

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

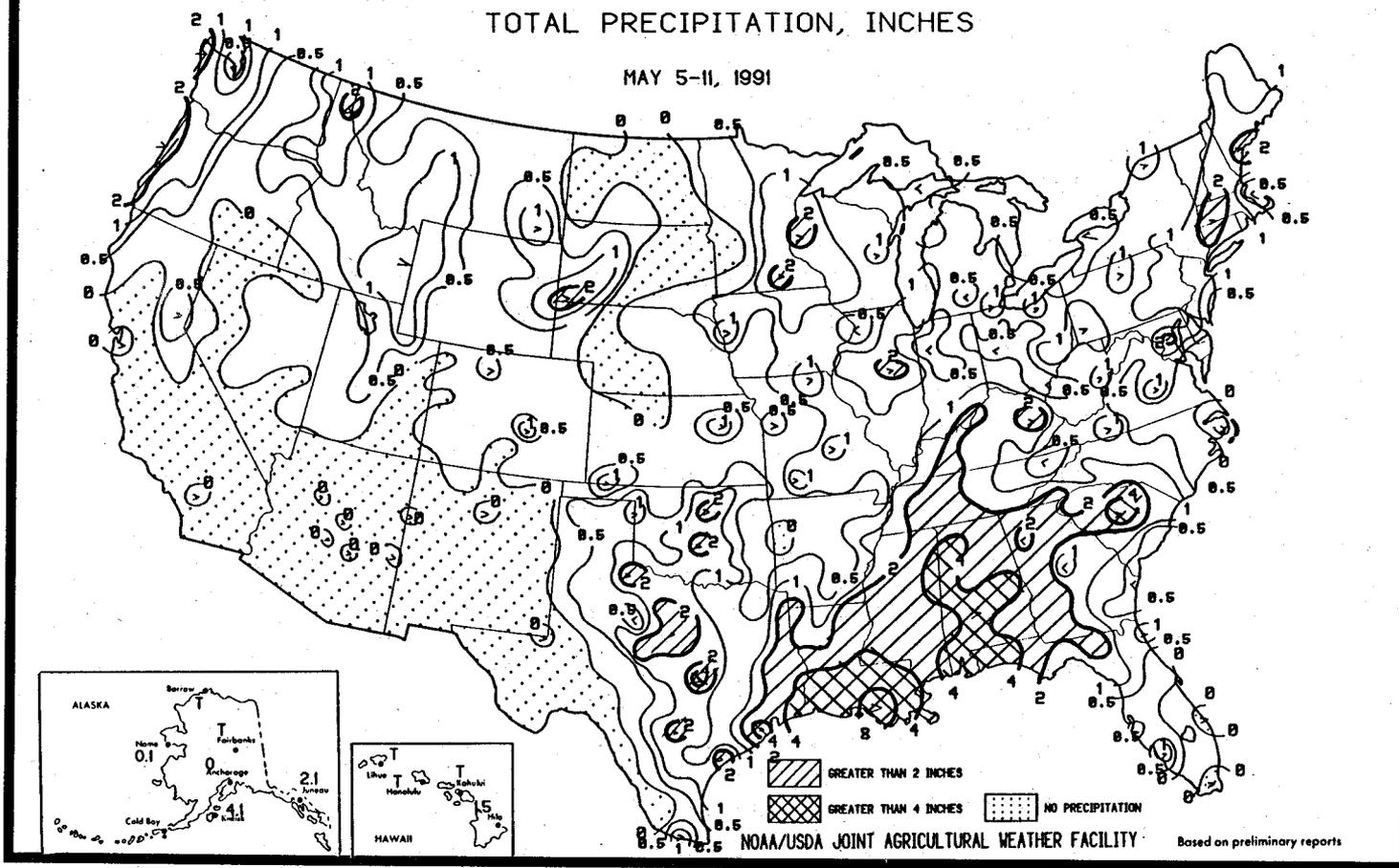
Volume 78, No. 19

Washington, D.C.

May 14, 1991

TOTAL PRECIPITATION, INCHES

MAY 5-11, 1991



HIGHLIGHTS

May 5 - 11, 1991

Thunderstorms flared east of the Mississippi River early in the week; a midweek disturbance sparked heavy rain in the Gulf Coast States; and a powerful late-week storm spread abundant precipitation from the Pacific Northwest to the northern High Plains. Recent and early-week deluges resulted in flooding in parts of six States from Texas to South Carolina. Portions of Mississippi and Louisiana have been hardest hit by flooding from the 5-week spate of downpours, and spring planting is lagging severely. Shreveport, LA, attained its normal annual rainfall (43.84 inches) on May 9, which is 52 days prior to the previous earliest date on record (June 30, 1989). Early week rainfall totals included 4.21 inches in Columbia, SC, 2.72 inches in Windsor Locks, CT, and up to 2.80 inches in western Wisconsin. Monday morning was chilly in the central Plains. The mercury dipped to 23° (Continued to back cover)

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The Crop Moisture Index

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 spells (see Weekly Weather and Crop Bulletin, May 1, 1990, Vol.77, No. 17). 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 344 climatic divisions in the United States using weekly average temperatures and precipitation totals as input.

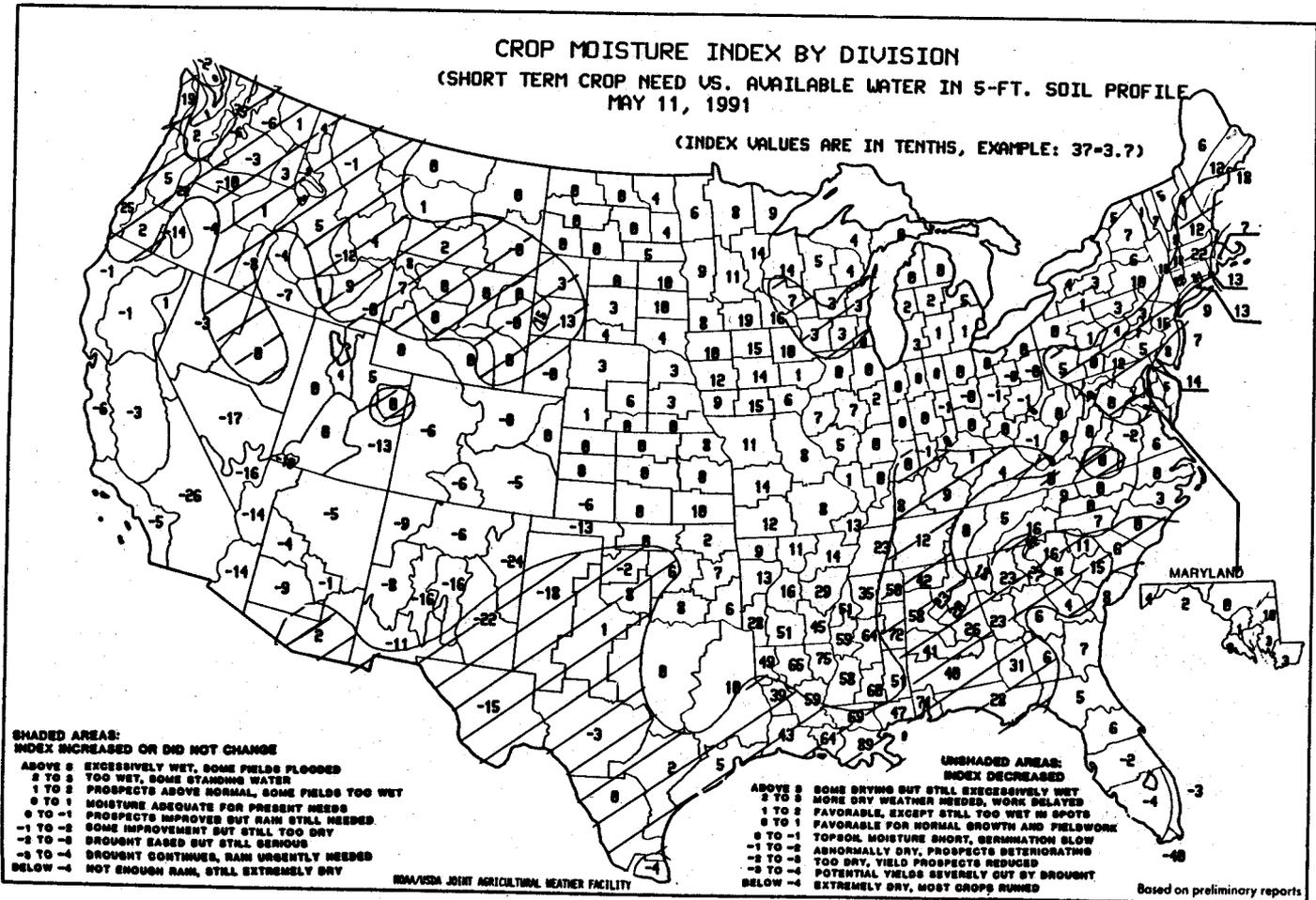
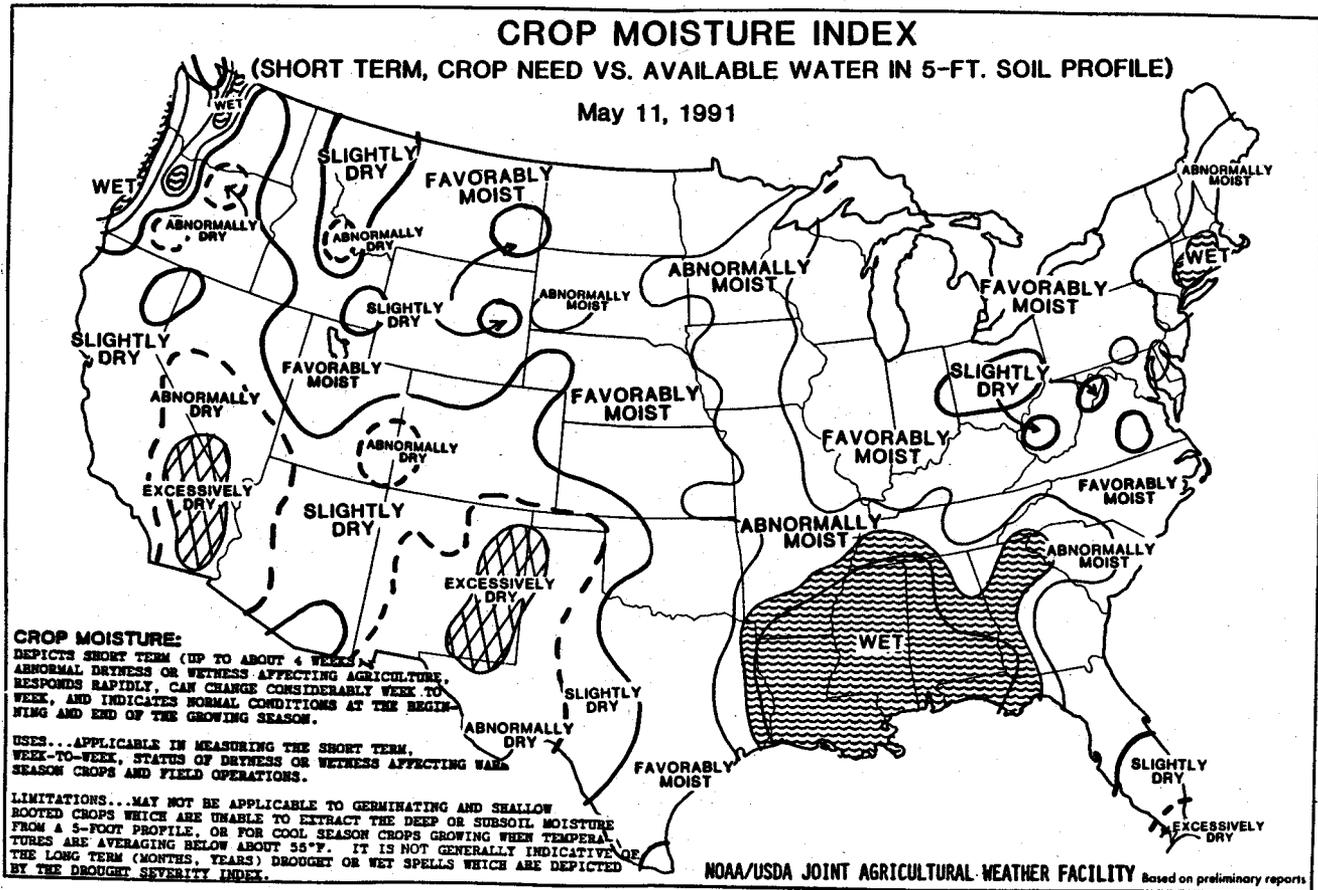
The index is the sum of the evapotranspiration anomaly, which is negative or slightly positive, and the moisture excess (either zero or positive). Both terms take into account the value of the previous week. The evapotranspiration anomaly is weighted to make it comparable for different locations and 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:

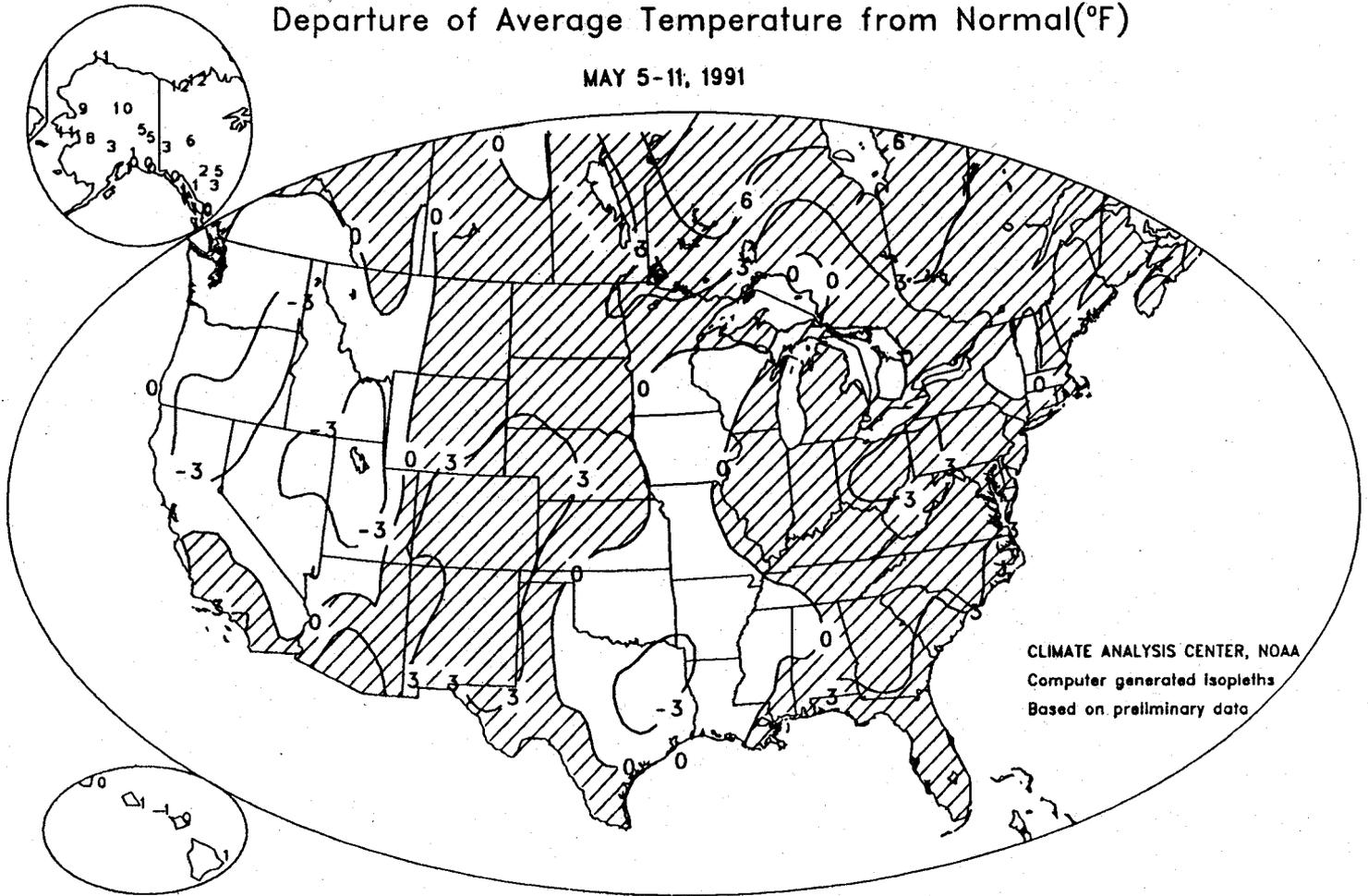
- Palmer, W.C., 1965: Meteorological Drought, Weather Bureau Research Paper No. 45, U.S. Dept. of Commerce, Washington, DC, 58pp.
- Palmer, W.C., 1968: "Keeping Track of Crop Moisture Conditions, Nationwide: The New Crop Moisture Index," Weatherwise, 21, pp. 156-161.

Tom Heddinghaus



Departure of Average Temperature from Normal(°F)

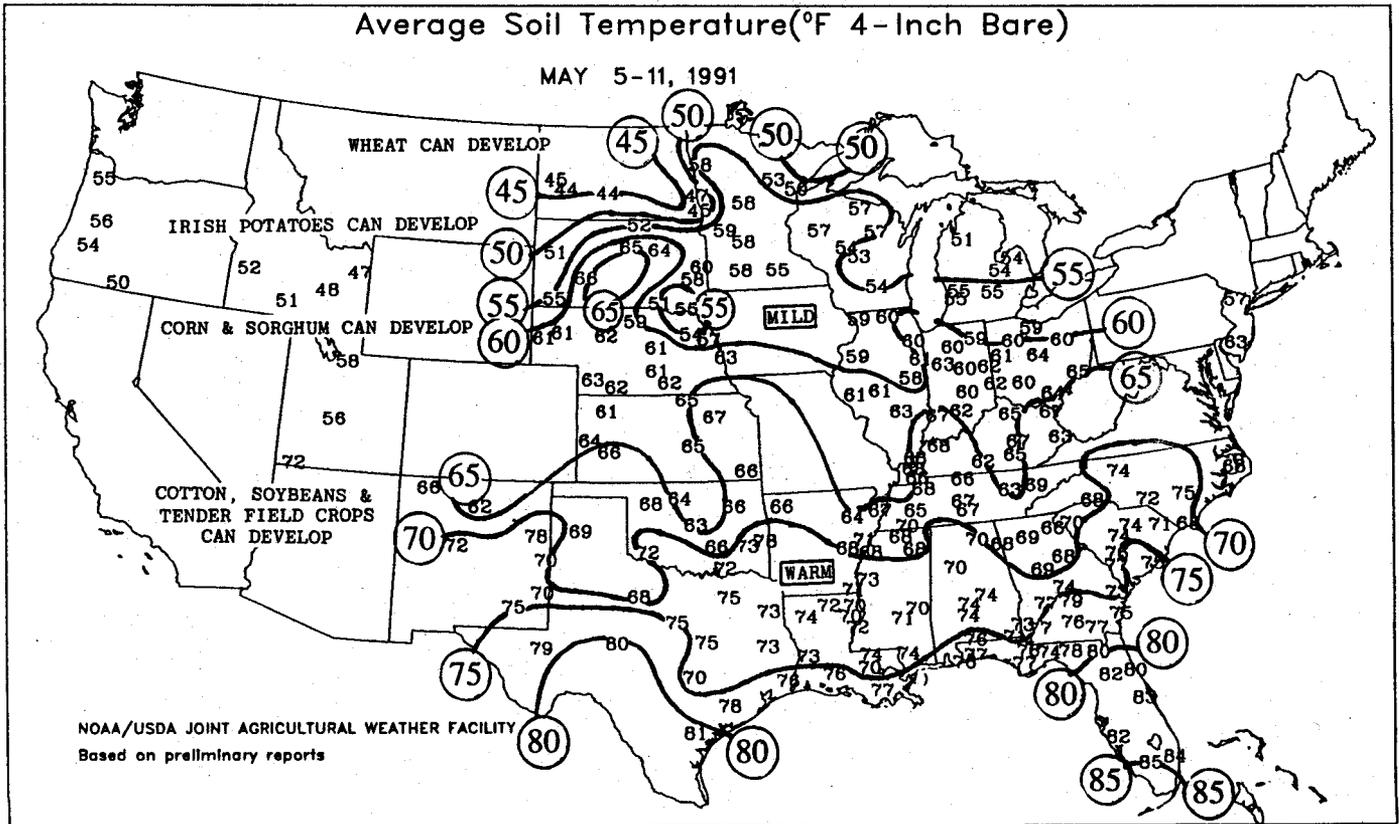
MAY 5-11, 1991



CLIMATE ANALYSIS CENTER, NOAA
Computer generated isopleths
Based on preliminary data

Average Soil Temperature(°F 4-Inch Bare)

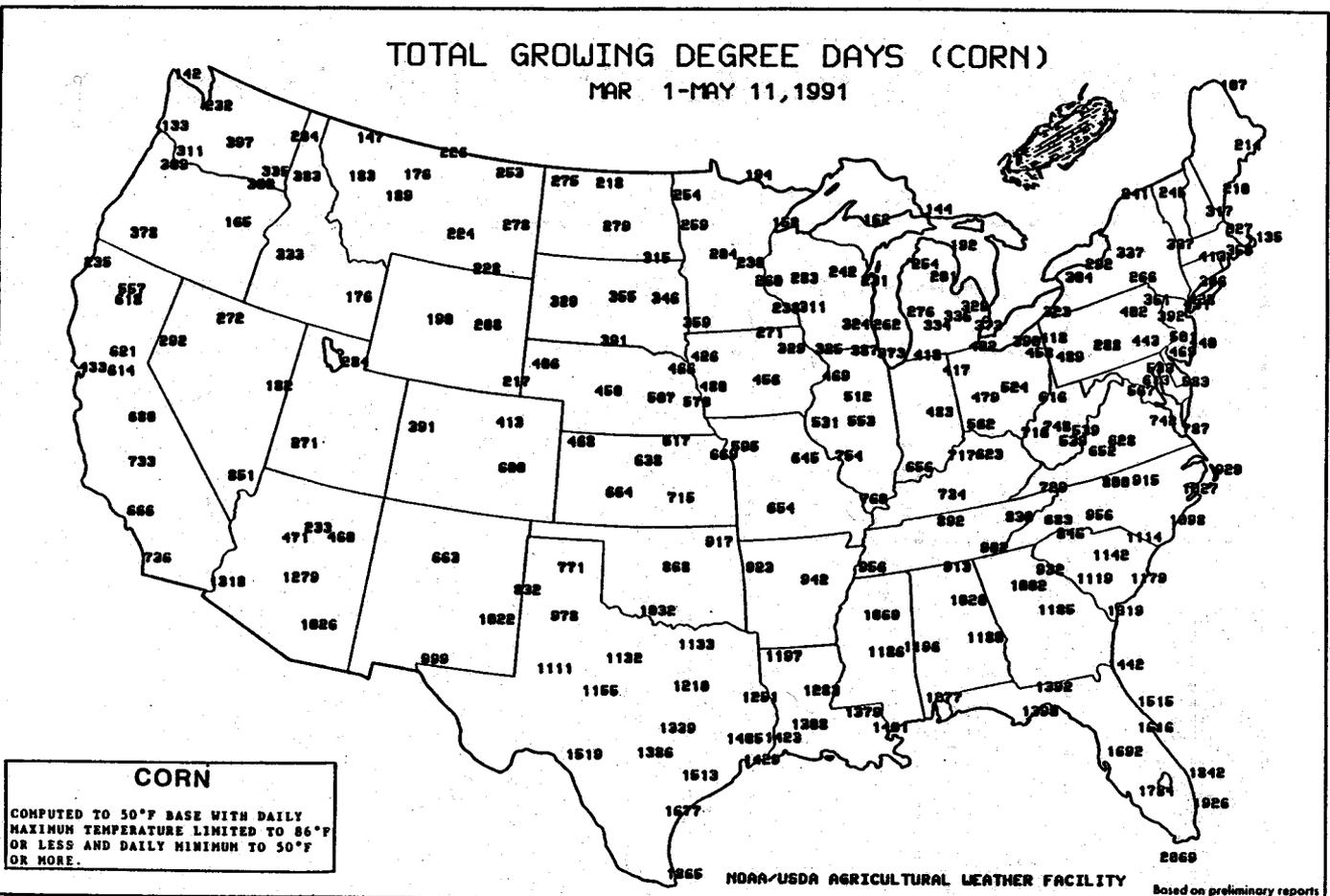
MAY 5-11, 1991



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

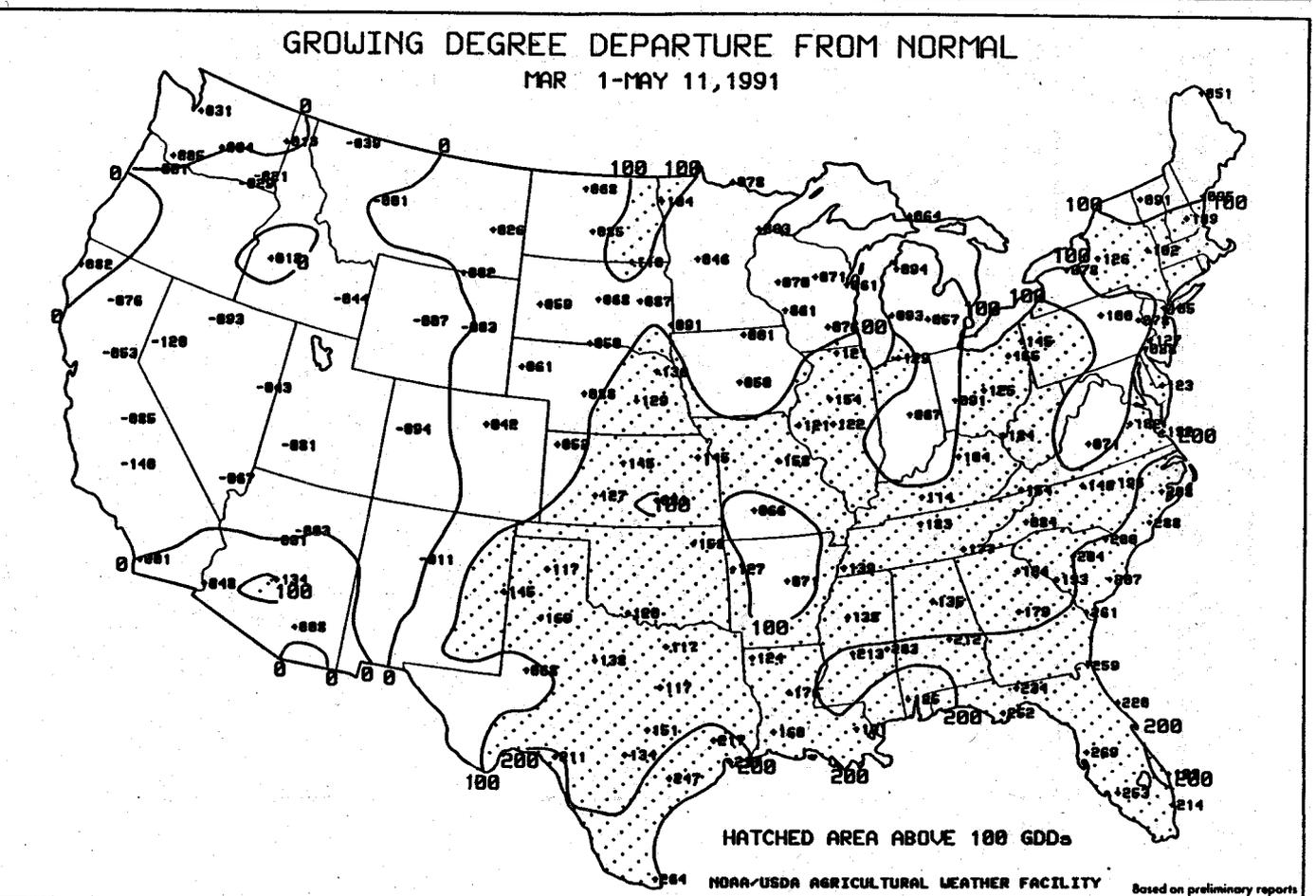
TOTAL GROWING DEGREE DAYS (CORN)

MAR 1-MAY 11, 1991



GROWING DEGREE DEPARTURE FROM NORMAL

MAR 1-MAY 11, 1991



National Weather Data for Selected Cities

Weather Data for the Week Ending **May 11, 1991**

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	
																				50 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	78	58	85	44	68	0	2.0	.9	1.2	11.9	89	19.4	84	98	58	0	0	0	0	5	1	4	3
MOBILE	80	64	84	59	72	-1	6.9	5.7	2.0	22.4	163	41.9	181	97	68	0	0	0	0	6	5	4	3
MONTGOMERY	83	61	88	50	72	2	5.2	4.2	1.6	20.2	172	31.3	153	97	57	0	0	0	0	5	6	5	3
AK ANCHORAGE	51	36	56	28	43	-1	.0	.0	.0	1.0	67	2.0	65	80	45	0	0	0	1	0	0	0	0
BARRROW	30	21	37	13	26	11	.0	.0	.0	.0	28	.3	35	95	78	0	0	0	7	0	0	0	0
FAIRBANKS	62	37	69	31	50	5	.0	.0	.0	2.3	287	3.6	205	69	22	0	0	0	2	1	0	0	0
JUNEAU	54	39	62	34	46	2	2.3	1.6	1.5	10.6	143	22.0	149	95	51	0	0	0	2	1	0	0	0
KODIAK	43	38	46	37	41	0	4.1	2.9	1.5	15.1	162	36.0	178	96	80	0	0	0	0	5	5	2	4
NOME	50	36	59	29	43	11	.1	.0	.1	1.3	96	2.8	109	84	50	0	0	0	2	1	0	0	0
AZ PHOENIX	93	67	102	58	80	2	.0	.0	.0	2.1	186	3.2	136	30	10	5	5	0	2	0	0	0	0
PRESCOTT	73	41	82	33	57	2	.0	.0	.0	4.0	162	6.2	107	52	15	0	0	0	0	0	0	0	0
TUCSON	91	56	96	47	74	2	.0	.0	.0	1.4	131	3.5	140	31	8	5	5	0	0	0	0	0	0
YUMA	92	63	101	55	78	2	.0	.0	.0	.8	266	1.8	203	37	13	4	4	0	0	0	0	0	0
AR FORT SMITH	76	55	86	42	66	-3	.0	.0	.0	12.4	127	15.4	109	92	53	0	0	0	0	0	0	0	0
LITTLE ROCK	73	58	83	47	66	2	.1	-1.1	.1	14.7	122	23.0	116	88	62	0	0	0	4	0	0	0	0
CA BAKERSFIELD	80	51	88	42	66	-3	.0	-1.0	.0	3.8	229	4.6	123	68	24	0	0	0	0	4	0	0	0
FUREKA	59	47	65	45	53	2	.8	-1.4	.6	10.4	121	14.8	71	90	64	0	0	0	4	1	0	0	
FRESNO	80	54	87	46	67	2	.0	-1.0	.0	7.3	251	8.4	124	65	22	0	0	0	0	4	1	0	0
LOS ANGELES	73	55	86	52	64	2	.0	-1.0	.0	4.0	144	7.9	95	84	44	0	0	0	0	0	0	0	0
REDDING	74	49	81	42	62	-5	.0	-1.0	.0	10.3	124	15.2	66	71	24	0	0	0	0	0	0	0	0
SACRAMENTO	78	48	84	41	63	0	.0	-1.0	.0	6.5	185	10.0	96	84	26	0	0	0	0	0	0	0	0
SAN DIEGO	71	48	81	51	65	2	.0	-1.0	.0	7.3	272	10.4	164	82	47	0	0	0	0	0	0	0	0
SAN FRANCISCO	66	49	73	47	57	7	.0	-1.0	.0	6.7	156	10.8	88	88	48	0	0	0	1	0	0	0	0
CO DENVER	76	46	86	34	61	7	.1	-1.5	.1	3.1	79	3.9	78	72	18	0	0	0	1	0	0	0	0
GRAND JUNCTION	76	48	84	32	62	3	.0	-2.0	.0	1.6	95	2.6	93	48	14	0	1	0	0	0	0	0	0
FURELO	81	46	92	34	64	5	.1	-2.0	.1	1.9	84	1.9	72	60	15	3	0	0	1	0	0	0	0
CT BRIDGEPORT	66	50	75	47	58	2	2.0	1.2	1.8	9.3	105	14.0	92	87	50	0	0	0	3	1	0	0	0
HARTFORD	69	45	80	41	57	0	3.2	2.4	2.7	11.3	121	15.5	97	92	38	0	0	0	0	0	0	0	0
DC WASHINGTON	76	57	82	51	67	3	1.1	.3	.8	6.9	91	10.6	82	88	49	0	0	0	3	1	0	0	0
FL APALACHICOLA	83	71	84	68	77	4	1.8	1.2	1.3	21.5	261	45.7	296	96	71	0	0	0	2	2	0	0	0
DAYTONA BEACH	86	69	91	66	78	4	.0	-1.0	.0	15.4	250	19.3	166	93	57	1	0	0	2	0	0	0	0
JACKSONVILLE	87	68	92	64	77	4	.9	.0	.5	15.9	206	27.6	194	95	54	1	0	0	3	0	0	0	0
KEY WEST	87	79	89	75	83	3	.3	-1.3	.3	4.7	130	7.2	99	79	63	0	0	0	2	0	0	0	0
MIAMI	87	77	88	76	82	4	.0	-1.3	.0	7.5	107	11.1	100	73	52	0	0	0	0	0	0	0	0
ORLANDO	88	69	90	68	79	2	.0	-1.0	.0	14.5	222	17.9	152	94	48	1	0	0	1	0	0	0	0
TALLAHASSEE	84	68	88	65	76	4	1.7	.6	1.0	20.7	182	40.5	193	97	63	0	0	0	5	1	0	0	0
TAMPA	90	72	91	68	81	5	.4	-2.0	.4	6.9	112	9.7	86	92	47	5	0	0	1	0	0	0	0
WEST PALM BEACH	87	76	88	75	81	4	.0	-1.2	.0	12.9	168	27.7	213	78	56	0	0	0	1	0	0	0	0
CA ATLANTA	77	60	81	49	69	1	1.9	.9	.9	15.1	128	22.9	108	96	58	0	0	0	4	2	1	0	0
AUGUSTA	83	62	87	54	73	3	1.5	.7	1.0	13.3	141	22.8	131	97	50	0	0	0	2	1	0	0	0
MACON	80	63	87	53	72	1	.9	-1.0	.4	15.5	154	28.1	150	98	62	0	0	0	4	0	0	0	0
SAVANNAH	85	68	88	66	77	5	.3	-1.0	.2	16.5	195	25.8	175	96	54	0	0	0	2	0	0	0	0
HI HILLO	81	68	83	66	74	1	1.5	-.9	.6	50.9	167	64.0	120	93	60	0	0	0	6	1	0	0	0
HONOLULU	85	71	88	70	78	2	.0	-1.0	.0	7.2	133	10.1	85	71	47	0	0	0	0	0	0	0	0
KABULUI	84	67	88	64	75	0	.0	-1.0	.0	2.8	70	7.7	71	88	53	0	0	0	1	0	0	0	0
LIHUE	80	71	81	69	75	0	.0	-1.0	.0	13.2	148	15.4	82	84	64	0	0	0	1	0	0	0	0
ID BOISE	66	44	75	37	55	0	.3	.0	.2	2.6	100	4.1	77	82	33	0	0	0	2	0	0	0	0
LEWISTON	64	44	69	39	54	-2	.8	.5	.5	2.7	104	3.2	65	90	43	0	0	0	4	1	0	0	0
POCATELLO	56	39	65	30	47	-5	1.8	1.5	.8	7.6	304	8.5	193	94	48	0	1	5	2	2	1	0	0
IL CHICAGO	69	47	85	42	58	1	1.3	.6	1.3	8.9	117	11.0	105	89	53	0	0	0	2	1	0	0	0
MOLINE	71	48	84	36	59	1	.4	-.6	.3	10.5	129	12.1	110	95	55	0	0	0	2	0	0	0	0
PEORIA	72	48	82	38	60	1	1.0	-1.0	.0	8.1	100	9.8	89	94	59	0	0	0	1	1	0	0	0
QUINCY	70	52	77	41	61	0	.9	-1.0	.8	8.3	97	9.1	81	78	56	0	0	0	2	1	0	0	0
ROCKFORD	69	47	86	38	58	1	.5	-1.3	.5	7.5	92	9.0	85	89	52	0	0	0	1	1	0	0	0
SPRINGFIELD	72	51	81	40	62	1	1.0	-.2	1.0	9.4	113	11.4	99	97	65	0	0	0	1	1	0	0	0
IN EVANSVILLE	73	52	82	40	63	0	.9	-2.0	.4	7.8	76	13.8	85	100	67	0	0	0	4	0	0	0	0
FORT WAYNE	72	48	86	39	60	3	.4	-.4	.4	8.6	111	11.7	99	91	51	0	0	0	2	0	0	0	0
INDIANAPOLIS	71	52	83	37	61	1	-2	-1.0	1.3	11.3	133	14.8	109	96	61	0	0	0	2	0	0	0	0
SOUTH BEND	71	49	86	41	60	3	.2	-.4	.2	7.9	98	11.4	91	88	49	0	0	0	2	0	0	0	0
IA DES MOINES	69	50	80	37	59	0	.6	-.3	.6	13.1	196	14.3	162	92	55	0	0	0	2	1	0	0	0
STOUC CITY	68	49	82	38	59	0	.8	-.1	.6	7.3	142	8.1	122	92	53	0	0	0	3	1	0	0	0
WATERLOO	66	45	80	34	56	0	1.0	-.1	.9	13.6	189	14.7	165	96	59	0	0	0	2	1	0	0	0
KS CONCORDIA	74	49	81	35	62	1	.1	-.8	.0	4.6	85	5.3	78	94	48	0	0	0	3	0	0	0	0
DODGE CITY	75	51	85	34	63	2	.0	-.7	.0	2.2	52	2.6	48	88	40	0	0	0	1	0	0	0	0
GOODLAND	73	45	83	31	59	3	.0	-.6	.0	2.6	83	2.9	77	94	42	0	2	1	0	0	0	0	0
TOPEKA	73	51	84	36	62	0	.1	-.7	.1	7.4	113	8.2	97	94	50	0	0	0	2	0	0	0	0
WICHITA	72	52	83	37	62	-1	.0	-.8	.0	3.9	68	4.9	68	95	55	0	0	0	1	0	0	0	0
KY BOWLING GREEN	76	55	80	42	65	1	1.9	.9	.9	9.2	83	19.8	100	95	63	0	0	0	5	2	1	0	0
LEXINGTON	74	54	80	42	64	2	1.1	-.1	.9	9.8	95	16.3	95	94	58	0	0	0	2	1	0	0	0
LOUISVILLE	74	56	82	42	65																		

Weather Data for the Week Ending May 11, 1991

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS								
	AVERAGE	MAXIMUM	AVERAGE	EXTREME	EXTREME	DEPARTURE	WEEKLY	DEPARTURE	GREATEST IN	TOTAL, IN.,	PCT. NORMAL	TOTAL, IN.,	PCT. NORMAL	AVERAGE	MAXIMUM	AVERAGE	MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																				MINIMUM	HIGH	LOW	FROM NORMAL
SHREVEPORT	77	59	88	49	68	-3	2.3	1.2	1.9	31.6	310	44.4	251	97	60	0	0	0	0	4	1		
MS CARIBOU	62	37	73	30	50	3	.7	.1	.6	8.8	147	12.0	115	82	36	0	0	2	4	1	1		
PORTLAND	64	42	74	37	53	3	2.2	1.5	2.2	15.2	168	19.9	122	87	39	0	0	0	1	1	1		
MD BALTIMORE	75	51	82	45	63	2	.6	.2	.5	7.9	97	12.3	86	92	45	0	0	0	3	0	0		
SALISBURY	75	50	81	44	62	1	.3	.4	.3	9.5	112	16.4	108	100	50	0	0	0	3	0	0		
MA BOSTON	65	51	72	47	58	2	.3	.5	.3	9.5	104	14.3	85	76	45	0	0	0	1	1	0		
CHATHAM	61	48	66	43	55	4	.4	.5	.4	8.9	95	14.2	80	84	64	0	0	0	1	1	0		
MI ALPENA	60	38	85	28	49	0	.7	.1	.6	6.3	118	7.8	93	96	56	0	1	3	3	1	1		
DETROIT	68	46	84	39	57	2	1.0	.4	.9	5.2	79	7.6	75	88	50	0	0	0	3	3	1		
FLINT	67	43	83	32	55	1	.6	.0	.4	7.6	124	9.7	107	92	50	0	1	3	3	0	0		
GRAND RAPIDS	66	44	82	34	55	0	.8	.1	.5	10.0	139	11.9	112	95	56	0	0	0	5	5	0		
HOUGHTON LAKE	62	41	78	32	51	0	.5	.0	.4	8.3	154	10.1	124	92	51	0	1	1	4	4	0		
LANSING	67	42	82	32	54	0	.5	.0	.4	8.8	147	10.9	121	100	59	0	1	1	5	5	0		
MARQUETTE	59	37	82	25	48	1	.5	.4	.3	7.9	101	10.6	90	94	60	0	2	2	2	3	0		
MUSKEGON	63	45	82	35	54	0	1.1	.5	.7	9.1	137	11.2	106	98	59	0	0	0	3	3	0		
SAULT ST. MARIE	59	38	80	33	49	2	.3	.4	.2	7.4	139	9.5	104	93	52	0	0	0	3	1	0		
MN ALEXANDRIA	62	44	85	34	53	1	T	.6	T	5.9	137	7.4	126	94	55	0	0	0	3	1	0		
DULUTH	59	38	83	33	48	1	1.1	.5	.9	6.6	136	7.7	111	92	56	0	0	0	2	2	1		
INT'L FALLS	63	42	83	29	52	4	.7	.2	.4	4.5	133	6.2	126	91	55	0	0	2	2	3	1		
MINNEAPOLIS	62	46	80	35	54	-1	1.9	1.3	1.8	8.3	177	9.9	156	93	64	0	0	0	3	1	1		
ROCHESTER	61	43	81	35	52	-2	1.6	.9	1.3	9.8	181	10.9	158	98	69	0	0	0	3	1	1		
MS GREENWOOD	77	61	85	50	69	-2	3.4	2.2	1.4	22.0	162	35.0	150	95	59	0	0	0	3	3	3		
JACKSON	79	61	88	49	70	-1	2.4	1.2	1.9	27.2	207	37.5	167	98	63	0	0	0	6	1	1		
MERIDIAN	80	61	86	49	70	0	3.6	2.6	1.3	23.1	168	36.2	156	96	57	0	0	0	6	2	1		
MO CAPE GIRARDEAU	75	57	85	45	66	-1	.9	.2	.7	10.0	90	16.2	94	95	53	0	0	0	4	1	0		
COLUMBIA	73	52	83	37	62	0	.4	.6	.4	8.3	94	10.0	80	92	56	0	0	0	2	1	0		
KANSAS CITY	71	50	82	35	61	-3	1.1	.9	.1	8.1	109	9.7	98	95	56	0	0	0	2	1	0		
SAINT LOUIS	75	56	82	47	66	3	.8	.0	.7	8.1	100	10.6	89	98	50	0	0	0	3	1	1		
SPRINGFIELD	71	51	80	36	61	-2	.9	.0	.7	8.3	93	12.2	96	94	61	0	0	0	2	1	0		
MT BILLINGS	63	43	79	34	53	1	.3	.2	.2	5.2	139	6.5	121	92	43	0	0	0	4	1	0		
GLASGOW	67	43	79	33	55	3	1.1	.2	.1	2.2	151	2.7	129	85	34	0	0	0	3	0	0		
GREAT FALLS	61	41	70	32	51	0	.6	.0	.5	3.7	116	4.5	93	80	37	0	1	2	0	0	0		
HAVRE	64	39	73	25	52	-1	1.1	.2	.1	2.5	110	3.0	90	83	37	0	1	1	1	1	0		
HELENA	62	40	72	26	51	1	.1	.4	.8	2.5	111	2.8	83	72	34	0	1	3	1	1	1		
KALISPELL	60	38	68	31	49	-1	.8	.4	.6	2.4	101	4.6	91	93	43	0	1	3	1	1	1		
MILES CITY	67	43	79	30	55	1	.7	.3	.7	4.9	181	5.9	152	86	45	0	1	1	1	1	1		
MISSOULA	59	38	68	28	49	-1	.4	.0	.3	1.9	83	2.7	61	86	40	0	1	5	0	0	0		
NE GRAND ISLAND	71	48	84	32	59	1	.1	.7	.1	5.4	101	6.0	91	90	48	0	1	1	1	0	0		
LINCOLN	72	50	83	37	61	2	.2	.6	.2	6.2	103	7.3	94	94	52	0	0	0	2	0	0		
NORFOLK	70	48	84	34	59	1	1	.7	.1	6.0	123	7.3	119	88	48	0	0	0	2	1	0		
NORTH PLATTE	72	47	85	28	60	4	T	.7	T	5.9	148	6.4	132	92	43	0	2	0	0	0	0		
OMAHA	70	51	83	38	61	0	.2	.7	.2	11.6	185	13.0	164	84	51	0	0	0	1	0	0		
SCOTTSBLUFF	78	45	90	27	61	3	.3	.3	.1	2.1	64	2.9	72	84	23	1	2	3	0	0	0		
VALENTINE	71	44	87	23	58	3	T	.6	T	4.5	125	5.2	119	89	39	0	2	1	0	0	0		
NV ELY	60	30	79	21	45	-3	.1	.1	.1	2.9	133	3.2	89	88	38	0	5	2	0	0	0		
LAS VEGAS	82	57	94	51	70	-1	.0	.1	.0	1.0	150	1.8	111	35	15	3	0	0	2	0	0		
RENO	63	37	76	28	50	-2	.2	.1	.1	2.2	157	2.5	69	76	25	0	1	2	0	0	0		
WINNEMUCCA	64	37	77	25	51	-1	.1	.1	.0	2.0	118	2.7	84	72	23	0	2	3	0	0	0		
NH CONCORD	67	39	79	34	53	0	1.2	.6	1.2	6.9	98	10.1	83	94	34	0	0	0	1	1	0		
NJ ATLANTIC CITY	72	46	76	40	59	1	.5	.2	.5	9.4	113	15.8	104	98	47	0	0	0	1	0	0		
NM ALBUQUERQUE	81	49	86	37	65	3	.0	.1	.0	.2	16	.8	46	32	9	0	0	0	0	0	0		
CLOVIS	83	53	93	40	68	5	T	.4	T	.4	22	1.1	38	82	23	3	0	0	0	0	0		
ROSWELL	88	57	94	44	72	5	.0	.1	.0	T	4	.6	32	63	15	4	0	0	0	0	0		
NY ALBANY	66	44	79	36	55	0	.8	.0	.6	7.9	112	11.7	101	93	39	0	0	0	3	1	0		
BINGHAMTON	63	44	74	37	53	1	1.0	.2	.8	9.0	126	13.2	111	93	49	0	0	0	4	1	0		
BUFFALO	66	47	76	40	56	3	.2	.5	.1	12.2	173	16.3	131	82	48	0	0	0	2	0	0		
NEW YORK	69	56	79	52	62	3	1.3	.5	1.3	8.1	89	13.0	86	74	38	0	0	0	2	1	0		
ROCHESTER	66	44	78	37	55	1	.5	.1	.4	9.3	154	12.1	114	89	50	0	0	0	4	0	0		
SYRACUSE	66	43	76	34	55	0	.7	.1	.4	8.9	118	12.8	101	93	47	0	0	0	3	0	0		
NC ASHEVILLE	72	54	79	41	63	1	.6	.3	.3	12.3	127	17.2	107	98	54	0	0	0	4	0	0		
CHARLOTTE	79	62	84	52	70	4	1.3	.5	.7	13.9	149	21.3	126	90	50	0	0	0	5	1	0		
GREENSBORO	77	59	84	49	68	4	.5	.2	.3	14.9	183	20.6	137	89	53	0	0	0	3	0	0		
RATTERAS	78	62	81	58	70	5	T	.9	T	8.5	100	22.0	127	91	55	0	0	0	0	0	0		
NEW BERN	81	62	87	58	72	4	.2	.7	.2	6.2	77	15.4	96	95	47	0	0	0	3	0	0		
RALEIGH	79	59	83	51	69	4	.2	.6	.2	5.9	75	10.7	72	94	47	0	0	0	2	0	0		
WILMINGTON	80	63	87	57	72	3	.2	.7	.2	10.1	121	21.9	142	96	54	0	0	0	1	1	0		
ND BISMARCK	65	44	81	25	55	2	.1	.4	.1	2.9	103	3.3	88	90	52	0	3	1	1	0	0		
FARGO	64	45	84	31	55	2	.1	.4	.0	5.0	147	6.6	151	88	57	0	1	2	0	0	0		
GRAND FORKS	65	46	87	31	55	4	.1	.3	.1	4.8	176	5.8	147	88	54	0	1	1	1	0	0		
WILLISTON	66	43	80	24	55	3	T	.3	T	2.3	98	2.9	87	84	41	0	2	1	0	0	0		
OH AKRON-CANTON	73	49	84	44	61	5	.6	.2	.5	6.3	80	10.7	85	90	45	0	0	0	2	1	0		
CINCINNATI	72	53	84	39	63	2	.6	.2	.3	10.6	120	17.4	119	94	60	0	0	0	3	1	0		
CLEVELAND	71	47	81	41	59	3	1.0	.3	1.0	8.9	119	13.4	111	93	48	0	0	0	1	1	0		
COLUMBUS	75	53	85	46	64	5	.4	.4	.4	8.6	110	12.9	101	90	47	0	0	0	2	0	0		

Based on 1951-80 normals

Weather Data for the Week Ending May 11, 1991

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	TEMP. °F		PRECIP.		
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	73	53	85	45	63	3	.4	-.4	.4	10.8	139	15.8	128	88	54	0	0	2	0	1	0	
TOLEDO	69	47	85	41	58	2	1.2	-.5	1.1	7.1	108	10.0	96	95	51	0	0	2	1	1	0	
YOUNGSTOWN	73	45	82	38	59	4	1.5	-.3	1.5	6.2	79	9.8	77	93	41	0	0	1	1	0	0	
OK OKLAHOMA CITY	73	57	82	46	65	-1	1.7	-.6	1.2	7.3	108	8.3	91	92	55	0	0	3	3	0	0	
TULSA	76	57	83	45	66	-1	1.3	-.9	1.3	5.8	64	7.6	63	89	51	0	0	2	2	1	0	
OR ASTORIA	54	45	58	41	50	-1	1.5	-.8	.9	16.6	127	32.0	101	94	75	0	0	6	6	0	0	
BURNS	58	35	70	23	47	-3	1.0	-.0	1.0	5.2	2.0	4.6	76	31	0	0	2	2	0	0		
MEDFORD	63	41	72	37	52	-3	1.2	-.1	1.2	3.7	7.0	80	89	41	0	0	2	2	0	0		
PENDLETON	61	45	68	37	53	-4	1.7	-.5	1.7	2.4	101	4.0	76	79	45	0	0	5	5	0	0	
PORTLAND	59	49	65	42	54	-1	1.0	-.5	1.0	9.7	146	15.9	95	89	58	0	0	4	4	1	1	
SALEM	58	45	66	37	52	-1	1.5	1.0	1.5	10.5	142	16.6	88	95	61	0	0	5	5	1	1	
PA ALLENTOWN	70	46	75	41	58	1	1.4	-.6	1.4	8.3	92	12.2	79	91	40	0	0	1	1	0	0	
ERIE	65	46	75	38	55	2	1.1	-.9	1.1	7.3	98	11.1	93	87	48	0	0	2	2	1	0	
HARRISBURG	72	48	78	43	60	0	1.7	-.9	1.5	7.9	99	11.8	87	91	46	0	0	3	3	1	1	
PHILADELPHIA	73	52	77	49	63	3	1.7	1.0	1.7	8.6	103	13.5	94	89	44	0	0	1	1	1	1	
PITTSBURGH	74	49	82	46	62	4	1.8	1.0	1.3	7.4	91	11.8	89	89	43	0	0	3	3	1	1	
SCRANTON	70	46	77	38	58	2	1.0	-.3	1.0	6.7	100	9.6	87	87	39	0	0	1	1	1	1	
RI PROVIDENCE	67	46	77	42	57	1	1.6	-.8	1.0	13.1	137	18.8	109	91	41	0	0	2	2	2	0	
SC CHARLESTON	83	65	85	62	74	4	4.2	-.7	4.2	9.4	115	18.1	122	100	58	0	0	3	3	0	0	
COLUMBIA	84	62	89	52	73	3	4.2	-.9	3.4	4.2	16.5	164	23.9	130	95	49	0	0	1	1	1	
FLORENCE	82	63	86	53	73	3	3.9	-.3	3.9	8.6	105	15.2	101	95	51	0	0	3	3	1	1	
GREENVILLE	77	58	82	48	68	1	1.4	-.5	1.3	12.9	111	19.9	98	96	55	0	0	3	3	1	1	
SD ABERDEEN	65	46	83	29	56	2	1.0	-.5	1.0	5.8	155	6.6	136	88	54	0	1	0	0	0	0	
BURON	66	46	84	28	56	2	1.0	-.5	1.0	7.7	190	8.7	168	89	53	0	2	0	0	0	0	
RAPID CITY	68	43	80	28	55	3	1.8	-.2	1.8	4.8	126	5.9	122	89	46	0	2	4	4	1	1	
STOIX FALLS	66	45	83	26	56	1	1.2	-.5	1.1	4.4	89	5.0	78	94	51	0	1	2	2	0	0	
TN CHATTANOOGA	76	57	82	45	67	1	1.6	-.7	1.2	16.3	132	27.2	122	97	58	0	0	5	5	1	0	
KNOXVILLE	78	55	83	43	66	1	1.3	-.5	1.3	10.7	101	20.2	104	96	51	0	0	2	2	0	0	
MEMPHIS	77	59	86	49	68	-1	1.1	-.1	1.1	7.7	23.8	182	33.2	151	94	55	0	0	4	4	1	1
NASHVILLE	78	58	84	47	68	2	2.1	1.0	1.0	9.8	84	18.1	90	91	54	0	0	5	5	2	0	
TX ABILENE	79	57	88	45	68	-3	1.3	-.5	1.3	2.8	61	5.6	86	84	44	0	0	2	2	0	0	
AMARILLO	77	49	84	36	63	0	1.7	-.2	1.7	1.2	43	2.0	54	91	37	0	0	3	3	1	1	
AUSTIN	80	62	87	52	71	-2	1.8	-.8	1.8	8.2	131	20.4	198	95	57	0	0	1	1	1	1	
BRAESMONT	82	65	88	59	73	0	4.3	3.2	1.7	13.6	152	33.0	191	95	65	0	0	5	5	3	0	
BROWNSVILLE	87	74	92	67	80	2	1.1	-.4	1.1	10.5	384	13.5	246	96	57	3	0	1	1	3	0	
CORPUS CHRISTI	85	69	88	61	77	0	1.6	-.1	1.6	8.5	232	12.3	182	94	64	0	0	2	2	1	1	
DEL RIO	88	66	95	54	77	1	1.0	-.5	1.0	2.2	70	3.6	77	72	33	2	0	0	0	0	0	
EL PASO	89	52	93	43	71	1	1.0	-.1	1.0	1.0	19	1.6	117	38	12	4	0	0	0	0	0	
FORT WORTH	78	59	87	46	69	-2	1.0	-.1	1.0	7.7	95	13.0	112	92	54	0	0	1	1	1	0	
GALVESTON	79	68	84	62	74	0	3.7	2.9	2.8	8.7	148	25.8	230	93	71	0	0	4	4	2	2	
HOUSTON	81	63	87	54	72	-2	1.4	-.3	1.4	11.5	143	27.1	183	96	65	0	0	1	1	1	1	
LUBBOCK	82	53	91	40	68	1	1.8	-.3	1.8	1.3	47	3.0	82	93	37	1	0	3	3	1	0	
MIDLAND	87	59	94	44	73	3	1.0	-.4	1.0	2.1	2	2.1	70	75	25	4	0	0	0	0	0	
SAN ANGELO	84	57	93	41	70	-1	1.1	-.5	1.1	1.2	35	3.5	73	83	37	2	0	1	1	0	0	
SAN ANTONIO	82	62	89	52	72	-2	1.8	-.0	1.8	10.3	194	17.7	205	96	53	0	0	1	1	1	1	
VICTORIA	83	66	88	56	74	-1	1.6	-.4	1.6	15.6	291	26.5	280	97	63	0	0	1	1	1	1	
WACO	80	59	88	46	69	-3	1.3	-.2	1.3	5.7	76	10.3	92	98	59	0	0	2	2	1	1	
WICHITA FALLS	77	57	87	45	67	-3	1.5	-.5	1.5	5.0	80	7.7	94	94	50	0	0	2	2	1	1	
UT CEDAR CITY	66	35	78	28	50	-3	1.3	-.1	1.3	1.3	54	2.4	62	69	22	0	2	2	0	0	0	
SALT LAKE CITY	63	44	83	37	53	-3	1.7	-.3	1.7	3.3	5.1	6.8	96	86	43	0	0	3	3	0	0	
VT BURLINGTON	64	41	79	34	53	0	1.6	-.0	1.6	7.3	124	9.5	100	94	42	0	0	2	2	1	1	
VA NORFOLK	76	58	82	52	67	3	1.1	-.7	1.1	11.2	141	16.8	113	88	43	0	0	1	1	0	0	
RICHMOND	78	56	82	48	67	3	1.5	-.3	1.5	7.2	94	11.9	85	91	46	0	0	3	3	0	0	
ROANOKE	74	56	82	44	65	2	1.3	-.2	1.3	10.4	130	16.0	115	95	54	0	0	2	2	0	0	
WA QUILLAYUTE	53	44	54	42	49	-1	2.9	1.6	1.3	17.7	83	47.0	98	99	79	0	0	2	2	2	0	
SEATTLE-TACOMA	60	46	64	39	53	-1	1.4	-.1	1.4	11.6	177	20.8	124	96	61	0	0	4	4	0	0	
SPOKANE	59	40	69	31	49	-3	1.5	-.2	1.5	4.1	141	6.6	95	94	48	0	1	4	4	0	0	
YAKIMA	66	42	72	30	54	-1	1.1	-.0	1.1	1.9	149	2.4	72	81	38	0	1	2	2	0	0	
WV BECKLEY	72	50	81	37	61	3	1.5	-.3	1.5	4.0	112	16.3	107	94	51	0	0	4	4	0	0	
CHARLESTON	77	52	86	42	65	3	1.4	-.5	1.4	10.1	114	15.7	102	95	51	0	0	3	3	0	0	
HUNTINGTON	76	52	87	38	64	1	1.4	-.5	1.4	12.1	135	17.7	119	95	48	0	0	3	3	0	0	
PARKERSBURG	76	51	84	44	64	2	1.2	-.4	1.2	10.5	129	15.9	117	96	45	0	0	3	3	0	0	
WI GREEN BAY	61	44	84	39	53	0	1.9	-.2	1.9	6.5	116	7.5	96	96	61	0	0	2	2	1	1	
LACROSSE	65	46	85	39	55	-1	1.1	-.3	1.1	9.4	153	10.8	136	97	62	0	0	2	2	1	1	
MADISON	66	45	85	40	56	1	1.0	-.2	1.0	7.7	159	11.7	138	90	53	0	0	2	2	1	1	
MILWAUKEE	62	45	81	40	54	1	1.6	-.0	1.6	8.4	122	10.3	105	91	59	0	0	2	2	1	1	
NAUSAU	61	43	83	35	52	-1	1.6	-.6	1.6	8.7	145	10.0	126	98	58	0	0	4	4	0	0	
WY CASPER	63	37	80	27	50	0	1.6	-.6	1.6	2.5	78	3.4	81	90	42	0	2	4	4	0	0	
CHEYENNE	69	38	80	24	54	4	1.2	-.3	1.2	1.9	62	2.3	62	85	24	0	2	2	2	0	0	
LANDER	64	41	79	29	53	3	1.5	-.2	1.5	4.2	97	5.3	98	82	33	0	1	3	3	0	0	
SHERIDAN	63	40	82	29	51	1	1.3	-.2	1.3	5.2	133	6.6	123	90	47	0	1	3	3	0	0	

Based on 1951-80 normals

April Weather in Historical Perspective

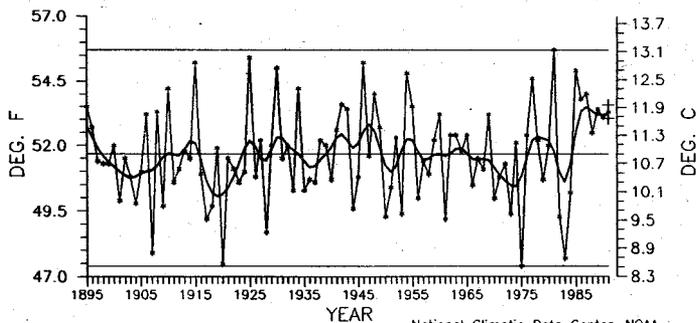
April 1991 was the third consecutive warmer-than-normal month for the Nation. It was the 20th warmest April in 97 years of climatic record-keeping (fig. 1). Areally averaged precipitation was significantly above the national normal, as April ranked as the ninth wettest on record (table 1). But areally weighted standardized precipitation, which provides a comparison with local normal climate, was closer to normal, ranking as the 43rd wettest (fig. 2). This is primarily due to heavy rainfall in the South and Southeast regions, areas that typically receive considerable April precipitation.

Only the Northwest, West, and Southwest regions experienced below-normal temperatures for the month (fig. 3). The Southeast and Northeast regions had their fifth and sixth warmest April, respectively (table 1). Excessive precipitation fell in the East North Central region (4th wettest) and the South region (10th wettest; especially wet in the eastern half). The Southeast and West North Central regions were also wetter than normal. Precipitation was much below normal in the Southwest and West regions, a pattern that included a return to drier-than-normal conditions in California.

The primary corn and soybean belt precipitation has been well above normal since March 1 (fig. 4), ranking as the wettest March and April since 1984. Tornadoic activity continued at a frenetic pace in April. Not only were 301 tornadoes a record for April (former record was 269 in 1974), but in addition, the year-to-date total of 561 is easily the highest total since at least 1952 (fig. 5). The average number of tornadoes through the first 4 months of the year is 188.

Figure 1

U.S. NATIONAL TEMPERATURE
APRIL, 1895-1991



National Climatic Data Center, NOAA

STRAIGHT HORIZONTAL LINES ARE:
MAXIMUM VALUE (TOP),
LONG-TERM AVERAGE (MIDDLE),
MINIMUM VALUE (BOTTOM)

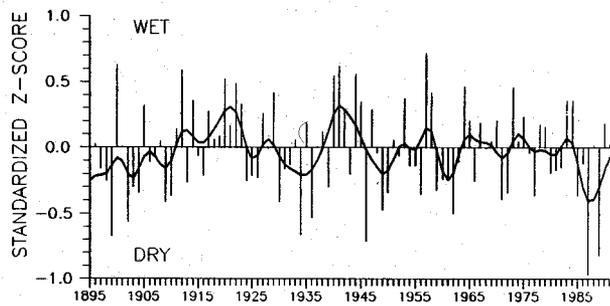
CONFIDENCE INTERVAL
FOR CURRENT YEAR IS
INDICATED BY '+'

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR APRIL 1991, BASED ON THE PERIOD 1895-1991. 1 = DRIEST/COLDEST, 97 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	60	92
EAST NORTH CENTRAL	94	85
CENTRAL	64	87
SOUTHEAST	79	93
WEST NORTH CENTRAL	84	62
SOUTH	88	81
SOUTHWEST	20	38
NORTHWEST	69	31
WEST	21	34
NATIONAL	89	78

Figure 2

U.S. NATIONAL MEAN PRECIPITATION INDEX
APRIL, 1895-1991



National Climatic Data Center, NOAA

Figure 3

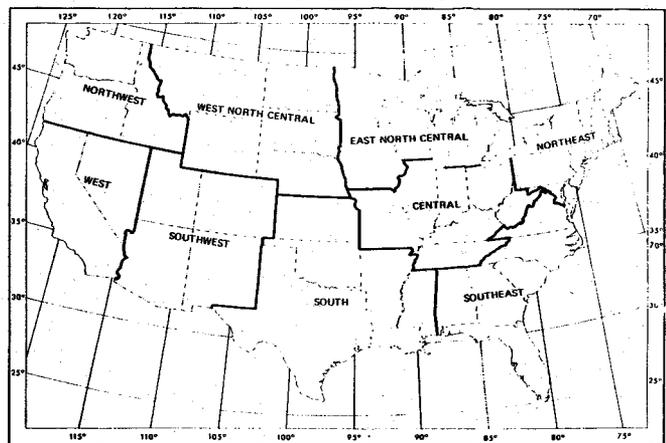
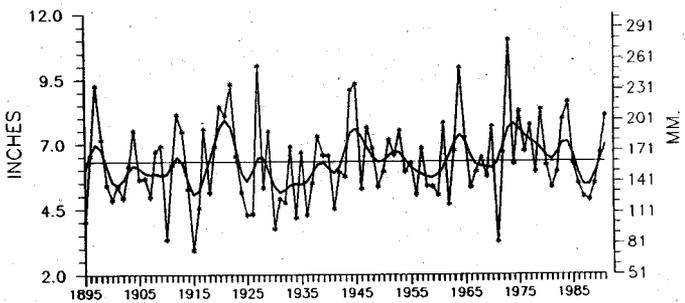


Figure 4

PRIMARY CORN AND SOYBEAN BELT PRECIPITATION
MARCH-APRIL, 1895-1991

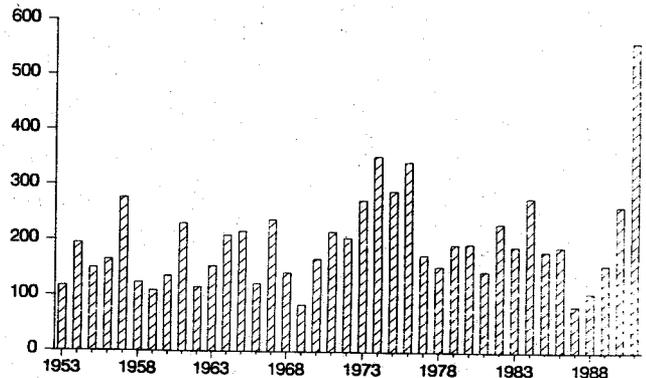


National Climatic Data Center, NOAA

Figure 5

TOTAL NUMBER OF TORNADES, U.S.

JANUARY-APRIL TOTAL, 1953-1991



National Climatic Data Center, NOAA

National Agricultural Summary

May 6 - May 12, 1991

HIGHLIGHTS: Continuous, heavy rainfall extending across the lower Mississippi Valley through much of Alabama, Georgia, and Tennessee resulted in flooding in many areas and slowed or halted planting across most of the region. Meanwhile, in the West, dry weather allowed farmers to catch up on fieldwork. Somewhat cooler weather in the West slowed crop development.

SMALL GRAINS: Winter wheat in the 19 major producing States was 50 percent (%) headed, 13 percentage points ahead of last year and 2 points ahead of the 5-year average. Most fields were headed from Kansas and Missouri southward, less than half of the fields had headed in Indiana and Illinois, and heading had yet to begin further north. Condition of the 1991 winter wheat crop deteriorated slightly from last week due to the lack of rainfall from the High Plains westward. Winter wheat harvest continued in south Texas and moved northward as weather and field conditions allowed. Winter wheat harvest was also underway in California's Imperial Valley. Seeding of spring wheat advanced to 82% complete nationwide, and 48% of the crop had emerged. This was 5 points ahead of normal for spring wheat seeding and 1 point ahead of normal for emergence. Diseases became more widespread and severe in Kansas, with wheat streak mosaic in the central and western parts of the State, and powdery mildew and leaf rust in the east.

CORN: Corn planting remained well behind normal for the 17 major producing state's total, despite expedited progress from Michigan down through the Ohio Valley. Nationwide, the 1991 crop was 51% planted, compared with 67% last year and the historic average of 71%. Planting progress showed a 42-point gain in Ohio over the previous week and Indiana a 33-point gain. Illinois, Iowa, Kentucky, Michigan, Nebraska, Pennsylvania, South Dakota, and Wisconsin showed gains in planting progress of 16-27 points from the previous week. Planting was nearly complete in the southernmost States.

SOYBEANS: Soybean planting was underway in all of the 19 major producing States, with progress ranging from 1% complete in Louisiana to 33% complete in Alabama. At the national level, 11% of the crop was planted, matching last year's pace but lagging 8 points behind the 5-year average. Planting in Minnesota, at 3% complete, was 19 points behind the average of 22%. Similarly, Iowa planting was 16 points behind normal, at 4% complete, and Missouri was 15 points behind, at 4% complete. Progress was slightly ahead of normal in Michigan, North Carolina, and Ohio but generally behind elsewhere.

COTTON: Cotton planting progressed from California through the Southwest under mostly dry conditions, and growers in the Atlantic Coast States made progress. Growers from Texas and Oklahoma, through the Delta States, Alabama and Georgia, however, made limited progress due to continued heavy rainfall. Nationwide, 33% of the crop was planted, compared with 51% last year and 53% normal. Only 6% of the crop was planted in Louisiana, compared with the historic

average of 76%, and just 9% was planted in Mississippi, compared with the 75% average. Planting was also 50 points or more behind normal in Arkansas and Tennessee. Some replanting was ongoing in California due to wind damage. Cool nights slowed cotton germination in Arizona, prompting replanting statewide. Some producers in the central and coastal areas of Texas replanted fields due to extensive rainfall and chemical damage, but most existing stands remained in good shape.

GRAIN SORGHUM: Grain sorghum planting lagged somewhat behind normal from the Delta region up through Missouri, but progress was near normal or slightly ahead elsewhere. Progress in the 12 major producing States stood at 25% complete, matching last year.

RICE: Planting progress in the five principal producing States was 46% complete, compared with 55% last year and 77% normal. Rice emergence, at 32%, was 1 point ahead of last year but 18 points behind the historic average. Arkansas producers had a bit of a respite from rain, which allowed planting to progress to 34% complete, 2 points above last year's progress, but 38 points behind normal. Louisiana and Mississippi growers made virtually no planting progress due to the continued heavy rainfall. Sixty-eight percent of Louisiana's intended rice acreage was seeded, compared with 87% normal, and just 18% of Mississippi's acreage was planted, compared with 83% normal. California seeding was 30% complete, 25 points behind last year and 26 points behind normal.

OTHER FIELD CROPS: Alfalfa first cutting continued in many States, with rain damaging cut hay from Texas eastward. Oat seeding neared completion in all but the northernmost States, and most fields had headed in the southeast. Spring barley seeding also neared completion. Fall potato planting progressed in most producing States and got underway in Maine. Peanut planting neared completion in Virginia, while planting progress remained near the midway point in the southeast. Few peanut fields were seeded in Oklahoma and Texas. Sugarbeet planting was well along or complete in all States except Michigan, where 60% of the intended acreage was planted. Over-wintered sugarbeets were harvested in California and new crop fields were being treated for aphid control. Dry pea and lentil planting was well along in the Pacific Northwest. Sunflowers were 10% planted in Minnesota and 9% planted in Texas. Canola plants were blooming in Ohio. Mint and garlic suffered freeze damage in Jefferson County, Oregon. Hop tying continued in Washington.

(Continued to back cover)

Crop Progress

FOR WEEK ENDING MAY 12, 1991

WINTER WHEAT
% HEADED

	1991	1990	AVG.
AR	95	96	96
CA	95	97	97
CO	0	0	0
GA	100	100	99
ID	0	0	0
IL	30	28	41
IN	18	17	17
KS	65	35	55
MI	0	0	0
MO	66	31	54
MT	0	0	0
NE	0	0	7
NC	96	96	84
OH	0	0	0
OK	95	75	85
OR	1	2	2
SD	0	0	2
TX	72	63	85
WA	0	6	2

19 STATES 50 37 48

THESE 19 STATES PRODUCED 91%
OF THE 1990 WINTER WHEAT CROP.

SPRING WHEAT
% PLANTED

	1991	1990	AVG.
ID	85	98	93
MN	94	93	79
MT	72	89	79
ND	76	82	72
SD	99	100	90

5 STATES 82 88 77

THESE 5 STATES PRODUCED 97%
OF THE 1990 SPRING WHEAT CROP.

SPRING WHEAT
% EMERGED

	1991	1990	AVG.
ID	57	80	76
MN	80	67	53
MT	17	52	49
ND	39	42	36
SD	81	95	71

5 STATES 48 56 47

THESE 5 STATES PRODUCED 97%
OF THE 1990 SPRING WHEAT CROP.

GRAIN SORGHUM
% PLANTED

	1991	1990	AVG.
AR	39	29	66
CO	8	3	10
IL	12	1	20
KS	5	5	10
LA	52	76	71
MS	38	56	62
MO	12	6	31
NE	4	4	10
NM	31	17	NA
OK	15	3	9
SD	1	5	4
TX	63	66	65

12 STATES 25 25 NA

EXCL. STATES WITH NA 25 25 30

THESE 12 STATES PRODUCED 98%
OF THE 1990 GRAIN SORGHUM CROP.

CORN
% PLANTED

	1991	1990	AVG.
CO	65	63	77
GA	96	98	98
IL	78	63	84
IN	65	57	65
IA	33	78	80
KS	75	70	75
KY	70	39	66
MI	35	60	60
MN	20	71	65
MO	56	39	87
NE	50	81	75
NC	96	96	83
OH	70	77	67
PA	36	40	36
SD	24	46	35
TX	95	94	93
WI	25	48	50

17 STATES 51 67 71

THESE 17 STATES PRODUCED 95%
OF THE 1990 CORN CROP.

	COTTON % PLANTED		
	1991	1990	AVG.
AL	54	76	79
AZ	88	98	95
AR	13	44	63
CA	95	99	98
GA	30	66	58
LA	6	91	76
MS	9	70	75
MO	33	18	70
MN	86	85	84
NC	72	70	55
OK	5	4	17
SC	57	68	64
TN	14	20	68
TX	27	33	29

14 STATES 33 51 53

THESE 14 STATES PRODUCED 99% OF THE 1990 COTTON CROP.

	SOYBEANS % PLANTED		
	1991	1990	AVG.
AL	33	58	37
AR	3	0	7
GA	8	14	13
IL	25	10	33
IN	23	11	24
IA	4	13	20
KS	5	10	10
KY	6	2	10
LA	1	19	14
MI	15	10	10
MN	3	21	22
MS	2	10	10
MO	4	2	19
NE	4	9	12
NC	13	15	8
OH	26	19	25
SC	5	11	5
SD	3	4	8
TN	2	2	9

19 STATES 11 11 19

THESE 19 STATES PRODUCED 95% OF THE 1990 SOYBEANS CROP.

Crop Condition

PERCENT

FOR WEEK ENDING MAY 12, 1991
WINTER WHEAT

	RICE % EMERGED		
	1991	1990	AVG.
AR	19	11	38
CA	2	10	16
LA	64	72	76
MS	14	25	57
TX	72	63	85

5 STATES 32 31 50

THESE 5 STATES PRODUCED 98% OF THE 1990 RICE CROP.

	RICE % PLANTED		
	1991	1990	AVG.
AR	34	32	72
CA	30	55	56
LA	68	87	87
MS	18	53	83
TX	91	86	97

5 STATES 46 55 77

THESE 5 STATES PRODUCED 98% OF THE 1990 RICE CROP.

STATE	VP	P	F	G	EX
AR	1	12	75	8	4
CA	0	0	5	85	10
CO	2	9	25	54	10
GA	0	9	40	48	3
ID	4	9	34	43	10
IL	0	4	26	64	6
IN	0	0	18	76	6
KS	1	17	35	37	10
MI	5	10	25	45	15
MO	0	1	34	62	3
MT	11	17	30	39	3
NE	0	14	42	39	5
NC	0	0	15	78	7
OH	1	8	27	48	16
OK	10	7	60	21	2
OR	7	17	29	42	5
SD	2	4	23	51	20
TX	5	26	50	17	2
WA	11	25	38	26	0
19 STATE	4	13	40	37	6
PREV WEEK	3	12	36	42	7
PREV YEAR	0	2	24	59	15

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 mostly 2.00 to 6.00 in. west, over 7.00 in. local areas; 1.00 to 2.00 in. east, over 3.00 in. local areas. Temperatures 1 to 2° above normal extreme southeast, 1 to 2° below normal elsewhere.

Days suitable for fieldwork 1.2. Wet conditions continued to delay plantings most areas. Soil moisture 18% adequate, 82% surplus. Acreage intended for spring planting 81% prepared, 89% 1990, 92% avg. Fieldwork progress 92% behind, 8% on schedule. Corn 83% planted, 97% 1990, 94% avg; 11% poor, 29% fair, 51% good, 9% excellent. Sorghum 33% planted, 58% 1990, 37% avg.; 49% fair, 43% good, 8% excellent. Cotton 54% planted, 76% 1990, 79% avg; 46% poor, 35% fair, 19% good. Peanuts 53% planted, 76% 1990, 57% avg; 15% fair, 85% good. Soybeans 6% planted, 19% 1990, 16% avg. Winter wheat 99% headed, 98% 1990, 94% avg.; 49% turning color, 65% 1990, 48% avg.; 3% very poor, 17% poor, 44% fair, 34% good, 2% excellent. First hay 10% harvested, 33% 1990, 21% avg. Pastures 2% poor, 7% fair, 55% good, 36% excellent. Feed supplies from pastures 67% adequate, 33% surplus. Livestock 9% fair, 70% good, 21% excellent. Primary activities: Some planting row crops; harvesting peaches; repairing equipment; general care of livestock, poultry, catfish.

ALASKA: Seasonal, Spring weather periods of windy, mostly warm days, cool nighttime temperatures, dominated. High temperatures 1° below normal at Anchorage to 8° above normal at Big Delta. Lows ranged normal at Plant Materials Center Butte to 5° above normal at Clearwater. Seasonal precipitation drier than normal at all stations except Homer.

Days suitable for fieldwork 6.0. Topsoil 8% short, 78% adequate, 14% surplus. Subsoil 75% adequate, 25% surplus. Farm work progress on schedule to 5 days behind due to frozen subsoil, standing water. Barley grain for grain seeding began. Commercial potato seed being prepared for planting. Livestock good or better.

ARIZONA: Warmer early in the period; warmest 7th, 8th; 103° west; strong winds moved into State 9th; cooler weather through the 11th; average. Temperatures 2° below to 6° above normal. Extremes 21°; 90° higher elevations, 46°; 103° desert. Precipitation limited to traces extreme north central.

Cotton 88% planted, 98% 1990, 95% avg.; cool nights slowed cotton germination, prompted replanting statewide. Small grains heading, further advanced 99%, 97% 1990, 99% avg.; turning color 74%, 82% 1990, 71% avg.; Russian Wheat Aphids infestation high southeast. Small grains good statewide. Alfalfa 75% good, 25% excellent; weed, insect infestations light; harvest light west, moderate east, active central. Peaches, dry onions, apricots, green beans for processing harvested west. Red potato, chipper potato, mixed vegetables, peaches harvested central. Valencia oranges, grapefruit harvested west, central.

ARKANSAS: Temperatures normal, with showers across southeast portion of State. Temperature 37°; 91°. Rainfall none to 1.97 in.

Days suitable for fieldwork 4. Soil moisture 29% adequate, 71% surplus. Main farming activities: Planting cotton, rice, soybeans, corn, sorghum; fertilizing pastures, corn; working livestock. Oats heading 94%, 89% 1990, 89% avg. Disease problems in wheat were medium to heavy, including rust, Septoria, Bacteria streak, powdery mildew. Armyworms were also reported in wheat. Blueberries good condition, strawberry harvest continued. Pasture 12% fair, 77% good, 11% excellent. Livestock good.

CALIFORNIA: Several weak, cold weather systems brushed the north end of the State. Light precipitation was confined to the northern most part of the State. Warm temperatures early in the week Statewide were replaced by a significant cooling trend.

Field activities progressed; open weather prevailed. Small grains maturing. Some fields received final irrigation. Wheat harvest underway Imperial Valley. Dryland grains cut for hay. Cotton planting nearly complete most areas. Some replanting ongoing, wind damage. Rice seeding progressed; slowed, cool temperatures. Herbicide applications, weevil treatments continued. Planting corn, dry beans active. Over wintered sugarbeets harvested. New crop fields treated, aphid control. Alfalfa harvest seasonally normal. Extensive ground squirrel damage evident some areas. Insect, weed control; thinning, irrigation continued in orchards. Overall, fruit, nut sizing, slow due to continued cool weather. Apples, sprayed for worms. Apricot thinning, central San Joaquin Valley, nearly complete. Citrus petal fall, showing, Fresno area. Sulfur application, bunch thinning, suckering continued in vineyards. Harvest began, San Joaquin Valley, early variety cherries, nectarines, peaches. Fresh peach harvest, Imperial Valley, complete. Persimmons, pomegranates started to bloom. Walnut orchards, Northern growing areas completed bloom, began to leaf out. Asparagus harvest active, good quality. Broccoli heavy supply, generally good quality. Cauliflower heavy supply, variable quality. Iceberg lettuce supply moderate, variable quality. Melon, dehydrating onion harvest began Imperial valley. Potato harvest, planting continued Hemet San Jacinto area. Strawberry supplies heavy, central coast, variable quality. Sweet corn, sweet potato planting active. Tomato planting ongoing. Pasture condition mostly fair to good northeast, excellent north coast. Light supplemental feeding. Water supplies adequate.

COLORADO: Mild 6th, 7th with temperatures near normal, widely scattered afternoon showers. Strong southwest winds, rising temperatures on 8th, increasing 10 to 15° above normal on 9th, 10th. Strong thunderstorms on the 9th, 10.0 in. over much of the State; large hail parts of far eastern plains. Temperatures mostly 1 to 2° below normal except 1 to 2° above normal along eastern border.

Days suitable for fieldwork 5.6. Soil moisture 5% very short, 43% short, 49% adequate, 3% surplus. Barley seeding 88% complete, 95% 1990, 97% avg.; 65% emerged, 75% 1990, 79% avg. Spring

wheat seedings 77% complete, 80% 1990, 89% avg. Spring wheat 40% emerged, 51% 1990, 65% avg. Oats planted 87% complete, 94% 1990, 94% avg. Dry onions 97% planted, 90% 1990, 88% avg. Summer potatoes planted 85% complete, 75% 1990, 88% avg. Fall potatoes planted 45% complete, 38% 1990, 52% avg. Corn planted 65% complete, 63% 1990, 77% avg.; 10% emerged, 10% 1990, 30% avg. Winter wheat 2% very poor, 9% poor, 25% fair, 54% good, 10% excellent; barley 4% very poor, 10% poor, 53% fair, 31% good, 2% excellent. Livestock mostly good. Pasture, range feed condition mostly fair.

FLORIDA: Temperatures 1 to 3° above normal Panhandle, northern Peninsula; 2 to 5° above normal elsewhere. Extreme highs, mid 90s interior Peninsula; lows, lower 60s most other areas. Rainfall 2.00 to 5.00 in. across Panhandle; northern Peninsula 1.00 in. or less; elsewhere, less than 0.50 in.

Soil moisture adequate to surplus Panhandle, northern Peninsula; mostly adequate central, southern Peninsula. Planting of cotton, peanuts slowed by rain. Rain aggravated disease problem on winter wheat. Wheat harvest delayed by rain. Corn, sugarcane, tobacco making good progress. Panhandle, northern pastures good to excellent, central, southern mostly good. Pasture ratings, 20% fair, 50% good, 30% excellent. Panhandle, northern herds good to excellent, central, southern fair to good. Citrus tree condition near excellent, some irrigation on sand hills, abundant new growth. Trees are adjusting to the size crop they can carry for next year. Valencia harvest slowing, most remaining grapefruit are located in St. Lucie, Indian River counties. Summer like weather continued over major vegetable producing areas. Precipitation limited to showers, thunderstorms. Harvest active central areas, increasing northern areas. Volume leaders: Potatoes, tomatoes, watermelons, sweet corn, cucumbers, peppers. Also good volume snap beans, cabbage, carrots, celery, eggplant, radishes, squash. Belle Glade iceberg lettuce deal complete.

GEORGIA: Temperatures near normal north, central, 2 to 4° above normal south. Extreme highs mid, upper 70s northeast mountains, upper 80s central and south. Lows mid 40s mountains, mid, upper 60s south. Most locations some rain. Amounts under 1.00 in. extreme northwest, 1.00 to 3.00 in. elsewhere north. 1.00 to 3.00 in. southwest, under 0.33 in. extreme southeast.

Days suitable for field work 2.5. Soil moisture 33% adequate, 67% surplus. Corn 13% fair, 64% good, 23% excellent. Cotton 3% poor, 43% fair, 52% good, 2% excellent; Planting slowed by wet fields. Sorghum 17% fair, 79% good, 4% excellent; 34% planted, 42% 1990, 35% avg. Peanuts 1% poor, 27% fair, 68% good, 4% excellent; 43% planted, 79% 1990, 69% avg. Soybeans 4% poor, 31% fair, 59% good, 6% excellent. Tobacco 2% poor, 41% fair, 46% good, 11% excellent; Diseases causing concern. Watermelons 32% fair, 50% good, 18% excellent; 95% planted, 96% 1990, 97% excellent condition. Strawberries 92% bloomed, 91% 1990, 88% avg. Activities for the week: Soil preparation; planting vegetables, corn, oats, tobacco; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

HAWAII: Favorable weather for agriculture. Sunny skies, brief showers. Irrigation necessary to ensure normal progress. Winds

variable 10-25 mph. Temperatures mid 60s to mid 80s. Rainfall none to 2.0 in.

Days suitable for farm work 7.0. Papaya production expected to increase. Ginger root harvesting active. Watermelon harvesting moderate.

Avocado growers report good blossoming.

IDAHO: Temperatures were below normal across State. Precipitation above normal in all of State. Up to 2 inches rain, snow East.

Days suitable for fieldwork 3. Soil moisture 1% very short, 22% short, 66% adequate, 11% surplus. Winter wheat 67% not yet jointed, 33% jointed. Spring barley 82% planted, 98% 1990, 89% avg; 52% emerged, 84% 1990, 71% avg. Oats 64% planted, 87% 1990, 82% avg; 37% emerged, 63% 1990, 59% avg. Potatoes 50% planted, 74% 1990, 64% avg; 5% emerged, 7% 1990, 6% avg. Sugarbeets 100% planted, 100% 1990, 100% avg; 74% emerged, 82% 1990, 90% avg. Dry peas 75% planted, 95% 1990, 94% avg; 21% emerged, 78% 1990, 58% avg. Lentils 69% planted, 99% 1990, 91% avg; 16% emerged, 84% 1990, 58% avg. Field corn 49% planted, 55% 1990, 67% avg. Dry beans 3% planted, 4% 1990, 4% avg. Sugarbeet thinning began southwest. Farming activities slowed considerably. Replanting sugarbeets continued southwest. Potato planting continued sandy soils and dryer areas. Activities: Seeding, fertilization, irrigation ditch work, weed control. Pasture, range condition 84 percent of normal. Hay, roughage supplies adequate.

ILLINOIS: Temperatures avg. 3° to 6° above normal north and central, 2° to 4° above normal south. Precipitation avg. was above normal from 0.50 to 1.65 in. in the north, above normal from .75 to 2.64 in. in the central and south.

Days suitable for fieldwork 3.5. Soil moisture 3% short, 72% adequate, and 25% surplus. Winter wheat filled 5%, 1% 1990, 5% avg. Pasture condition as a % of normal, where 100% = normal, was 95%. Alfalfa 1% poor, 14% fair, 74% good, 11% excellent. Red Clover 10% fair, 74% good, 16% excellent.

INDIANA: Temperatures average 3 to 5° above normal. Lows mid 50's, highs low to mid 70's. Precipitation totals 0.00 to 0.60 in.

Fieldwork averaged 4.6 days. Topsoil moisture 93% adequate, 7% surplus. Subsoil moisture 82% adequate, 18% surplus. Spring cropland 91% tilled, 91% 1990, 93% avg. Wheat 18 in. high, 17 in. 1990, 16 in. avg. Corn 22% emerged. Oats and clover seeding virtually complete. Pasture 95% of normal, 100% is defined as normal. Drier soils and warmer weather gave farmers another good week for planting.

IOWA: Temperatures 3 to 5° above normal. Extremes 28 to 87°. Precipitation 0.00 to 2.14 in.; average 0.22 in. Days suitable for fieldwork 1.8. Topsoil moisture 1% short, 32% adequate, 67% surplus; Subsoil moisture 1% short, 38% adequate, 61% surplus.

Winter wheat condition 1% poor, 20% fair, 75% good, 4% excellent. Hay 4% poor, 21% fair, 64% good, 11% excellent. Pasture condition mostly good to excellent. Pasture condition 5% poor, 27% fair, 64% good, 4% excellent. Oats 97% sown, 100% 1990, 99% avg. Oats 90% emerged, 98% 1990, 95% avg. Corn 5% emerged, 19% 1990, 28% avg. Seedbed preparation 86% completed, 94% 1990, 95% avg. Fertilizer application 85% completed, 98% 1990, 96% avg. Livestock were in mostly good condition. Slow weight gains reported in cattle. Movement of cows and calves to pasture continues. Slaughter livestock moving to market at a good rate.

KANSAS: Temperatures 2° below normal all areas. Rainfall generally light. Rainfall 0.14 in. south central up to 0.67 in. northeast. Only southeast 1.06 in. over 1.00 in.

Days suitable for fieldwork 4.0. Surface moisture 34% short, 55% adequate, 11% surplus. Subsurface moisture 67% short, 32% adequate, 1% surplus. Wheat progress ahead schedule but short moisture affecting condition central, western areas. Insect problems relatively light, diseases more widespread increasing in incidence, severity. Wheat streak mosaic central, west; powdery mildew, leaf rust east. Corn planting good progress, on schedule. Early emergence good, growth slowed by cool cloudy weather. Sorghum, soybean planting still in early stages. Seedbed preparation on schedule. Ten percent alfalfa cut first time. Range, pastures improving; furnishing adequate levels forage.

KENTUCKY: Average high temperatures mid to upper 70s, 2° above normal. Average low temperatures mid 50s, 3 - 5° above normal. Highest temperature 88° at Buckhorn Lake, 5/11; lowest 35° at Grayson on 5/7. Rainfall nearly everyday resulting totals 1.00 - 2.00 in.

Days suitable fieldwork 3.7. Soil moisture 4% short, 79% adequate, 17% surplus. Corn planting ahead of last year and avg. Corn 70% planted, 45% emerged. Wheat 85% headed, 78% 1990, 76% avg. Condition 20% fair, 74% good, 6% excellent. Soybeans planting ahead of 1990, but lags avg. Tobacco plants less than 2 in. 34%, 2 to 4 in. 42%, greater than 4 in. 24%. Burley 5% set, 4% 1990, 3% avg. Hay growth good, cutting delayed by showers. Pastures excellent. Fruit prospects good.

LOUISIANA: Temperatures 2.7° below normal to 0.4° above normal. Extremes 45°; 91°. Rainfall 1.54 in. northcentral to 8.02 in. southeast.

Days suitable for fieldwork 0.3. Soil moisture supplies 100% surplus. Spring plowing 76%, 87% 1990, 95% avg. draining fields, common. corn 11% very poor, 44% poor, 45% fair; 99% planted, 100% 1990, 99% avg.; 98% emerged, 98% 1990, 96% avg. Stressed due to excessive soil moisture continued. Cotton 6% emerged, 80% 1990, 61% avg. Hay 8% first cutting, 20% 1990, 24% avg. Hay rotting in fields, common, due to extremely wet conditions. Rice 9% very poor, 15% poor, 62% fair, 14% good. Sporadic herbicide spraying, fertilizing. Virtually all seeding being done by air. Water weevils, problem, southwest. Sorghum 53% very poor, 33% poor, 14% fair; 47% emerged, 65% 1990, 57% avg. Soybeans 1% emerged, 8% 1990, 6% avg. Sweet potatoes 8% planted, 11% 1990, 19% avg. Sugarcane 4% poor, 55% fair, 41% good. Rust disease, nutria damage, southeast. Some cane may not get fertilized, will be too tall by the time fields are dry enough to enter. Wheat 26% very poor, 49% poor, 25% fair; 92% headed, 95% 1990, 99% avg.; 73% turning color, 79% 1990, 71% avg.; 1% harvested, 3% 1990, 3% avg. Lodging widespread due to excessive rainfall, wind. Vegetables 13% very poor, 54% poor, 30% fair, 3% good. Pastures 20% poor, 51% fair, 27% good, 2% excellent. Livestock 7% poor, 38% fair, 53% good, 2% excellent.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.92 in. Temperature 63.5°, normal 60.9°. Extremes 39°; 83°.

Days suitable for fieldwork 5.0. Topsoil moisture 10% short, 66% adequate, 24% surplus. Subsoil moisture 86% adequate, 14% surplus. Small grains good condition. Winter wheat 71%

headed, 57% 1990, 39% avg. Barley 96% headed, 91% 1990, 87% avg. Rye 93% headed, 91% 1990, 91% avg. Oats 93% planted, 97% 1990, 93% avg. Corn 62% planted, 61% 1990, 54% avg. Sweet corn 51% planted, 50% 1990, 48% avg. Watermelons 37% planted, 55% 1990, 53 avg. Cantaloupes 41% planted, 58% 1990, 53% avg. Cucumbers 45% planted, 46% 1990, 53% avg. Lima Beans 45% planted, 35% 1990, 13% avg. Snap Beans 62% planted, 46% 1990, 36% avg. Tomatoes 64% planted, 60% 1990, 56% avg. Alfalfa hay first cut 15% complete, 6% 1990, 10% avg. Hay supplies adequate. Pasture excellent condition. Strawberries 92% bloomed, 91% 1990, 88% avg. Activities for the week: Soil preparation; planting vegetables, corn, oats, tobacco; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; and caring for livestock.

DELAWARE: Precipitation 0.82 in. Temperature 62.1°, normal 61.1°. Extremes 41°; 80°.

Days suitable for fieldwork 5.9. Topsoil 17% short, 83% adequate. Subsoil 100% adequate. Small grains good. Winter wheat headed 78%, 49% 1990, 47% avg. Barley 99% headed, 93% 1990, 86% avg. Rye 100% headed, 80% 1990, 75% avg. Corn 55% planted, 73% 1990, 64% avg. Sweet corn 50% planted, 53% 1990, 59% avg. Watermelons 18% planted, 33% 1990, 27% avg. Cantaloupes 10% planted, 19% 1990, 20% avg. Cucumbers 10% planted, 46% 1990, 28% avg. Other hay first cut 12% complete, 30% 1990, 19% avg. Alfalfa hay first cut 12% complete, 20% 1990, 20% avg. Hay supplies adequate. Pasture excellent condition. Strawberries 84% bloomed, 93% 1990, 97% avg. Activities: Soil preparation; planting vegetables, corn; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

MICHIGAN: Temperatures 0 to 3° above normal. Extremes 26°; 86°. Precipitation 0.10 to 1.49 in. across the State.

Days suitable for fieldwork 4. Soil moisture 0% short, 50% adequate, 50% surplus. Corn 35% planted, 60% 1990, 60% avg. Oats 70% planted, 95% 1990, 95% avg. Potatoes 45% planted, 60% 1990, 45% avg. Soybeans 15% planted, 10% 1990, 10% avg. Sugarbeets 60% planted, 99% 1990, 99% avg. Winter wheat 0% headed, 0% 1990, 0% avg.; 5% very poor, 10% poor, 25% fair, 45% good, 15% excellent. Pasture 85% of normal. Major activities: Hauling manure, fertilizing, spraying, equipment repair, tilling, planting.

MINNESOTA: Temperatures 2° below normal to 6° above normal. Extremes 26°; 89°. Precipitation 0.25 to 0.36 in. above normal for the south central, southeast, near normal to 0.58 in. below normal elsewhere. Greatest weekly total of 1.68.

Days suitable for fieldwork 1.3. Topsoil 1% very short, 49% adequate, 50% surplus. Subsoil 3% very short, 21% short, 52% adequate, 24% surplus. Spring wheat 94% planted, 93% 1990, 79% avg.; 80% emerged, 67% 1990, 53% avg. Oats 81% planted, 95% 1990, 87% avg.; 60% emerged, 75% 1990, 67% avg. Barley 92% planted, 88% 1990, 75% avg.; 50% emerged, 51% 1990, 44% avg. Field corn 46% ground prepared, 88% 1990, 81% avg.; 20% acreage planted, 71% 1990, 65% avg. Soybeans 19% ground prepared, 49% 1990, 47% avg.; 3% acreage planted, 21% 1990, 22% avg. Potatoes 20% planted, 38% 1990, 41% avg. Sugarbeets 82% planted, 93% 1990, 79% avg. Dry beans 7% planted, 15% 1990, 18% avg. Flax 23% planted, 26% 1990, 24% avg. Sunflowers 10% planted, 11% 1990, 22% avg. Sweet corn 6% planted, 37% 1990, 35% avg. Green peas 39% planted, 78% 1990, 73% avg.

MISSISSIPPI: Temperatures 69°, 1.4° below normal. Extremes 41°; 90°. Rainfall 3.09 in., 1.88 in. above normal. Soil temperatures 70°.

Days suitable for fieldwork 0.5, 4.6 1990, 4.9 avg. Soil moisture 28% surplus, 72% excessive. Corn 62% planted, 83% 1990, 90% avg.; 59% emerged, 71% 1990, 77% avg.; 36% poor, 48% fair, 14% good, 2% excellent. Cotton 9% planted, 70% 1990, 75% avg.; 6% emerged, 49% 1990, 54% avg. Peanuts 21% planted, 26% 1990, 44% avg. Rice 18% planted, 53% 1990, 83% avg.; 14% emerged, 25% 1990, 57% avg. Sorghum 38% planted, 56% 1990, 62% avg.; 33% emerged, 39% 1990, 44% avg. Soybeans planted 2%, 10% 1990, 10% avg.; emerged 1%, 4% 1990, 5% avg. Sweet potatoes 20% planted, 15% 1990, 33% avg. Watermelons 80% planted, 81% 1990, 77% avg. Wheat 96% heading, 99% 1990, 97% avg.; mature 19%, 21% 1990, 13% avg.; 18% very poor, 34% poor, 36% fair, 12% good. Hay harvested 3%, 12% 1990, 14% avg. Peaches harvested 1%, 0% 1990, 0% avg.; 1% very poor, 9% poor, 33% fair, 52% good, 5% excellent. Livestock 6% poor, 16% fair, 63% good, 15% excellent. Pasture 85% of normal. Activities: Shop work, equipment repair, some hay cutting.

MISSOURI: Temperatures 3° above normal east central to 5° below normal southwest. Rainfall 0.66 in., varying less than 0.20 in. northern districts to over 1.00 in. many central, south central, southeastern counties. Locally heavy rains some central counties caused flooding.

Days suitable for fieldwork 2.0. Topsoil 1% short, 52% adequate, 47% surplus. Ground worked at least once for spring crops 85%, 71% 1990, 83% avg. Corn planting by district ranges 41% northwest to 83% southeast. Sorghum planting 15% or more complete east central, southern districts, very little central, northern districts. Soybean planting just getting started all major crop areas. Alfalfa hay first cutting 9%, 3% 1990, 13% avg. Wheat headed less than 30% northern districts, virtually complete southern districts. Pasture 12% fair, 73% good, 15% excellent.

MONTANA: Late in week, heavy rain. Many locations received over an inch of moisture. Some minor lowland flooding along streams. Temperatures within a degree or two of normal.

Days suitable for fieldwork 3.6. Topsoil 8% short, 79% adequate, 13% surplus. Subsoil 45% short, 47% adequate, 8% surplus. Barley planted 63%, 84% 1990, 79% avg. Barley emerged 22%, 43% 1990, 46% avg. Oats planted 52%, 81% 1990, 72% avg. Corn planted 32%, 41% 1990, 44% avg. Dry beans planted 17%, 41% 1990, 38% avg. Sugar beets planted 88%, 100% 1990, 87% avg. Potatoes planted 9%, 18% 1990, 20% avg. Pasture, range feed condition 78%. Cattle, calves moved to summer ranges 33%. Sheep, lambs moved 25%.

NEBRASKA: Temperatures 4 to 8° above normals. Light precipitation averaging 0.20 in.

Days suitable for fieldwork 3.6. Topsoil 9% short, 78% adequate, 13% surplus. Subsoil 47% short, 53% adequate. Wheat 14% poor, 42% fair, 39% good, 5% excellent; 67% jointed, 93% 1990, 79% avg. Corn 50% planted, 81% 1990, 75% avg.; 4% emerged, 15% 1990, 23% avg. Sorghum 4% planted, 4% 1990, 10% avg. Soybeans 4% planted, 9% 1990, 12% avg. Alfalfa 1% very poor, 4% poor, 37% fair, 52% good, 6% excellent. Pasture, range 80% normal.

NEVADA: Temperatures below normal. Extremes 16°; 99°. Precipitation none to 1.12.

Warm temperatures early in week were replaced

by cold winds, snow 9th. Livestock movement continues; spring calving, lambing nearly complete. Major activities: Maintenance, planting, fertilizing, irrigation.

NEW ENGLAND: Precipitation 0.35 to 1.00 in. Vermont, 0.50 to 2.25 in. elsewhere north, 1.50 to 3.20 in. south. Temperatures high 40s to mid 50s north, low to high 50s south. Maximum temperatures high 60s north to mid 80s south; minimum temperatures 20° northern Maine, low 30s elsewhere north to high 40s south.

Days suitable for fieldwork 5.6. Soil moisture 1% very short, 2% short, 79% adequate, 18% surplus. Grazing availability 3% very short, 6% short, 72% adequate, 19% surplus. Fieldwork progress 3 days ahead. Maine potatoes 5% planted, 19% 1990, 17% avg.; good. Rhode Island potatoes 57% planted, 55% 1990, 56% avg.; condition good. Connecticut River Valley potatoes 60% planted, 64% 1990, 57% avg.; good. Field corn 27% planted, 20% 1990, 18% avg.; good. Sweet corn 34% planted, 30% 1990, 26% avg.; good. Hay good. Fruit trees full bloom. Blueberries early bloom. Strawberries early to full bloom. Cranberries bud stage; no frost damage to date. Major farm activities: Corn planting, plowing, manure, fertilizer spreading, fence building, spraying orchards.

NEW JERSEY: Temperatures slightly above normal. Extremes 35°; 90°. Rainfall 1.06 in. north, 1.18 in. central, 0.56 in. south. Heaviest 24 hour total 1.55 in. on 6th, 7th. Estimated soil moisture percent field capacity, averaged 95% north, 90% central, 82% south. Four inch soil temperature averaged 57° north, 59° central, 61° south.

Fieldwork active as conditions permitted. Spring vegetable harvest active. Summer vegetable planting active; growers catching up on schedule. Apples, peaches, strawberries sizing. Fruit sets heavy. Blueberry prospects good. Cranberry bog water drawn off. Field corn planting continued active. Some soybeans planted. Hay making general. Fall sown grains heading. Pasture growth continued good.

NEW MEXICO: Temperatures much warmer across the plains this week, averages of 4 to 8° above normal. Elsewhere, temperatures seasonal. Precipitation remained scant for most areas. A few thunderstorms over southeastern plains late week produced 0.50 in. at one station. Northern mountains reported trace amounts of precipitation.

Days suitable for fieldwork 6.3. Soil moisture 83% short, 17% adequate. Alfalfa 5% poor, 43% fair, 52% good. Cotton 20% poor, 40% fair, 40% good. Corn 20% poor, 40% fair, 40% good. Irrigated wheat 61% fair, 39% good. Dryland wheat 38% very poor, 49% poor, 13% fair. Chile, lettuce, onion good. Lettuce harvest in full swing; quality, yields reported good. First cut alfalfa is active. Cattle, sheep poor to good. Range, pasture 59% of normal, ranging from 20% to 110%.

NEW YORK: Rainfall heaviest in southeastern areas. Coastal Division received 156% of normal rainfall. Western areas were driest. Temperatures generally below normal. Warmest daily maximum was 82°, lowest was 28°.

Days suitable for fieldwork 4.6. Soil moisture adequate to surplus. Hay, wheat good. Corn planting 16% finished, 17% 1990, 19% avg. Oats 53% seeded, 69% 1990, 67% avg. Pasture 88% of normal. MacIntosh apples in Lake Ontario region near full bloom. Apple set in Hudson Valley

appears very good. Lake Champlain apples in pink to early bloom stages early week, full bloom in some orchards by weekend. Peach set good. Sweet, tart cherry exhibit good crop thus far. Vegetable planting continued active. Orange County strawberries in blossom. Onion planting finished.

NORTH CAROLINA: Temperatures about 3 to 5° above normal across the State. Precipitation none to 3.58 in.

Days suitable for fieldwork 5.4. Soil moisture 17% short, 71% adequate, 12% surplus. Crop condition: wheat 15% fair, 78% good, 7% excellent; oats 14% fair, 81% good, 5% excellent; barley 13% fair, 82% good, 5% excellent; rye 11% fair, 85% good, 4% excellent; pasture 13% fair, 75% good, 12% excellent; tobacco beds 14% fair, 82% good, 4% excellent; tobacco 15% fair, 80% good, 5% excellent; corn 1% poor, 23% fair, 72% good, 4% excellent; cotton 3% poor, 21% fair, 76% good; hay 3% poor, 6% fair, 85% good, 6% excellent; Irish potatoes 16% fair, 81% good, 3% excellent; peaches 11% fair, 72% good, 17% excellent; truck crops 25% fair, 68% good, 7% excellent. Corn planted 96%; cotton planted 72%; sorghum planted 31%; peanuts planted 48%; soybeans planted 13%; flue cured tobacco transplanted 87% sweet potatoes transplanted 12%. Wheat headed 96%. Tobacco plant bed supplies 1% short, 83% adequate, 16% surplus. Hay first cutting 34%.

Major activities included: Planting corn, cotton, truck crops; land preparation; cutting hay; transplanting flue cured tobacco. Other activities included: planting sorghum, soybeans; harvesting truck crops; spraying small grains, corn; fertilizing pastures; tending tobacco beds; tending livestock; equipment repair; general farm maintenance.

NORTH DAKOTA: Temperatures 1° above normal north central to 4° above normal northwest, southwest. Extremes 20° west central; 87° northeast. Scattered, light precipitation averaged 0.01 in. southeast to 0.16 north central.

Days suitable for fieldwork 4.9. Soil moisture supplies remained mostly unchanged, better than the five year (1986-90) average. Topsoil 2% short, 98% adequate. Subsoil 16% very short, 72% short, 12% adequate. Cool weather slowed planting, emergence early in the week, however, warm weather improved conditions later. Hard red spring wheat 76% planted, 39% emerged and beyond; 82%, 42% 1990; 72%, 36% avg. Durum wheat 54% planted, 17% emerged and beyond; 66%, 19% 1990; 58%, 20% avg. Oats 70% planted, 33% emerged and beyond, 79%, 40% 1990; 69%, 34% avg. Barley 81% planted, 43% emerged and beyond; 83%, 42% 1990; 72%, 36% avg. Winter wheat 22% jointing and beyond, 5% 1990, 23% avg.; 41% fair, 55% good, 4% excellent. Corn was 27% planted, 28% 1990, 26% avg.; flax 18%, 14% 1990, 16% avg.; potatoes 24%, 17% 1990, 28% avg.; sugarbeets 85%, 96% 1990, 84% avg.; soybeans 1%, 10% 1990, 9% avg.; dry beans 2%, 3% 1990, 4% avg.; sunflower 1%, 3% 1990, 4% avg. Calving 96% complete, lambing 97%, shearing 98%. Pasture conditions improved to 79% of normal, furnished 42% roughage requirements. Stockwater supplies 16% very short, 44% short, 40% adequate.

OHIO: Highs low to mid 70s, average lows upper 40s to mid 50s; up to 7° above normal. Extremes 35°; 89°. Precipitation 0.40 to 0.60 in. south. Soil temperatures under four inches of bare soil averaged 60°; 4 to 6° above normal.

Days suitable for fieldwork 5.2. Soil moisture

2% short, 80% adequate, 18% surplus. Best week for fieldwork during 1991 planting season. Activities included planting, applying sprays, fertilizer, harvesting haylage, hay. Corn planting surged forward to show 42% of the crop planted in one week. Corn emerged on 16% of acreage, 36% 1990, 25% avg. Corn stands looked good, uniform. Soybean planting made good progress; 4% emerged, 5% 1990, 3% avg.; jointing 65%, also 65% 1990, 52% avg. Winter wheat development ranged from flag to boot with some heading expected within week. Few minimal infestations of diseases; no economic consequence at this time. Oat planting 97%, 96% 1990, 94% avg. Oats emerged 84%, 78% 1990, 76% avg. Alfalfa weevil infestations economically significant in southern areas, declining. Spittle bugs active in some western alfalfa fields. Pasture, hay stands rated good to excellent. Sugarbeet planting reached 91%. Tobacco plants set in fields. Canola, strawberry plants blooming. Vegetable growers planted carrots, parsley, red beets, tomatoes for fresh, processing markets. Processing tomato transplanting advanced to 22% complete. Tree fruits rated good, two weeks ahead of normal.

OKLAHOMA: Temperatures 1° above normal southwest, south central to 4° above normal northeast. Precipitation none east central to 2.35 in. southwest.

Days suitable for fieldwork 4.6. Topsoil 29% short, 51% adequate, 20% surplus. Subsoil 43% short, 57% adequate. Wheat 10% very poor, 7% poor, 60% fair, 21% good, 2% excellent; 95% heading, 75% 1990, 85% avg.; 30% soft dough, 5% 1990, 23% avg. Wheat condition fair to good. Insect activity light. Corn 99% seedbed prepared, 95% 1990, 100% avg.; 70% planted, 72% 1990, 90% avg.; 38% up to stand, 50% 1990, 69% avg. Sorghum 86% seedbed prepared, 73% 1990, 68% avg.; 15% planted, 3% 1990, 9% avg.; 2% up to stand, 1% 1990, 3% avg. Soybeans 85% seedbed prepared, 55% 1990, 71% avg.; 26% planted, 2% 1990, 18% avg.; 4% up to stand, 0% 1990, 3% avg. Peanuts 69% seedbed prepared, 48% 1990, 80% avg.; 9% planted, 5% 1990, 12% avg.; 0% up to stand, 0% 1990, 2% avg. Cotton 81% seedbed prepared, 57% 1990, 87% avg.; 5% planted, 4% 1990, 17% avg.; 1% up to stand, 1% 1990, 8% avg. Alfalfa 50% first cutting, 19% 1990, 40% avg. Pasture condition 88%. Cattle good, marketings average, prices mixed.

OREGON: Temperatures below normal, precipitation above normal statewide; 2.67 in., coast, 1.25 in. northeast.

Soil moisture 40% short, 55% adequate, 5% surplus. Barley 82% planted, 90% 1990, 93% avg. Wet weather hampered fieldwork, west. Early corn planted, mint flamed weather permitting. Alfalfa first cutting ready. Scattered rain helped crop conditions, east. Mint and garlic freeze damage, Jefferson Co. Broccoli, beans, sweet corn planted, weather permitting. Onions planted, west; potato planting started Baker Co. Scab control sprayed apples, pears; prune set light; strawberries blooming, Willamette Valley. Cool, wet weather prolonged blooming period. Apples good, Hermiston. Light fruit set, Royal Anne cherries, The Dalles. Caneberries growth good except where freeze damage showing. Hail damaged early cranberries, coast area; black headed fireworm larvae observed early may. Livestock good to excellent, all area; low lying pastures waterlogged, Lincoln Co.; conditions variable, east; somewhat poor, Columbia Basin; stockwater below normal, Wheeler Co. Statewide range, pasture 6% very poor, 9% poor, 18% fair, 63% good,

4% excellent.

PENNSYLVANIA: Warm across all, wet across all but western third of State. Temperature 58°, 4° above normal. Extremes 32°; 84°. Precipitation 0.99 in., 0.17 in. above normal.

Days suitable for fieldwork 4. Soil moisture 2% short, 85% adequate, 13% surplus. Plowing 78% complete, 83% 1990, 81% avg. Corn 36% planted, 40% 1990, 36% avg. Soybeans 3% planted, 6% 1990, 14% avg. Oats 88% planted, 91% 1990, 89% avg. Potatoes 55% planted, 58% 1990, 64% avg. Tobacco beds 98% planted, 99% 1990, 100% avg. Barley 38% pre boot, 48% 1990, 52% avg.; 27% boot, 24% 1990, 24% avg.; 35% heading or headed, 27% 1990, 24% avg. Wheat 64% pre boot, 69% 1990, 78% avg.; 33% boot, 27% 1990, 20% avg.; 3% heading or headed, 4% 1990, 2% avg. Wheat 1% very poor, 2% poor, 20% fair, 52% good, 25% excellent. Oats 1% very poor, 1% poor, 19% fair, 61% good, 18% excellent. Hay stands mostly good. Alfalfa first cutting 3% complete, 0% 1990, 3% avg. Quality of hay made 7% poor, 64% fair, 29% good. Feed from pastures 1% very poor, 0% poor, 28% fair, 71% good. Peaches 7% pre pink, 16% 1990, 10% avg.; 6% pink, 8% 1990, 10% avg.; 87% full bloom or past, 76% 1990, 80% avg. Cherries 4% pre pink, 13% 1990, 8% avg.; 6% pink, 5% 1990, 10% avg.; 90% full bloom or past, 82% 1990, 82% avg. Apples 9% pre pink, 16% 1990, 15% avg.; 12% pink, 14% 1990, 20% avg.; 79% full bloom or past, 70% 1990, 65% avg. Activities: Spring plowing, planting; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

PUERTO RICO: No Data Available.

SOUTH CAROLINA: Temperatures 2 to 4° above normal. Rainfall varied 0.90 in. southern to 2.20 in. central.

Days suitable for fieldwork 4.0. Soil moisture 2% short, 91% adequate, 7% surplus. Cotton fair to good; 57% planted, 68% 1990, 64% avg. Peanuts fair to good; 73% planted, 62% 1990, 50% avg. Watermelons fair to good; 88% planted, 88% 1990, 89% avg. Cantaloupes fair to good; 82% planted, 81% 1990, 82% avg. Peaches fair to good. Cucumbers fair to good; 87% planted, 91% 1990, 88% avg. Snap beans fair to good; 68% planted, 59% 1990, 73% avg. Barley good; 26% turning color, 48% 1990, 27% avg.; 1% ripe, 7% 1990, 0% avg. Oats fair to good; 91% headed, 97% 1990, 94% avg.; 45% turning color, 53% 1990, 35% avg.; 13% ripe, 10% 1990, 7% avg. Rye fair to good; 50% turning color, 52% 1990, 41% avg.; 5% ripe, 12% 1990, 6% avg. Wheat fair to good; 54% turning color, 58% 1990, 33% avg.; 4% ripe, 9% 1990, 0% avg. Grain hay fair to good; 38% harvested, 54% 1990, 45% avg. Pastures fair to good.

SOUTH DAKOTA: Temperatures 5 to 10° above normal. Extremes 21°; 87°. Heavy rains west. Up to 5.26 in. Most of west 1.00 to 2.00 in. East generally less than 0.25 in. Precipitation for year above normal at most locations.

Days suitable for fieldwork 3.4. Topsoil 5% short, 86% adequate, 9% surplus. Subsoil 6% very short, 52% short, 40% adequate, 2% surplus. Rye 16% fair, 47% good, 37% excellent. Oats: 96% planted, 99% 1990, 85% avg. Condition 1% poor, 26% fair, 62% good, 11% excellent. Barley 1% poor, 34% fair, 59% good, 6% excellent. Spring wheat 26% fair, 62% good, 12% excellent. Livestock 5% fair, 81% good, 14% excellent. Water supplies improving, 90% adequate. Feed supply 2% very short, 6% short, 87% adequate, 5%

surplus. Pasture slow progressing, 85% of normal.

TENNESSEE: Cold front middle, east 6th brought showers. Dry, mild air spread over State mid week followed by warm, unstable air late week. Numerous thundershowers prevailed 9th through 12th. Temperatures averaged slightly above normal. Precipitation amounts varied widely.

Days suitable for fieldwork 3.0. Soil moisture 59% adequate, 41% surplus. Corn 46% planted, 48% 1990, 74% avg. Cotton 14% planted, 20% 1990, 68% avg. Sorghum 12% planted, 10% 1990, 36% avg. Soybeans 2% planted, 2% 1990, 9% avg. Tobacco 14% transplanted, 10% 1990, 9% avg. Wheat 82% headed, 88% 1990, 87% avg.; 2% poor, 35% fair, 60% good, 3% excellent. Alfalfa 20% 1st cutting, 12% 1990, 34% avg. Cotton, corn planting continued delayed due to excessive moisture.

TEXAS: A series of upper air disturbances, a slow moving warm front triggered more rain over north, southeast, central parts of State during week. In addition, parts of High Plains received badly needed moisture at mid week. For most part, rains by passed Trans Pecos, Lower Valley. Week began rather cool in Panhandle with steady warming. Elsewhere, near seasonable temperatures prevailed. For week, temperatures averaged above normal High Plains, Trans Pecos, close to normal elsewhere. Rainfall ran below normal in Lower Valley, High Plains, northeast of State, near to above normal elsewhere.

Crops: Small grains across State got another shot of moisture last week. Many wheat, oat fields passed stage where added moisture could help. Wheat harvest continued South Texas, moved northward as weather, field conditions allowed. Wheat fields in northern part of State continued to head, started to turn color. Harvest will begin soon Cross Timbers. Some oat fields Central Texas ready for harvest, fields in Blacklands continued to head, turn color. Statewide wheat condition is rated at 54% of normal compared with 75% 1990. Wheat 1% harvested, 1% 1990, 1% avg. Corn fields continued good progress throughout State. Planting continued in High Plains. Excessive rainfall stressed some stands in Blacklands, East Texas, coastal areas, but warmer, drier weather should bring some relief. Corn 4% silked, 1% 1990, 2% avg. Statewide corn 85% of normal compared with 87% 1990. Sorghum fields also making good progress. Excessive moisture levels in some areas of State stressing plant development. South Texas fields heading. Sorghum 5% headed, 2% 1990, 4% avg. Statewide sorghum 88% of normal compared with 85% 1990. Cotton planting continued on High Plains, planting on Low Plains gained momentum, especially on irrigated farms. Some producers in Central Texas, coastal areas replanted due extensive rainfall, chemical damage. For most part, existing stands remained good shape. Cotton 3% squaring, 7% 1990, 4% avg. Statewide cotton 88% of normal compared with 89% 1990. Rice planting experienced another week of interruptions due weather, but existing stands continued normal development. Soybean planting underway in Blacklands as weather permitted. Emerged stands excellent, continued good growth. Soybeans 27% planted, 30% 1990, 25% avg. Peanut planting continued in northern Low Plains, expected to get underway in Cross Timbers when fields dry. Central Texas producers continued pre planting operations as weather permitted. Irrigated fields in South Texas making good progress. Peanuts 3% planted, 4% 1990, 9% avg. Peach harvest started on earlier varieties. Some

producers reported light damage from wind, hail last week. Pecan trees remained good shape last week. Zinc spraying continued on limited basis. Other field crops: Sugarbeets 99% planted, 100% 1990, 99% avg. Sunflowers 9% planted, 17% 1990, 9% avg.

Commercial Vegetables: Rio Grande Valley, watermelons continued good progress. San Antonio Winter Garden, strawberry, onion harvest continued. Cabbage harvest started. Lettuce harvest winding down. Watermelons continued good progress. East Texas wet soils causing disease problems. Watermelons, cantaloupes continued good progress. Green onion, radish, greens, potato harvest continued as weather permitted. High Plains, potatoes, onions making good growth. Tomato, pepper crops continued good progress. Trans Pecos, chile plants emerging well. Cantaloupes continued excellent growth.

Range and Livestock: Ranges, pastures remained generally fair, good across State. Recent rains stimulated some growth on Plains, but Trans Pecos ranges remained dry, supplemental feeding increased. Elsewhere, forage production continued to improve. Haying practices increasing, but weather conditions continued to hamper steady progress. Horn flies remained increasing problem to most livestock. Range, pasture 1% very poor, 14% poor, 41% fair, 32% good, 12% excellent.

UTAH: Maximum temperatures 3° below normal, average minimums 1° below normal throughout the State this week. Precipitation was moderate in the northern half of the State, light in the southern half.

Days suitable for fieldwork 5.0. Soil moisture 40% short, 33% adequate, 27% surplus. Winter wheat height 8.6 in., 13.7 in. 1990, 10.2 in. avg.; 28% jointed, 52% 1990, 39% avg.; 8% booting, 42% 1990, 22% avg. Spring wheat 92% emerged, 83% avg. Barley 89% emerged, 87% avg. Oats 85% seeded, 64% emerged, 70% 1990, 72% avg. Corn 40% planted, 51% 1990, 59% avg.; 7% emerged, 35% 1990, 36% avg. Potatoes 63% planted, 42% 1990. Alfalfa height 8.4 in. 14 in. 1990, 12 in. avg. Alfalfa first cutting just getting underway. Pasture and range condition mostly good. Cutworms reported in some alfalfa fields. Overall crop progress has been slowed by cold temperatures.

VIRGINIA: Temperatures at or slightly above normal. Extremes 38°; 90°. Precipitation varied but near normal.

Days suitable for fieldwork 5.1. Topsoil 1% very short, 25% short, 70% adequate, 4% surplus. Corn planted 64%, 64% 1990, 55% avg. Corn 2% poor, 32% fair, 58% good, 8% excellent. Soybeans 11% planted, 10% 1990, 5% avg. Peanuts 92% planted, 83% 1990, 39% avg. Cotton 99% planted, 95% 1990, 69% avg. Flue tobacco 53% transplanted, 52% 1990, 16% avg. Burley tobacco 6% transplanted, 1% 1990, 1% avg. Fire tobacco 23% transplanted, 16% 1990, 13% avg. Wheat 34% fair, 64% good, 2% excellent. Barley 23% fair, 75% good, 2% excellent. Apple 14% fair, 62% good, 24% excellent. Peaches 5% fair, 67% good, 28% excellent. Potato nearly all good. Alfalfa 1% poor, 11% fair, 63% good, 25% excellent. Other hay 18% fair, 63% good, 19% excellent. Pastures 17% fair, 59% good, 24% excellent. Cutting hay, haylage, spraying cereal leaf beetles, powdery mildew, thinning peaches, began barley harvest, planted snap beans, cucumbers, other vegetables, staking tomatoes. Began strawberry picking, shearing sheep.

WASHINGTON: Temperatures 1° above normal to 6° below normal east; 1° above normal to 4° below normal west. Precipitation none to 1.95 in. east; 0.42 to 1.42 in. west.

Days suitable for fieldwork 4.2. Soil moisture 65% short, 35% adequate. Hay, other roughage 11% short, 89% adequate. Range, pasture 31% very poor, 21% poor, 36% fair, 8% good, 4% excellent. Wheat 11% very poor, 25% poor, 38% fair, 26% good. Spring barley 9% poor, 72% fair, 19% good. Potatoes 100% good. Dry Beans 100% good. Corn 62% fair, 38% good. Spring wheat planted 98%; emerged 85%; headed 0%. Spring barley planted 99%; emerged 72%. Potatoes planted 96%; emerged 47%. Dry peas planted 94%. Green peas planted 99%. Dry beans planted 10%. Corn planted 46%. Alfalfa hay, 1st cutting 4%. Rain delayed fieldwork in many areas of State. Plant growth slowed due to cool temperatures. Seeding of spring grains, dry peas, lentils was winding down in Spokane and Whitman Counties. Douglas County wheat crops starting to show moisture stress. Winds continue to evaporate surface moisture. Fescue grasses heading out in Adams County. Benton County cherries were experiencing a heavy drop in the lower valleys. Apple scab infect apples in Chelan County. Yakima County apples still in bloom in late areas. Asparagus harvest continued. Quality was reduced due to high winds blowing sand. Planting continued on vegetable crops. Kittitas farmers planting sweet corn. Hops being tied. Eastern county pastures need more moisture, but western county pastures are soggy. Cattle, sheep being moved to early ranges. High ranges in northeast still covered with snow.

WEST VIRGINIA: Temperature 63°. Extremes 35°; 90°. Precipitation 0.68.

Days suitable for fieldwork 4.9. Soil moisture 5% short, 95% adequate. Wheat, barley good. Corn 44% planted, 10% emerged. Oats good, 85% planted, 53% emerged. Gardens 33% fair, 56% good, 11% excellent; 41% planted, 30% emerged. Tobacco good, 90% beds seeded, 77% emerged. Hay 20% fair, 67% good, 13% excellent. Apples, peaches good. Pastures 9% fair, 84% good, 7% excellent; 97% of normal. Cattle, sheep good. Calving 100% completed. Lambing 100% complete. Hay supplies 72% adequate, 28% surplus. Other feed adequate. Farm activities: General maintenance calving, lambing, fencing, plowing, seeding tobacco beds, planting corn.

WISCONSIN: Temperature 56°, 1° above normal. Extremes 26°; 94°. Precipitation trace to 0.50 in. Rainfall during the beginning of the week as well as cool soil temperatures kept many farmers out of their fields.

Days suitable for fieldwork 3.3. Soil moisture 52% adequate, 48% surplus. Spring tillage 53% complete, 75% 1990, 79% avg. Oats planted 60%, 93% 1990, 91% avg. Corn 25% planted, 48% 1990, 50% avg. State is having a late spring with plantings of all crops running behind normal.

WYOMING: Temperatures near normal. Precipitation above normal west, below normal elsewhere.

Days suitable for fieldwork 5.0. Topsoil 11% short, 84% adequate, 5% surplus. Subsoil 36% short, 59% adequate, 5% surplus. Spring wheat 70% planted, 90% 1990, 80% avg.; 40% emerged, 50% 1990, 45% avg. Oats 70% planted, 70% 1990, 70% avg.; 35% emerged, 40% 1990, 35% avg. Barley 85% planted, 95% 1990, 85% avg.; 60% emerged, 75% 1990, 65% avg. Sugarbeets 85% planted, 95% 1990; 25% emerged, 40% 1990, 45% avg. Corn 35% planted, 40% 1990, 40% avg.; 5% emerged, small amount 1990, small amount avg. Potatoes 25% planted,

40% 1990, 35% avg.; 15% emerged. Dry beans 0% planted, small amount 1990, 5% avg. Winter wheat mostly fair to good. Livestock mostly good. Spring calves born 95%, 90% 1990, 95% avg. Death losses light to normal. Farm flock: Ewes lambed 95%, 95% 1990, 95% avg.; shorn 95%, 95% 1990, 90%

avg. Range flock: Ewes lambed 60%, 60% 1990, 65% avg.; shorn 75%, 80% 1990, 80% avg. Death losses light to normal. Ranges, pastures good to excellent. Spring grazing prospects mostly good. Stockwater 25% short, 75% adequate.

International Weather and Crop Summary

HIGHLIGHTS

May 5 - 11, 1991

USSR ... Rain over the Ukraine, North Caucasus, Black Soils Region, and Volga Vyatsk Region benefits vegetative winter grains but interrupts planting. In the New Lands, persistent dryness and above-normal temperatures favor early spring grain planting.

NORTHWESTERN AFRICA ... Dry weather helps winter grain harvesting.

EUROPE ... Rain helps corn planting in France, but cool weather persists across the continent.

EASTERN ASIA ... Showers aid vegetative crops throughout China.

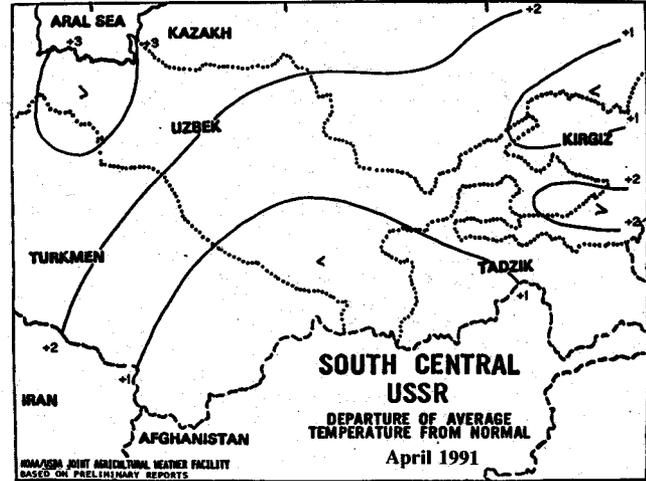
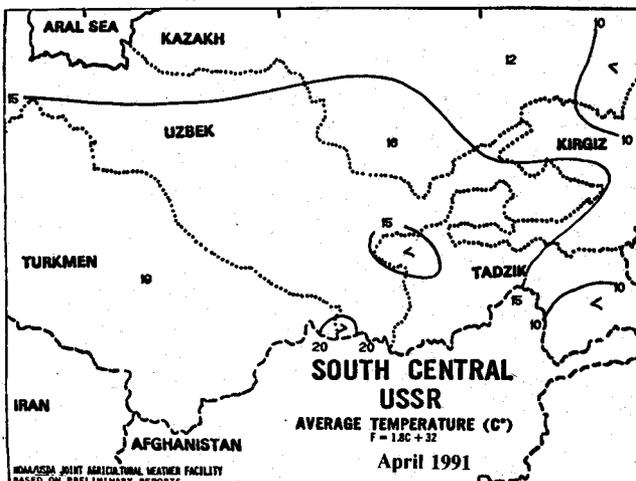
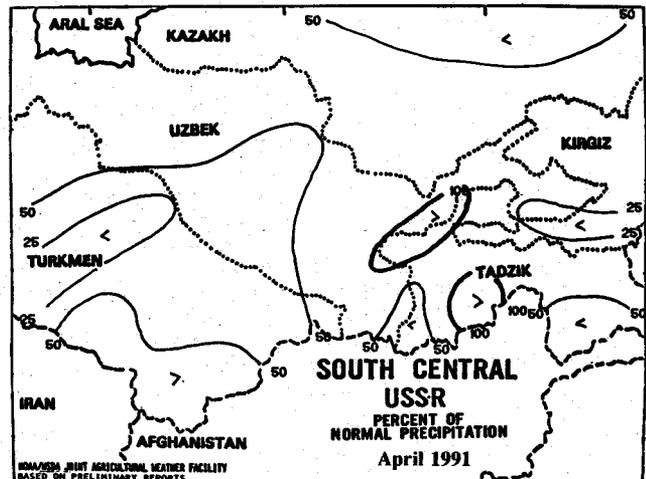
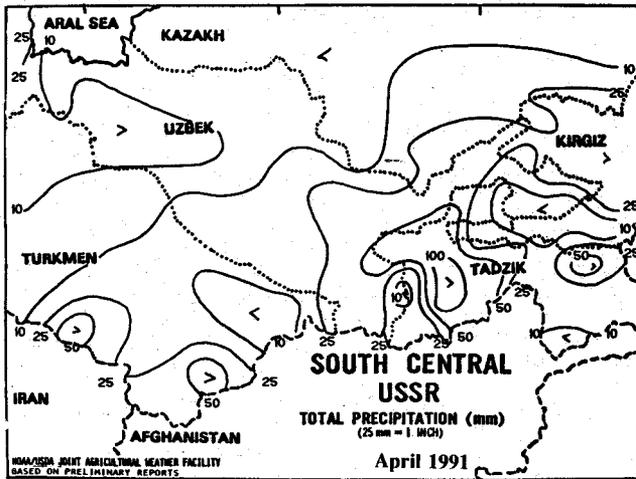
SOUTHEAST ASIA ... Showers bring some relief to newly planted Thai crops. Scattered showers over the Philippines improve local conditions for main-season grain planting and establishment.

SOUTH AMERICA ... Mainly dry weather across most crop regions increases the pace of summer crop harvesting.

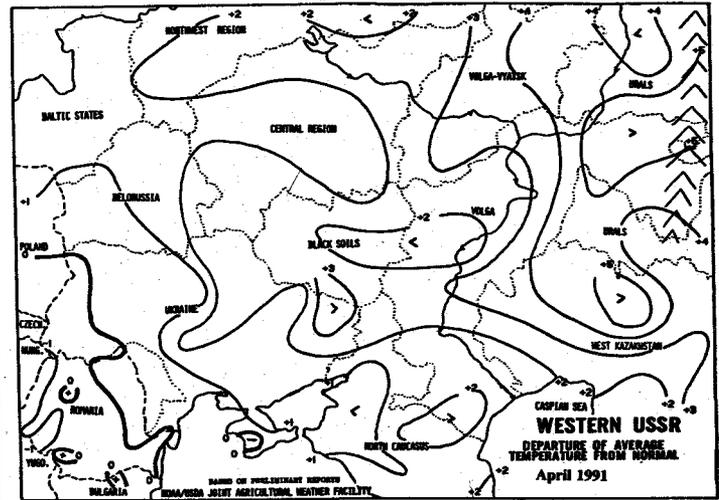
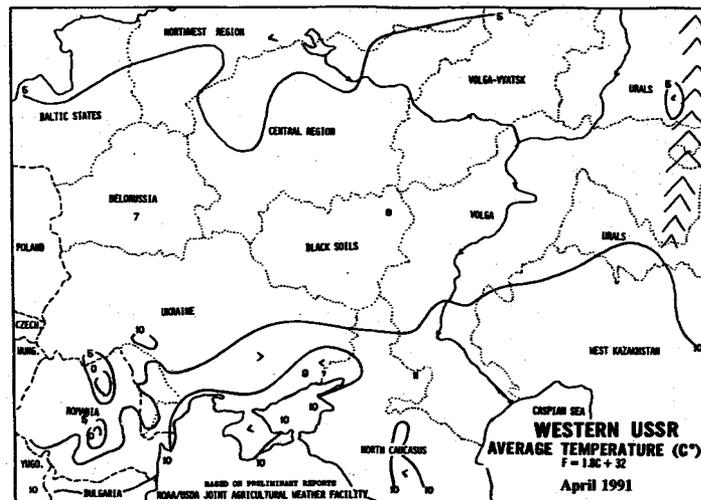
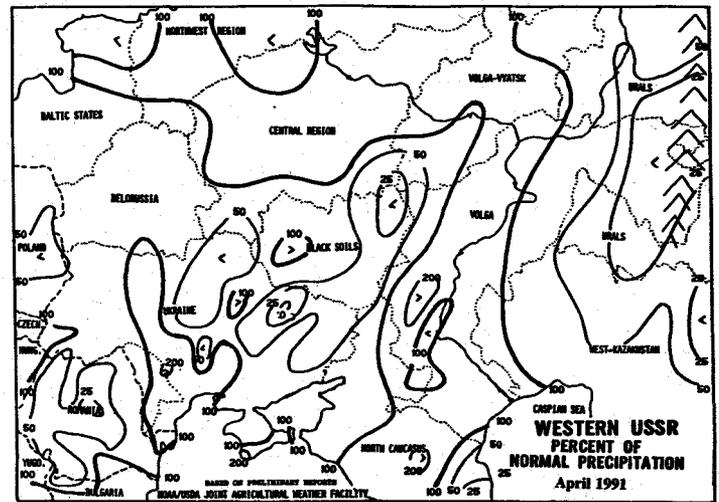
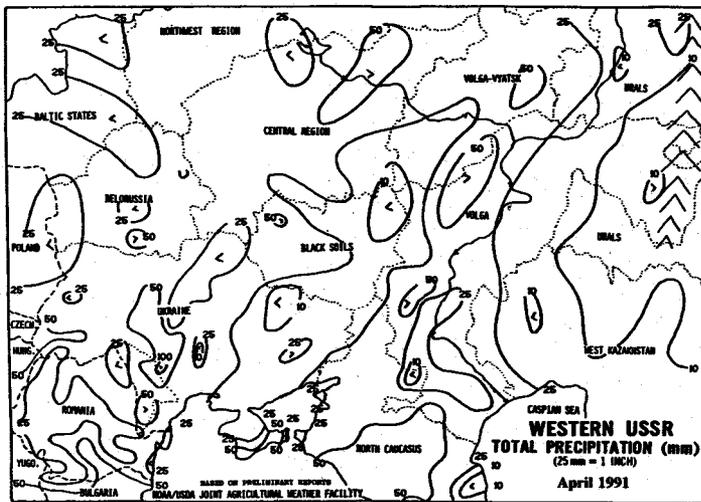
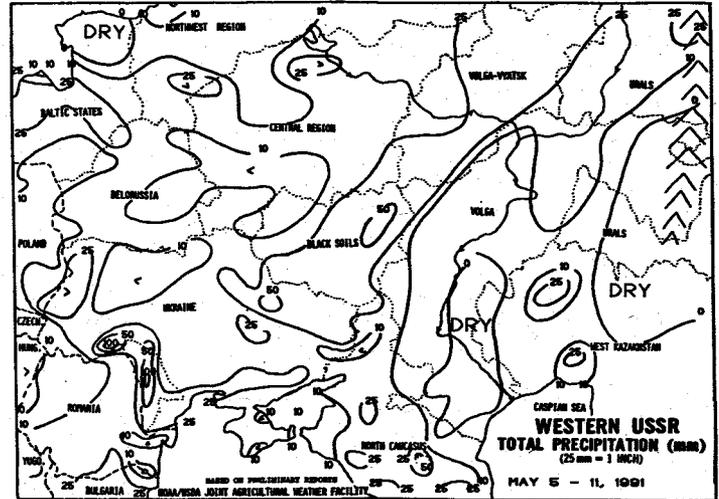
AUSTRALIA ... Beneficial showers fall in the eastern and southern wheat areas, with additional rains still needed in the east.

CANADA ... Topsoil moisture is favorable for planting in most Prairie spring wheat areas.

MEXICO ... Beneficial rains boost pre-planting topsoil moisture for corn.

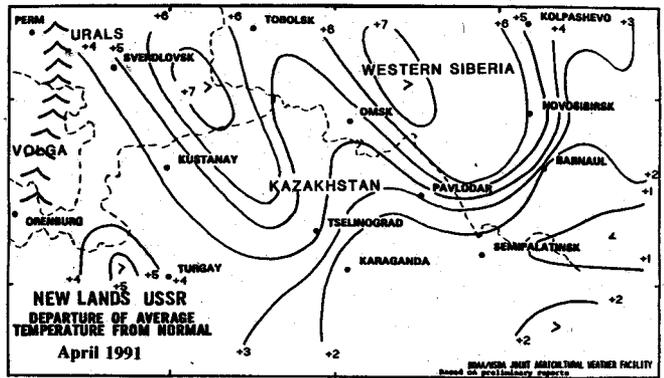
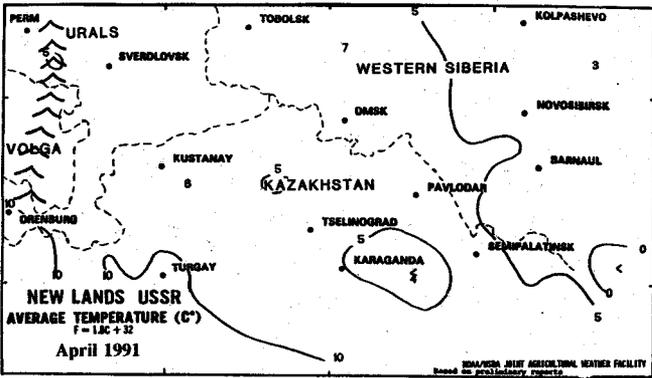
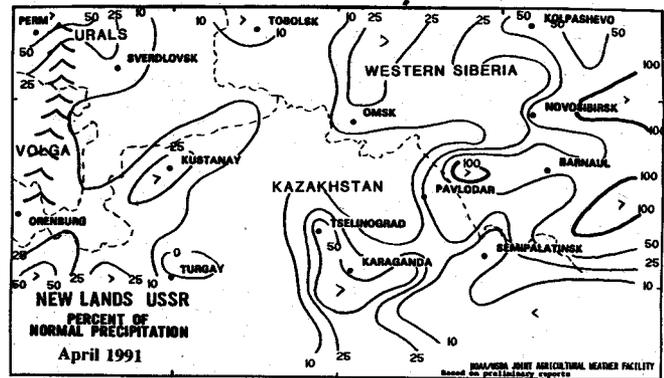
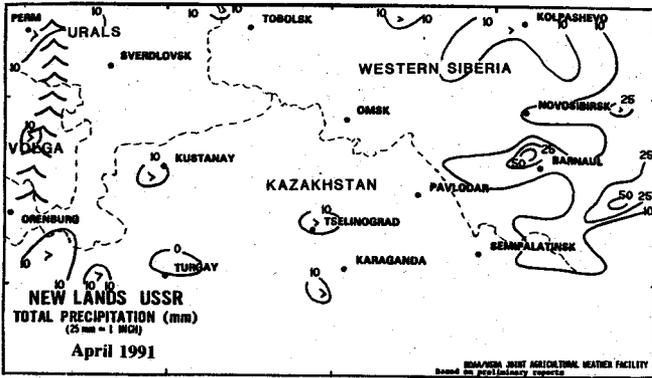


WESTERN USSR ... Widespread precipitation covered most of the region. Showers and thunderstorms, some locally severe, produced moderate to locally heavy rain (25-50mm, with local amounts in excess of 100mm) over Moldova, parts of the Ukraine, the western North Caucasus, Black Soils Region, and the Volga Vyatsk Region. Although the rain in these areas benefited winter grains in the vegetative stage as well as newly emerged spring grains, some delays in summer crop planting likely occurred. Dry weather over most of the middle and lower Volga allowed fieldwork to progress without delays. In April, the weather was unusually mild, prompting rapid greening in winter grains. By month's end, winter grains had advanced to the jointing stage as far north as the northern Ukraine, the northern North Caucasus, and the lower Volga. Furthermore, reports indicate winter grains broke dormancy about 1 week earlier than normal, and are in good to excellent condition. While grains broke dormancy earlier than normal, they were behind the unusually advanced pace of last year. Precipitation in April was below normal over the Baltic States, Belorussia, the Black Soils Region, the western North Caucasus, and most of the Ukraine, allowing spring fieldwork.

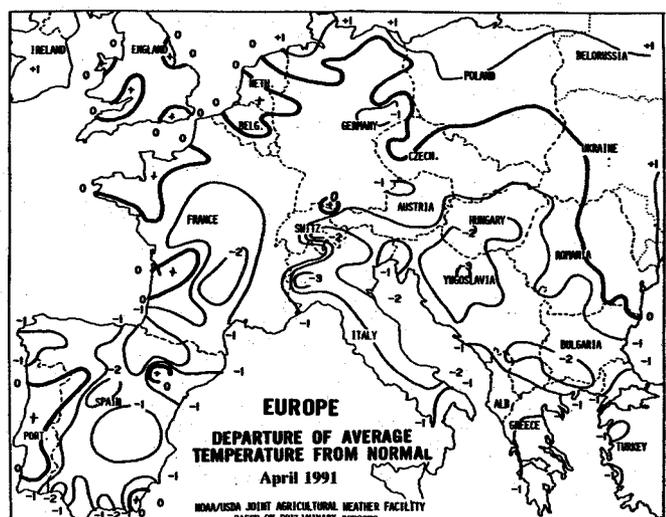
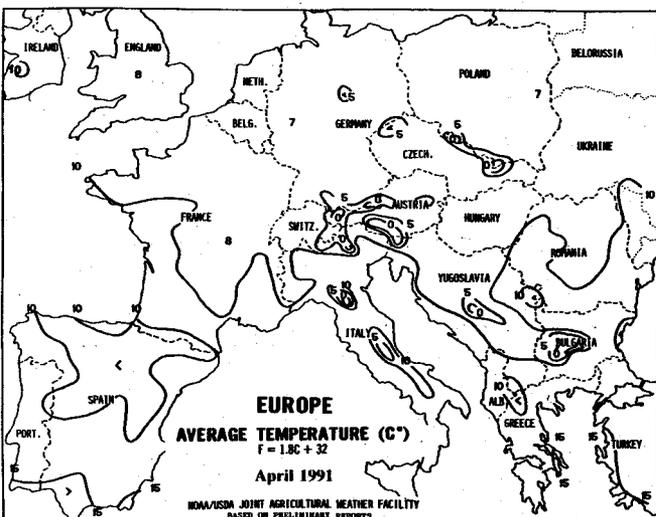
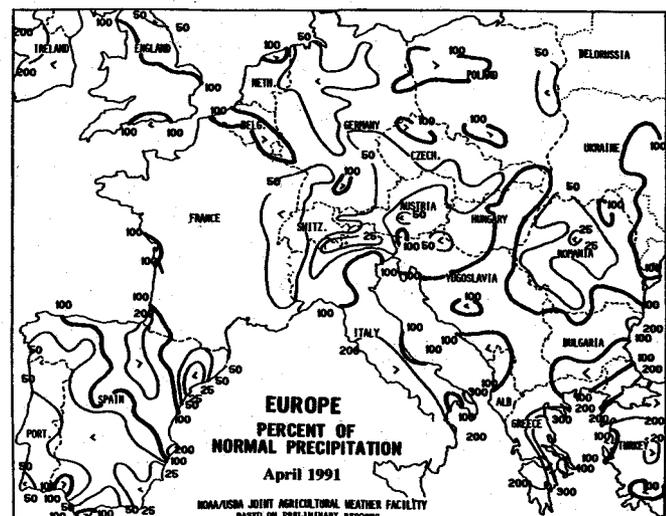
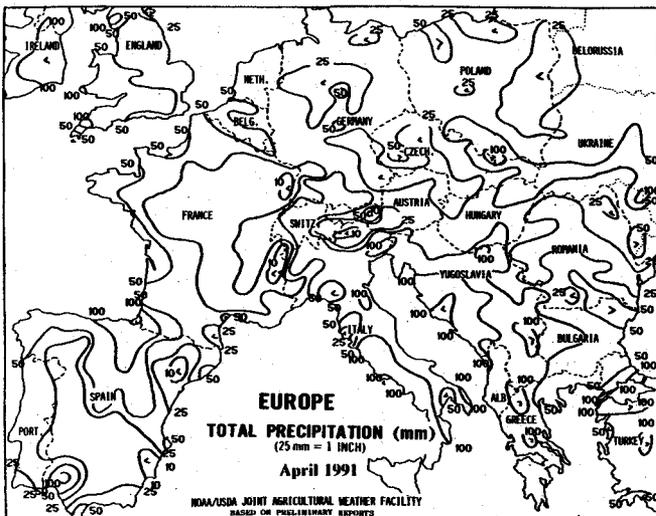
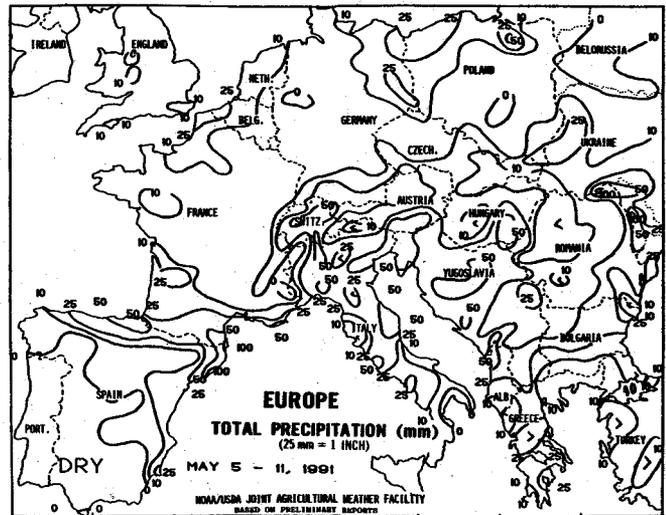


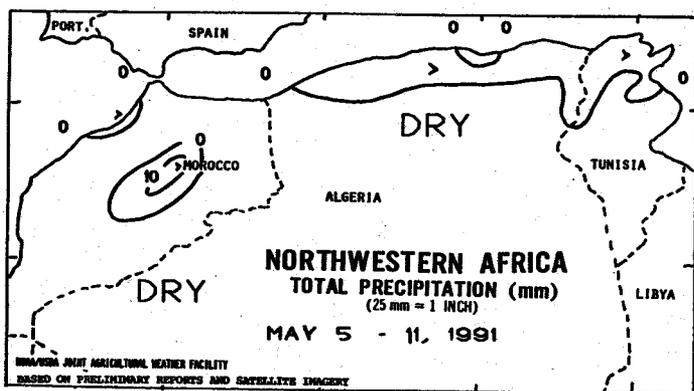


NEW LANDS ... Spring grain planting usually begins around mid-May. Moisture accumulations for September through March were near to above-normal over most of the region. Although persistent dryness since early April has favored early spring fieldwork, widespread rain is needed to increase topsoil moisture for uniform crop emergence. Weekly average temperatures were 5-10 degrees Celsius (C) above normal over the region, continuing April's unusually warm weather pattern.

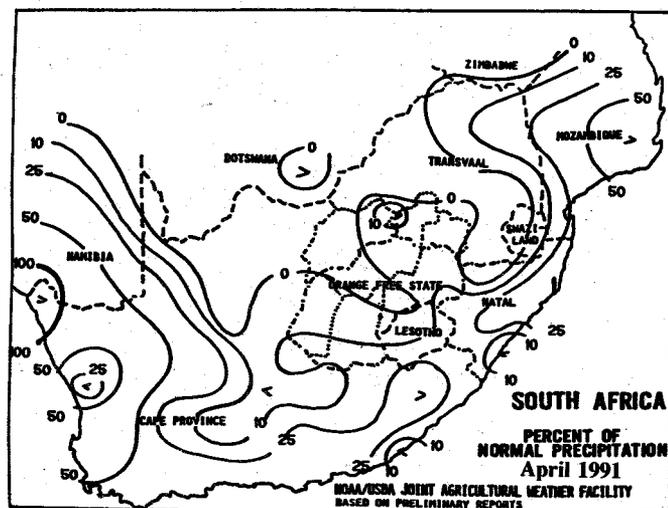
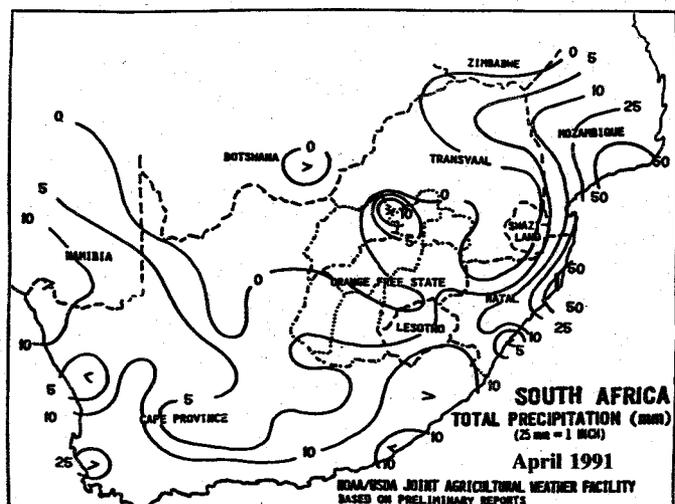
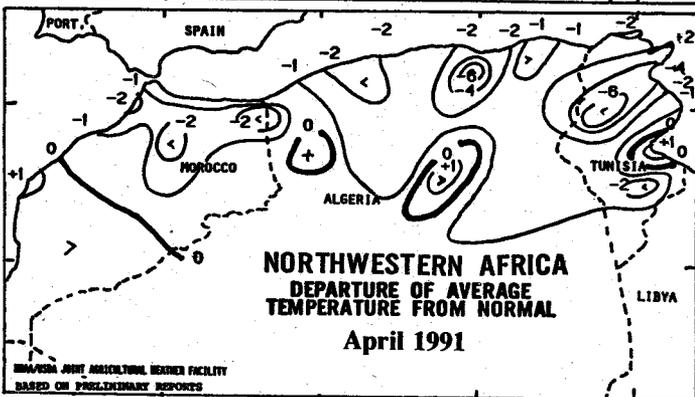
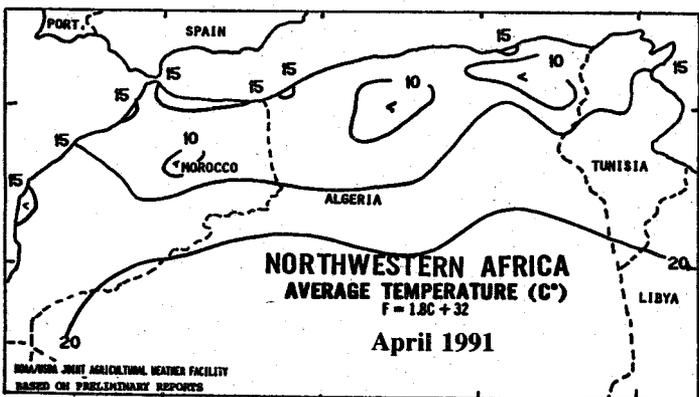
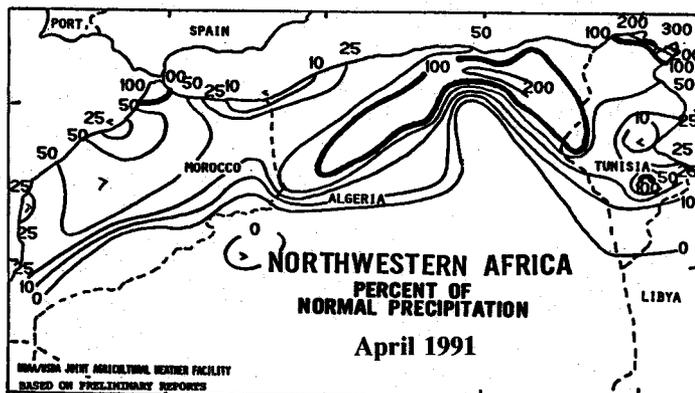
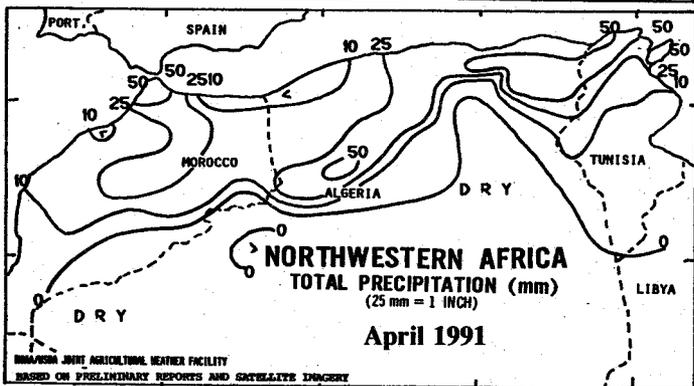


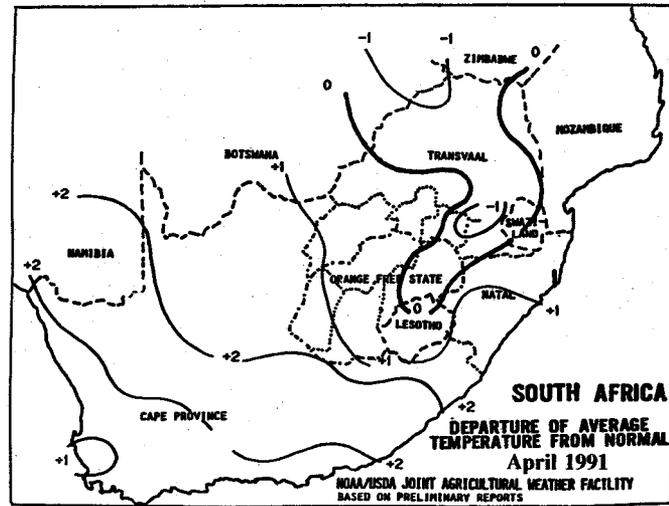
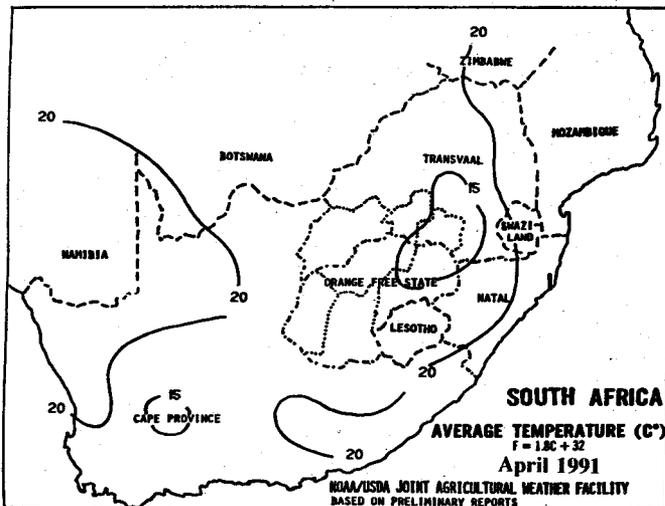
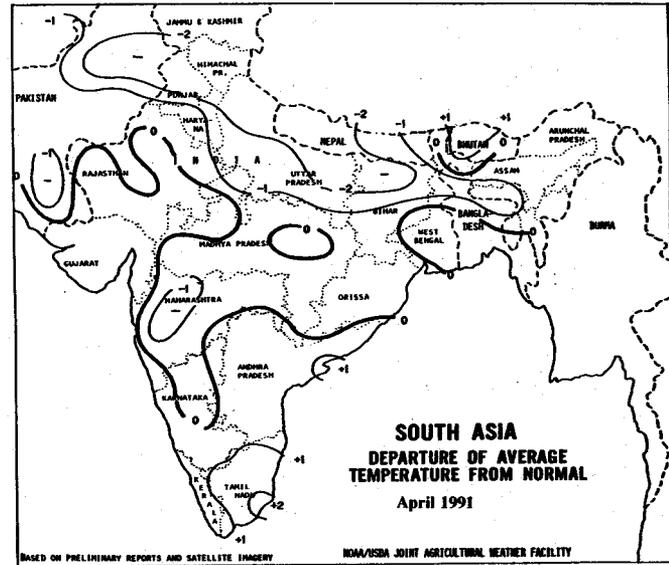
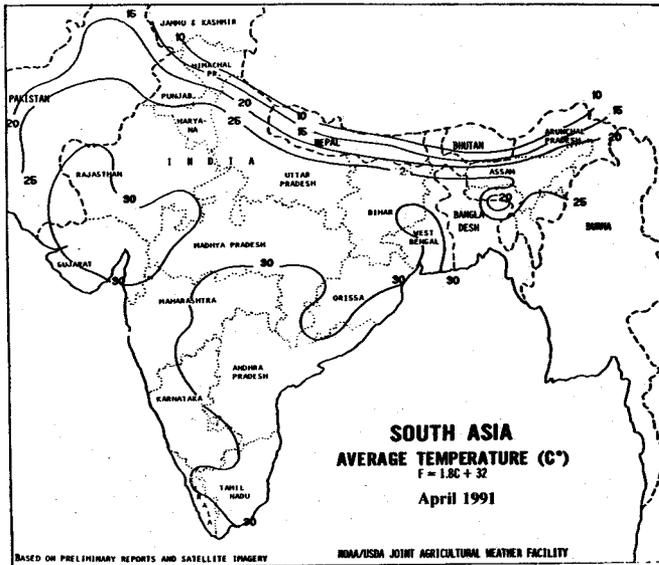
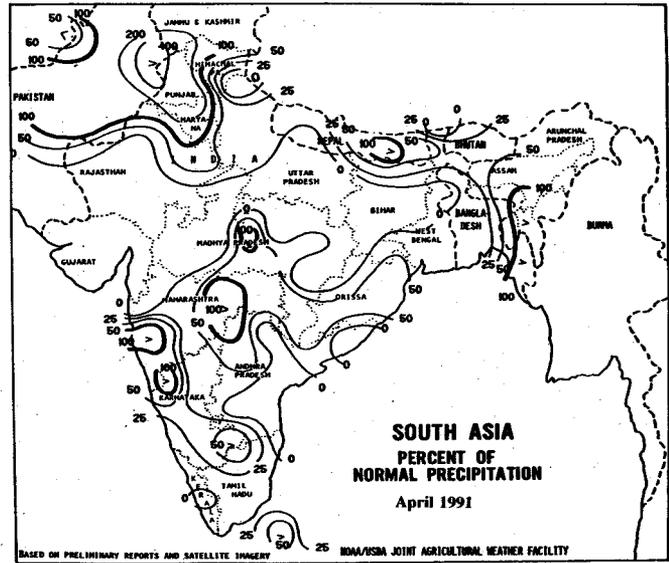
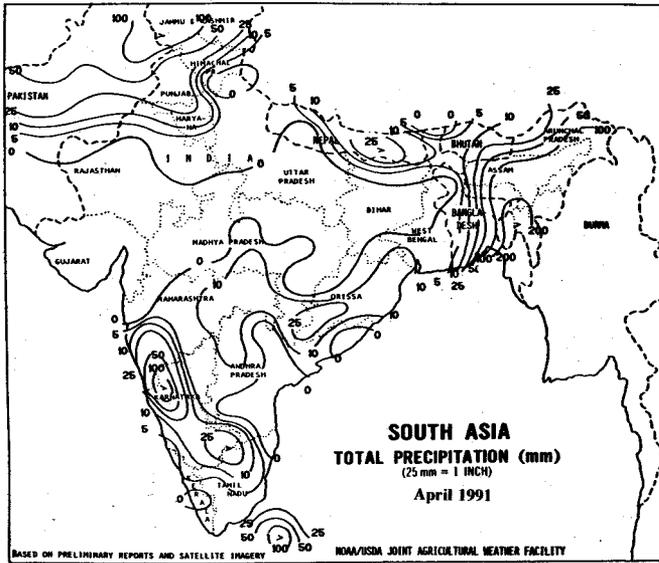
EUROPE ... Significant rain (15-50mm) moistened soils in southern France, benefiting corn planting and emergence. Widespread rain (25-50mm or more) also fell over northern and central Italy and southeastern Europe, providing ample moisture for winter grains growth and establishment of spring-sown crops. Mostly light rain (less than 10mm) fell over the remainder of the continent. Winter wheat heading progresses northward during May. Cool weather persisted, with weekly temperatures averaging 2-6 degrees C below normal in Spain and France, and as much as 3 degrees C below normal elsewhere slowing spring growth. In April, above-average rainfall covered much of the United Kingdom, Belgium, north-central Spain, the Mediterranean region from central Italy to Greece, and from Yugoslavia to Bulgaria. April rainfall tended below average over most of Poland and Germany across central Europe to northern Italy and extreme northeastern Spain, supporting a below-normal tendency across France as well. Preliminary reporting of winter precipitation data in France had underestimated total seasonal accumulations.

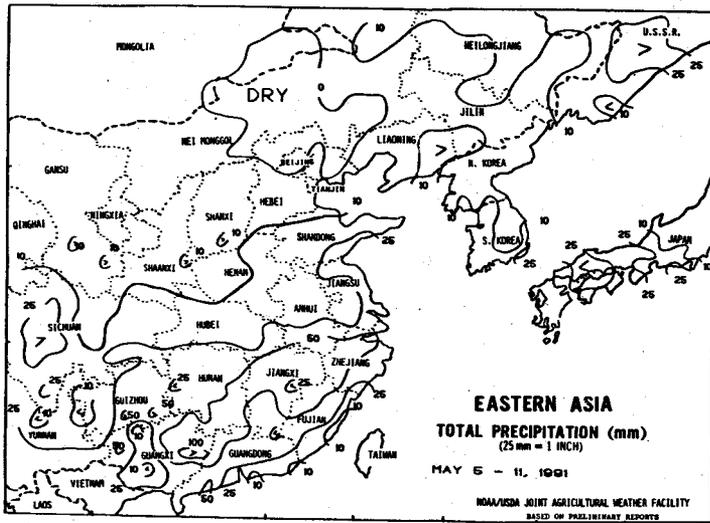




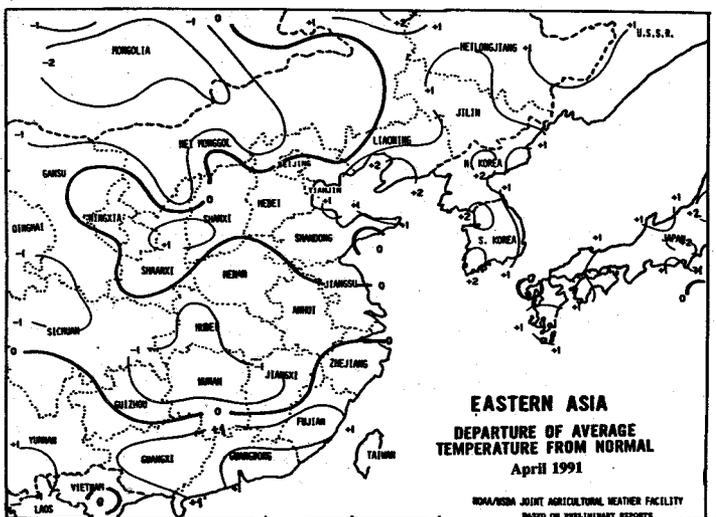
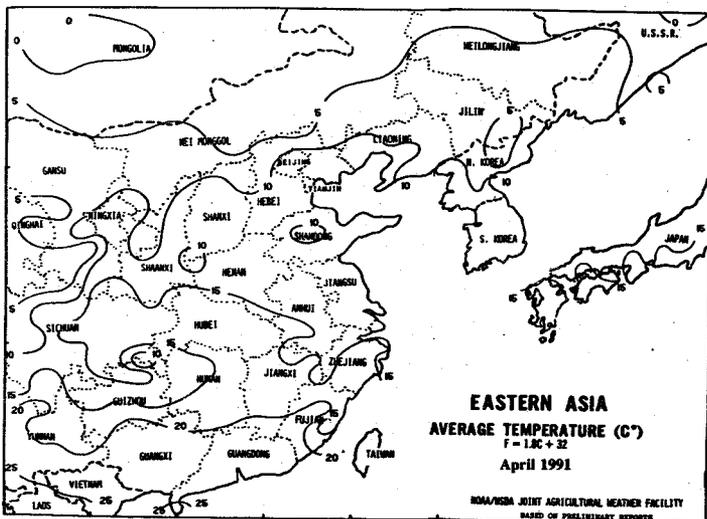
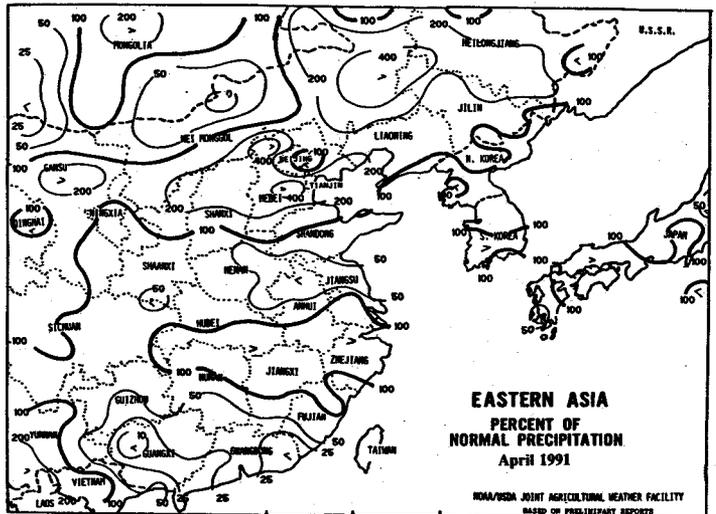
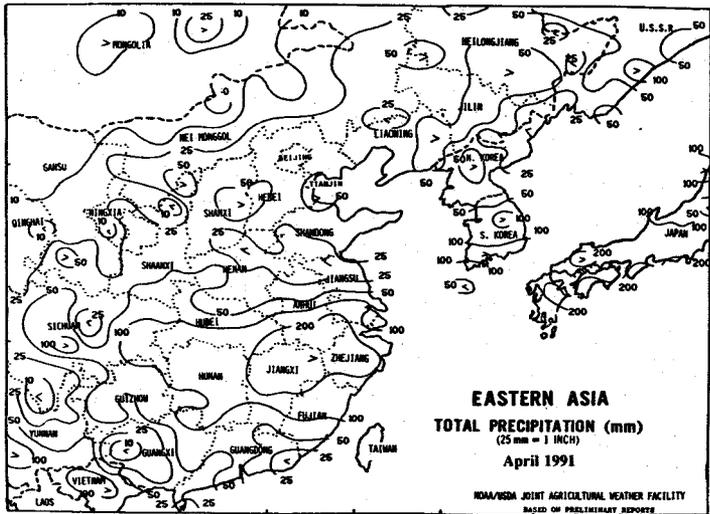
NORTHWESTERN AFRICA ... Dry weather covered winter grain areas in Morocco, Algeria, and Tunisia, benefiting crop maturation and early harvesting. In April, early-month wet weather was followed by a drying trend that began around April 7 and continued until month's end. As a result, total precipitation for April was generally near to below normal in Morocco, Algeria, and Tunisia. April's meager precipitation pattern likely had minimal overall impact on filling winter grains because adequate moisture reserves and below-normal temperatures prevented the potential for crop stress. Weekly summaries for northwestern Africa will be discontinued until the beginning of next year's planting season.

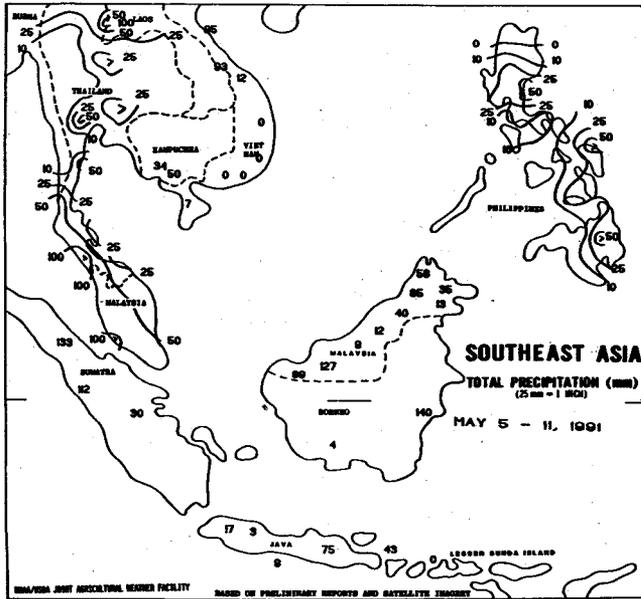




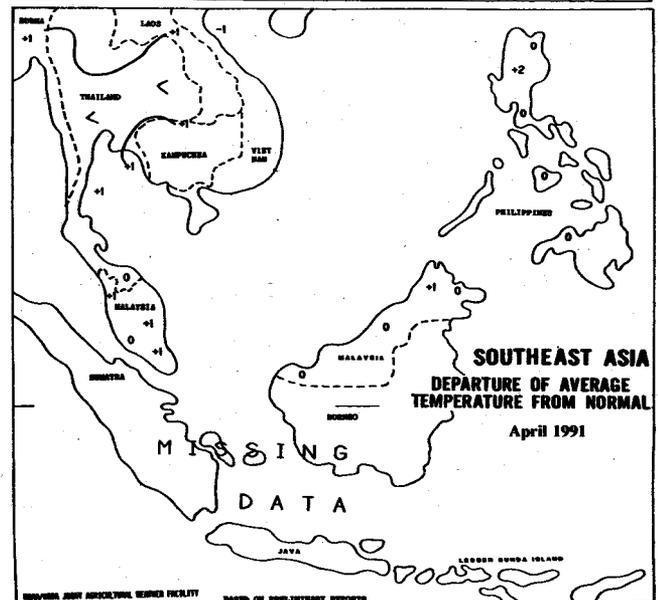
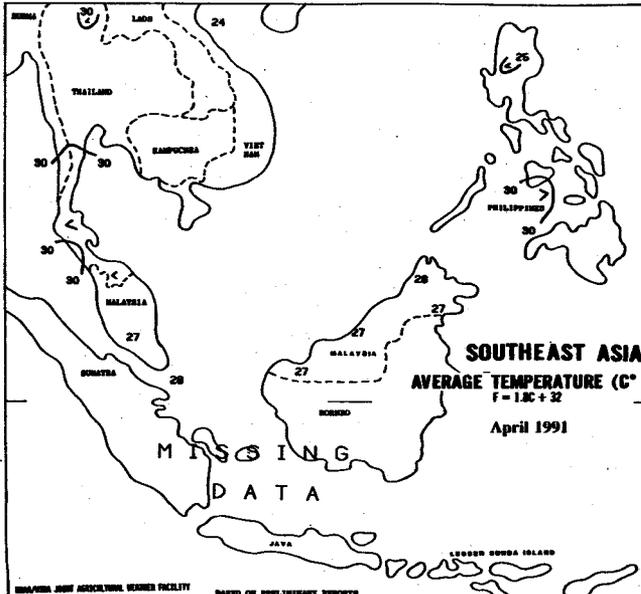
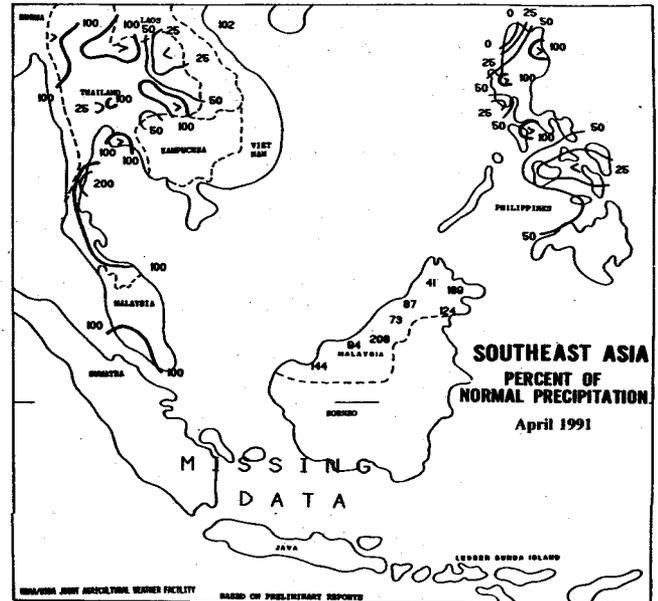
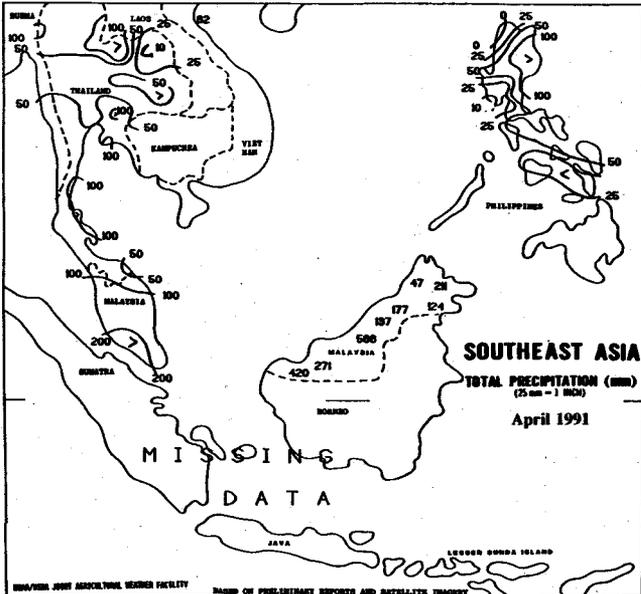


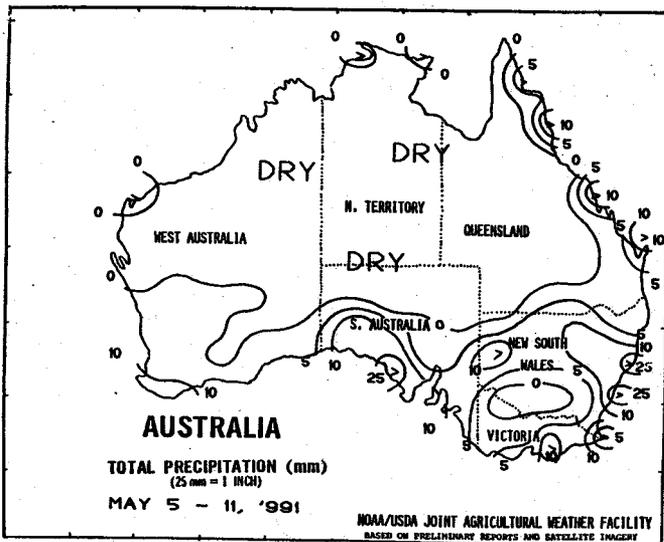
EASTERN ASIA ... Light to moderate rains (5-27mm) fell across Manchuria, which helped topsoils remain moist for spring wheat. Beneficial showers (8-27mm) fell along the North China Plain winter wheat region, where the wheat crop should be entering the heading stage. Moderate to heavy rains (25-110mm) fell throughout southern China, aiding vegetative crops, while temperatures averaged 4-7 degrees C below normal. The rains continued to benefit the southern rice areas of Fujian, Guangdong, and eastern Guangxi, while southwest Guangxi was still experiencing dryness. Most areas of eastern Asia received normal to above-normal April rainfall, with only portions of the North China Plain and southern coastal states receiving below-normal rainfall.



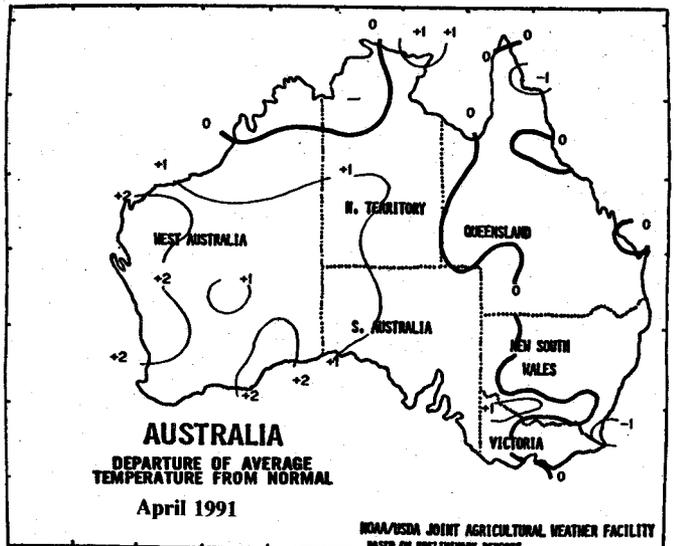
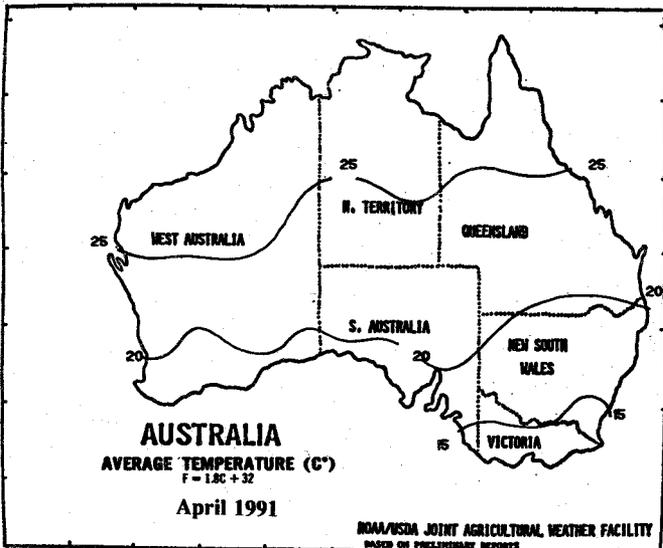
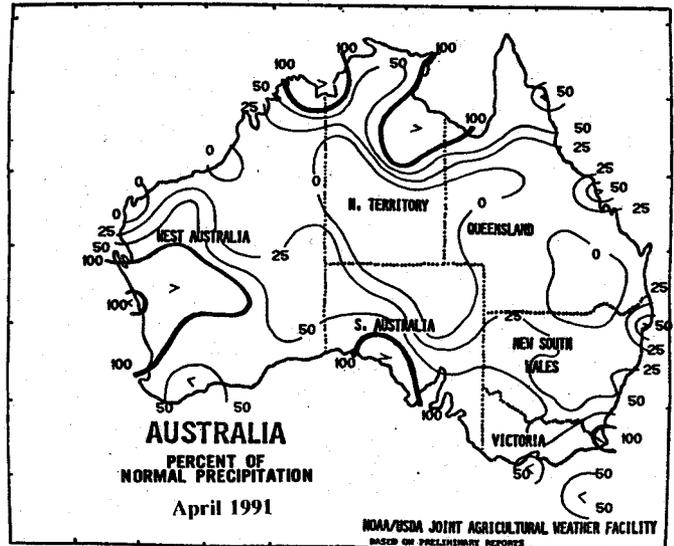
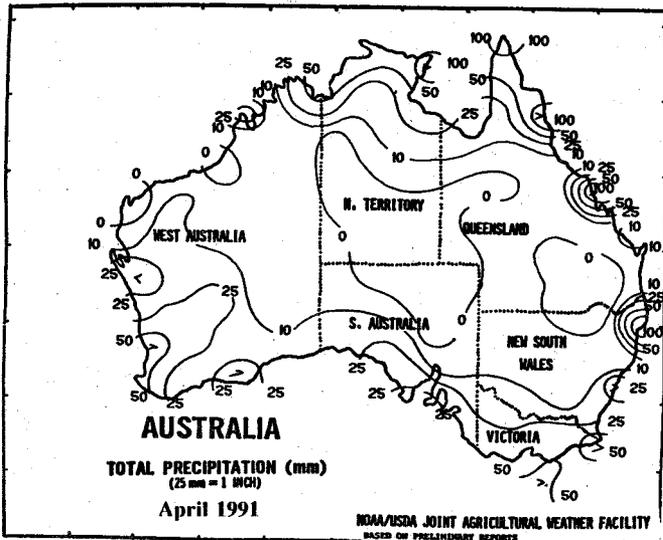


SOUTHEAST ASIA ... Light to moderate showers (10-49mm) brought some relief to Thailand's primary rice and corn areas, but temperatures continued to average 1-3 degrees C above normal. Since early April, drier- and warmer-than-normal weather have created unfavorable conditions for early grain planting. Although beneficial showers since mid-April improved local moisture reserves, persistent hot weather has increased the moisture demands of newly planted crops. In contrast, continuing showers (25-50mm or more) over peninsular Thailand reflected April's beneficial rainfall pattern for most plantation crops. In the Philippines, scattered showers (15-70mm) benefited main-season grain regions from central Luzon to Mindanao. More widespread rain is needed across the Philippines for rice and corn planting, following the second year of unseasonably light fall and winter precipitation. In late April, however, Tropical Storm Vanessa brought timely planting rains to local areas of the central and southern islands.

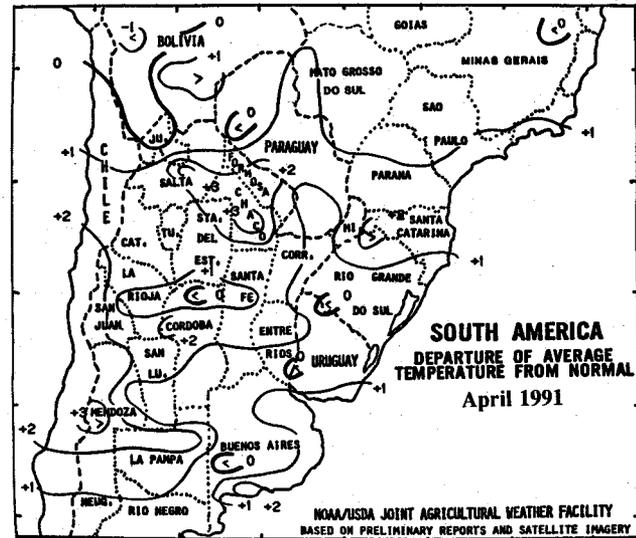
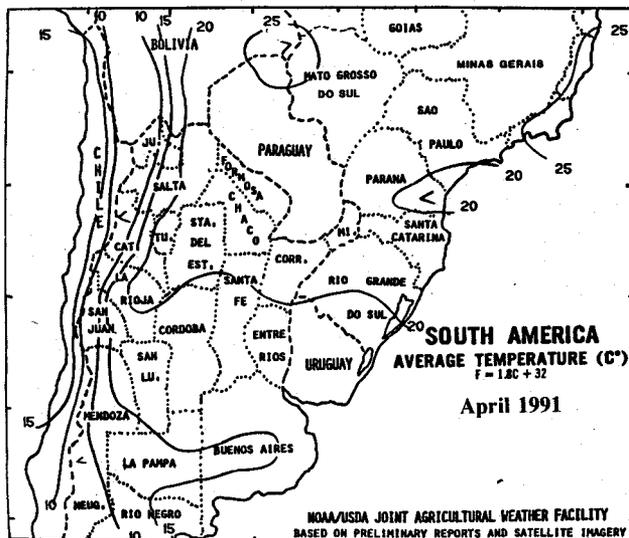
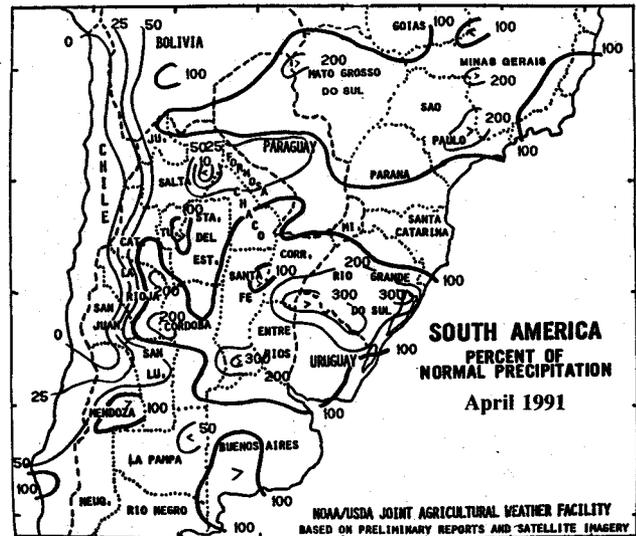
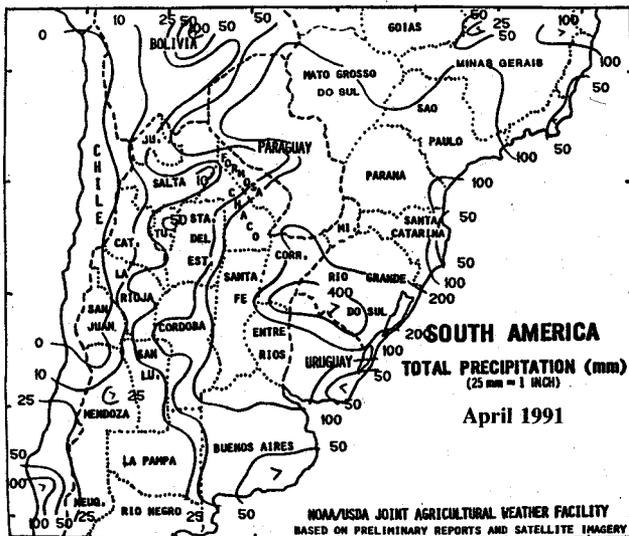


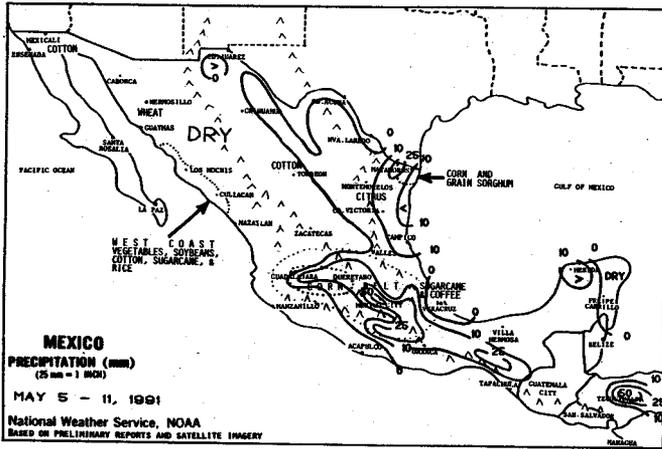


AUSTRALIA ... Beneficial showers (3-19mm) fell in east-central New South Wales and slightly heavier amounts (13-25mm) fell along the coast of South Australia to increase topsoil moisture for winter wheat. Lighter amounts (less than 10mm) fell in Victoria and Western Australia wheat regions. However, the wheat areas of Queensland and New South Wales still need additional rainfall for adequate germination. Below-normal April rainfall in the eastern wheat areas has not replenished topsoil moisture reserves, while the western wheat areas have received adequate April rains for topsoil reserves.

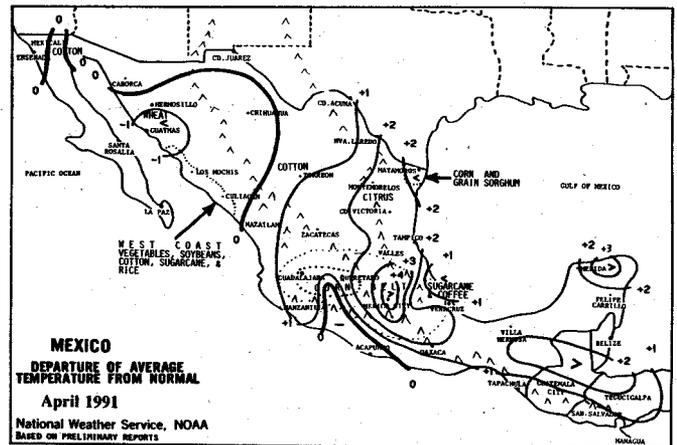
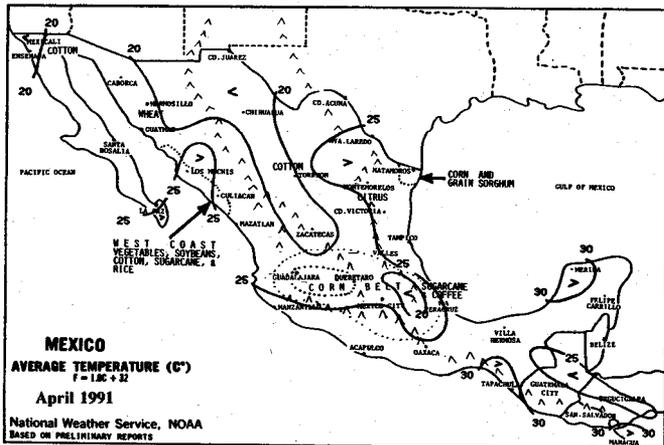
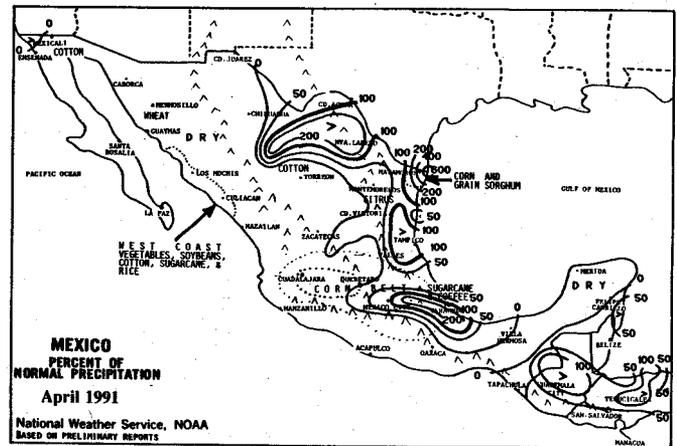
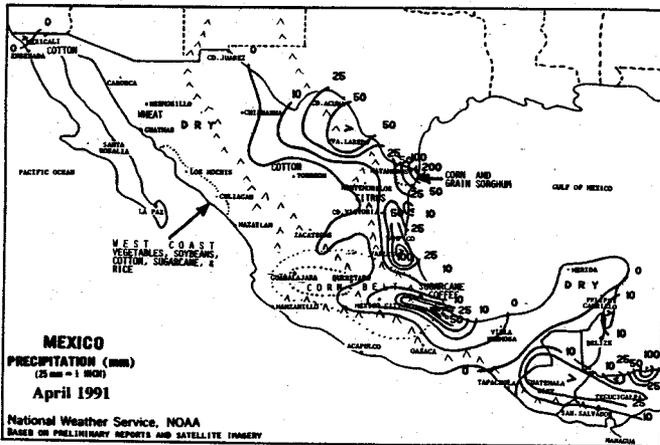


SOUTH AMERICA ... A frontal system early in the week brought mostly light showers (less than 10mm) to southern Brazil. Dry weather since midweek has enabled harvesting of summer crops and fieldwork for winter grains to proceed. Heavier amounts (over 50mm) fell in southern Paraguay and coastal areas of Parana, Sao Paulo, and Espirito Santo, which may interfere with coffee harvesting in those regions. In Argentina, dry weather continues to give favorable harvest conditions for soybeans and corn. Above-normal April rainfall in southern Brazil, and to a lesser extent in northeastern Argentina, delayed soybean and corn harvesting.

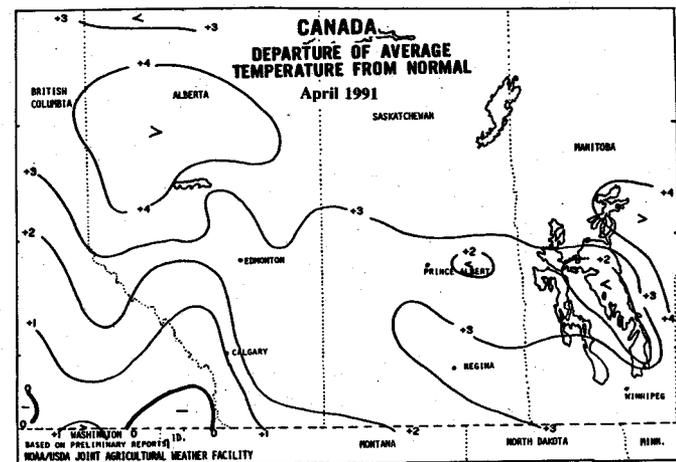
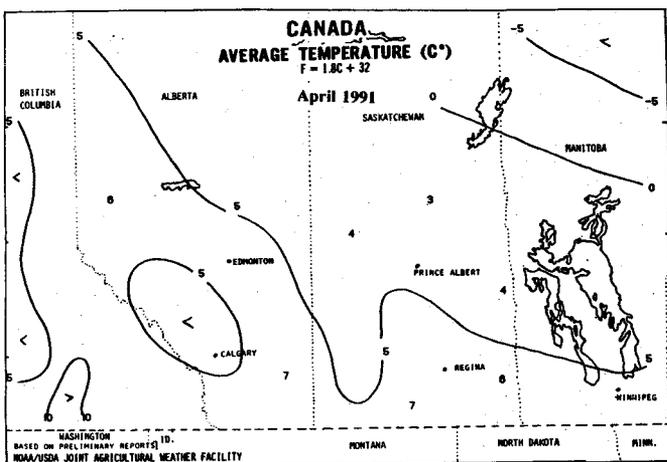
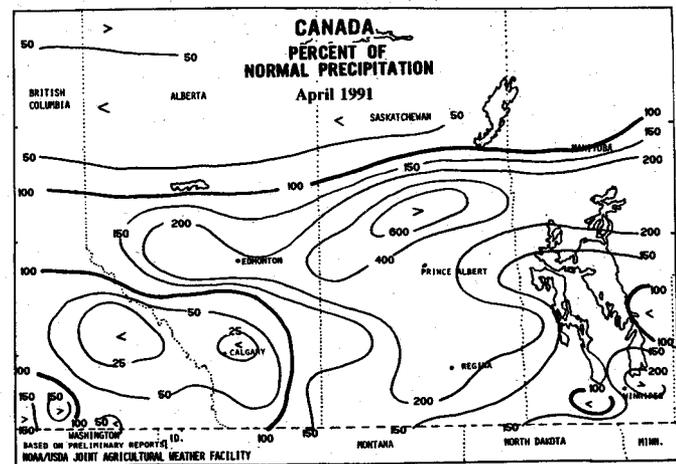
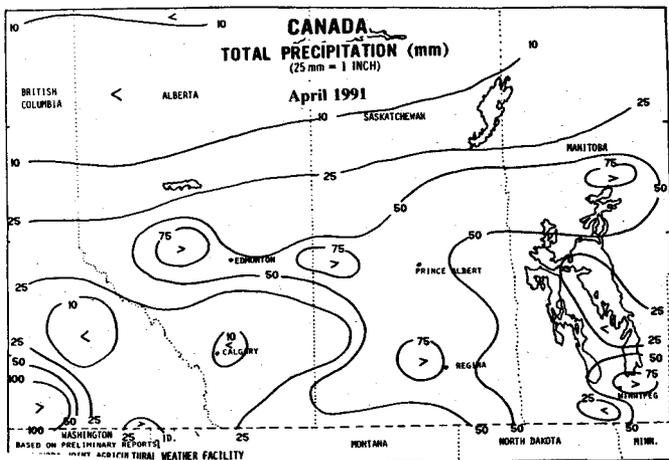
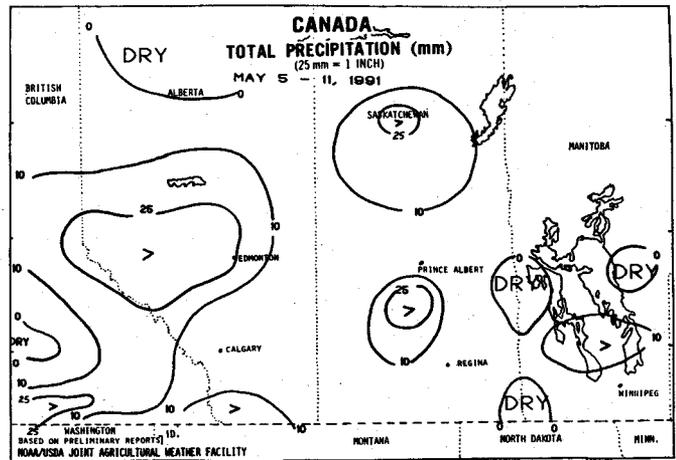




MEXICO ... Light to moderate rains (3-27mm) fell across the Southern Plateau corn belt, which should boost topsoil moisture. April rainfall was near to above normal in portions of eastern Mexico, while the rest of the country received little or no rainfall.



CANADA ... Following recent weeks of highly beneficial precipitation, mostly light rain and snow (10mm or less) covered the Canadian Prairies. Except for local areas of Alberta and southern Manitoba, cumulative precipitation has been near to above normal since early April, providing timely topsoil moisture for spring wheat planting. However, due to unseasonably dry weather since last fall, more widespread rain is needed to recharge subsoil moisture reserves. Spring wheat planting, usually complete by early June, is underway in many locations.



The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

Annual subscriptions: domestic second class \$35, first class \$50, foreign \$50 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to **Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250.** Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor **Douglas Le Comte**
Meteorologists **Brad Rippey** (202)382-1444
Vilhelm Bjerknes and Wes Byrd.

Subscriptions (202) 447-7917 . . . **Joyce Houston**

U.S. DEPARTMENT OF AGRICULTURE

Economics Management Staff
Editor **Sharon Lee**
National Agricultural Statistics Service
Agricultural Statistician . . . **Dave Abbe** (202) 447-2157
World Agricultural Outlook Board
Agricultural Weather Analysts . . **Ray Motha** (202) 447-5716
Tom Puterbaugh, Mark Brusberg and Bob Stefanski.

(Continued from front cover)

F in **Valentine, NE**, and to 32° F in **Goodland, KS**. On Tuesday night, a powerful thunderstorm complex developed in the **southern Plains** and roared southeastward. Hail, tornadoes, and heavy rain pounded towns in its path. One to 6 inches of rain drenched **north-central and east-central Texas**. Upon reaching the **Gulf of Mexico**, the complex curved toward the northeast, lifting slowly into **Arkansas**. **Southern Louisiana** received 3 days of inundation, including a report of 7.90 inches of rain on Wednesday **southwest of New Orleans**. Remnant rains caused flooding in **southern Alabama** and **southern Mississippi** on Friday. The approach of a Pacific storm brought heavy rain to the **Oregon coast** by midweek. Snowfall in the **northern Sierra Nevada of California** reached a foot. High winds raked the **Southwest**, with gusts reaching 70 mph in **Arizona**. Heat built into the **Plains** ahead of the storm. Friday's high soared to 92° F in **Pueblo, CO**. Severe thunderstorms in the **High Plains** on Friday night produced numerous tornadoes, large hail, and flash flooding. Up to 7 inches of rain flooded the **White River near Crawford, NE**, in the northwestern part of the State. Seven-inch diameter hail reportedly fell nearby. As the week ended, rain continued in the **northern High Plains**, a few storms dotted the **southern Plains**, and scattered convection continued in the **Southeast**.

(Continued from p.10)

FRUIT AND NUTS: Overall, California fruit and nut sizing remained slow due to continued cool weather. Harvest of early variety cherries, nectarines, and peaches began in the San Joaquin Valley. Fresh peach harvest was completed in the Imperial Valley. Valencia harvest was slowing in Florida, and most grapefruit remaining for harvest were located in St. Lucie and Indian River Counties. Apple scab was reported in Chelan

County, Washington, and some Yakima County apples were still in bloom. Walnut orchards in the northern growing areas of California completed bloom and began to leaf out. Texas pecan trees remained in good shape, and zinc spraying continued on a limited basis. New England cranberries were in the bud stage with no frost damage to date. Hail damaged early cranberries along the Oregon coast.

VEGETABLES: Asparagus harvest remained active in California, with good quality reported. California broccoli and cauliflower remained in heavy supply, and the iceberg lettuce supply was moderate. Melon and dehydrating onion harvests began in the Imperial Valley. Strawberry supplies were heavy in California's central coast production region. Florida vegetable harvests were active in the central areas and increasing in the northern areas. Florida volume leaders were potatoes, tomatoes, watermelons, sweet corn, cucumbers, and peppers. Lettuce harvest was in full swing in New Mexico, with good quality and yields reported. Strawberry and onion harvests continued, cabbage harvest began, and lettuce harvest wound down in Texas' San Antonio-Winter Garden region. Asparagus harvest continued in Washington, but quality was reduced by blowing sand.

PASTURES AND LIVESTOCK: Movement of cows and calves to pasture continued in the Corn Belt, and movement of sheep and cattle to summer ranges continued in the Rocky Mountains. Livestock water supplies remained mostly short to adequate in the Northern Great Plains. Recent rains stimulated forage growth on the Texas Plains, but Trans-Pecos ranges remained dry, and supplemental feeding increased. Horn flies remained an increasing problem to most Texas livestock.

NOAA/USDA Joint Agricultural
Weather Facility
Room 5844 USDA South Building
Washington, D.C. 20250

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ISSN 0043 1974

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**WEEKLY NEWS BULLETIN
SECOND CLASS**