn 9% emerged. Dry beans 31% planted, 77% 1988, 77% avg. Oats 69% planted, 94% 1988, 86% avg. Oats 21% emerged, 67% 1988, 70% avg. Potatoes 30% planted, 40% 1988, 33% avg. Sugarbeets 100% planted, 100% 1988, 100% avg. Pasture, range feed 1% very poor, 4% poor, 30% fair, 41% good, 24% excellent. Cattle, calves moved to summer pastures 46%, 60% 1988, 56% avg. Sheep, lambs moved 50%, 72% 1988, 67% avg.

NEBRASKA: Scattered thundershowers. Produced locally heavy rainfall west, south central. Rainfall 2.00 to 2.50. Temperatures 2 to 5° above normal. Extremes 33°; 86°.

Days suitable for fieldwork 4.3. Topsoil 51% short, 48% adequate, 1% surplus. Subsoil 87% short, 13% adequate. Winter wheat 99% jointed, 88% 1988, 87% avg. Winter wheat 31% headed, 35% 1988, 35% avg. Winter wheat 24% very poor, 32% poor, 35% fair, 9% good. More moisture is still needed. Corn 68% emerged, 64% 1988, 52% avg. Soybeans 42% planted, 52% 1988, 28% avg. Sorghum 30% planted, 49% 1988, 36% avg. Producers still waiting for more moisture before planting. Alfalfa hay 24% good, 40% fair, 27% poor, 9% very poor. Hay harvest just starting. Pasture, range 85% short, 15% adequate. Supplemental hay feeding.

NEVADA: Mixed weather typical of Spring. Substantial rains north, central areas early. Dry, cloudy, windy weekend. Temperatures fluctuated to morning lows below freezing north, central east. Extremes 15°; 104°.

Planting 1989 potato crop about completed. Emergence slow due some below normal night temperatures. Alfalfa, spring crops also showing limited growth.

NEW ENGLAND: Precipitation up to 3.00 in. Connecticut, less than 0.50 in. northern Maine, Massachusetts, trace remainder Maine, New Hampshire, Vermont. Temperature low to mid 60s. Temperatures near normal south, 10° above normal north.

Days suitable for fieldwork 6.0. Soil moisture 83% adequate, 17% surplus. Grazing availability 13% short, 66% adequate, 21% surplus. Fieldwork progress 5.0 days behind. Maine potatoes planted 22%, 69% 1988, 50% avg. Rhode Island potatoes 91% planted, 91% 1988, 86% avg.; 25% emerged, 23% 1988, 31% avg.; good. Connecticut River Valley potatoes 95% planted, 78% 1988, 77% avg.; 50% emerged, 54% 1988, 46% avg.; good. Maine oats 23% sown, 81% 1988, 60% avg.; good. Field corn 30% planted, 41% 1988, 46% avg.; 6% emerged, 16% 1988, 17% avg.; good. Sweet corn 43% planted, 47% 1988, 45% avg.; 15% emerged, 27% 1988, 28% avg.; good. Shade tobacco 25% transplanted, good. Apples early bloom; peaches full bloom; pears early to full bloom; strawberries early bloom; blueberries bud to early bloom. Lowbush blueberries 90% bud, 10% early bloom. Cranberries delayed dormant. Hay good. Major farm activities: Fruit spraying, planting corn, vegetables, turning cattle out to pasture, spreading manure.

NEW JERSEY: Temperatures near normal. Extremes 48°; 87°. Rainfall 2.47 in. north, 1.91 in. central, 0.43 in. south. Heaviest 24-hour 3.49 in. on 16th, 17th. Soil moisture percent field capacity averaged 94% north, 92% central, 82% south. Four inch soil temperatures 61° north, central, south.

Farmers busy trying to catch up on rain delayed planting, spraying schedules. Harvest of spring crops increased. Warmer temperatures improved growth rate. Fruit continued to size. Summer vegetable planting in full swing. Field corn planting, soybean preparation very active. Some fall sown grain lodged by wind, heavy rain. Pastures, hay growth good.

NEW MEXICO: Temperatures nearly normal; some rainfall.

Days suitable for fieldwork 6.8. Soil moisture 88% short, 12% adequate. Hail, wind damage. Wheat 40% very poor, 45% poor, 10% fair, 5% good. Cotton planting 97% complete, 12 points above average; 29% fair, 71% good. Cattle 7% poor, 60% fair, 33% good. Sheep 11% poor, 56% fair, 33% good. Range 60% poor, 40% fair.

NEW YORK: Stagnant low pressure that lingered all week brought spotty light rains statewide 14th, 15th. Amounts generally under 0.10 in. Coastal storm on 17th brought heavy rains southeast. Over 4.00 in. fell in southeastern Catskills, northern suburbs. High pressure system followed bringing warm, dry weather rest of week. On 16th, temperatures reached low 90s in Hudson, Champlain Valleys.

Days suitable for fieldwork 3.3. Soil moisture surplus. Pastures, hay fair to good. Wheat good. Corn 18% planted, 42% 1988, 43% avg. Oats 79% planted, 69% 1988, 72% avg. McIntosh apple bloom dates 7 to 10 days behind normal.

NORTH CAROLINA: Temperatures 2 to 5° below normal across State. Extremes 32°; 87°. Precipitation 0.07 to 2.29 in.

Days suitable for fieldwork 4.4. Soil moisture 1% short, 64% adequate, 35% surplus. Pasture 2% poor, 16% fair, 73% good, 9% excellent. Oat 4% poor, 40% fair, 54% good, 2% excellent. Barley 2% poor, 38% fair, 58% good, 2% excellent. Rye 5% poor, 36% fair, 58% good, 1% excellent. Tobacco plant beds 3% very poor, 27% poor, 40% fair, 30% good. Supply 6% very short, 46% short, 47% adequate, 1% surplus. Flue cured transplanted 63%, 88% 1988, 87% avg. Burley transplanted 9%, 17% 1988, 18% avg. Field tobacco 1% very poor, 5% poor, 58% fair, 36% good. Irish potato 48% fair, 52% good. Sweet potatoes 7% transplanted, 23% 1988, 26% avg. Peaches 3% very poor, 26% poor, 26% adequate, 45% good. Truck crops 6% poor, 60% fair, 34% good. Sorghum 26% planted, 49% 1988, 43% avg. Peanuts 21% planted, 57% 1988, 78% avg. Hay 4% poor, 24% fair, 63% good, 9% excellent. First cutting 28% complete. Major activities: Planting corn, transplanting tobacco. Other activities: Spraying crops; tobacco plantbed maintenance; harvesting small grain silage; planting truck crops, cotton, peanut; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures 5 to 11° above normal. Extremes 32° northeast, 20th; 88° northeast, 15th. Precipitation 0.23 in. northwest to 1.00 in. northeast.

Days suitable for fieldwork 6.1. Soil moisture well below normal. Topsoil 13% very short, 60% short, 27% adequate. Subsoil 21% very short, 70% short, 9% adequate. Spring wheat 92% planted, 94% 1988, 90% avg.; durum 83%, 86% 1988, 83% avg.; oats 89%, 93% 1988, 89% avg.; barley 91%, 94% 1988, 91% avg.; corn 60%, 61% 1988, 56% avg.; flax

36%, 44% 1988, 46% avg.; potatoes 62%, 76% 1988, 70% avg.; sugarbeets 98%, 100% 1988, 95% avg.; soybeans 31%, 43% 1988, 39% avg.; dry edible beans 17%, 31% 1988, 29% avg.; sunflower 16%, 27% 1988, 22% avg. Winter wheat 38% jointing and beyond, 57% 1988, 57% avg. Spring wheat 65% emerged and beyond, durum 46%, oats 57%, barley 65%. Pastures: 7% very poor, 33% poor, 47% fair, 13% good; furnished 72% roughage requirements. Stockwater 2% very short, 14% short, 84% adequate; mostly fair to good.

OHIO: Temperatures 1 to 2° above normal; highs in mid 70s, lows in upper 40s to low 50s. Rainfall 0.30 to 0.60 in. Soil temperatures low 50s to upper 60s.

Days suitable for fieldwork 1.5. Soil moisture 35% adequate, 65% surplus. Activities: Planting corn, soybeans, spraying pesticides, limited haying. Winter wheat, hay, pastures fair to good. Recent sunny weather changed crops from sickly yellow to a healthy green color. Some haying underway. Corn, soybean planting late, accelerating fast.

OKLAHOMA: Temperatures 1° below normal north central to 4° above normal east central. Precipitation 0.68 in. west central to 4.34 east central.

Days suitable for fieldwork 1.6. Topsoil 2% short, 63% adequate, 35% surplus. Subsoil 20% short, 80% adequate. Wheat 15% very poor, 10% poor, 55% fair, 20% good; 99% heading, 95% 1988, 90% avg.; 45% soft dough, 40% 1988, 35% avg. Harvest underway south. Less than 1% harvested. Flooding, hail damage scattered areas. Sorghum 20% planted, 15% 1988, 15% avg. Cotton 25% planted, 40% 1988, 20% avg. Rain washout necessitated replanting. Soybeans 40% planted, 25% 1988, 25% avg. Peanuts 40% planted, 35% 1988, 25% avg. Corn 95% up to stand, 90% 1988, 65% avg. Pastures improved, still fair. Cattle good; marketings average, prices stable to down slightly.

OREGON: All areas cooler than normal. Maximums upper 70s, lower 80s except at coast mostly 60s. Cold overnight minimums 20s, 30s all areas east of Cascades. Temperatures 5° below normal. Western areas near normal to 3° below normal. Heavy precipitation along coast. Rainfall 1.20 in. up to 0.60 in. Willamette Valley, less than 0.30 in. remaining western areas. Eastside less than 0.30 in. extreme east, rest eastern areas dry week.

Soil moisture 19% short, 72% adequate, 9% surplus. Barley 92% seeded, 99% 1988, 99% avg. Some Willamette Valley wheat fields show moisture stress, yellow dwarf virus; most look good, need rain. Some wheat winterkill Gilliam, fields spotted. Wheat growth ahead of normal, need rain eastern Oregon. Spring grains good statewide. First crop alfalfa begun most areas. First cutting done, second ready Hermiston. Some irrigating eastern Oregon. Early grass seed pollinating Willamette Valley, bluegrass heading Jefferson. Hops growing well Valley. Mint regrowth in Valley; unplowed growing well, plowed growing cover Jefferson. Temperatures to 26° Klamath Basin, frost protection needed. Forage crops excellent Wheeler. Bloom strong on strawberries, harvest earlier. Berries coming along Valley. Peaches with leaf curl and winter damage Lane. Cranberry in hook to early bloom, rose bloom evident, frost injury shows from April 27th Coos. First cover sprays on pears Jackson. Sweet cherry crop good Wasco. Apples okay Hermiston. Irrigating orchards Milton-Freewater. Onions, snapbeans sown Valley. Weed problems without Dinoseb. Fields prepared for sweet corn Valley. Potatoes good Hermiston. Finishing green

pea seeding, planting summer squash, lima beans, irrigating onions Milton-Freewater. Seed potatoes planted Union. Potato planting underway Jefferson; 60% complete Klamath. Livestock mostly good western area; good to excellent eastern area. Range, pasture good to excellent eastern area. Cattle moving from California. Best grass in years Jefferson.

PENNSYLVANIA: Rain finally ended. Large high pressure dropped out of eastern Canada. Temperature 62° to 5° above normal. Extremes 37°; 88°. Precipitation 1.38 in., 0.56 in. above normal.

Days suitable for fieldwork 2.0. Soil moisture none short, 39% adequate, 61% surplus. Plowing 76%, 88% 1988, 87% avg. Corn 19% planted, 54% 1988, 62% avg. Soybeans 8% planted, 16% 1988, 24% avg. Oats 86% planted, 96% 1988, 95% avg. Potatoes 57% planted, 80% 1988, 81% avg. Barley 33% pre-boot, 26% 1988, 23% avg.; 27% boot, 26% 1988, 26% avg.; 40% heading or headed, 48% 1988, 51% avg. Wheat 56% pre-boot, 39% 1988, 44% avg.; 36% boot, 49% 1988, 36% avg. 8% heading or headed, 12% 1988, 20% avg. Wheat none very poor, 4% poor, 27% fair, 50% good, 19% excellent. Oats none very poor, 6% poor, 33% fair, 47% good, 14% excellent. Hay stands mostly good. Feed from pastures mostly average. Peaches 7% pre-pink, 1% 1988, none avg.; 7% pink, 7% 1988, 4% avg.; 86% full bloom or past, 92% 1988, 96% avg. Cherries 13% pre-pink, 2% 1988, 1% avg.; 10% pink, 5% 1988, 3% avg.; 77% full bloom or past, 93% 1988, 96% avg. Apples 19% pre-pink, none 1988, 4% avg.; 17% pink, 6% 1988, 8% avg.; 64% full bloom or past, 94% 1988, 88% avg. Activities: Spring plowing; planting corn, soybeans, oats, potatoes, hay, vegetables, fruit tree; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

PUERTO RICO: Rainfall 0.36 in. was 1.19 in. below normal. Rainfall 2.70 in. Corozal AES, 1.81 in. Morovis, 1.10 in. at Sebastian. Highest 24-hour 1.81 in. Morovis. Total rainfall for areas since January 1 to May 19, 18.28 in. 11% above normal. Temperatures 83° San Juan WSFO, 79 to 80° Coast, 73° interior. Highest maximum 95° at Anasco areas, lowest minimum 48° Adjuntas.

SOUTH CAROLINA: Rainfall 0.25 to 1.00 in. across State. Temperatures near normal.

Days suitable for fieldwork 5.3. Soil moisture, 28% short, 72% adequate. Corn fair to good. Tobacco fair to good. Cotton 11% poor, 67% fair, 22% good; 64% planted, 91% 1988, 93% avg. Soybeans 10% planted, 20% 1988, 17% avg. Peanuts fair to good, 57% planted, 81% 1988, 76% avg. Sorghum 15% planted, 31% 1988, 36% avg. Watermelons fair to good; 90% planted, 88% 1988, 93% avg. Sweetpotatoes fair to good; 27% planted, 26% 1988, 30% avg. Tomatoes fair to good, 96% planted, 100% 1988, 100% avg. Peaches fair to good. Wheat good; 66% turning color, 52% 1988, 64% avg.; 14% ripe, 8% 1988, 12% avg. Oats good, 57% turning color, 53% 1988, 61% avg.; 12% ripe, 13% 1988, 15% avg.

SOUTH DAKOTA: Temperatures 2 to 8° above normal. Extremes 29°; 86°. Precipitation above normal northeast, southeast. Below normal elsewhere. Growing season precipitation above normal in north below normal in south.

Winter, spring wheat mostly good. Row crop planting, spraying, moving cattle, fencing major activities.

TENNESSEE: Dry high pressure through 17th. Light rain west 18th; middle, east 19th. Cold front

brought widespread rain 20th. Temperatures 4° below normal east, 2 to 4° above normal west, middle.

Days suitable for fieldwork 4.6. Soil moisture 21% short, 78% adequate, 1% surplus. Corn 92% planted, 91% 1988, 84% avg. Tobacco 18% transplanted, 34% 1988, 33% avg. Wheat 10% turning color, 26% 1988, 33% avg. Corn, cotton, sorghum, soybean planting; tobacco transplanting; alfalfa cutting main activities. Pastures, livestock good.

TEXAS: Unsettled weather unloaded heavy rains northern, eastern areas. Areas near Red River hardest hit by excessive rainfall. Rainfall north, east significantly above average. West, south slightly below normal. Temperatures above normal.

Crops: Small grains dealt another blow in Plains, scattered hail wiped out additional fields. Rain probably too late for much help. Fields rapidly drying down Blacklands before rain. Harvest begin soon as fields dry out. Harvest progress south, southcentral slowed midweek. Some damage high winds, heavy rains occurred. Overall condition small grains poor. Wheat 2% harvested, 3% 1988, 5% avg. Corn planting virtually completed High Plains midweek. Some hail damage emerged fields. Rain beneficial. Growth, progress good across Blacklands, central, fields were beginning to silk. Flooding problems some east fields. South, Coastal Bend light moisture benefit crop. Dryland fields Valley fair to good condition. Corn 13% silked, 15% 1988, 18% avg. Corn 1% doughing, none 1988, 2% avg. Grain sorghum planting some progress until midweek Plains, Cross Timbers. Some hail damage emerged fields. Growth good Blacklands, central. Some fields weedy because rain. Fields Coastal Bend, Valley, south heading. Any moisture benefit crop. Grain sorghum 15% headed, 11% 1988, 15% avg. Cotton producers planting progress early week Plains. Hail damage cause some to replant. Some replanting necessary Blacklands because heavy rains, some hail. Growth good most fields. Fields continued set bolls Coastal Bend, Valley. Insect controls underway Upper Coast. Cotton 7% squaring, 10% 1988, 7% avg. Setting bolls 2%, 1% 1988, none avg. Rice fields continued emerge Upper Coast. Some fertilizing operations underway. Heavy rains parts east may have washed out some fields. Peanut planting delayed midweek central. Planting begin Cross Timbers as fields dry out. Soybean planting underway Plains until midweek. Fields Upper Coast look good. Heavy rains northeast hurt some fields. Other field crops: Oats none harvested, 12% 1988, 11% avg. Peanuts 12% planted, 19% 1988, 22% avg. Soybeans 30% planted, 34% 1988, 29% avg. Sunflowers 5% planted, 6% 1988, 16% avg.

Commercial Vegetables: Rio Grande Valley, onion harvest about complete. Melon harvest underway. Cabbage harvest winding down. San Antonio-Winter Garden, onion, carrot, cabbage harvest continued as weather allowed. Carrots, cucumbers making good progress. East Texas, heavy rains washed out some fields. Some sweetpotato planting early week. High Plains, onion, potato progress good. Scattered hail damage reported. Trans-Pecos, chiles setting fruit. Onions, cantaloupes look good. Cabbage harvest begin soon. Hill Country peaches sustained some hail damage last week. Harvest begin soon. East some picking occurred. Hail, high winds some damage. Pecan producers getting ready first casebearer spraying many areas. High winds damaged some trees. Sets fair to good.

Range and Livestock: Ranges, pastures benefitted from all rain. East some newly cut hay wet on ground. Heavy rains some parts washed

out fences, some losses to calves. Livestock good. Shearing about complete Hill Country.

UTAH: Precipitation variable, light to heavy mountains southwest, light to moderate lower elevations. Temperature 4 to 7° below normal coldest southern area.

Days suitable for fieldwork 5.6. Soil moisture 70% short, 30% adequate. Winter wheat jointed; 35% boot, 55% 1988. Spring wheat 34% jointed, 20% 1988. Barley 50% jointed. Oats 83% emerged, 90% 1988, 76% avg. Corn 90% planted, 75% 1988, 74% avg.; 55% emerged, 41% 1988, 42% avg. First cutting alfalfa hay 14% complete. Cattle 27% moved to summer range, 31% 1988. Sheep 46% moved to summer range, 30% 1988. Major farm activities: Irrigating, haying, moving livestock to summer range. Livestock generally good.

VIRGINIA: Temperatures slightly below normal, precipitation. Rainfall 0.20 in. southwest to 1.20 in. north.

Days suitable for fieldwork 3.0. Topsoil 64% adequate, 36% surplus. Corn 55% planted, 69% 1988, 76% avg. Soybeans 4% planted, 7% 1988, 9% avg. Peanuts 45% planted, 41% 1988, 81% avg. Cotton 50% planted. Flue cured tobacco 20% transplanted, 28% 1988, 38% avg. Fire cured tobacco 8% transplanted, 10% 1988, 14% avg. Burley tobacco 10% transplanted, 30% 1988, 14% avg. Corn 1% very poor, 46% poor, 48% fair, 5% good. Wheat 61% fair, 35% good, 4% excellent. Barley 47% fair, 49% good, 4% excellent. Pastures 6% fair, 60% good, 34% excellent. Alfalfa 2% poor, 33% fair, 60% good, 5% excellent. Other hay 31% fair, 53% good, 16% excellent. Potatoes 40% fair, 60% good. Apples 11% poor, 50% fair, 39% good.

WASHINGTON: Temperatures below normal, 4° below normal to 1° above normal across State. Precipitation 0.58 to 1.06 in., west; none to 0.40 in., east.

Days suitable for fieldwork, 6.0. Soil 5% short, 95% adequate. Range, pasture 10% short, 90% adequate. Hay, other roughage 5% short, 95% adequate. First cutting of hay continued. Cutting silage, green chop in progress. Pastures improved. Range continued dry. Ermine, codling moths in fruit trees Chelan, Okanogan, Skagit Counties. Berry plants in bloom, west.

WEST VIRGINIA: Temperature 62° to 1° below to 2° above normal. Extremes 36° Greenbank; 90° Creston. Precipitation 0.68 in.

Days suitable for fieldwork 1.9. Soil moisture 56% adequate, 44% surplus. Wheat, barley, good. Oats fair; 89% planted, 61% emerged. Corn fair; 44% planted, 16% emerged. Hay good to fair. Apples fair. Peaches poor. Livestock good. Feed adequate to short. Farm activities: General farm maintenance, repairing fence, corn planting, fertilizing, livestock care, baling rye.

WISCONSIN: Temperature 62° to 3° above normal. Extremes 33°; 87°. Precipitation 0.20 to 1.00 in., northwest. Rain needed.

Days suitable for fieldwork 5.9. Soil moisture 84% short, 16% adequate. Pasture 66% normal, 74% 1988, 83% avg. Crops generally 1% very poor, 8% poor, 50% fair, 40% good, 1% excellent. Winter wheat 36% fair, 58% good, 6% excellent. Corn 2% very poor, 4% poor, 44% fair, 43% good, 7% excellent. Corn 81% planted, 89% 1988, 76% avg. Corn emerging. Soybeans 35% planted, 51% 1988, 33% avg. Oats 96% planted, 99% 1988, 95% avg.

WYOMING: Temperatures below normal. Precipitation above normal.

Figure 1

Tropical Cyclone Brenda, May 18, 1989

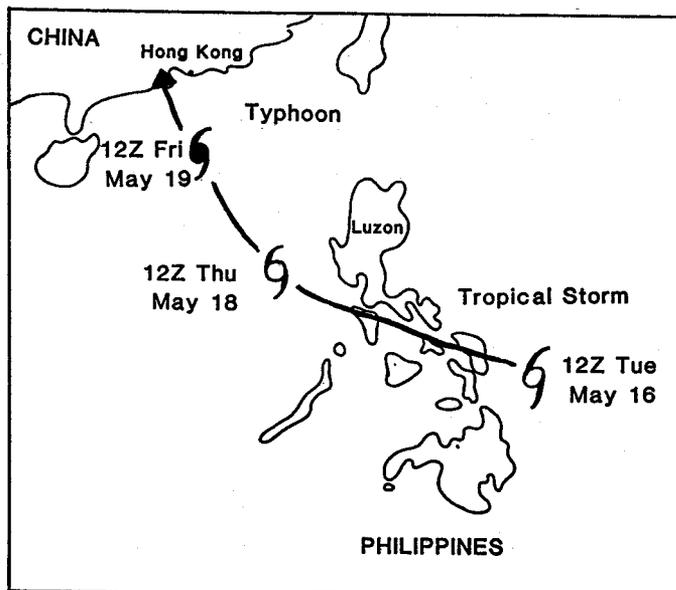
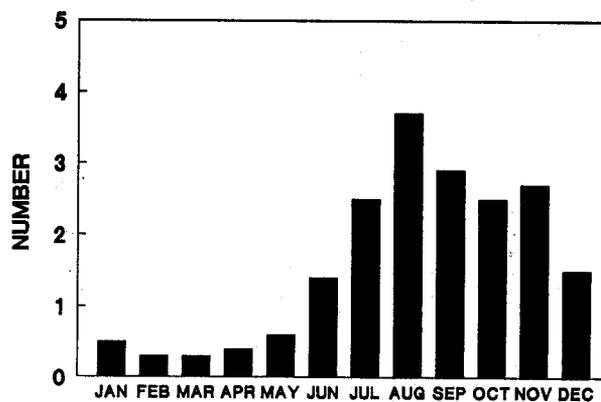


Figure 2

Mean Monthly Distribution of Tropical Cyclones Affecting the Philippines



Tropical Cyclone Brenda Hits Central Philippines and South China Coast

Tropical Cyclone Brenda, the second named cyclone in the western North Pacific, swept across the central Philippine Islands last week, bringing 100-300 mm (4-12 inches) of rain. The highest rainfall total recorded was 263 mm (10.4 inches) in southwestern Luzon. The moisture from Brenda was beneficial to areas in central Luzon, which received below-normal rainfall during the last few months. Some localized wind damage to crops may have occurred since Brenda had sustained winds of 55-60 knots (63-69 mph) with higher gusts as it passed over the islands from 1200 Greenwich mean time (G.m.t.), Tuesday, May 16 to 0000

G.m.t., Thursday, May 18 (fig. 1). Tropical Cyclone Brenda occurred fairly early in the season (fig. 2).

After passing through the Philippines, Tropical Storm Brenda intensified to Typhoon Brenda (winds over 65 knots) over the South China Sea. Typhoon Brenda then made landfall between 0600 and 0800 G.m.t. Saturday, May 20, along the south China Coast in the Province of Guangdong, just to the west of Hong Kong. Sustained winds were approximately 65-70 knots (75-81 mph) at landfall, and 150-300 mm (6-12 inches) of rain fell on already saturated soils, causing more flooding in some areas.

International Weather and Crop Summary

May 14-20, 1989

HIGHLIGHTS

USSR ... In Western USSR, adequate moisture favors crop growth in most areas. Moisture reserves remain limited in the southern Ukraine and the Crimea. In the New Lands, unseasonably warm, dry weather in the north helps spring grain planting. Widespread showers in the south increase topsoil moisture, favoring germination and early crop establishment.

EUROPE ... Mostly dry weather allows rapid progress in late planting of summer crops across the west and north. Rain benefits crops in sections of the east.

SOUTH ASIA ... Showers improve preplanting irrigation reserves in the south and east.

EASTERN ASIA ... Typhoon Brenda strikes southwestern China on the 20th with high winds, torrential rains, and flooding.

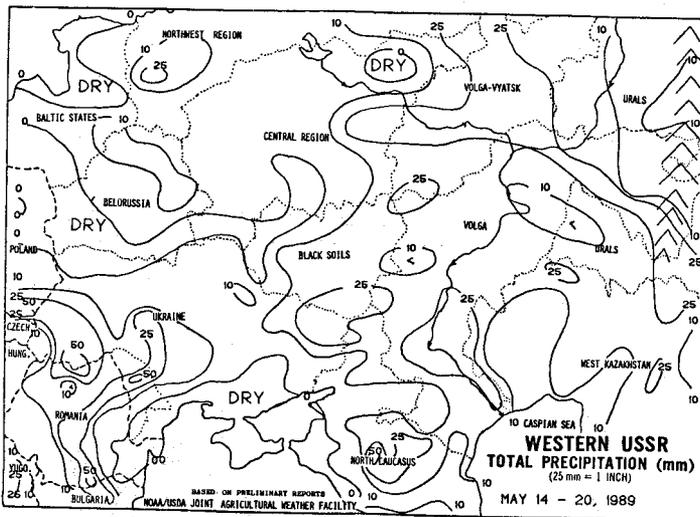
SOUTHEAST ASIA ... Widespread rain improves conditions for Thai grain planting and establishment. Tropical Storm Brenda brings heavy showers to the central Philippines.

SOUTH AMERICA ... Substantial rain in Argentina boosts topsoil moisture for wheat planting. Dry weather favors completion of Brazil's soybean harvest and initial harvesting of coffee and citrus.

AUSTRALIA ... Moderate to heavy rain improves soil moisture for winter grain planting in Western Australia. Heavy rain continues in eastern crop areas.

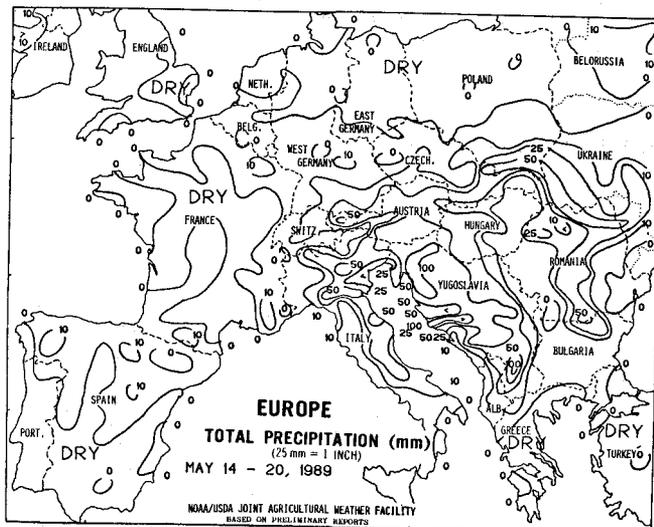
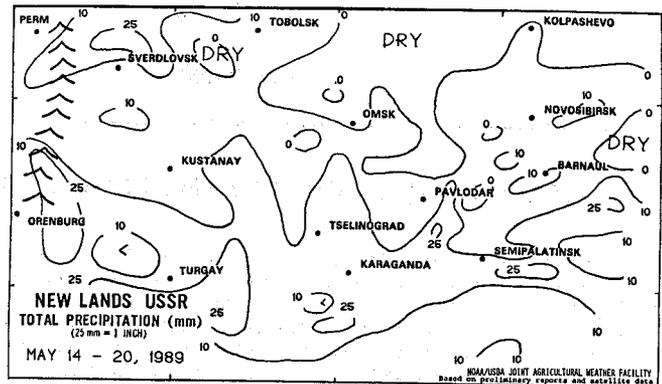
CANADA ... Much needed rain improves topsoil moisture for spring crop germination.

MEXICO ... Light showers fall over the southeast and extreme northwest, while dry weather prevails over most crop areas.

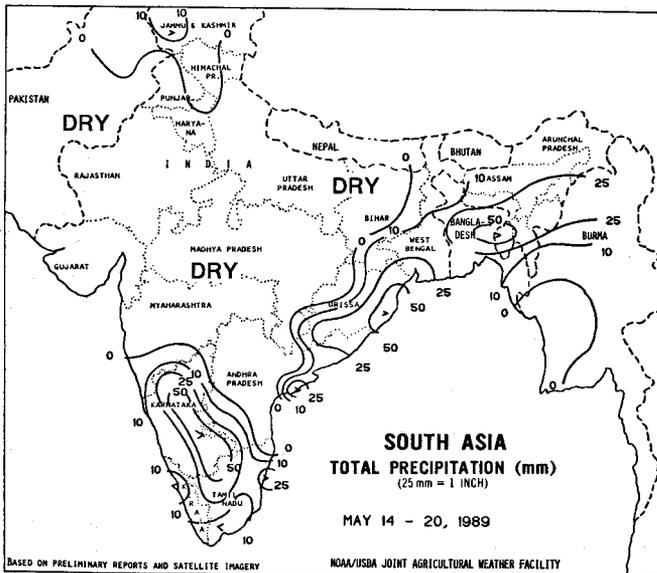


USSR ... In Western USSR, widespread showers and thunderstorms produced generous amounts of rain, especially over the eastern half of the region. Greatest amounts of rainfall (25-50mm) covered the southwestern and northeastern Ukraine, central North Caucasus, lower Volga, southern Black Soils Region, and Volga Vyatsk Region. Dry weather returned to crop areas in southern Ukraine and Crimea. Winter grains were advancing through the reproductive phase of development in the southern half of the Ukraine and the North Caucasus and were jointing over the remainder of the region. Spring grains were jointing in the south and tillering in the north. Adequate moisture conditions favored crop growth in most areas; however, moisture reserves remained limited in southern Ukraine and Crimea. Weekly average temperatures were 1-3 degrees Celsius (C) above normal in the west and 1-3 degrees C below normal in the east.

In the New Lands, spring grain planting was well underway. Showers and thunderstorms covered the southern Urals and Kazakhstan, increasing topsoil moisture. Greatest amounts of rain (12-42mm) covered marginal producing areas along the southern fringe of the crop area, providing abundant moisture for germination and early crop growth. Light precipitation (2-10mm) covered the remainder of the region except for crop areas around Omsk where the weather was mostly dry. Weekly average temperatures ranging from 3 to 6 degrees C above normal in the northern Urals and West Siberia increased soil temperatures, favoring rapid germination.

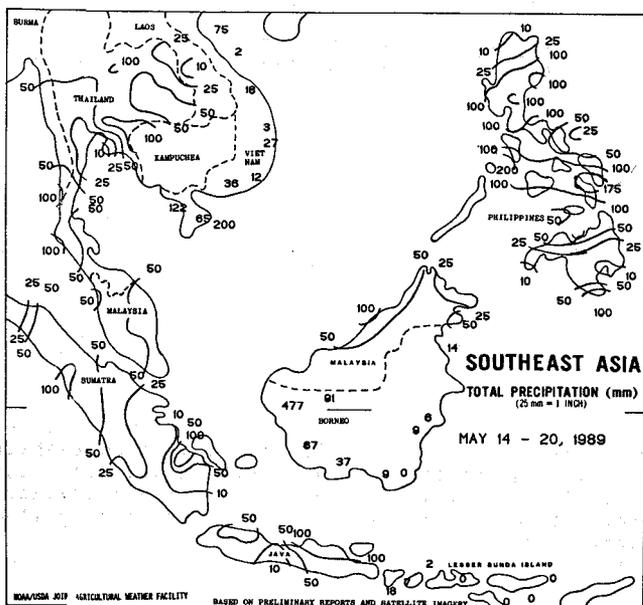
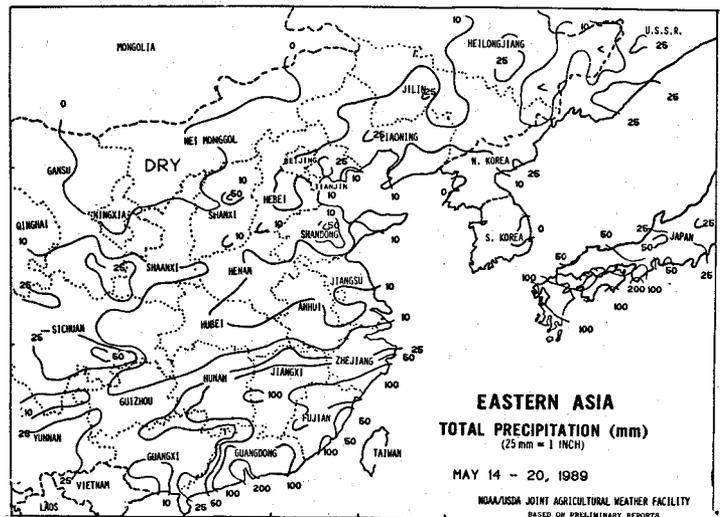


EUROPE ... Mild and mostly dry weather covered much of western and northern Europe, allowing rapid progress in late spring planting. Drier-than-normal weather over the past 3 weeks in the northwest has helped soils dry to normal levels after persistent heavy rain during March and April. In the east, scattered moderate to heavy showers (15-50mm, with scattered amounts in excess of 50mm) fell over sections of southern Poland, Czechoslovakia, Hungary, Yugoslavia, and western Romania, favoring winter grains and recently planted summer crops. Scattered rain (10-60mm, with isolated amounts in excess of 60mm) also fell over much of Italy, while Greece and Bulgaria remained mostly dry. Above-normal mean temperatures in all but southern crop areas accelerated growth of winter grains, which range from booting in the northeast to filling in the south.

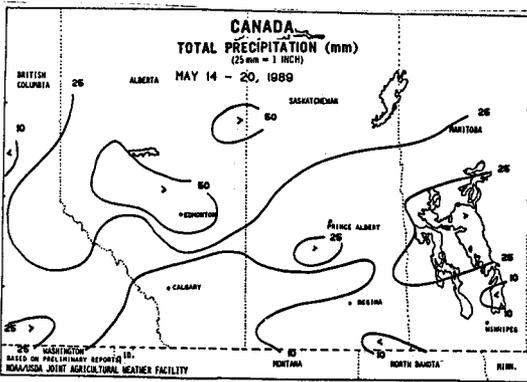


SOUTH ASIA ... Variable showers covered much of southern and eastern India and portions of Bangladesh, improving preplanting moisture conditions. Heaviest rain (25-50mm or more) covered much of Karnataka, northern Tamil Nadu, and local areas from Andhra Pradesh eastward to Assam. Temperatures averaged near to below normal over much of the south and east, with maximum temperatures ranging from the midthirties to low forties C. Elsewhere, mostly dry, hot weather covered all but northernmost areas of Pakistan and India with maximum temperatures in most areas averaging in the low to midforties C. Main season summer crop planting over most of South Asia begins in June or July, coinciding with the onset of the southwest monsoon.

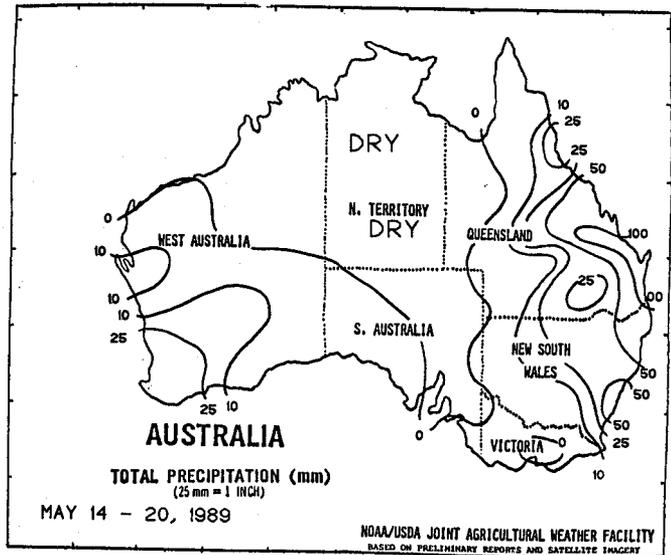
EASTERN ASIA ... Typhoon Brenda struck China's southeastern coast late on the 20th, bringing high winds, torrential rain (100-200mm, with isolated amounts in excess of 200mm) and flooding to sections of Guangdong and Fujian. Heavy, seasonal rain (20-60mm, with scattered rainfall greater than 60mm) also continued across southern sections of the Yangtze Valley, keeping soil moisture at high levels for winter and spring planted crops. Seasonal rainfall in the Yangtze Valley normally peaks in late spring or early summer in eastern sections and during midsummer in western sections. Heavy rain (25-100mm) also fell across much of Japan, delaying early planting of single rice. In the north, scattered light to moderate showers (5-20mm) benefited recently planted summer crops across Heilongjiang, Jilin, Liaoning, and northern Hebei. Mean temperatures were normal to below normal over most crop areas.



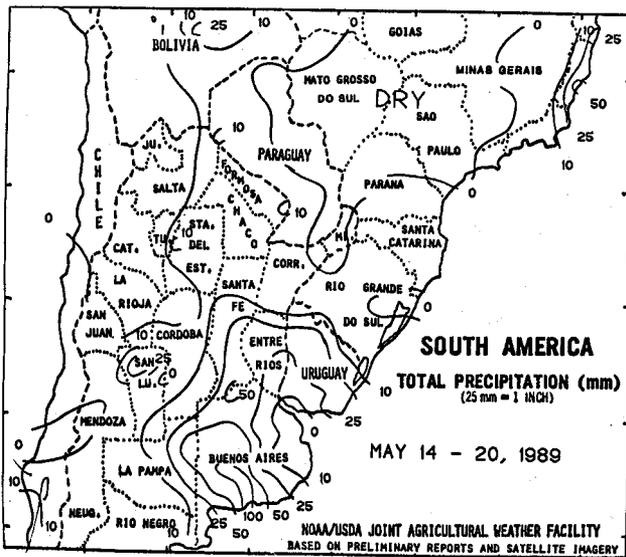
SOUTHEAST ASIA ... Widespread, variable showers (25-100mm or more) covered Thailand's main season grain regions, improving conditions for planting and establishment but likely causing local flooding. The rainfall extended southward along the Malay Peninsula, with locally heavy rain (116-172mm) along the west coast of peninsular Thailand. Variable rain continued over Indonesia and Malaysia, maintaining favorable conditions for immature crops. In the Philippines, Tropical Storm Brenda crossed the central islands, bringing inundating rain (100-200mm or more) to a large area from the east-central islands to central Luzon and causing some flooding and possibly damaging maturing secondary grains. Lighter rain (1-33mm) covered northern Luzon, but overall, rainfall reached most regions of central Luzon which had been trending dry, improving moisture reserves for main season grain planting.



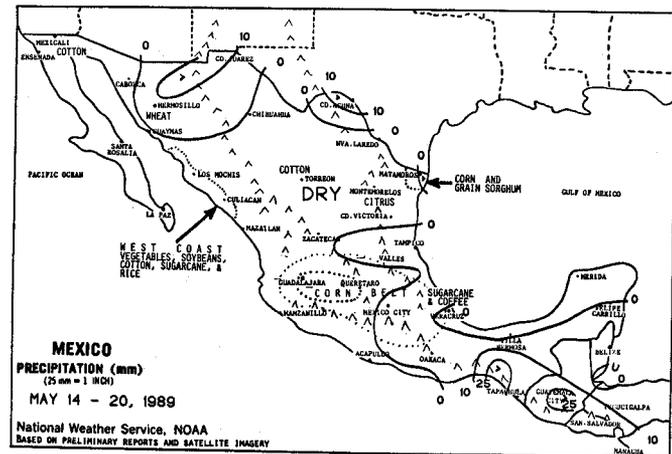
CANADA ... Much needed rain covered a large portion of the Prairie growing areas, providing timely topsoil moisture for spring crop germination. Rainfall ranged from 10 to 25mm or more over Manitoba, Alberta's northern crop regions, and much of Saskatchewan, with heaviest amounts (42-53mm) in north-central Saskatchewan and northern Alberta, including the Peace River Valley. Rainfall averaged less than 10mm over southern Alberta and Saskatchewan's central areas. Temperatures averaged 3-7 degrees C above normal over eastern Saskatchewan and Manitoba and near normal to the west, with freezing temperatures limited to Alberta's northernmost crop areas. Spring wheat and rapeseed plantings usually last until early June and the recent rain and warmer weather likely stimulated rapid progress.



AUSTRALIA ... Moderate to heavy rain (10-40mm) developed in winter grain areas of Western Australia, helping to improve soil moisture levels for planting, which is still in early stages. Heavy rain (25-50mm, with isolated amounts in excess of 50mm) also fell over southern sections of Queensland and northern New South Wales, causing continued delays in winter grains planting, and in eastern coastal Queensland, favoring rapid growth of sugarcane. Mostly dry weather returned to southern New South Wales, Victoria, and South Australia, allowing progress in fieldwork. Above-normal mean temperatures covered all but extreme southern winter grain areas, causing rapid germination and early development of recently planted crops.



SOUTH AMERICA ... In Argentina, much needed substantial rain fell over the wheat areas of Buenos Aires, eastern La Pampa, and southern Santa Fe. In Buenos Aires province, weekly rainfall averaged 50-129mm in the southwest, 25-73mm in the north-central, 10-20mm in the extreme northwest, and 8-20mm in the east. The general soaking rain early in the week boosted topsoil moisture for wheat establishment. Drier weather later in the week throughout the region improved field conditions for soybean harvesting and preparations for wheat planting. In south-central Brazil, dry weather prevailed throughout the week, favoring late soybean harvesting, which is now virtually complete. Wheat seeding is likely underway in the south, with early plantings emerging into vegetative growth. Harvesting of coffee and early varieties of Sao Paulo's commercial citrus are underway, helped by favorably dry weather.



MEXICO ... Light showers (1-8mm) fell over the eastern portion of the Southern Plateau Corn Belt. Mostly light rain also fell over much of the south, except for dry weather along the Gulf coast from Veracruz to the Yucatan peninsula. Isolated showers were scattered across the extreme north, including the northern mountains of Sonora. Rain in this region of northwestern Mexico provides beneficial moisture for irrigation zones. The wheat harvest advanced under mostly clear skies. Dry weather prevailed along the west coast farming region, the north-central cotton and grazing areas, and the western two-thirds of the Southern Plateau Corn Belt. These western crop areas are awaiting the first substantial rains of the wet season which normally begins during May.

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Crop Condition Percent

FOR WEEK ENDING MAY 21, 1989

WINTER WHEAT						RICE					
STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX
ARK	0	7	40	53	0	ARK	0	8	65	22	5
CALIF	0	0	5	75	20	CALIF	0	0	10	80	10
COLO	12	24	38	25	1	LA	0	5	50	41	4
GA	6	22	50	21	1	MISS	0	15	85	0	0
IDAHO	5	4	35	50	6	TEX	0	2	12	72	14
ILL	0	0	7	72	21						
IND	0	1	22	71	6	STATE	0	6	49	39	6
KANS	59	25	12	2	2						
MICH	2	8	25	45	20	PREV YEAR	0	16	44	38	2
MO	2	9	56	32	1						
MONT	5	13	31	43	8						
NEB	24	32	35	9	0						
N MEX	40	45	10	5	0						
N C	0	9	36	52	3						
OHIO	1	8	28	52	11						
OKLA	15	10	55	20	0						
OREG	0	0	36	49	15						
S DAK	0	9	55	34	2						
TEX	20	37	36	7	0						
WASH	0	0	85	15	0						
20 STATE	22	18	35	22	3						
PREV YEAR	3	17	32	42	6						

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

SPRING WHEAT

STATE	VP	P	F	G	EX
IDAHO	0	1	27	64	8
MINN	0	4	35	52	9
N DAK	0	0	26	72	2
S DAK	1	2	13	71	13
4 STATE	0	1	26	67	6
PREV YEAR	3	13	49	33	2

THESE 4 STATES PRODUCED 78% OF THE 1988 SPRING WHEAT CROP.

(Continued from p. 19)

Days suitable for fieldwork 5.0. Topsoil 37% short, 56% adequate, 7% surplus. Subsoil 72% short, 28% adequate. Spring wheat 95% planted, 95% 1988, 90% avg.; 65% emerged, 75% 1988, 75% avg. Oats 80% planted, 85% 1988, 90% avg.; 50% emerged, 60% 1988, 65% avg. Barley 90% planted, 90% 1988, 95% avg.; 75% emerged, 80% 1988, 80% avg. Sugarbeets 65% emerged, 70% 1988, 80% avg. Corn 60% planted, 70% 1988, 75% avg.; 25% emerged, 15% 1988, 35% avg. Potatoes 65% planted, 30% 1988, 60% avg.; 35% emerged, none 1988, 25% avg. Dry beans 12% planted, 5% 1988, 20% avg.; none emerged, none 1988, 10% avg. Winter wheat 15% poor, 35% fair, 50% good. Livestock mostly good. Most spring calves born, death losses light to normal. Branding underway. Lambing, shearing continues. Lamb losses light to normal. Ranges, pastures 10% poor, 65% fair, 25% good. Stock water adequate 55% State.

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