

WEEKLY WEATHER AND CROP BULLETIN

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

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

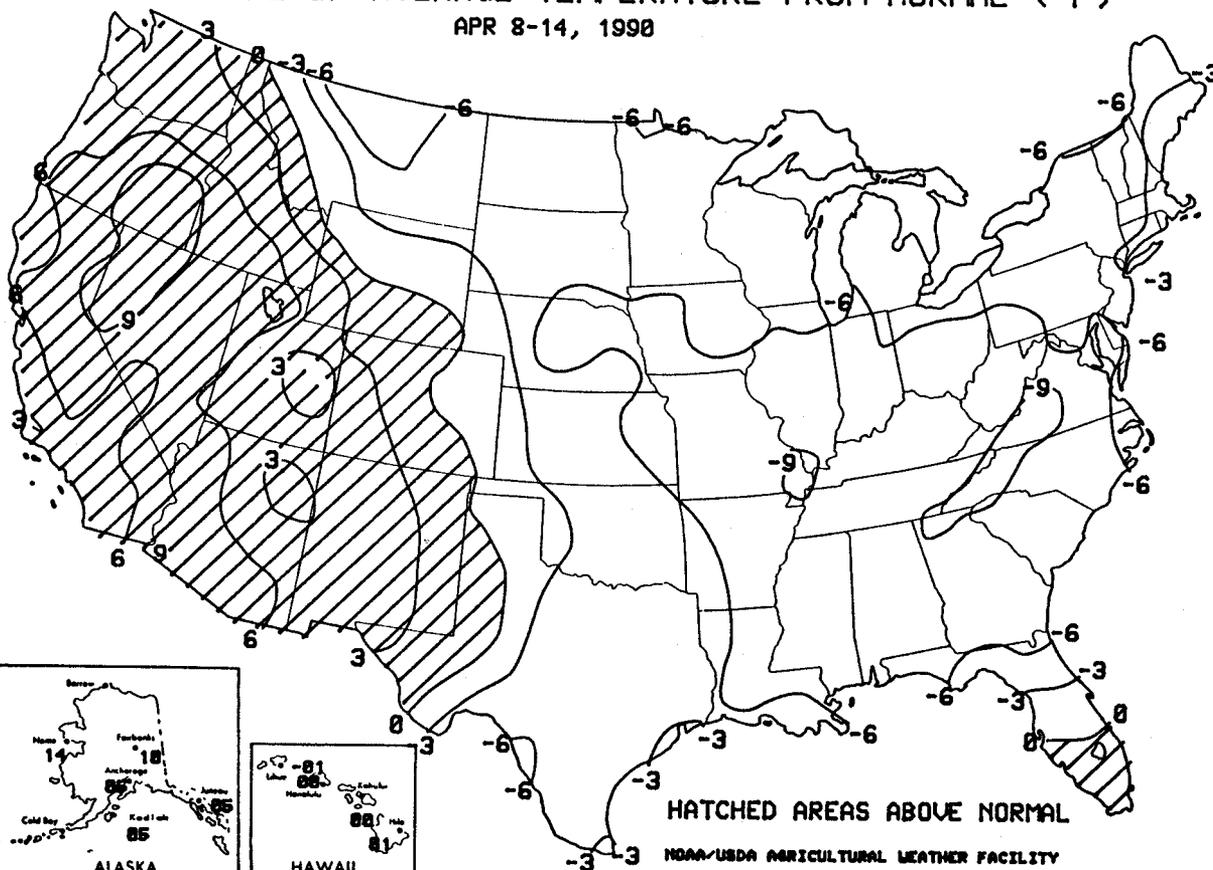
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April 17, 1990

DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)

APR 8-14, 1990



HATCHED AREAS ABOVE NORMAL

NOAA/USDA AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

HIGHLIGHTS

April 8-14, 1990

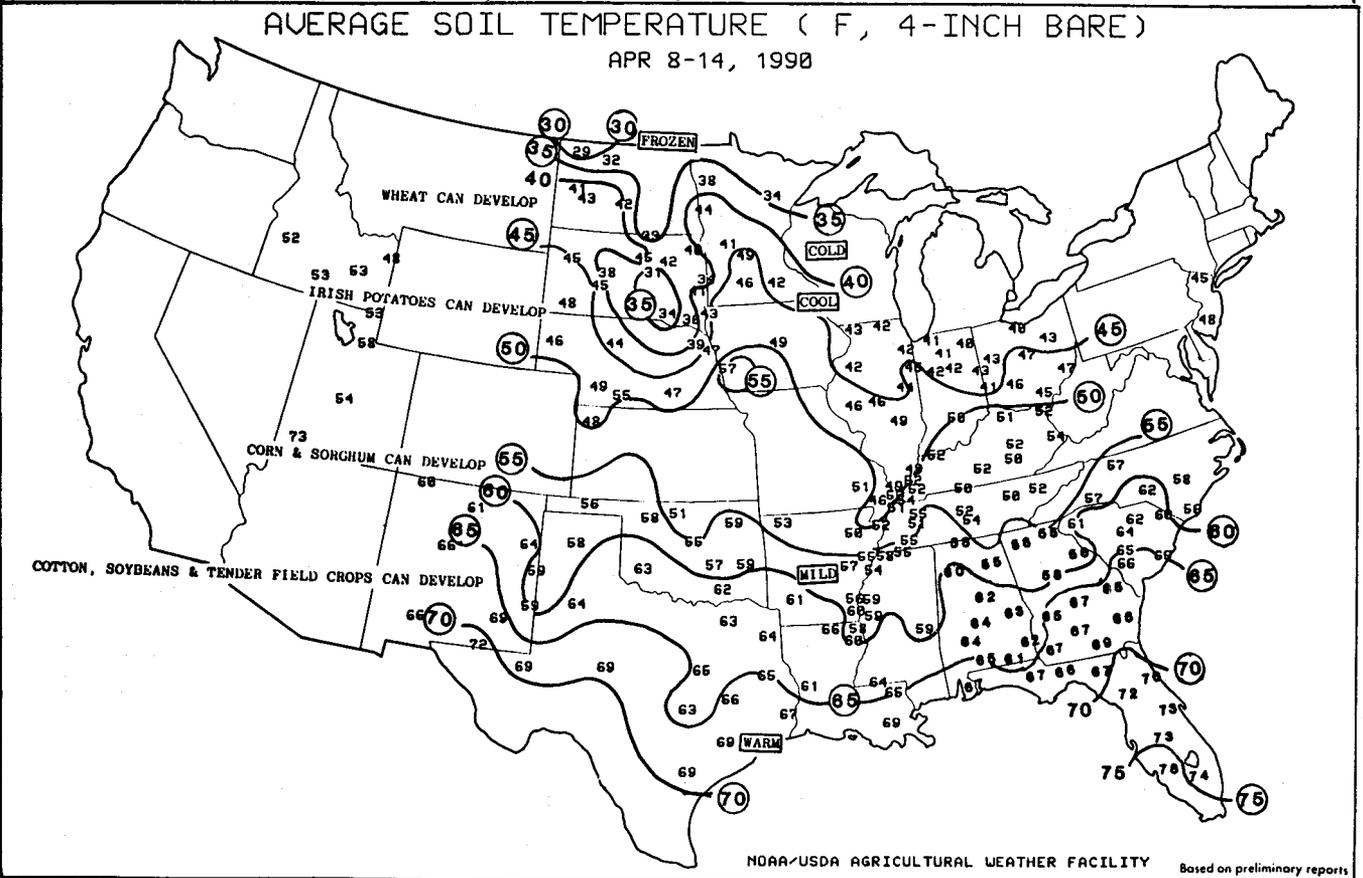
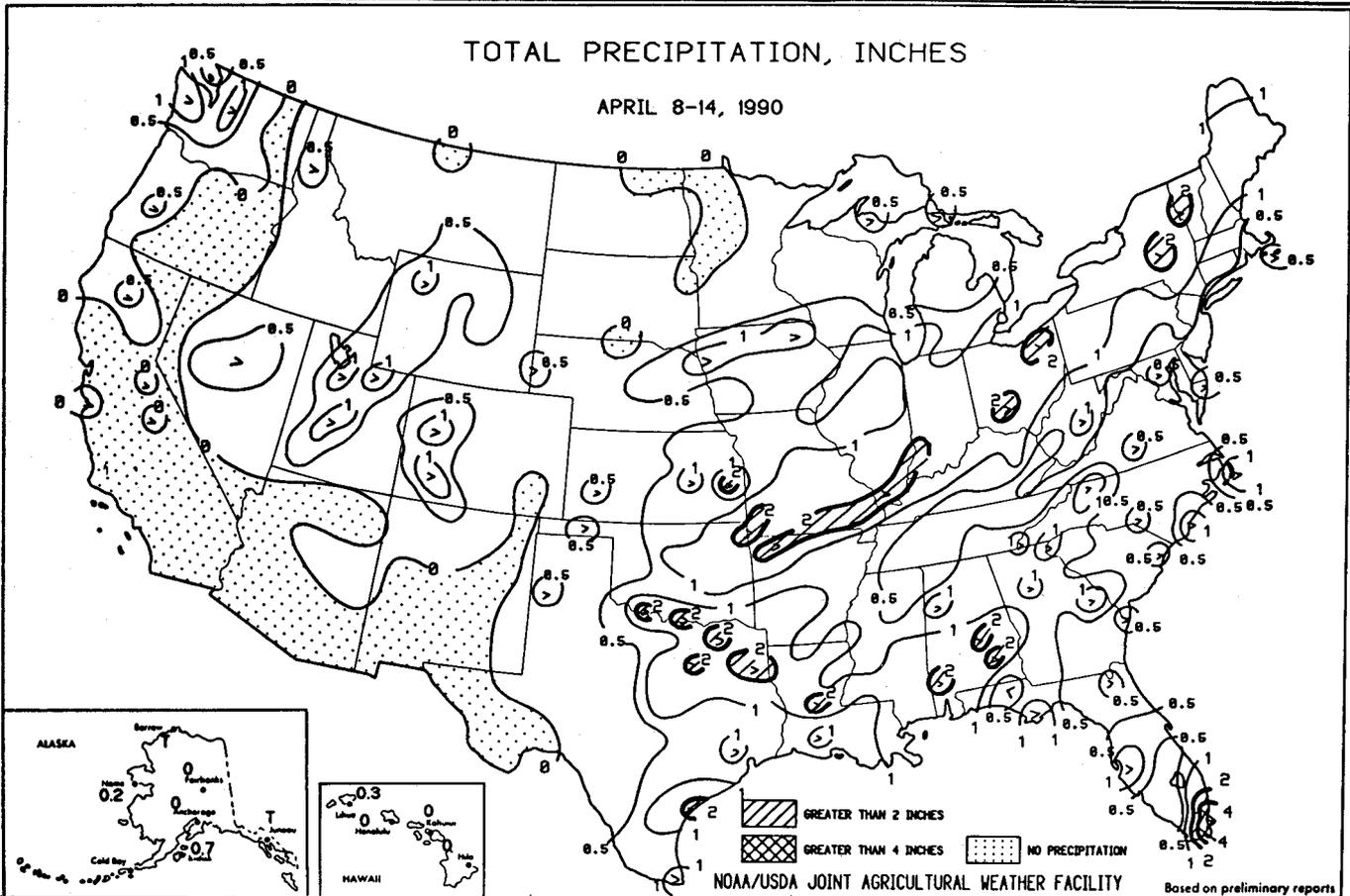
Cooler-than-normal conditions persisted across the **eastern two-thirds of the Nation**, while more summer-like weather dominated **west of the Rockies**, where well-above-normal temperatures and little or no precipitation occurred. Twice during the week, storm systems developed over the country's midsection, then rapidly intensified as they moved eastward. Ahead of these systems, showers and thunderstorms afflicted scattered portions of the **Southeast**, while heavier, more widespread rainfall dampened much of the East **from the east-central Plains to New England**. These disturbances generated some severe weather as they trekked through the **southern Plains**, creating softball-sized hail, hurricane-force wind gusts, and a few tornadoes in isolated locations through **Texas**

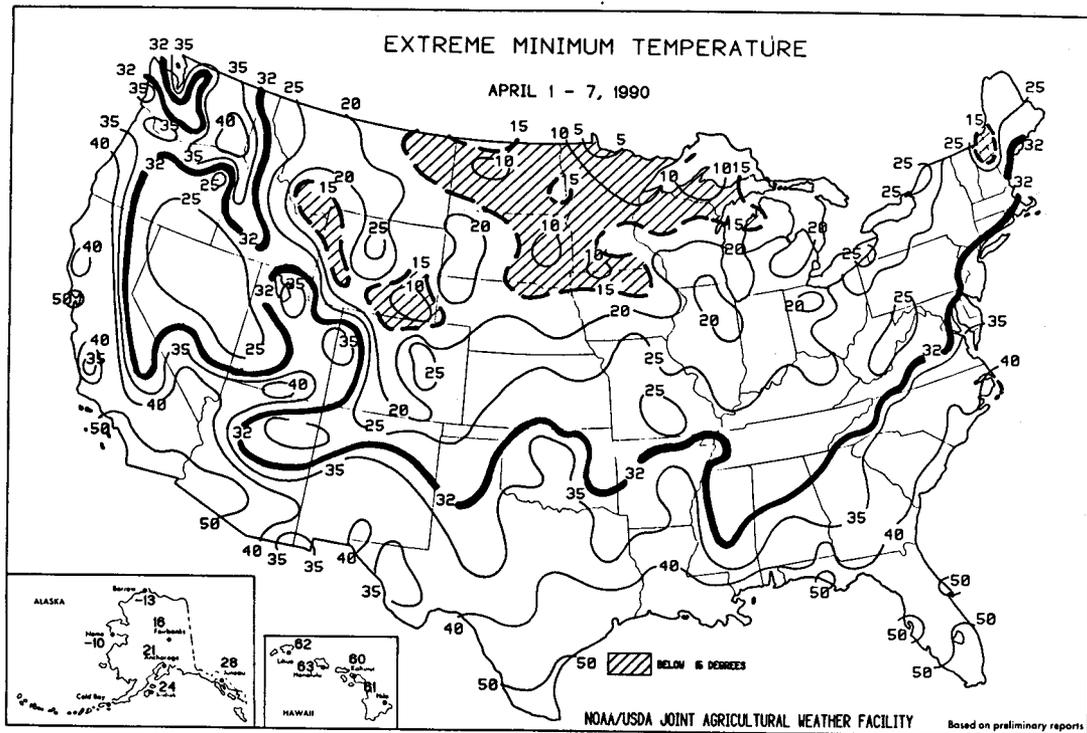
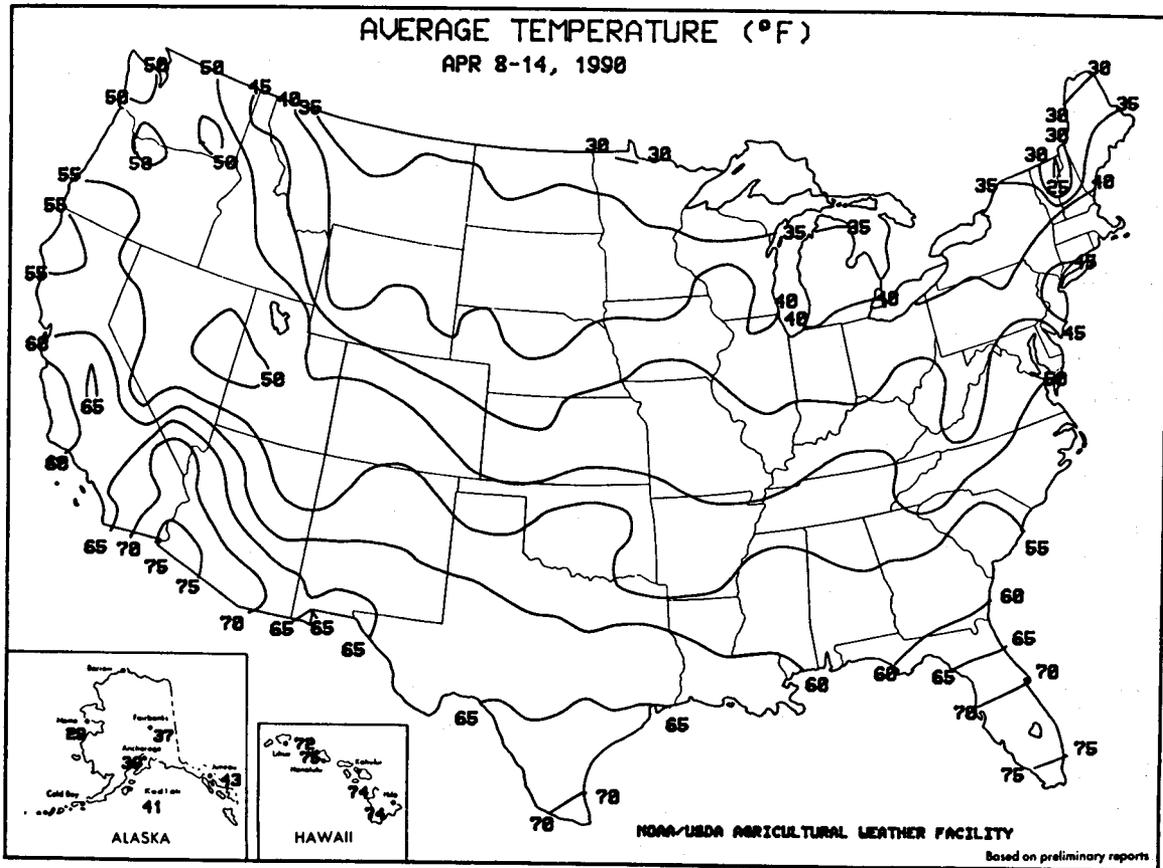
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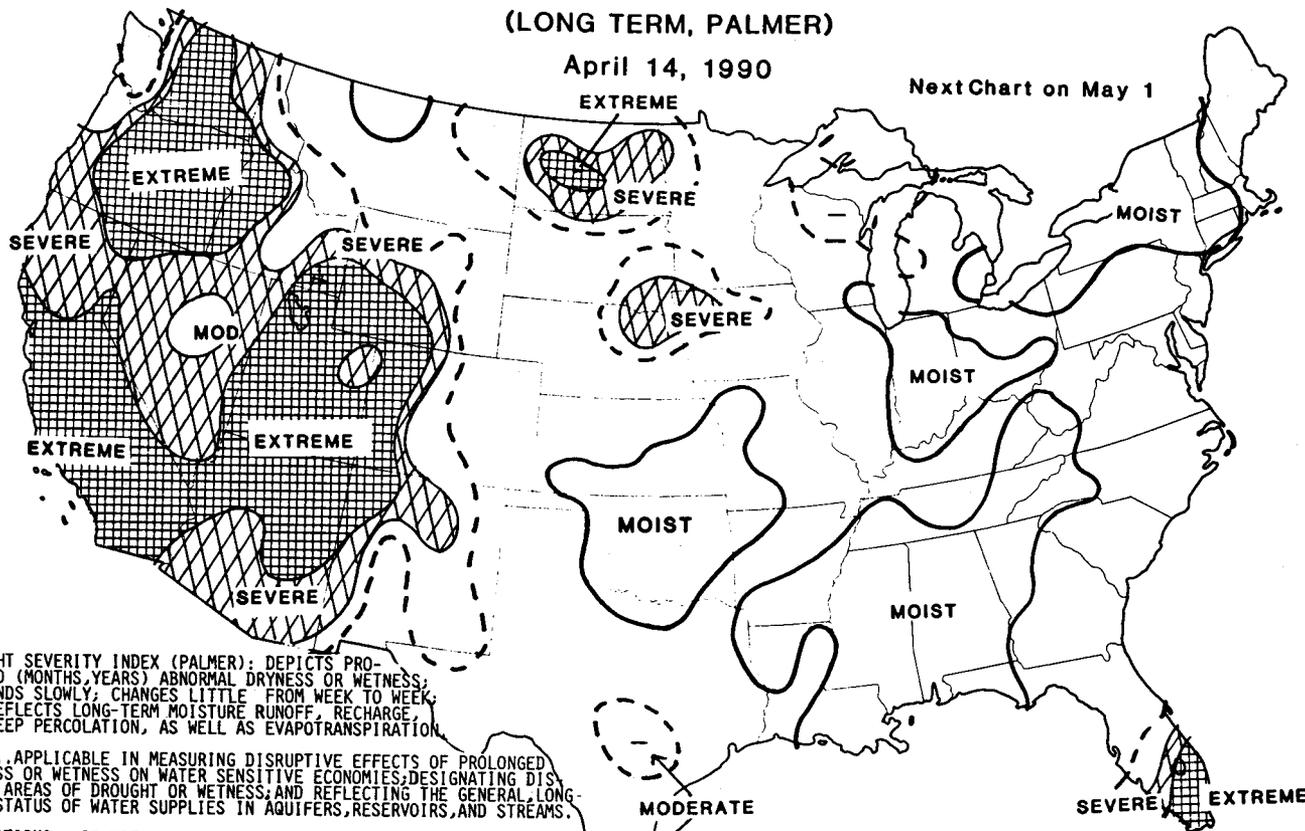




DROUGHT SEVERITY (LONG TERM, PALMER)

April 14, 1990

Next Chart on May 1



DROUGHT SEVERITY INDEX (PALMER): DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION, AS WELL AS EVAPOTRANSPIRATION.

USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES; DESIGNATING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL, LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, AND STREAMS.

LIMITATIONS... IS NOT GENERALLY INDICATIVE OF SHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

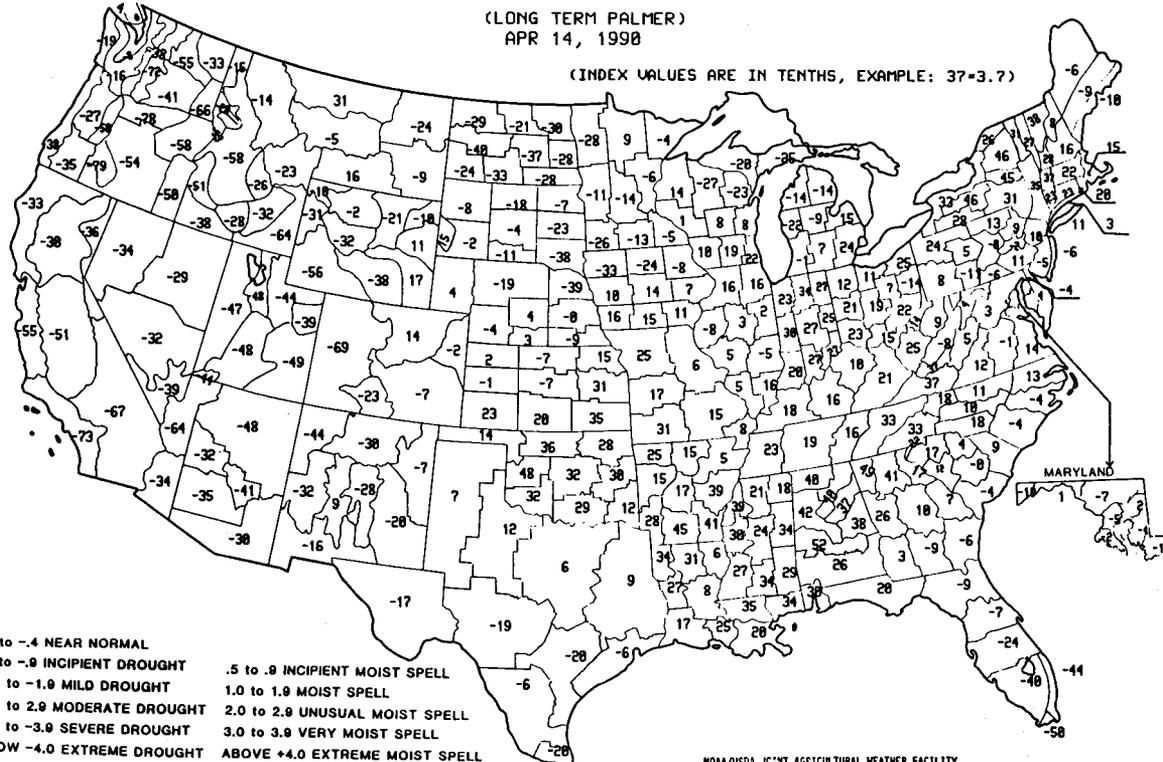
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

DROUGHT SEVERITY INDEX BY DIVISION (LONG TERM PALMER)

APR 14, 1990

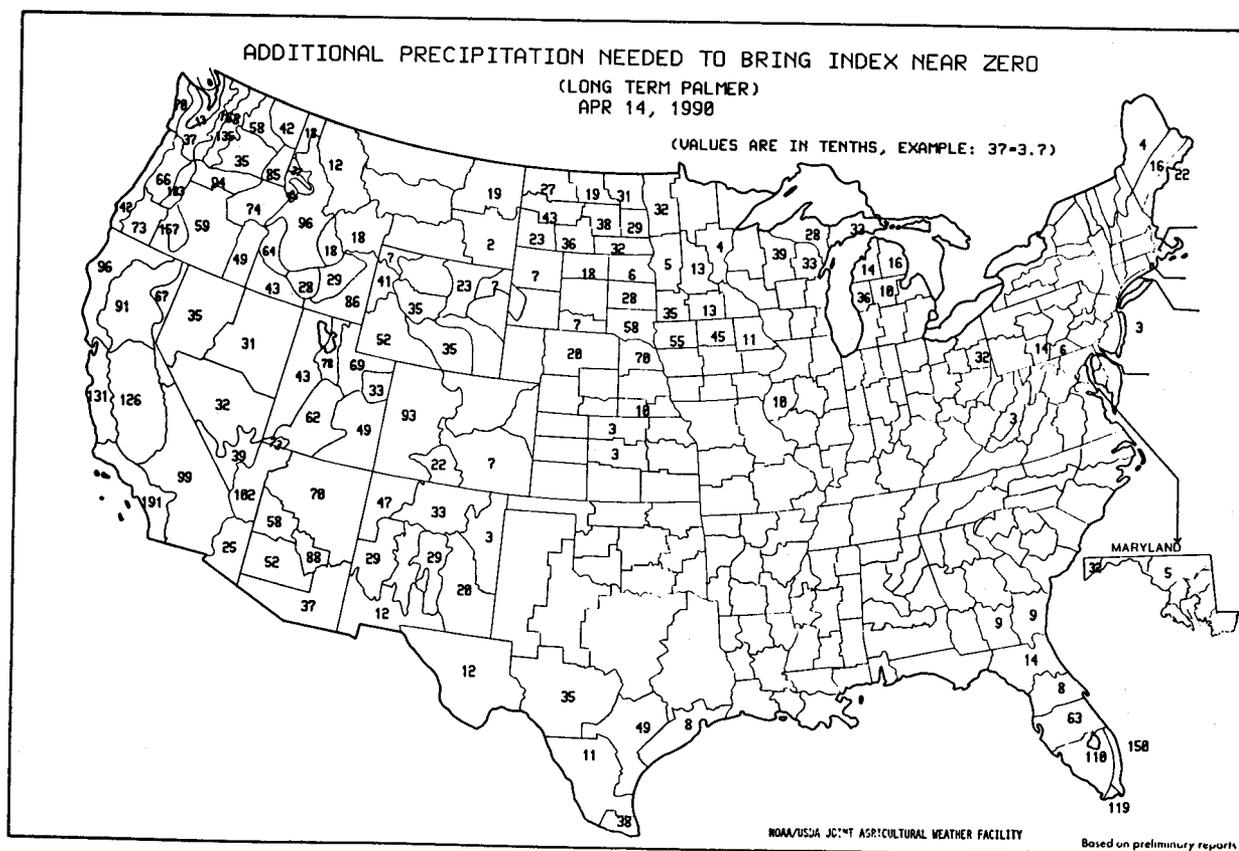
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)



.4 to -.4 NEAR NORMAL	.5 to .9 INCIPENT MOIST SPELL
-.5 to -.9 INCIPENT DROUGHT	1.0 to 1.9 MOIST SPELL
-1.0 to -1.9 MILD DROUGHT	2.0 to 2.9 UNUSUAL MOIST SPELL
-2.0 to 2.9 MODERATE DROUGHT	3.0 to 3.9 VERY MOIST SPELL
-3.0 to -3.9 SEVERE DROUGHT	
BELOW -4.0 EXTREME DROUGHT	ABOVE +4.0 EXTREME MOIST SPELL

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports



Soil Moisture Update

With this issue of the Bulletin, we begin routine publication of the Palmer Drought Severity maps. All three maps--the index, analysis, and precipitation needed--will be made available every other week. The Crop Moisture Index will be issued weekly beginning in May.

Now that corn planting is moving northward into the Corn Belt and spring wheat planting is underway in the Northern Plains, this is a good time to look at moisture levels in key grain-producing States.

The overall indications from the Palmer Index and the State reports (pp. 11-16) are that moisture supplies are abundant in the central and eastern Corn Belt, adequate to short in the western Corn Belt, and mostly short in the spring wheat region. Indeed, excessive wetness is a problem in Ohio and Indiana, where topsoil moisture is 48 percent (%) and 65% surplus, respectively. Cold, wet soils have limited fieldwork in Indiana, and caused oats to look unhealthy and wheat stands to yellow in Ohio. Conditions improve to the west, with about one-fifth of Illinois' topsoils rated either short or surplus, and 28% of Iowa rated short and 72% adequate. This contrasts favorably with the situation 12 months ago, when topsoils rated 81% short in Iowa and 44% short in Illinois. However, subsoil moisture remains surprisingly low in the western Corn Belt, with Iowa reporting 76% short and Nebraska 88% short (for the sake of simplicity,

short and very short are combined here). The Palmer Index, which usually is more indicative of subsoil moisture than topsoil moisture, paints a more optimistic picture for this area, limiting drought to northwest Iowa and adjacent portions of Nebraska, South Dakota, and Minnesota. The implication of low subsoil moisture is that plants could have limited moisture reserves to draw upon if dry weather depletes topsoil moisture later in the growing season.

For North Dakota, the Nation's most important spring wheat State, all indicators show that drought remains a concern. A dry March, following the driest winter on record, did nothing to remove the lingering effects of the 1988 drought. Topsoils are reported to be 82% short (45% last year). Dig deeper and the problem worsens, with subsoils reportedly 96% short (94% last year). Ranges and pastures are rated 89% poor, and 26% of the winter wheat is poor or very poor. Some rain or snow has been falling recently, but the Palmer indices suggest that several inches of precipitation are needed to erase the long-term dryness. Lack of moisture is also a concern in surrounding States, but North Dakota is most affected. This area clearly bears close watching in coming weeks.

Douglas Le Comte

Weather Data for the Week Ending April 14, 1990

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	.69	41	75	29	55	-7	.6	-.7	.4	6.6	73	20.8	109	89	34	0	1	2	0
MOBILE	.73	47	79	39	60	-7	1.5	-.2	.9	14.2	157	29.7	161	91	42	0	0	2	2
MONTGOMERY	.73	41	82	33	57	-7	1.9	-.9	1.2	15.8	194	33.5	200	98	34	0	0	2	2
AK ANCHORAGE	26	27	53	24	39	5	0	-1.1	0	.5	55	3.4	132	82	35	0	7	0	0
BARROW	51	7	33	-13	16	21	T	-1.1	T	.2	65	.2	39	98	80	0	7	0	0
FAIRBANKS	49	26	55	23	37	10	0	-1.1	0	.1	21	1.3	89	73	30	0	6	0	0
JUNEAU	53	35	55	30	44	6	T	-1.7	T	5.0	108	13.2	110	81	36	0	3	1	0
KODIAK	50	33	55	27	42	13	.7	-1.1	.3	7.9	143	17.4	107	90	48	0	3	3	0
NOME	36	20	39	13	28	13	.2	-1.1	.2	1.3	161	2.8	131	94	60	0	7	1	0
AZ PHOENIX	93	64	98	61	79	12	0	-1.1	0	.4	36	1.8	81	39	17	5	0	0	0
PRESCOTT	75	40	81	35	57	9	0	-2.2	0	1.3	65	3.8	73	53	14	0	0	0	0
TUCSON	89	54	96	50	72	8	0	-1.1	0	.4	44	2.0	89	43	12	5	0	0	0
YUMA	96	63	99	57	79	9	0	0	0	.1	40	.2	27	42	12	6	0	0	0
AR FORT SMITH	68	44	77	36	56	-4	1.6	-.6	1.1	6.4	112	17.5	173	93	36	0	0	3	1
LITTLE ROCK	66	45	72	39	55	-6	.8	-.4	.4	12.3	173	21.9	148	76	40	0	0	3	0
CA BAKERSFIELD	85	53	93	46	69	7	T	-2.2	T	.5	37	2.2	67	83	27	3	0	0	0
EUREKA	59	47	64	45	53	4	.1	-6	.1	3.4	52	15.1	80	94	75	0	0	2	0
FRESNO	84	52	92	47	68	9	0	-3	0	.7	30	4.8	79	81	28	2	0	0	0
LOS ANGELES	71	56	76	54	64	4	0	-2	0	.3	13	4.1	52	91	55	0	0	0	0
REDDING	82	50	92	44	66	7	.9	-.2	.9	3.3	50	12.6	59	86	27	1	0	1	1
SACRAMENTO	81	48	92	43	65	7	0	-2	0	.9	31	8.7	90	92	33	1	0	0	0
SAN DIEGO	70	57	75	55	64	3	0	-4	0	.5	24	4.1	70	91	55	0	0	0	0
SAN FRANCISCO	71	50	80	46	61	6	0	-4	0	.8	23	6.1	54	93	51	0	0	0	0
CO DENVER	57	36	72	29	47	1	.1	-3	.1	3.5	183	4.8	157	91	39	0	1	3	0
GRAND JUNCTION	67	42	76	37	55	5	.4	-.2	.3	1.6	149	2.7	122	76	28	0	0	2	0
PUEBLO	69	36	83	30	53	3	T	-2.2	T	1.3	121	2.6	164	86	24	0	2	1	0
CT BRIDGEPORT	54	35	61	29	44	-3	.3	-.6	.2	4.1	72	9.9	83	75	34	0	3	2	0
HARTFORD	54	32	62	24	43	-4	.2	-.7	.1	5.1	84	12.5	98	76	32	0	5	3	0
DC WASHINGTON	61	39	68	31	50	-6	.4	-.2	.4	4.5	94	8.8	86	80	35	0	2	2	0
FL APALACHICOLA	73	53	76	44	63	-4	1.7	-.9	1.5	5.9	104	12.2	95	91	50	0	0	2	1
DAYTONA BEACH	76	60	83	52	68	-1	.5	0	.5	3.1	76	10.1	106	85	52	0	0	2	0
JACKSONVILLE	75	49	80	41	62	-6	.2	-.5	.1	1.9	40	7.8	69	94	48	0	0	1	0
KEY WEST	82	72	86	70	77	0	T	-3	T	.8	43	1.8	33	87	63	0	0	1	0
MIAMI	81	68	85	64	75	0	4.9	4.2	4.6	7.8	254	9.2	129	89	57	0	0	3	1
ORLANDO	79	59	83	55	69	-2	.5	0	.5	2.6	59	6.9	72	86	47	0	0	2	1
TALLAHASSEE	75	46	80	33	61	-5	.5	-.4	.5	4.3	57	14.7	86	96	38	0	0	2	1
TAMPA	81	60	87	56	70	0	.3	-.1	.3	2.4	56	7.5	79	87	42	0	0	1	0
WEST PALM BEACH	80	68	86	63	74	1	1.2	-.5	.7	3.2	81	5.8	62	88	60	0	0	3	1
GA ATLANTA	68	44	76	33	56	-4	1.1	0	.7	9.6	119	27.9	160	77	32	0	0	2	1
AUGUSTA	72	39	80	33	55	-7	.3	-.5	.3	2.4	36	7.8	54	93	32	0	0	1	0
MACON	71	41	77	30	56	-8	.7	-.7	.7	5.8	84	13.9	89	95	32	0	1	1	1
SAVANNAH	71	47	78	38	59	-7	.7	0	.7	4.6	87	11.6	100	85	39	0	0	2	1
HI HILO	83	66	84	62	74	2	T	-3.2	T	12.1	61	56.4	132	91	62	0	0	0	0
HONOLULU	85	67	88	63	76	1	T	-.4	T	1.0	23	9.4	87	88	54	0	0	0	0
KAHULUI	83	65	85	61	74	0	0	-3	0	1.5	44	12.4	120	94	65	0	0	0	0
LIHUE	78	66	84	62	72	-1	.3	-.5	.3	4.4	72	15.1	94	92	69	0	0	1	0
ID BOISE	70	41	80	30	56	8	.5	-.2	.5	1.3	82	2.9	68	73	24	0	1	1	0
LEWISTON	67	46	74	40	57	8	.1	-.2	0	1.1	74	1.8	48	78	35	0	0	2	0
POCATELLO	64	37	76	31	50	7	.4	-.1	.4	2.7	189	3.5	103	81	28	0	2	1	0
IL CHICAGO	51	34	61	25	43	-4	.8	-.1	.3	4.1	91	8.3	114	88	42	0	4	5	0
MOLINE	52	36	68	24	44	-5	1.2	-.3	.7	8.0	179	11.7	159	89	41	0	2	3	1
PBORIA	52	34	67	25	43	-7	.9	0	.5	4.9	107	10.2	135	93	50	0	3	4	1
QUINCY	53	36	66	27	45	-6	.7	-.2	.6	3.6	73	8.5	110	85	45	0	2	2	1
ROCKFORD	51	30	63	20	41	-5	.6	-.4	.4	3.6	79	6.5	93	88	42	0	4	5	0
SPRINGFIELD	54	35	65	23	45	-8	.6	-.3	.4	4.2	85	10.5	129	92	52	0	2	3	0
IN EVANSVILLE	58	35	68	29	47	-8	1.7	-.8	1.6	4.2	64	14.0	112	87	42	0	2	3	1
FORT WAYNE	53	31	62	24	42	-5	1.4	-.6	.9	4.7	103	13.8	160	85	48	0	4	6	1
INDIANAPOLIS	55	32	68	26	44	-7	1.2	-.4	1.1	3.7	71	10.5	102	83	44	0	4	3	1
SOUTH BEND	49	31	58	24	40	-7	1.2	-.3	.4	4.5	91	10.5	112	89	46	0	5	5	0
IA DES MOINES	54	35	69	21	45	-4	.6	-.1	.4	6.4	180	8.7	155	84	41	0	2	3	0
SIOUX CITY	55	28	73	21	42	-6	1.1	-.6	.8	3.3	123	3.9	92	89	40	0	6	2	1
WATERLOO	53	31	70	20	42	-6	.9	-.1	.6	5.5	147	6.3	116	89	38	0	4	3	1
KS CONCORDIA	57	35	70	25	46	-6	.7	-.2	.5	4.8	174	5.5	131	86	45	0	3	3	1
DODGE CITY	62	35	76	28	49	-9	.1	-.3	.1	1.9	87	4.7	151	89	41	0	2	3	0
GOODLAND	60	33	77	27	47	-1	.1	-.1	.1	1.9	130	3.0	140	94	43	0	3	4	0
TOPEKA	58	34	68	25	46	-7	.4	-.3	.2	4.2	120	7.8	142	88	41	0	3	3	0
WICHITA	61	40	73	31	50	-5	.4	-.2	.4	3.1	101	7.0	153	83	47	0	1	1	0
KY BOWLING GREEN	62	36	72	26	49	-7	.9	-.1	.7	4.6	60	16.9	105	91	42	0	2	2	1
LEXINGTON	58	35	69	28	46	-7	.8	-.2	.5	2.9	42	10.5	77	78	36	0	3	3	0
LOUISVILLE	60	36	72	28	48	-7	1.7	-.7	1.4	4.7	70	15.3	116	78	34	0	2	4	1
LA ALEXANDRIA	72	54	78	44	63	-3	1.7	-.4	1.3	8.3	111	25.8	156	78	48	0	0	2	1
BATON ROUGE	74	50	79	40	62	-5	.9	-.4	.6	7.1	99	26.4	158	90	47	0	0	2	1
LAKE CHARLES	71	52	76	45	62	-6	.7	-.1	.6	6.7	142	20.8	164	93	57	0	0	2	1
NEW ORLEANS	73	52	81	46	63	-5	1.4	-.9	.9	8.2	122	30.7	181	94	49	0	0	2	2

Based on 1951-80 normals

Weather Data for the Week Ending April 14, 1990

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 DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
SHREVEPORT	69	49	78	40	59	.6	1.9	.8	1.0	7.9	134	24.8	186	90	52	0	0	3	2	
ME CARIBOU	39	23	47	17	31	1.4	.7	.1	.4	2.6	73	7.8	97	79	51	0	0	2	0	
PORTLAND	50	30	59	24	40	0	.6	.2	.5	4.4	75	10.1	76	85	37	0	0	2	0	
MD BALTIMORE	59	34	69	28	46	0	.7	.2	.5	4.5	86	9.7	86	84	41	0	0	2	0	
SALISBURY	60	32	72	27	46	0	.5	.2	.5	5.2	93	11.2	91	91	37	0	0	2	1	
MA BOSTON	54	36	61	31	45	0	.4	.2	.3	5.0	84	12.3	91	70	34	0	0	2	1	
CHATHAM	49	35	53	31	42	0	.4	.6	.3	5.5	94	15.1	105	78	57	0	0	2	0	
MI ALPENA	47	26	61	21	36	1.1	.4	.6	.3	4.5	151	8.1	134	88	37	0	0	3	0	
DETROIT	51	30	63	22	40	0	1.3	.6	.8	3.7	93	10.6	141	90	49	0	0	6	1	
FLINT	50	30	64	23	40	0	.8	.1	.5	2.8	79	7.2	111	84	47	0	0	5	0	
GRAND RAPIDS	48	30	62	20	39	0	1.0	.1	.3	3.4	79	7.8	101	82	44	0	0	6	0	
HOUGHTON LAKE	46	29	58	20	38	0	.6	0	.3	2.8	90	5.4	93	82	42	0	0	4	0	
LANSING	49	31	63	22	40	0	.7	0	.4	2.7	72	6.9	101	83	49	0	0	4	0	
MARQUETTE	42	23	53	17	33	0	.8	0	.4	3.8	84	7.4	89	91	54	0	0	6	3	
MUSKEGON	47	30	53	20	39	0	.8	0	.2	3.7	93	7.8	97	90	46	0	0	4	0	
SAULT ST. MARIE	42	25	49	17	33	0	.6	.1	.5	3.3	107	7.8	113	89	48	0	0	6	3	
MN ALEXANDRIA	48	26	63	20	37	0	.6	.1	.5	3.3	107	7.8	113	89	48	0	0	6	3	
DULUTH	45	23	58	17	34	0	.6	.1	.5	3.3	107	7.8	113	89	48	0	0	6	3	
INT'L FALLS	43	22	52	13	33	0	.2	0	.1	1.7	94	2.8	85	85	38	0	0	7	0	
MINNEAPOLIS	55	27	69	22	41	0	.1	0	0	4.1	161	5.0	119	78	30	0	0	6	0	
ROCHESTER	53	26	64	17	39	0	.3	0	0	4.1	143	5.3	123	85	35	0	0	6	0	
MS GREENWOOD	68	45	76	36	56	0	.6	0	0	6.9	78	20.6	111	87	40	0	0	4	0	
JACKSON	70	43	80	33	57	0	1.2	0	0	5.0	60	25.4	146	98	42	0	0	2	0	
MERIDIAN	73	43	80	31	58	0	2.1	0	1.4	9.9	108	37.1	196	96	37	0	0	2	2	
MO CAPE GIRARDEAU	60	39	68	30	49	0	2.0	1.0	1.5	5.0	71	18.3	140	88	46	0	0	2	4	
COLUMBIA	56	37	68	28	47	0	1.5	0	1.1	9.0	178	14.9	171	83	44	0	0	2	4	
KANSAS CITY	57	37	67	25	47	0	.7	0	0	4.6	112	7.9	121	86	40	0	0	3	3	
SAINT LOUIS	58	40	68	31	49	0	1.4	0	0	4.4	90	9.4	107	77	40	0	0	3	3	
SPRINGFIELD	59	37	67	24	48	0	1.4	0	0	9.3	176	20.2	225	91	40	0	0	2	3	
MT BILLINGS	49	30	66	17	39	0	.9	0	0	2.7	149	3.5	101	91	53	0	0	4	5	
GLASGOW	50	24	61	12	37	0	.9	0	0	.3	55	.7	60	72	28	0	0	5	2	
GREAT FALLS	47	27	59	13	37	0	.1	0	0	1.8	121	2.3	71	87	50	0	0	6	3	
HAVRE	46	23	61	6	35	0	.7	0	0	.8	80	.8	41	89	46	0	0	6	0	
HELENA	52	30	61	20	41	0	.1	0	0	1.0	94	1.7	75	86	43	0	0	4	4	
KALISPELL	51	30	58	24	40	0	.3	0	0	1.4	112	4.1	104	93	50	0	0	4	6	
MILES CITY	53	29	70	15	41	0	.1	0	0	.2	19	.3	14	76	36	0	0	4	2	
MISSOULA	57	34	66	28	45	0	.6	0	0	1.3	107	2.5	73	84	36	0	0	4	5	
NE GRAND ISLAND	58	30	73	18	44	0	.3	0	0	3.4	129	4.2	107	91	39	0	0	4	3	
LINCOLN	58	32	72	17	45	0	.4	0	0	3.3	106	4.0	83	88	43	0	0	4	4	
NORFOLK	55	28	73	18	42	0	.6	0	0	3.0	123	4.1	111	89	41	0	0	5	2	
NORTH PLATTE	55	28	75	18	42	0	.1	0	0	1.9	108	2.4	89	93	39	0	0	6	3	
OMAHA	54	33	71	21	44	0	.2	0	0	3.4	111	4.5	95	84	45	0	0	3	3	
SCOTTSBLUFF	55	31	71	24	43	0	.7	0	0	3.6	238	4.9	210	86	44	0	0	4	5	
VALENTINE	55	22	72	8	39	0	.5	0	0	1.3	85	1.9	80	81	34	0	0	6	0	
NV ELY	65	31	77	25	48	0	.3	0	0	1.3	102	3.2	120	82	23	0	0	4	1	
LAS VEGAS	87	56	93	53	71	0	0	0	0	1	0	1.6	109	33	11	3	0	0	0	
RENO	75	40	84	30	57	0	0	0	0	1	10	2.7	87	69	16	0	0	1	0	
WINNEMOCCA	73	36	83	28	54	0	1.0	0	0	.8	78	1.7	67	81	19	0	0	1	1	
NH CONCORD	52	25	59	18	39	0	.7	0	0	3.4	78	8.9	92	87	32	0	0	5	2	
NJ ATLANTIC CITY	57	30	68	23	44	0	.3	0	0	4.3	78	8.0	65	88	38	0	0	5	1	
NM ALBUQUERQUE	73	45	82	40	59	0	1	0	0	.6	91	1.3	90	80	15	0	0	0	1	
CLOVIS	71	42	77	38	57	0	0	0	0	.4	53	2.6	153	85	30	0	0	0	0	
ROSWELL	79	48	87	44	64	0	0	0	0	1.1	200	1.7	127	54	19	0	0	0	0	
NY ALBANY	52	29	62	21	40	0	.7	0	0	5.6	153	14.4	162	83	34	0	0	6	2	
BINGHAMTON	47	29	58	22	38	0	.9	0	0	3.9	91	10.5	115	80	41	0	0	6	3	
BUFFALO	47	31	61	25	39	0	2.1	1.4	1.7	5.3	120	13.9	142	80	46	0	0	4	4	
NEW YORK	56	40	67	36	48	0	.5	0	0	4.7	80	10.4	86	71	35	0	0	4	3	
ROCHESTER	48	30	63	26	39	0	1.3	0	0	4.3	115	9.9	118	84	43	0	0	4	4	
SYRACUSE	49	30	62	26	39	0	1.1	0	0	3.8	67	14.4	130	86	39	0	0	6	3	
NC ASHEVILLE	59	34	64	27	46	0	.4	0	0	6.5	100	17.8	139	87	32	0	0	4	1	
CHARLOTTE	65	42	71	37	53	0	.2	0	0	4.2	65	13.7	98	76	29	0	0	0	1	
GREENSBORO	62	36	68	28	49	0	.7	0	0	4.3	80	12.4	101	85	32	0	0	2	2	
HATTERAS	64	45	74	35	55	0	1.8	1.0	1.8	8.7	160	17.5	122	93	47	0	0	0	1	
NEW BERN	67	42	75	35	55	0	.6	0	0	7.9	160	13.4	103	89	37	0	0	0	1	
RALEIGH	66	37	72	29	51	0	1.2	0	0	6.2	122	13.0	109	88	35	0	0	3	1	
WILMINGTON	69	43	75	37	56	0	1.2	0	0	6.8	126	11.5	91	90	40	0	0	0	1	
ND BISMARCK	52	23	70	14	37	0	.1	0	0	.7	53	1.2	53	78	30	0	0	7	1	
FARGO	49	26	59	20	38	0	.2	0	0	1.8	111	2.4	93	79	35	0	0	6	0	
GRAND FORKS	45	25	52	21	35	0	.3	0	0	2.5	188	2.9	113	88	40	0	0	6	1	
WILLISTON	49	23	65	15	36	0	.1	0	0	.6	52	1.0	47	85	31	0	0	6	2	
OH AKRON-CANTON	50	31	65	24	41	0	2.4	1.7	1.8	4.5	92	11.6	122	84	43	0	0	4	5	
CINCINNATI	57	34	68	24	45	0	1.5	0	0	7.9	129	11.3	79	79	35	0	0	3	3	
CLEVELAND	51	33	65	24	42	0	2.3	1.6	2.1	4.2	93	11.3	123	84	45	0	0	4	5	
COLUMBUS	54	32	66	22	43	0	2.0	1.2	1.6	3.5	74	11.1	115	90	37	0	0	3	3	

Weather Data for the Week Ending April 14, 1990

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 DEC 1	PCT. NORMAL SINCE DEC 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	54	32	65	25	43	-7	1.5	-.7	1.4	5.8	124	13.8	149	81	41	0	4	3	1	
TOLEDO	52	31	63	21	42	-4	1.2	-.5	.9	4.9	123	12.5	180	83	45	0	4	4	1	
YOUNGSTOWN	51	31	66	24	41	-5	1.5	-.7	1.2	3.5	71	10.1	104	82	42	0	4	4	1	
OK OKLAHOMA CITY	66	46	72	37	56	-3	.8	-.2	.7	5.3	168	11.8	217	81	40	0	0	3	1	
TULSA	64	47	72	39	55	-4	1.3	-.4	.7	7.8	159	14.9	187	80	37	0	0	3	1	
OR ASTORIA	61	44	71	34	53	6	.4	-.8	.2	5.6	57	33.5	119	96	61	0	0	4	0	
BURNS	68	33	77	22	51	9	0	-.2	0	1.7	59	1.8	48	78	19	0	3	0	0	
MEDFORD	76	41	87	35	59	9	0	-.3	0	1.5	63	5.5	70	84	26	0	0	0	0	
PENDLETON	67	43	73	35	55	6	.1	-.2	.1	1.2	81	2.3	52	63	29	0	0	1	0	
PORTLAND	68	45	78	36	56	7	.2	-.4	.2	2.7	56	14.1	96	94	45	0	0	1	0	
SALEM	70	39	78	30	54	6	.2	-.6	.1	2.4	44	16.2	94	95	44	0	1	1	0	
PA ALLENTOWN	57	31	63	25	44	-5	.2	-.7	.1	3.0	52	9.9	82	81	36	0	6	3	0	
ERIE	49	35	66	28	42	-4	1.7	-.9	1.4	3.8	84	11.7	131	81	43	0	4	5	1	
HARRISBURG	58	33	65	25	46	-5	.3	-.5	.2	3.6	73	10.6	99	78	31	0	4	3	0	
PHILADELPHIA	58	34	69	28	46	-5	.4	-.4	.2	4.5	81	10.0	87	85	38	0	4	3	0	
PITTSBURGH	53	32	66	25	43	-6	1.5	-.7	1.0	3.8	73	10.4	100	82	33	0	4	3	1	
SCRANTON	53	31	61	22	42	-5	.5	-.2	.4	3.6	91	10.2	123	79	39	0	5	2	0	
RI PROVIDENCE	54	34	61	27	44	-3	.5	-.4	.4	5.2	84	13.1	94	76	34	0	4	2	0	
SC CHARLESTON	71	50	78	42	61	-2	.8	-.2	.8	7.5	134	13.2	108	87	37	0	0	2	1	
COLUMBIA	71	40	79	34	56	-7	.1	-.8	.1	2.6	37	7.6	49	96	33	0	0	1	0	
FLORENCE	71	44	79	37	57	-5	.1	-.6	.1	3.0	54	5.8	47	83	33	0	0	1	0	
SD GREENVILLE	65	37	72	32	51	-8	.7	-.4	.4	7.6	93	18.0	107	86	30	0	2	2	0	
ABERDEEN	53	23	68	18	38	-14	.1	-.4	0	1.0	54	1.5	51	86	34	0	7	2	0	
HURON	55	23	67	16	39	-14	.1	-.4	.1	1.4	67	2.0	63	83	31	0	7	1	0	
RAPID CITY	55	26	73	10	41	-1	.1	-.4	.1	1.2	69	1.8	66	83	33	0	5	2	0	
SIOUX FALLS	54	27	67	16	41	-1	.1	-.4	.1	1.7	67	2.1	53	84	36	0	5	3	0	
TN CHATTANOOGA	69	42	75	30	56	-6	.5	-.7	.4	10.3	120	27.5	149	92	28	0	1	2	0	
KNOXVILLE	65	38	74	27	52	-7	.7	-.3	.4	7.1	96	19.8	122	87	30	0	2	2	0	
MEMPHIS	66	43	70	33	55	-5	.3	-.1	.2	7.1	87	20.1	118	75	34	0	2	2	0	
NASHVILLE	65	39	75	27	52	-7	.2	-.8	.2	4.0	52	11.5	71	82	25	0	2	2	0	
TX ABILENE	72	51	82	41	61	-3	.2	-.3	.2	2.7	133	7.0	175	87	42	0	0	2	0	
AMARILLO	69	41	78	33	55	0	.2	-.2	.1	2.6	213	5.4	242	86	32	0	0	0	0	
AUSTIN	73	55	87	49	64	-2	.2	-.4	.1	2.7	93	7.6	109	92	56	0	0	4	0	
BEAUMONT	79	65	77	49	64	-4	.4	-.5	.3	7.3	151	23.4	178	91	58	0	0	2	0	
BROWNSVILLE	79	65	84	58	72	-2	1.4	1.1	1.3	2.2	204	3.3	87	97	68	0	0	3	1	
CORPUS CHRISTI	77	63	83	57	70	-2	1.2	.8	1.1	4.2	292	8.6	190	98	71	0	0	4	1	
DEL RIO	76	58	84	51	67	-4	.3	-.1	.3	3.8	278	5.7	204	82	43	0	0	3	0	
EL PASO	84	51	90	46	67	5	0	-.1	0	.4	100	.8	69	44	11	1	0	0	0	
FORT WORTH	68	51	72	44	59	-5	2.2	1.2	1.4	8.7	212	17.9	234	89	50	0	0	3	1	
GALVESTON	72	62	75	56	67	-1	.9	.3	.8	5.2	160	12.4	144	87	61	0	0	2	1	
HOUSTON	74	54	81	47	64	-4	1.8	.9	1.0	7.5	177	16.0	145	90	55	0	0	3	2	
LUBBOCK	75	45	82	38	60	1	T	-.2	T	1.1	85	3.6	165	84	30	0	0	1	0	
MIDLAND	79	51	88	43	65	2	.2	-.1	.2	2.0	265	3.3	193	82	27	0	0	1	0	
SAN ANGELO	75	53	83	39	64	-2	.3	-.1	.2	1.7	115	4.9	170	88	41	0	0	3	0	
SAN ANTONIO	75	57	83	47	66	-3	.7	-.1	.2	5.9	247	9.8	170	96	58	0	0	5	0	
VICTORIA	75	59	80	52	67	-3	.8	.3	.8	4.0	173	7.8	121	96	61	0	0	2	1	
WACO	71	52	77	44	62	-4	.5	-.3	.4	5.9	169	11.5	159	91	50	0	0	3	0	
WICHITA FALLS	69	48	77	40	59	-4	.4	-.3	.2	6.4	214	13.3	271	90	46	0	0	2	0	
UT CEDAR CITY	70	39	79	31	55	9	.4	.2	.4	1.6	101	4.3	146	74	18	0	1	1	0	
SALT LAKE CITY	66	44	78	38	55	8	.6	.1	.6	2.8	101	3.7	69	78	33	0	0	2	1	
VT BURLINGTON	44	28	50	24	36	-4	1.1	.4	.6	4.0	116	9.2	132	86	45	0	6	3	1	
VA NORFOLK	64	41	75	34	52	-5	.2	-.5	.2	5.1	98	11.3	93	88	36	0	0	1	0	
RICHMOND	63	37	71	28	50	-7	.2	-.5	.1	4.2	85	9.4	83	87	38	0	3	2	0	
ROANOKE	60	33	67	25	47	-8	.2	-.5	.1	4.8	93	9.9	89	82	35	0	4	2	0	
WA QUILLAYUTE	57	43	74	38	50	5	1.0	-.8	.7	9.7	61	42.7	101	96	66	0	0	4	1	
SEATTLE-TACOMA	60	45	70	40	52	5	.6	0	.3	3.2	65	16.4	109	95	59	0	0	3	0	
SPOKANE	58	39	61	34	49	4	.2	0	.1	1.1	58	4.5	77	88	41	0	0	3	0	
YAKIMA	68	39	74	30	54	6	.1	-.1	0	.3	33	1.9	64	80	32	0	1	2	0	
WV BECKLEY	56	33	70	24	44	-6	.8	0	.4	4.2	74	11.9	97	80	34	0	4	4	0	
CHARLESTON	63	35	79	25	49	-5	.5	-.4	.2	3.4	60	10.0	82	86	27	0	4	4	0	
HUNTINGTON	61	34	74	26	48	-7	.9	-.1	.5	4.0	71	10.5	90	86	27	0	4	3	0	
PARKERSBURG	57	33	67	23	45	-8	1.1	.3	.6	3.9	75	10.3	97	91	35	0	4	3	2	
WI GREEN BAY	52	28	62	20	40	-1	.2	-.4	.1	3.9	127	5.1	97	90	35	0	4	3	0	
LACROSSE	55	31	65	22	43	-2	T	-.7	T	3.5	111	5.0	100	81	32	0	4	0	0	
MADISON	53	30	66	19	42	-2	.8	.1	.4	5.2	149	7.8	139	85	35	0	4	4	0	
MILWAUKEE	53	34	61	26	43	0	1.1	.3	.4	4.6	110	9.0	128	77	37	0	4	5	0	
WAUSAU	50	28	61	19	39	-2	.2	-.4	.2	2.8	88	4.3	86	86	38	0	5	1	0	
WY CASPER	54	30	67	19	42	1	.6	.3	.3	1.9	118	2.8	109	92	45	0	5	4	0	
CHEYENNE	54	31	69	24	42	2	.2	-.1	.1	4.2	293	5.3	237	100	49	0	3	5	0	
LANDER	57	32	71	27	45	4	.8	.4	.6	2.4	119	2.5	81	83	39	0	3	3	1	
SHERIDAN	48	28	65	19	38	-3	.6	.2	.3	1.6	86	3.0	88	92	51	0	6	5	0	

National Agricultural Summary

April 9-15, 1990

HIGHLIGHTS: Cool weather slowed winter wheat growth in the central and southern Great Plains. Lack of moisture stressed winter wheat in the northern Great Plains. Rain slowed fieldwork in the Delta and most of the Corn Belt. Soil moisture was adequate to surplus in the Delta and short to adequate in the northern Great Plains and most of the West. Moisture supplies were mostly adequate in the central and southern Great Plains. Beneficial rains fell in Florida's citrus producing areas. Lack of moisture stressed pastures and ranges in portions of the northern Great Plains and the West.

SMALL GRAIN: Winter wheat was mostly good to fair. In Kansas, winter wheat was mostly good. Disease and insect problems were light. Crop condition was good in Oklahoma and fair to good in Texas. Cool weather slowed growth. Rust was a continuing problem in the Texas Blacklands. Some freeze damage occurred in Missouri, where the crop was fair to good. Winter wheat was good to fair in Colorado, Montana, and Nebraska. Russian wheat aphids were a problem in western Nebraska. Lack of moisture stressed South Dakota's winter wheat, which was fair to good. Winter wheat was good to fair in the Pacific Northwest. Cool, wet weather slowed growth in the Corn Belt, where crop condition was good to fair. In the Southeast, winter wheat was good to fair. Rust and mildew were continuing problems in Georgia.

Spring wheat seeding was 15 percent (%) complete, 4 percentage points ahead of the 5-year average. Seeding advanced rapidly in Idaho and South Dakota. South Dakota producers seeded over a third of their crop during the week. Seeding was 25 and 32 points ahead of normal in South Dakota and Idaho, respectively.

OTHER FIELD CROPS: Cotton planting was 16% complete, equal to the average. Planting was underway in 8 of the 14 major producing States. Planting lagged behind normal in most of the Delta. Heavy showers may force some replanting in the Coastal Bend area of Texas. Cool nights slowed growth in the upper coast and east Texas. Planting was underway in the Trans-Pecos area.

Corn planting was 3% complete, 1 point behind normal. Wet field conditions slowed planting in the Delta. Cool temperatures slowed growth in Georgia. Planting was underway in a few southern counties in Nebraska.

Sorghum planting was 13% complete, 3 points behind normal. Cool, wet weather slowed emergence in the Texas Blacklands. Rice seeding was 15% complete, 6 points behind normal. Peanut planting was slowed by cool soil temperatures in Georgia. Tobacco plants were good to fair in Georgia and North Carolina and fair to good in South Carolina. In Kentucky, cold temperatures damaged some tobacco plant beds.

FRUIT AND NUTS: Rain again promoted new foliage growth in Florida's citrus groves. Grapefruit harvest was nearly complete. Early variety peach harvest began in southern Georgia. Crop condition was good, but some freeze damage occurred in the north. North Carolina's peaches were mostly fair. Freezing temperatures damaged early fruit crops in Kentucky and Tennessee. In Virginia, apples were poor to fair and peaches were mostly very poor. In northern Alabama, peach producers were still assessing damage from last week's freezing temperatures. Freezing temperatures caused only minimal damage to peaches in Texas. Pecan trees were budding in the Trans-Pecos and central Texas. Grapefruit and orange harvests continued in Arizona. Almonds were sizing well in California. Lemon and orange harvests were active. Fruit trees were in full bloom in Washington.

VEGETABLES: Spring vegetable harvests increased seasonally in Florida. Watermelons were fair to good in Georgia and South Carolina. Irish potatoes were good to fair in North Carolina. Vegetables were fair to good in Louisiana. In Texas, onion and cabbage harvests continued in the Rio Grande Valley. Wet field conditions slowed vegetable plantings in east Texas. Carrot and onion plantings continued in the High Plains. Spring vegetable harvests were nearly complete in western Arizona. Artichoke, asparagus, broccoli, and cauliflower harvests were active in California. Tomato transplanting continued in the central valley. In Colorado, onion planting was 60% complete.

PASTURES AND LIVESTOCK: Pastures were good to fair in the East and fair to good in most of the West. Continued lack of moisture stressed ranges in California. In North Dakota, poor pasture conditions have forced continued supplemental feeding. Fluctuating temperatures continued to cause some livestock stress in the northern Great Plains.

Crop Progress

FOR WEEK ENDING APRIL 15, 1990

RICE
% PLANTED

	1990	1989	AVG.
ARK	0	0	8
CALIF	0	0	0
LA	42	41	41
MISS	6	7	19
TEX	49	63	65

5 STATES 15 17 21

THESE 5 STATES PRODUCED 97% OF THE 1989 RICE CROP.

WINTER WHEAT
% HEADED

	1990	1989	AVG.
ARK	15	5	10
CALIF	65	65	66
COLO	0	0	0
GA	64	79	54
IDAHO	0	0	0
ILL	0	0	0
IND	0	0	0
KANS	0	0	0
MICH	0	0	0
MO	0	0	0
MONT	0	0	0
NEBR	0	0	0
N C	22	5	NA
OHIO	0	0	0
OKLA	3	3	5
OREG	0	0	0
S DAK	0	0	0
TEX	11	6	19
WASH	0	0	0

19 STATES 4 4 NA

EXCL. STATES WITH NA 4 4 5

THESE 19 STATES PRODUCED 88% OF THE 1989 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

SPRING WHEAT
% PLANTED

	1990	1989	AVG.
IDAHO	66	21	34
MINN	13	7	13
MONT	11	2	9
N DAK	5	1	6
S DAK	47	9	22

5 STATES 15 4 11

THESE 5 STATES PRODUCED 89% OF THE 1989 SPRING WHEAT CROP.

CORN
% PLANTED

	1990	1989	AVG.
COLO	0	1	1
GA	87	83	84
ILL	0	1	1
IND	0	0	1
IOWA	0	0	0
KANS	4	5	5
KY	3	2	13
MICH	0	0	0
MINN	0	0	1
MO	2	3	10
NEBR	0	1	1
N C	27	5	32
OHIO	0	0	0
PA	0	0	0
S DAK	0	0	0
TEX	61	66	68
WIS	0	0	0

17 STATES 3 3 4

THESE 17 STATES PRODUCED 95% OF THE 1989 CORN CROP.

GRAIN SORGHUM
% PLANTED

	1990	1989	AVG.
ARK	0	0	14
COLO	0	0	0
ILL	0	0	0
KANS	0	0	0
LA	13	13	19
MISS	9	3	9
MO	0	0	0
NEBR	0	0	0
N MEX	6	NA	NA
OKLA	1	2	1
S DAK	0	0	0
TEX	44	49	53

12 STATES 13 NA NA

EXCL. STATES WITH NA 13 14 16

THESE 12 STATES PRODUCED 98% OF THE 1989 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

COTTON
% PLANTED

	1990	1989	AVG.
ALA	20	4	14
ARIZ	76	77	66
ARK	0	0	1
CALIF	65	60	64
GA	1	1	5
IA	1	2	5
MISS	0	0	0
MO	0	0	0
N MEX	11	40	15
N C	0	0	4
OKLA	0	0	1
S C	3	0	12
TENN	0	0	2
TEX	12	12	12

14 STATES 16 16 16

THESE 14 STATES PRODUCED 99% OF THE 1989 COTTON CROP.

Crop Condition
PERCENT

WINTER WHEAT

STATE	VP	P	F	G	EX
ARK	0	2	31	67	0
CALIF	0	0	10	80	10
COLO	0	2	22	62	14
GA	1	6	32	59	2
IDAHO	0	6	11	67	16
ILL	0	2	21	71	6
IND	1	3	28	64	4
KANS	0	0	21	55	24
MICH	NA				
MO	0	7	52	41	0
MONT	1	4	26	55	14
NEB	0	3	17	78	2
N C	0	0	20	74	6
OHIO	0	3	23	59	15
OKLA	0	0	7	87	6
OREG	0	1	16	83	0
S DAK	1	14	47	38	0
TEX	4	13	44	32	7
WASH	0	0	35	60	5
19 STATE	1	3	25	60	11
PREV WEEK	0	6	26	56	12
PREV YEAR	15	21	33	29	2

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 under 0.30 in. north; under 0.75 in. central, south; over 1.00 in. numerous locations. Temperatures 4 to 7° below normal.

Days suitable for fieldwork 4.0. Soil moisture 64% adequate, 36% surplus. Acreage intended for spring planting 54% prepared, 52% 1989, 71% avg. Fieldwork progress 72% behind normal, 28% on schedule. Cool temperatures slowed seeding of row crops, many low lying fields too wet to support equipment; overall farmers benefitted mostly dry conditions. Corn 64% planted, 58% 1989, 65% avg. Sorghum 19% planted, 7% 1989, 9% avg. Cotton 20% planted, 4% 1989, 14% avg. Peanuts 5% planted, 6% 1989, 7% avg. Winter wheat 50% headed, 46% 1989, 39% avg.; 9% turning color, 7% 1989, 3% avg.; 1% poor, 24% fair, 75% good; some small grains suffered freeze damage, increased insect pressure. Peach growers continue to access extent of losses 7th frost; damage appears spotty most orchards, more severe northern areas. Pastures 6% poor, 32% fair, 55% good, 7% excellent. Livestock 5% poor, 22% fair, 73% good. Primary activities: Preparing land; applying fertilizer, lime, herbicides; planting row crops, spring vegetables; applying fungicides to small grains; spraying, thinning peaches; repairing fences; monitoring fish ponds, feeding, harvesting catfish; general care of livestock, poultry.

ARIZONA: Light showers north central mountains, northeast 8th; sunny southwest half; 9th, 10th mostly sunny, increasing temperatures; temperatures climbed during most of period. Temperatures 4 to 12° above normal; range 50 to 100° desert; 25 to 89° higher elevations; precipitation none to traces.

Cotton planting 76% complete, 77% 1989, 66% avg.; mostly good condition. Wheat, barley 50% good, 50% excellent; 88% heading, 86% 1989, 81% avg.; 22% turning color, 18% 1989, 15% avg. Alfalfa 57% excellent, 29% good, 14% fair; harvest activity moderate; 2nd cutting began northwest. Spring vegetable harvests nearly completed west; artichoke, asparagus harvest, shipping continued. Mixed vegetables harvested central; spring lettuce harvest continued Picacho, began Aguila, completed Harquahala. Grapefruit, valencia orange harvest, shipping continued west, central.

ARKANSAS: Continued cool, wet. Temperatures 3 to 9° below normal. Scattered showers first, latter part of week. Extremes 27°; 81°. Rainfall 0.30 to 2.48 in.

Days suitable for fieldwork 3.0. Soil moisture 32% adequate, 68% surplus. Main activities: Planting corn; preparing land for planting rice, cotton, sorghum; fertilizing wheat, pastures, hay; applying fungicides to wheat; worming, vaccinating cattle; repairing equipment. Corn 29% planted, 32% 1989, 51% avg.; 29% fair, 71% good. Oats 5% headed, none 1989, 13% avg.; 2% poor, 40% fair, 58% good. Continued wet grounds hampered land preparation, planting. Cool weather slowed wheat heading. Tomato crop nearly planted, good. Peach crop fair to good. Hay good. Pastures providing lush grazing. Livestock good.

CALIFORNIA: Light rain fell on the north coast, mountains early in the week. High pressure brought much above normal temperatures to the coast, interior by weekend. Southern areas remained near normal.

Open weather, rapid progress field activities. Most small grains headed or boot stage. Russian wheat aphid controls applied. Moisture stress increased dryland. Green chopping increased winter forage, other small grains. Stubble burning, disking, other rice seeding preparations active. Cotton seeding rapid progress. Overwintered sugarbeet harvest active. Preparations seeding new crop active. Corn, sudan grass seeding progressed. Alfalfa harvest increased seasonally. Insect controls as needed. Normal cultural activities, thinning, fertilizing, weed control. Almonds sizing well, good condition. Apricot thinning active. Avocado harvest progressed. Cherry bloom complete. Grape growers irrigating, suckering, mildew, weed control. Kiwifruit in bloom. Lemon harvest active. Navel, valencia orange packing continued. Artichokes heavy supply generally good quality. Asparagus harvest high gear, excellent quality. Broccoli heavy supply generally good quality. Cauliflower heavy supply, variable to good quality. Iceberg head lettuce harvest Huron district. Quality excellent. Desert melon fields beginning bloom. Strawberries moderate supply, variable quality Santa Maria area. Transplanting tomatoes continued central valley. Sweet potato fields continued to be fumigated. Livestock good Statewide. Range, pasture conditions stressed, forage capacity below normal due to dry weather. Stock ponds low or nearly dry most areas. Supplemental feeding continued.

COLORADO: Mostly cool, cloudy with clearing skies over weekend. Very little moisture. Temperatures 3 to 4° above normal in west, south; 2° above normal to 3° below normal in eastern areas.

Days suitable for fieldwork 4.1. Soil moisture 2% very short, 31% short, 62% adequate, 5% surplus. Barley 38% seeded, 16% emerged. Spring wheat 13% seeded, 6% emerged. Oats 31% seeded, 12% emerged. Dry onions 60% planted, sugarbeets 8% planted. Summer potatoes 10% planted. Winter wheat 7% jointed; 2% poor, 22% fair, 62% good, 14% excellent. Range, pasture mostly fair to good. Cows calved 75%, ewes lambed 85%. Death losses below normal. Stored feed supplies mostly adequate.

FLORIDA: Rainfall 0.50 to 1.00 in. west; up to 0.50 in. north; up to 1.00 in. central, south. Rain fell on 2 days most locations. Temperatures 6° below normal north, west to near north southeast. Extremes 37°; 91°.

Soil moisture Panhandle mostly adequate; Peninsula mostly short with scattered areas adequate. Corn planting slowed. Peanut planting active. Tobacco, winter wheat, sugarcane good progress. Rains especially benefitted pasture, portion of central, lower southeastern Peninsula. Pastures over Peninsula vary widely from poor to excellent depending on moisture supplies; many areas only poor to fair. Panhandle pastures generally fair to good. Cattle, calves vary from fair to excellent; most herds good. Citrus groves, trees progressing well; rains helpful. Abundant new foliage on young trees. Valencia oranges holding well, southern areas; harvest remained slow. Grapefruit movement almost complete. Caretakers busy pruning, fertilizing young trees. Near normal temperatures much of

week over major vegetable areas. Rainfall continued limited. Spring harvest continued movement into central areas. Volume leaders: tomatoes, potatoes, sweet corn, peppers, cucumbers, cabbage. Also good supply squash, celery, snap beans, radishes, carrots, lettuce, eggplant, strawberries, escarole. Tomato picking curtailed 12th through 15th in response extremely poor market conditions.

GEORGIA: Cool week, temperatures 4 to 8° below normal, except southeast 2 to 3° below normal. Extreme highs near 70 higher elevations northeast mountains, low 80s south, southeast. Coldest lows mid to upper 20s northeast mountains, around 40 extreme south. Rain at beginning, weekend. Rainfall under 0.75 in. north, extreme west; local areas over 1.00 in. Elsewhere generally under 0.35 in., under 0.10 in. southeast.

Days suitable for fieldwork 4.8. Soil moisture 7% short, 79% adequate, 14% surplus. Corn 26% fair, 71% good, 3% excellent; Stands good, cool temperatures slowed growth. Sorghum 7% planted, 3% 1989, 8% avg. Peanuts 1% planted, 1% 1989, 7% avg.; planting slowed because of cool soil temperatures. Tobacco 49% fair, 48% good, 3% excellent; 95% transplanted, 86% 1989, 83% avg.; growth slow, cold temperatures, some spotted tomato wilt virus showing up. Watermelons 9% poor, 46% fair, 45% good; 80% planted, 88% 1989, 88% avg. Spraying for mildew, rust in wheat. Rye, other small grains fair to good. Apples 3% poor, 9% fair, 87% good, 1% excellent; 95% blooming, 88% 1989, 83% avg.; some frost damage north, extent unknown. Peaches 3% very poor, 4% poor, 9% fair, 84% good; more frost damage north, slight central, south. Harvest began earliest varieties extreme south. Onions 65% good, 35% excellent; 1% harvested. Pasture 14% fair, 83% good, 3% excellent. Cattle, hogs good.

HAWAII: Warm, sunny weather continues to benefit island agriculture. Winds variable 5 to 15 mph. Temperatures low 60s to upper 80s. Scattered rainfall none to 1.10 in.

Days suitable for farm work 7.0. Sugar, pineapple harvesting continuous. Irrigation necessary most areas to ensure normal crop progress. Watermelon harvest beginning.

IDAHO: Temperatures continued quite warm up to 10° above the seasonal average. Precipitation over most of State, amounts below normal except for areas in the southwest, east.

Days suitable for fieldwork 6.0. Soil moisture 8% very short, 53% short, 38% adequate, 1% surplus. Winter wheat mostly good; headed 0%, 0% 1989, 0% avg. Spring wheat planted 66%, 21% 1989, 34% avg.; emerged 28%, 0% 1989, 9% avg. Spring barley planted 60%, 20% 1989, 27% avg.; emerged 24%, 1% 1989, 8% avg. Potatoes planted 9%, 3% 1989, 3% avg. Sugarbeets planted 90%, 28% 1989, 54% avg. Oats planted 38%, 10% 1989, 20% avg. Dry peas 43% planted. Lentils 45% planted. Onions completely planted. Irrigation southern areas. Irrigation water supplies fair to good. Pest problems: Russian wheat aphids, fungus north; red backed cut worms, Russian wheat aphids south central. Cropping activities approximately two weeks ahead of average. Planting major activity. Winter wheat mostly good, 87% not yet jointed, 13% jointed. Apples just into bloom, other fruit trees in bloom southwest. Other areas varied stages bud to bloom. Livestock good to excellent. Some scours in calves, otherwise excellent calving, lambing. Calving, lambing virtually complete north, southwest. Statewide calving 88% complete. Lambing 90% complete. Sheep moved to spring range. Activities: Bull

testing, heifer selection, feeding, shearing. Some growth ranges, pastures. Hay, roughage supplies adequate.

ILLINOIS: Temperatures 7 to 10° below normal across State. Precipitation 0.50 to 1.25 in. north, west central, 1.50 to 2.00 in. south, east central.

Days suitable for fieldwork 2.75. Soil moisture 17% short, 63% adequate, 20% surplus. Oats seeded 51%, 49% 1989, 65% avg. Livestock roughage requirements from pasture 32%, 24% 1989, 35% avg. Alfalfa 2% poor, 33% fair, 65% good. Pasture 1% poor, 30% fair, 67% good, 2% excellent. Freeze damage apples 4% severe, 23% moderate, 47% light, 26% none. Freeze damage peaches 52% severe, 11% moderate, 27% light, 10% none. Muddy feedlots, pastures.

INDIANA: Temperatures 5 to 10° below normal. Lows mid to upper 20s, highs mid 50s to low 60s. Precipitation 1.00 to 2.00 in.

Days suitable for fieldwork 1.7. Topsoil 35% adequate, 65% surplus. Subsoil 79% adequate, 21% surplus. Spring cropland 69% tilled, 68% 1989, 71% avg. Wheat 7 in. high, 6 in. 1989, 6 in. avg. Wheat 25% jointed, 14% 1989, 12% avg. Oats 46% seeded, 32% 1989, 58% avg. Clover 72% seeded, 58% 1989, 72% avg. Pasture 1% very poor, 7% poor, 39% fair, 48% good, 5% excellent. Wet soils limited fieldwork. Cool wet week.

IOWA: Temperatures 4 to 7° below normal. Extremes 15°; 67°. Precipitation 0.20 to 1.37 in; average 0.81 in.

Days suitable for fieldwork 4.8. Topsoil 28% short, 72% adequate. Subsoil 76% short, 24% adequate. Winter wheat 1% poor, 37% fair, 56% good, 6% excellent. Hay 3% very poor, 16% poor, 49% fair, 32% good. Pasture 6% very poor, 18% poor, 46% fair, 30% good. Oats 70% sown, 56% 1989, 64% avg.; 4% emerged, 7% 1989, 18% avg. Seedbed preparation 65% completed. Fertilizer application 62% completed, 60% 1989, 54% avg. Livestock good condition. Some stress in livestock was noted from the fluctuating temperatures. Calving continues with minimal losses.

KANSAS: Temperatures upper 40s northwest to middle 50s southeast; 3 to 5° below average. Northwest exception at zero departure from normal. Precipitation 0.20 to 0.30 north, 0.33 in. central, 0.60 to 0.80 in. south.

Days suitable for fieldwork 3.0. Topsoil 9% short, 73% adequate, 18% surplus. Subsoil 27% short, 70% adequate, 3% surplus. Wheat good to excellent growth; well ahead schedule. Rapid recovery from freeze damage of late March. Greenbug, army worm, Russian wheat aphid scattered light infestations. Most wheat diseases present, affect generally light. Corn planting slow progress, fields still wet southern third of State. Range, pastures good growth, adequate grazing. Feedlots current, some cow calf pairs on graze out wheat. Alfalfa growing, weevil, pea aphid, army cutworm causing problems. Some areas control measures necessary.

KENTUCKY: Unseasonably cool, highs near 60°, lows near 40°; 7° below normal. Precipitation variable 0.25 in. to nearly 2.00 in., statewide, average 1.00 in.

Days suitable for fieldwork 3.3. Farmers 2 days behind normal progress, 5 days in far west. Soil moisture 4% short, 76% adequate, 20% surplus. Corn planting underway, slowed by cool, wet conditions. Wheat has suffered freeze damage; 2% very poor, 14% poor, 46% fair, 37% good, 1% excellent. Plants emerged 55% tobacco beds, some

cold weather damage especially plants in floating system. Early fruit crops mostly lost, late blooming apples, strawberries could be okay. Alfalfa 8 in., weevils active. Pastures good, need warmer weather for growth.

LOUISIANA: Temperatures 6 to 8° below normal. Extremes 32°; 83°. Rainfall 0.76 to 2.08 in.

Days suitable for fieldwork 3.3. Soil moisture 40% adequate, 60% surplus. Spring Plowing 52%, 71% 1989, 68% avg. Corn planted 80%, 73% 1989, 71% avg.; emerged 64%, 53% 1989, 54% avg.; 16% poor, 67% fair, 17% good. Cotton planted 1%, 2% 1989, 5% avg. Rice planted 42%, 41% 1989, 41% avg.; emerged 28%, 33% 1989, 28% avg. Blackbirds, bronzing, rice leaf miner were concerns in rice. Sorghum planted 13%, 13% 1989, 19% avg.; emerged 4%, 8% 1989, 8% avg. Sweet potatoes planted 0%, 2% 1989, 3% avg. Sugarcane 22% very poor, 33% poor, 45% fair. Off barring, shaving rows. Spraying herbicides. Wheat headed 90%, 76% 1989, 67% avg.; 39% fair, 55% good, 6% excellent. Wheat entering final stages of development. Rust becoming less of a concern. Livestock 53% fair, 47% good. Crawfishing active. Pasture 66% fair, 34% good. Vegetable 4% poor, 75% fair, 21% good. Wet soils, cooler temperatures delayed soil preparation planting operations, slowing crop emergence, development. Strawberry harvesting, vegetable planting.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.64 in. Temperature 46°, normal 52°. Extremes 19°; 72°.

Days suitable for fieldwork 2.1. Topsoil 33% adequate, 67% surplus. Subsoil 67% adequate, 33% surplus. Wheat, barley, rye good. Oats fair.

DELAWARE: Precipitation 0.71 in. Temperature 46°, normal 52°. Extremes 25°; 71°.

Days suitable for fieldwork 2.9. Topsoil 40% adequate, 60% surplus. Subsoil 60% adequate, 40% surplus. Potatoes planted 66%, 36% 1989, 64% avg. Wheat, barley, rye good.

MICHIGAN: Temperatures normal to 11° below normal. Extremes 19°; 50°. Precipitation 0.30 to 1.33 in. across State.

Major activities: Field activities limited by cool temperatures, wet soils, rain or snow showers. Some fertilizer application with limited spring tillage. Pruning, spraying orchards. Livestock good. Lambing nearing completion. Calving remains active. Feed supplies adequate. Limited growth on pastures, winter wheat.

MINNESOTA: Temperatures 2 to 5° below normal. Extremes 7°; 72°. Precipitation none to 0.46 in. Greatest weekly total 0.46 in.

Days suitable for fieldwork 2.6. Subsoil 48% very short, 43% short, 8% adequate, 1% surplus. Topsoil 17% very short, 45% short, 37% adequate, 1% surplus. Spring wheat 13% acres planted, 7% 1989, 13% avg. Oats 20% planted, 21% 1989, 23% avg. Barley 4% planted, 0% 1989, 8% avg. Corn 6% land prepared, 1% 1989, 6% avg. Soybeans 2% land prepared, 0% 1989, 3% avg. Sugarbeets 1% planted, 0% 1989, 4% avg. Green peas 11% planted, 9% 1989, 10% avg. Fall seeded small grain 63% dormant, 21% poor, 15% good 1% excellent. Winter freeze damage compared to normal. Alfalfa 14% none, 44% light, 36% moderate, 6% severe. Winter wheat 8% none, 42% light, 42% moderate, 8% severe. Rye 7% none, 42% light, 45% moderate, 6% severe.

MISSISSIPPI: Temperatures 8° below normal. Extremes 26°; 80°. Dry north, central; wet south. Rainfall 1.02 in., 0.31 in. below normal. Soil temperatures 57°.

Days suitable for fieldwork 2.8, 2.8 1989, 4.3

avg. Soil moisture 55% adequate, 41% surplus, 4% excessive. Wheat 92% jointing, 95% 1989, 93% avg.; 6% poor, 61% fair, 32% good, 1% excellent; 44% heading, 1989, 39% 1989, 30% avg. Watermelons 42% planted, 29% 1989, 36% avg. Livestock 6% poor, 40% fair, 39% good. Peaches 43% very poor, 22% poor, 29% fair, 6% good. Rice 6% planted, 7% 1989, 19% avg. Sorghum 9% planted, 3% 1989, 9% avg. Activities: Land preparation for cotton, corn planting continued, some equipment repair.

MISSOURI: Temperatures 6° below normal north to 10° below normal Bootheel, scattered frost mid week. Rainfall 1.00 in. northwest to 2.00 in. south central.

Days suitable for fieldwork 1.9. Topsoil 3% short, 58% adequate, 39% surplus. Subsoil 23% short, 56% adequate, 21% surplus. Ground worked at least once for spring crops 54%, 60% 1989, 54% avg. Oats sown 60%, 81% 1989, 81% avg. Wheat growth hindered by cold weather, some freeze damage. Pastures 14% poor, 32% fair, 52% good, 2% excellent.

MONTANA: Temperatures above normal southwest, near normal to slightly below rest of State. Precipitation 0.70 in. south central, near 0.50 in. west, other areas had less, all had some.

Topsoil 31% short, 64% adequate, 5% surplus. Subsoil 34% short, 62% adequate, 4% surplus. Shortages persist in eastern third of State. Winter wheat 9% still dormant, 60% greening, 31% green and growing. Winter freeze damage to winter wheat 52% none, 37% light, 10% moderate, 1% heavy. Field tillage progress 49% not started, 36% just started, 15% well underway. Barley 8% planted, 2% 1989, 15% avg. Oats 4% planted, 1% 1989, 10% avg. Sugarbeets 18% planted, 3% 1989, 6% avg. Virtually no spring planted crops emerged. Range grass growth 32% slow, 63% avg.; 5% above average.

NEBRASKA: Temperatures 1 to 7° below normal. Extremes 8°; 76°. Rainfall a few hundredths up to 1.50 in.

Days suitable for fieldwork 4.8. Topsoil 20% short, 80% adequate. Subsoil 88% short, 12% adequate. Oats 62% seeded, 72% 1989, 70% avg. Barley, alfalfa, sugarbeets also being planted. Corn planting just underway in a few southern counties. Fieldwork limited in many areas by cool, wet weather. Northern farmers delayed fieldwork due to dry field conditions, high winds caused some erosion. Western wheat growers spraying or preparing to spray for Russian wheat aphids at high levels. Range, pasture feed supplies 58% short, 42% adequate. Pastures turning green in response to recent moisture, short. Calving was winding down, only reported problems in West where warm days followed by cold nights caused some cases of pneumonia. Feedlots muddy in west, central areas. Main activities: Shredding stalks; applying fertilizer; planting small grains, alfalfa.

NEVADA: Storm early dropped considerable rain, snow north, central. Rainfall over two thirds of an inch, northeast; trace south central. No rain extreme south. Temperatures normal early, above normal weekend. Extremes 19°; 100°.

Planting 1990 fall potato crop off to good start due warm, sunny weather. Good progress, harvesting alfalfa forage extreme south. Recent sunny weather favorable all fieldwork.

NEW ENGLAND: Precipitation (rainfall and water equivalent of snow) 1.00 to 2.00 in. Temperatures lower 30s over northern Maine to mid 40s south coast. Temperatures few degrees off normal north, south.

Major farm activities: Spreading manure, mending fences, maple sugaring.

NEW JERSEY: Temperatures much below normal. Extremes 20°; 71°. Rainfall 1.04 in. north, 1.42 in. central, 0.98 in. south. Heaviest 24 hour total 1.32 in. on 14th, 15th. Estimated soil moisture percent field capacity 100% north, 99% central, 98% south. Four inch soil temperatures 43° north, 45° central, 47° south.

Cool weather continued to slow early crop growth. Frost occurred several mornings. Fieldwork progressed as field conditions permitted; many areas too wet. Some vegetable planting behind schedule. White potato, oat planting continued. Early peas, radishes are up. Early spring greens, wintered over spinach, leek harvest continued limited.

NEW MEXICO: Temperatures above normal most locations; light precipitation recorded remote areas.

Days suitable for fieldwork 6.7. Soil moisture 83% short, 17% adequate; rain needed statewide. Cotton planted 11%; should gain steadily if weather holds. Milo planting underway few locations. Cattle poor to good; sheep poor to good; range poor to good.

NEW YORK: Temperatures well below normal. Greatest departure was in St. Lawrence Valley 10° cooler than normal. Extremes 12°; 67°. Precipitation up to 2 times greater than average. Heaviest amounts fell on 10th. Boonville 2.48 in. Bridgehampton 0.40 in.

Cool, wet weather made outside work very difficult. Many fields too wet to work. Maple syrup operations continued active. Farmers preparing for spring planting. Vegetable planting, transplanting active in a few areas.

NORTH CAROLINA: Temperatures 5 to 9° below normal across State. Extremes 20°; 78°. Precipitation none to 1.76 in.

Days suitable for fieldwork 4.2. Soil moisture 78% adequate, 22% surplus. Pasture 2% poor, 18% fair, 70% good, 10% excellent. Livestock feed from pasture 61%. Corn planted 27%. Crop condition: Wheat 20% fair, 74% good, 6% excellent; oats 26% fair, 69% good, 5% excellent; barley 17% fair, 81% good, 2% excellent; rye 8% fair, 84% good, 8% excellent; tobacco plant beds 22% fair, 69% good, 9% excellent; irish potatoes 4% poor, 26% fair, 59% good, 11% excellent; peaches 8% very poor, 21% poor, 42% fair, 25% good, 4% excellent; truck crops 3% poor, 34% fair, 56% good, 7% excellent. Irish potatoes planted 95%; cabbage transplanted 91%; flue cured tobacco transplanted 14%. Tobacco plant 2% short, 90% adequate, 8% surplus. Hay, roughage 4% short, 92% adequate, 4% surplus. Feed grain supplies 8% short, 90% adequate, 2% surplus. Major activities: Planting corn, land preparation, transplanting tobacco, tending livestock. Other activities included: Fertilizing pastures, tending tobacco beds, equipment repair, general farm maintenance.

NORTH DAKOTA: Temperatures 5° below normal north central, northeast to 2° below normal south central. Scattered light precipitation trace east central to 0.10 in. northwest. Growing season precipitation totals nearing 1.00 in. below normal.

Soil moisture supplies well below normal. Topsoil 46% very short, 36% short, 18% adequate. Subsoil 74% very short, 22% short, 4% adequate. Hard red spring wheat 5% planted, durum wheat 1%, barley 3%, oats 2%. Winter wheat 13% very poor, 13% poor, 67% fair, 7% good; 39% green, 61% dormant. Livestock mostly good, calving 78%

completed, lambing 87%, shearing 85%. Hay, roughage 36% short, 64% adequate. Grain, concentrate supplies 13% short, 87% adequate. Poor pasture conditions forced livestock producers to continue feeding supplemental forages to most livestock. Ranges, pastures 89% poor, 10% fair, 1% good; 17% open for grazing, 83% still dormant. Main activities: Cleaning seed, securing fertilizer, chemicals, preparing machinery for spring tillage, caring for young livestock.

OHIO: Temperatures 3 to 8° cooler than normal. Freezing temperatures nights of 11th, 12th. Precipitation mostly on 10th totaling 1.00 to 2.00 in. Soil temperatures minimums upper 30s to mid 40s; maximums mid 40s to low 50s.

Days suitable for fieldwork 2.1. Soil moisture 1% short, 51% adequate, 48% surplus. Corn planting less than 1% complete. Oats 44% planted. Stands look unhealthy because of cold, wet conditions. Winter wheat mostly good; some stands yellowing because of wet, cold soils. Grasslands fair to good.

OKLAHOMA: Temperatures 6° below normal north central to 1° below normal Panhandle. Precipitation 0.21 in. Panhandle to 2.34 in. northeast.

Days suitable for fieldwork 4.1. Topsoil 50% adequate, 50% surplus. Subsoil 100% adequate. Wheat 7% fair, 87% good, 6% excellent; 85% jointing, 70% 1989, 70% avg.; 3% heading, 3% 1989, 5% avg. Leaf disease prominent major producing areas. Recent freeze damage minimal in north. Cotton 45% seedbed prepared, 65% 1989, 45% avg.; 0% planted, 0% 1989, 1% avg. Sorghum 45% seedbed prepared, 55% 1989, 55% avg.; 1% planted, 2% 1989, 1% avg. Pastures improved slightly. Cattle good; marketings average, prices stable.

OREGON: Temperatures across State generally 5° above normal. Southwest valleys, most of eastern areas highest temperatures 5 to 10° above normal. Precipitation again extremely light. North coast up to 0.50 in., Willamette Valley areas 0.10 to 0.20 in. elsewhere 0.10 in.

Winter wheat 1% poor, 34% fair, 65% good. Barley 76% seeded, 72% 1989, 84% avg. Soil moisture 79% short, 21% adequate. Normal temperatures, dry weather allowed good fieldwork progress, early crop development statewide. Rain needed. Fruit blooming, excellent pollination. Some root weevil damage strawberries. Early vegetables planting. Milton Freewater onions irrigated. Potato, onion plantings Malheur County. Pastures need moisture. Producers concerned. Pastures poor to fair east, fair to good west. California cattle arriving. Good calving season Baker County.

PENNSYLVANIA: Cold week with below normal temperatures. Temperature 42°; 3° below normal. Extremes 18°; 69°. Precipitation 0.97 in., 0.15 in. above normal.

Days suitable for fieldwork 2.0. Soil moisture 4% short, 65% adequate, 31% surplus. Plowing 38% complete, 22% 1989, 31% avg. Corn 0% planted, 0% 1989, 2% avg. Soybeans 0% planted, 0% 1989, 0% avg. Oats 33% planted, 24% 1989, 31% avg. Potatoes 18% planted, 9% 1989, 9% avg. Tobacco beds 75% planted, 53% 1989, 50% avg. Barley 100% pre boot, 100% 1989, 99% avg.; 0% boot, 0% 1989, 1% avg.; 0% heading or headed, 0% 1989, 0% avg. Wheat 100% pre boot, 100% 1989, 100% avg.; 0% boot, 0% 1989, 0% avg.; 0% heading or headed, 0% 1989, 0% avg. Wheat 3% very poor, 2% poor, 20% fair, 52% good, 23% excellent. Oats 2% very poor, 4% poor, 28% fair, 40% good, 26% excellent. Hay stands mostly fair. Feed from pastures mostly below average to average. Peaches 56% pre pink,

67% 1989, 85% avg.; 31% pink, 24% 1989, 14% avg.; 14% full bloom or past, 9% 1989, 6% avg. Cherries 84% pre pink, 84% 1989, 87% avg.; 13% pink, 15% 1989, 9% avg.; 3% full bloom or past, 1% 1989, 4% avg. Apples 91% pre pink, 90% 1989, 95% avg.; 8% pink, 10% 1989, 5% avg.; 1% full bloom or past, 0% 1989, 0% avg. Activities: Spring plowing; planting crops, repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

SOUTH CAROLINA: Temperatures 51° in northwest to 64° near the Coast. Precipitation 0.20 in. in northeast to 0.70 in. Upstate.

Days suitable for fieldwork 5.7. Soil moisture 19% short, 81% adequate. Cotton 3% planted, 0% 1989, 12% avg. Tobacco fair to good; 75% planted, 26% 1989, 28% avg. Corn fair to good; 86% planted, 60% 1989, 71% avg. Watermelons fair to good; 65% planted, 74% 1989, 71% avg. Cantaloupes fair to good; 41% planted, 62% 1989, 55% avg. Tomatoes fair to good; 94% planted, 78% 1989, 90% avg. Oats good; 49% headed, 36% 1989, 22% avg. Wheat fair to good; 56% headed, 40% 1989, 21% avg. Cold weather temperatures caused significant damage on apples.

SOUTH DAKOTA: Temperatures mostly below normal. Range 1° above to 9° below normal. Extremes 5°; 75°. Precipitation below normal, most locations less than 0.10 in., maximum 1.09 in. Yearly precipitation below normal all but 1 location. Range 0.94 in. above to 2.33 in. below normal. Growing degree days since 8th below normal.

Winter wheat good to fair, winterkill 13%. Major activities field work, seeding small grains, calving, lambing, fencing.

TENNESSEE: Low pressure brought rain statewide 9th, 10th, followed by high pressure that brought cooler, drier weather 11th, 12th. Cold front again brought rain statewide over the weekend. Temperatures below normal statewide, 2 to 5° departure most areas. Precipitation below normal. Rainfall 0.33 to 0.67 in.

Days suitable for fieldwork 3.6. Soil moisture 2% short, 75% adequate, 23% surplus. Little or no corn, cotton planting due to cold, wet weather. Wheat mostly fair to good, some freeze damage. Fruit severely damaged by freezes. Pastures not growing well, producers returning to supplemental feed. Livestock good.

TEXAS: Surge cold air crossed State early week spreading rain through large portion of State. Snow even Panhandle. Warming trends brought temperatures back toward normal, further encroachments cool air from passing systems kept overall temperature average below normal. Flooding problem some extremely wet areas east. Western areas slightly behind normal rainfall, above normal temperatures. Elsewhere slightly above normal rainfall, below normal temperatures.

Crops: Small grains need warmer temperatures continue good progress. Winds drying fields Plains, many dryland fields need more moisture. Aphids, mosaic present. Spraying occurred. Rust continued hurt conditions Blacklands. Moisture conditions area been good. Some greenbug damage isolated fields central, some fields turning color. Corn planting resumed Blacklands weather remained open most week. Many producers winding up operations weekend. Cultivating activities increasing weather allowed central. Planting increased again Upper Coast. Planting beginning Plains. Rainfall help fields southern, coastal areas. Grain sorghum producers Blacklands trying catch up planting last week. Cool, wet conditions slowed emergence some fields. Most planting completed central. Planting resumed

Upper Coast, portions east. Planting beginning Low Plains, Cross Timbers. Cotton planting on schedule central. Planting beginning northern portions Blacklands. Isolated heavy rains Coastal Bend damaged some later fields, replanting may be necessary. Cooler nights slowed growth Upper Coast, east. Planting underway Trans Pecos. Rice planting good progress Upper Coast. Cool temperatures slowed emergence. Rice emerged 20%, 24% 1989, 22% avg. Sugarbeet planting active High Plains. Other Field Crops: Peanuts planted none, none 1989, 1% avg. Sugarbeets planted 35%, 45% 1989, 38% avg.

Commercial Vegetables: Rio Grande Valley, onion harvest continued better than expected quality. Cabbage harvest slowed some. Melons look very good. San Antonio Winter Garden, cabbage harvest light, some producers finished. Onions fair progress; prospects remain good. Eastern areas, isolated heavy rains caused some damage. Recent frost hurt some tomatoes. Planting slow some areas because wet conditions. High Plains, onions being set out, fertilized. Carrot planting continued. Trans Pecos, producers working onion fields. Cantaloupe planting continued. Peach crop continued look very good. Some thinning continued east. Frost caused minimal damage. Pecan trees slowly breaking bud many areas central, Trans Pecos. Cooler temperatures slowed progress some. Trees blooming other parts central, south.

Range and Livestock: Ranges, pastures continued green up; growth been slow. Nighttime temperatures warm up. Rainfall adequate many areas. Livestock good. Markets active with favorable prices.

UTAH: Temperatures 6° above normal, precipitation was light to moderate.

Days suitable for fieldwork 5.6. Soil moisture 30% short, 70% adequate. Russian wheat aphids, army cut worms problem some areas. Spraying winter grains for broadleaf weeds. Fruit progressing ahead of normal, good. Winter wheat 11% poor, 46% fair, 43% good. Spring wheat 75% planted, 52% 1989, 56% avg. Barley 74% planted, 43% 1989, 59% avg. Oats 44% planted, 26% 1989, 37% avg. Sweet cherry 100% full bloom or past. Tart cherry bloom set 44%. Spring calving 76% completed, 72% 1989, 74% avg. Calving losses low due to good weather. Lambing, shearing of sheep continued near normal rate. Range grasses growing well with recent rain, warm weather.

VIRGINIA: Period began wet, rain, showers across the State. Cool weather prevailed mid period, warming trend at weekend. Extremes 12°; 75°. Temperatures 9° below normal. Precipitation 0.70 in.

Days suitable for fieldwork 2.6. Topsoil 26% surplus, 74% short. Pastures 19% excellent, 57% good, 24% fair. Alfalfa 7% excellent, 57% good, 30% fair, 4% poor, 2% very poor. Other hay 9% excellent, 65% good, 22% fair, 4% poor. Barley 4% excellent, 68% good, 27% fair, 1% poor. Wheat 10% excellent, 71% good, 16% fair, 3% poor. Apples mostly poor to fair. Peaches mostly very poor. Tobacco plantbeds 10% excellent, 14% good, 59% fair, 17% poor. Corn 7% planted, 1% 1989, 10% avg. Corn 14% very poor, 14% fair, 57% good, 15% excellent. Applied lime and fertilizer to pastures, cutting haylage, tomato planting started, clipped tobacco plantbeds, prepared corn, soybean land.

WASHINGTON: Temperatures 1 to 6° above normal, east; normal to 5° above normal, west. Precipitation none to 0.60, east; 0.19 to 0.73, west.

(Continued to back cover)

International Weather and Crop Summary

April 8-14, 1990

HIGHLIGHTS

USSR ... Following a period of prolonged dryness, beneficial precipitation covers crop areas in Moldavia and the southern Ukraine.

EUROPE ... Widespread rain continues in the south. Below-normal temperatures slow development of winter crops in most growing areas.

SOUTH ASIA ... Rain continues in the eastern rice areas as beneficially drier weather covers the northern wheat belt.

EASTERN ASIA ... Heavy rain causes possible flooding in southern China. Rain benefits crops in the North China Plain.

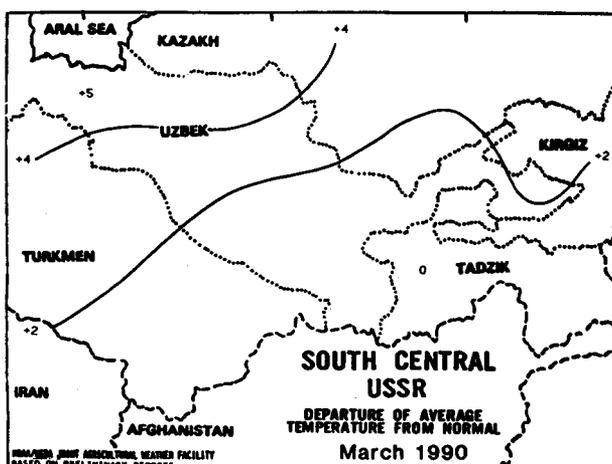
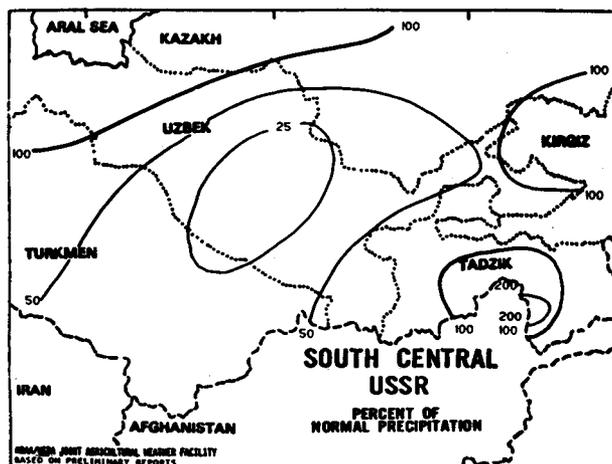
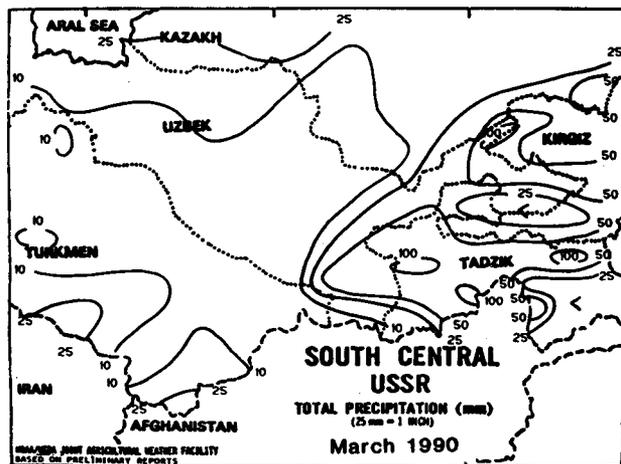
SOUTHEAST ASIA ... Hot weather with only scattered, light rain continues in Thailand.

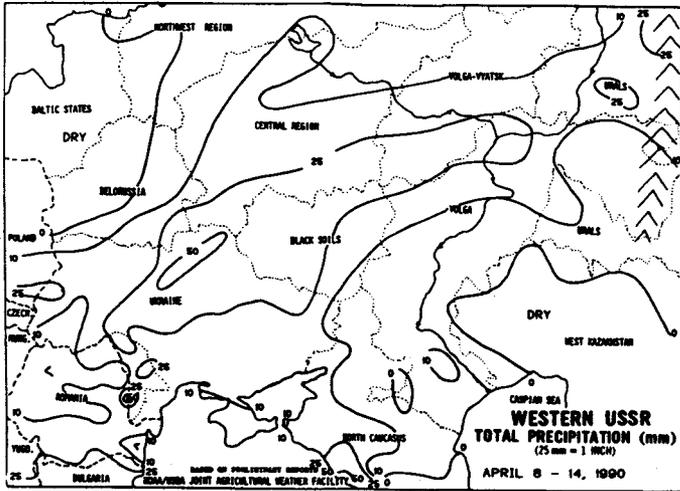
SOUTH AMERICA ... Drier weather improves soybean harvest conditions in both Argentina and south-central Brazil.

SOUTH AFRICA ... Drier, warmer weather helps maturing corn in the west.

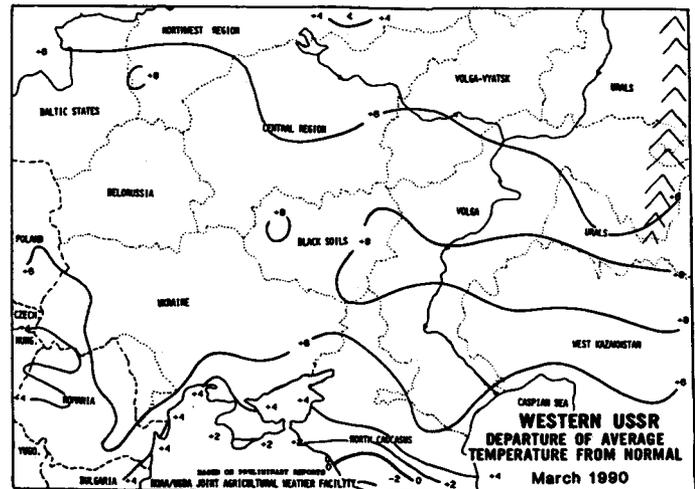
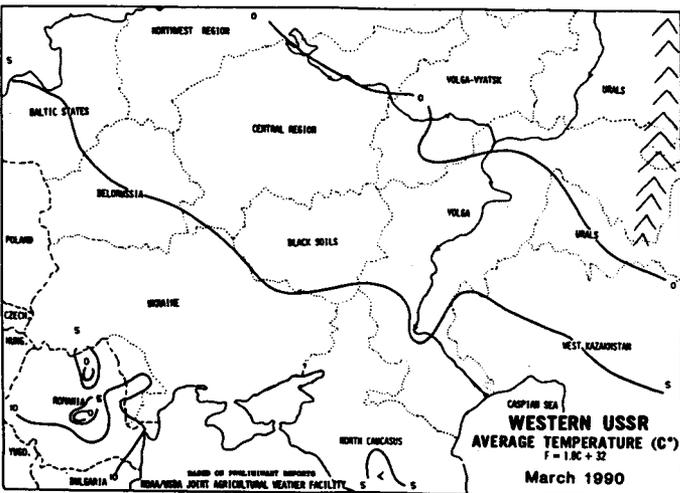
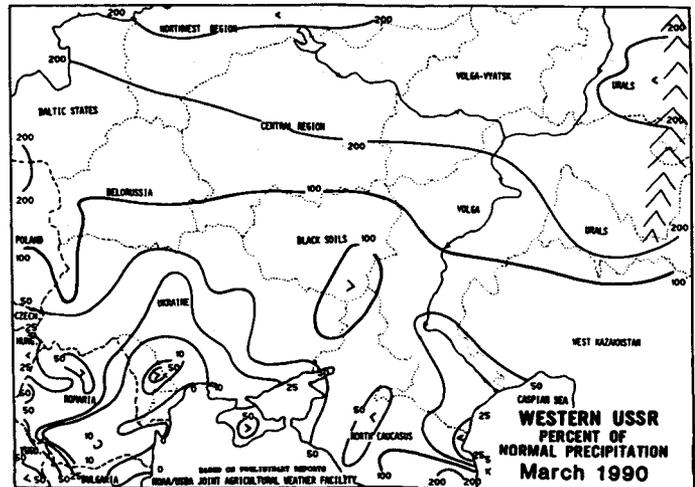
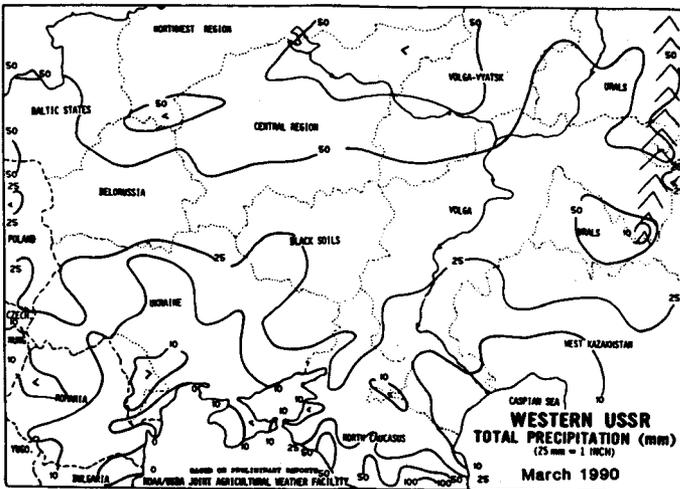
AUSTRALIA ... Rain and harvest delays continue in the east.

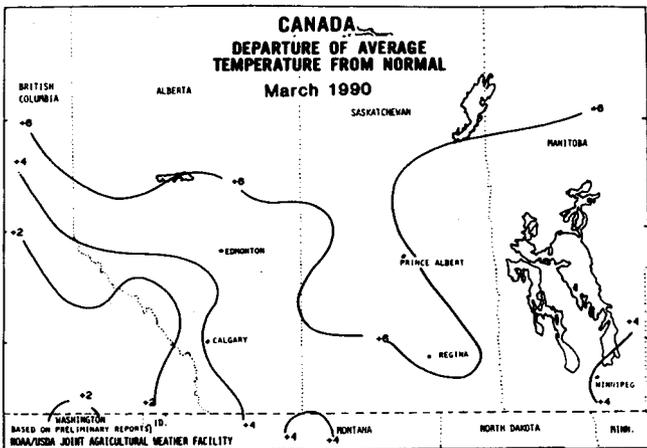
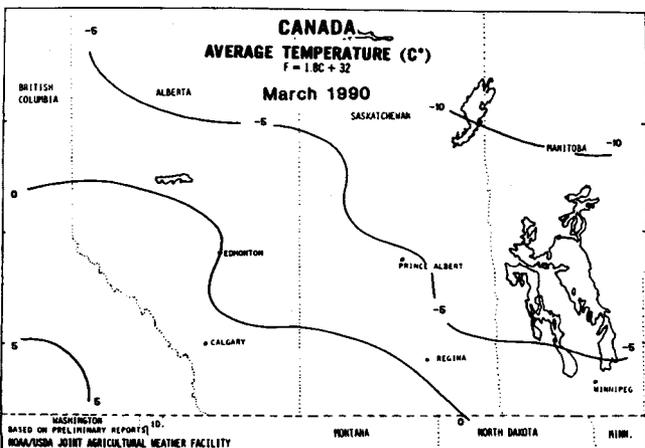
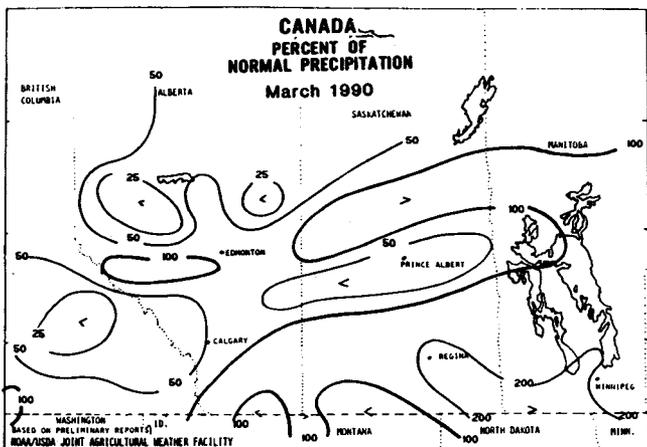
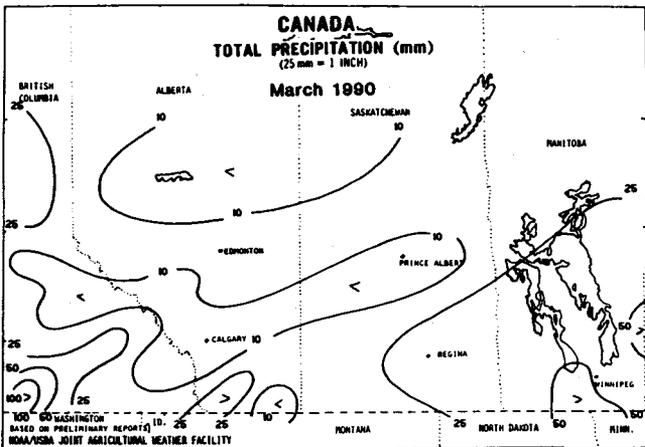
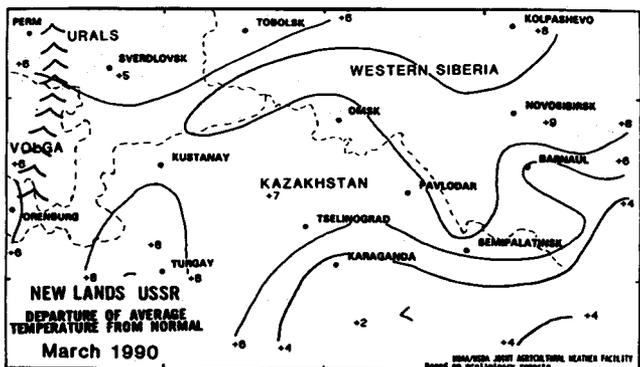
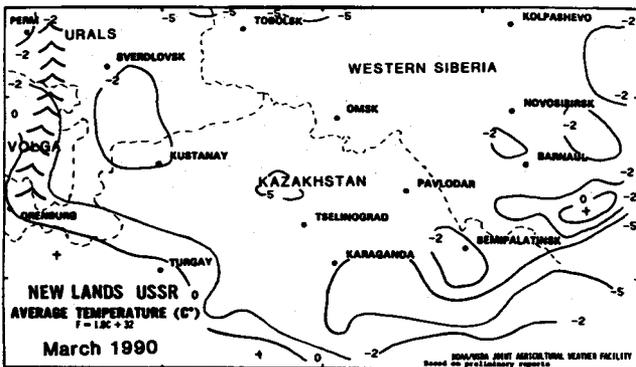
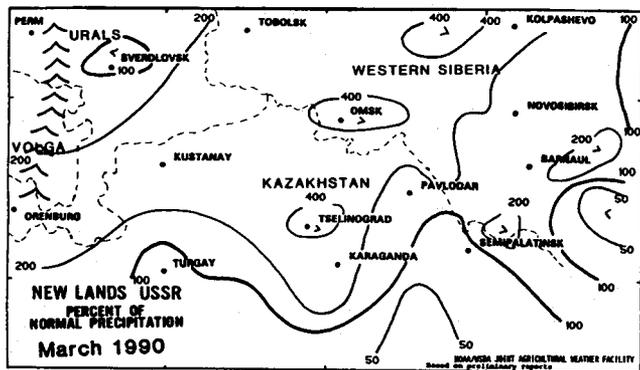
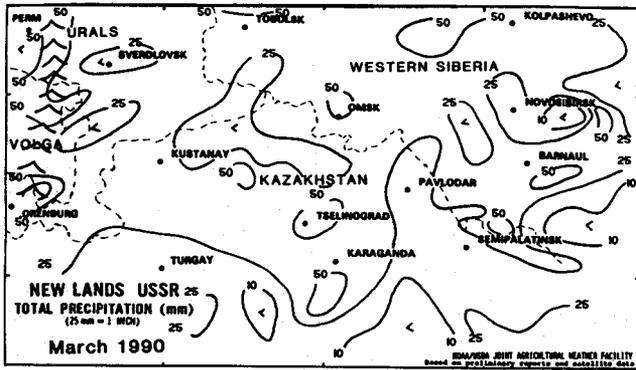
NORTHWESTERN AFRICA ... Significant rain benefits filling winter grains in Morocco and western Algeria. Variable showers cover crops in eastern Algeria and Tunisia.

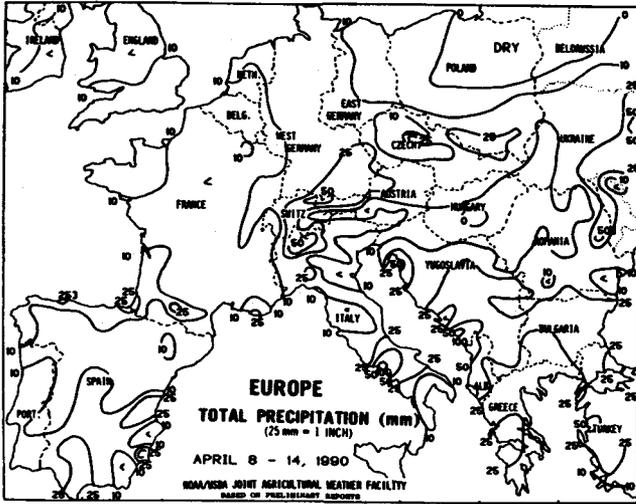




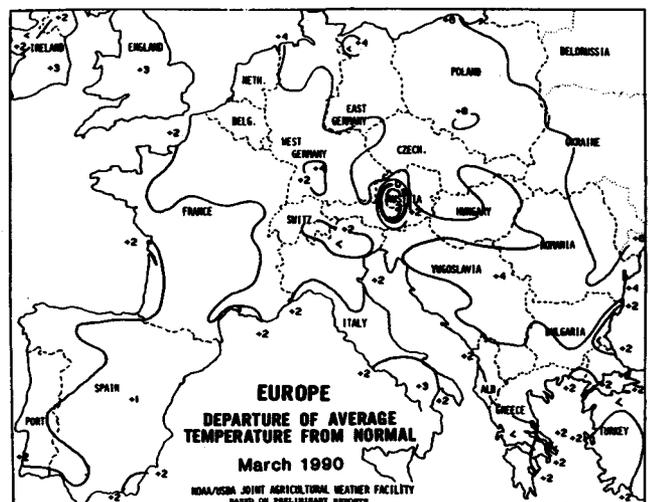
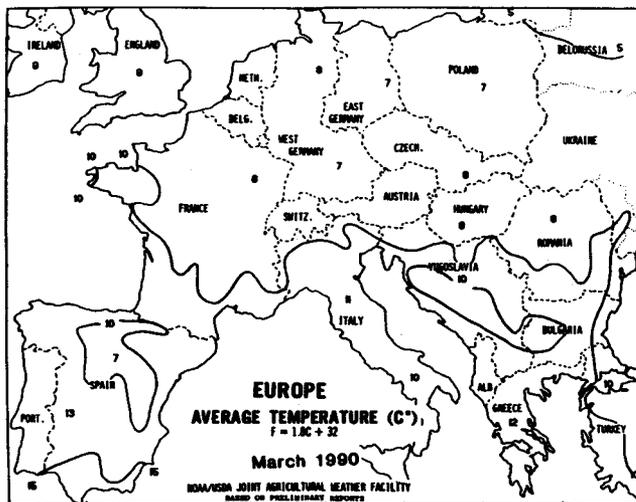
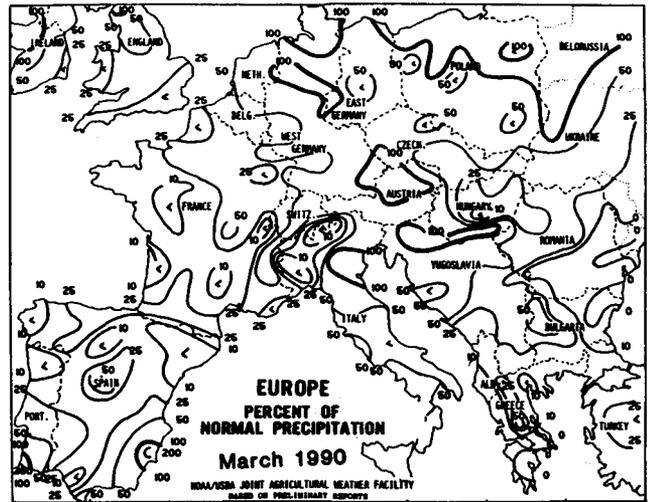
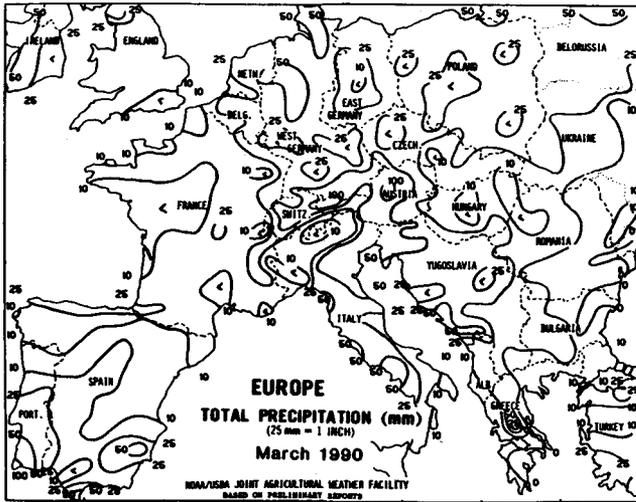
WESTERN USSR ... Widespread precipitation accompanied a cooling trend. Following a period of prolonged dryness, significant precipitation covered crop areas in Moldavia and the southern Ukraine. Precipitation amounts ranging from 11 to 29mm benefited winter grains in the vegetative stage and newly sown spring crops. Elsewhere, greatest amounts of rain (25-61mm) fell in a narrow band, stretching northeastward from the northern Ukraine, through the Black Soils Region, and into the southern Volga Vyatsk Region. Generally dry weather covered the Baltic States and Belorussia. Weekly average temperatures were 1-3 degrees Celsius below normal in the west and 2-5 degrees Celsius above normal in the east. In March, the warmest weather in at least the last 41 years covered the region. Monthly average temperatures were 4-8 degrees Celsius above normal, causing winter grains to break dormancy 3-6 weeks earlier than usual. By month's end, reports indicate winter grains were greening as far north as the Central Region. Below-normal precipitation in the south prompted spring grain planting 2-3 weeks earlier than usual. March precipitation was above normal in the north.



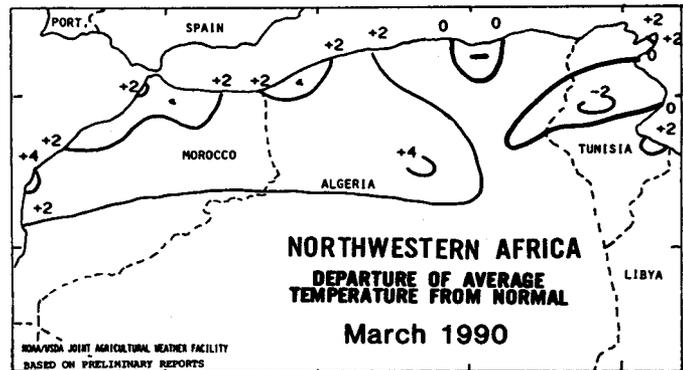
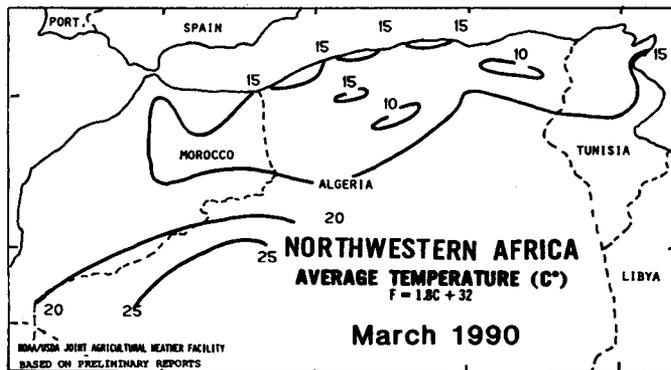
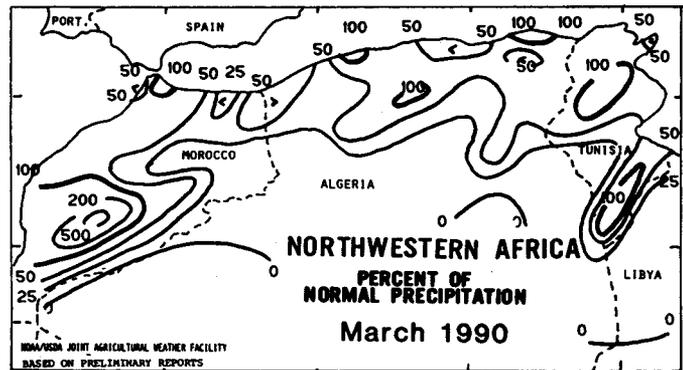
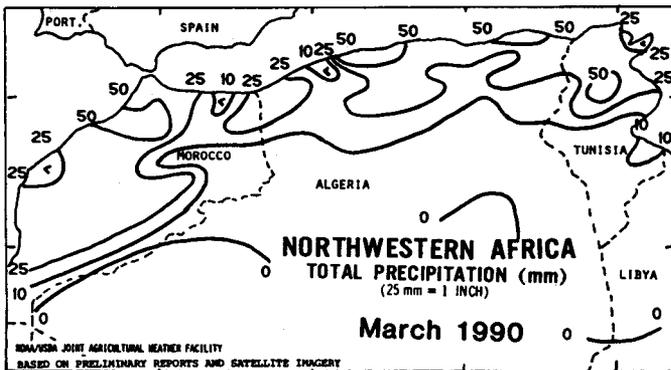
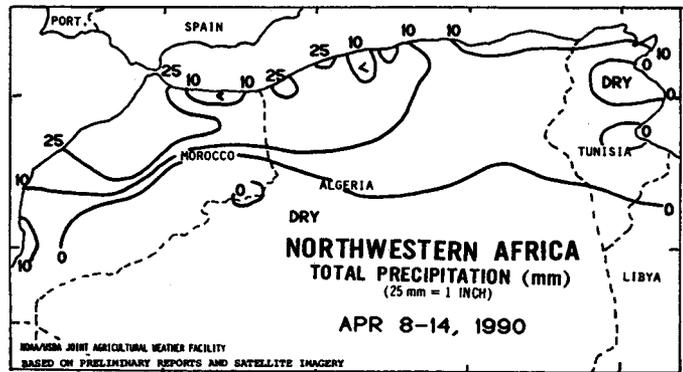


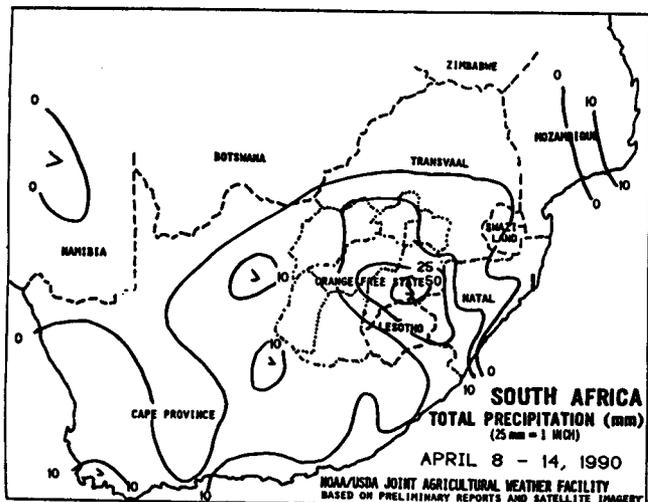


EUROPE ... Widespread rain (10-40mm, with isolated amounts in excess of 50mm) continued over much of southern Europe, further replenishing soil moisture for winter and spring crops but possibly causing some localized flooding in sections of Italy and Yugoslavia. Rainfall during the past 2 weeks across the south reversed unfavorable dryness in March and much of the winter season, especially in northern Italy and the western Balkans. March was also drier than normal across much of northwestern and north-central Europe, although subsoil moisture remains adequate. Cooler-than-normal temperatures (1-4 degrees C below normal) slowed vegetative growth and development of winter grains in most growing areas and ended 12-13 consecutive weeks of above-normal temperatures in the east.

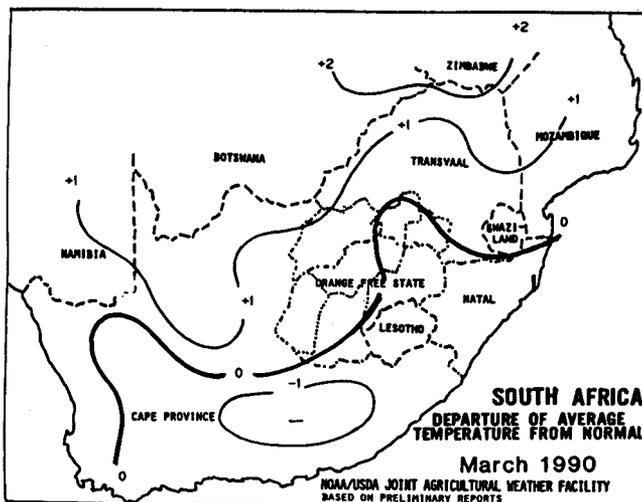
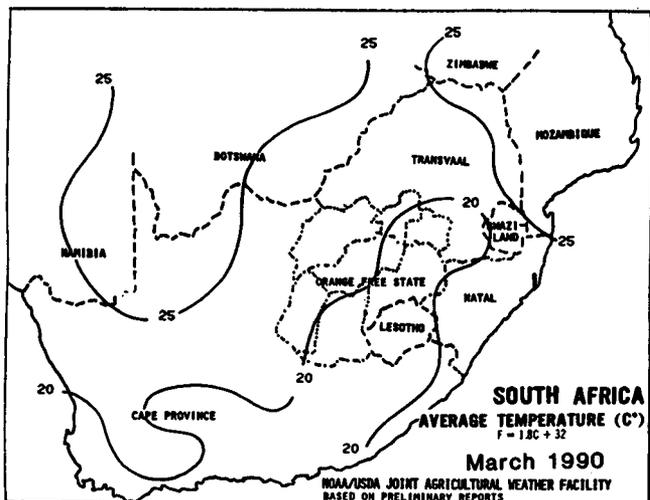
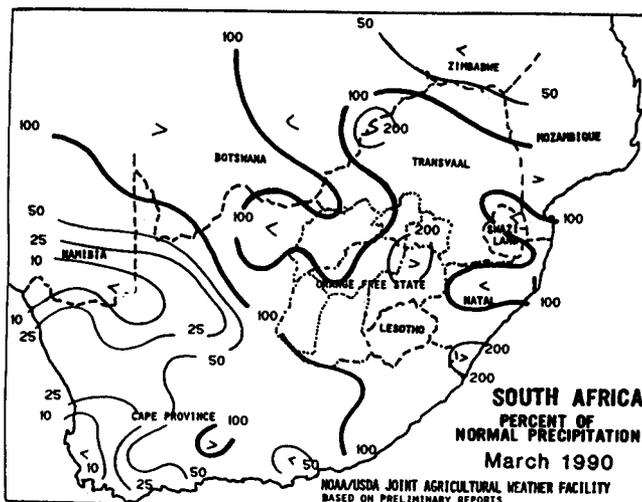
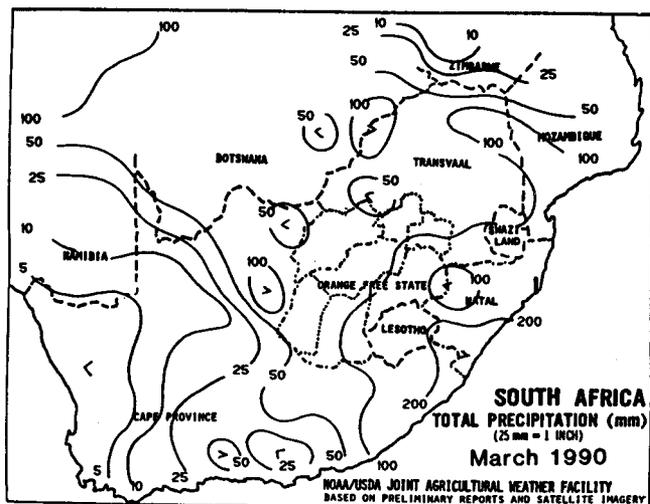


NORTHWESTERN AFRICA ... Winter grains were mostly in the filling stage over the region. Widespread rain (16-48mm) over Morocco and western Algeria benefited winter grains. Although light rain (10-22mm) moistened northernmost crop areas in eastern Algeria and Tunisia, dry weather stressed winter grains further south. In March, below-normal precipitation covered most winter grain areas in Morocco, Algeria, and Tunisia. Crop conditions continued to deteriorate in Algeria and Tunisia, where winter grains were advancing through the reproductive phase of development. Although below-normal precipitation placed some stress on winter grains in Morocco, periodic showers during March prevented the development of significant stress. By month's end, precipitation increased over the entire region slowing further declines in crops conditions. From March 27 to 29, subfreezing temperatures ranging from -1 to -4 degrees C over central and eastern Algeria likely caused some damage to winter grains.

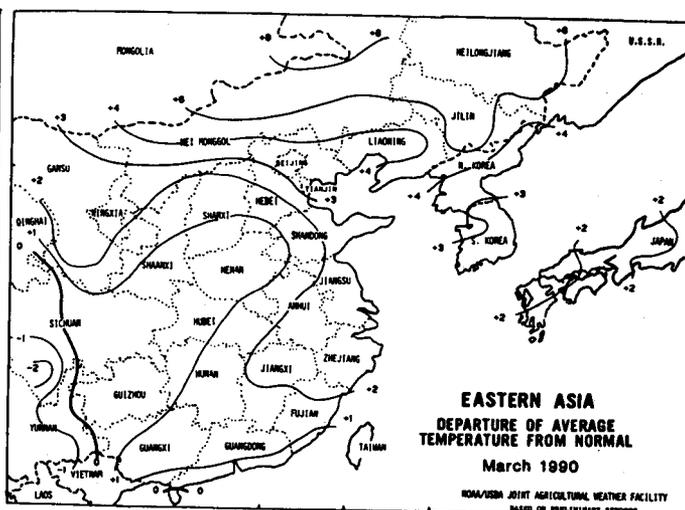
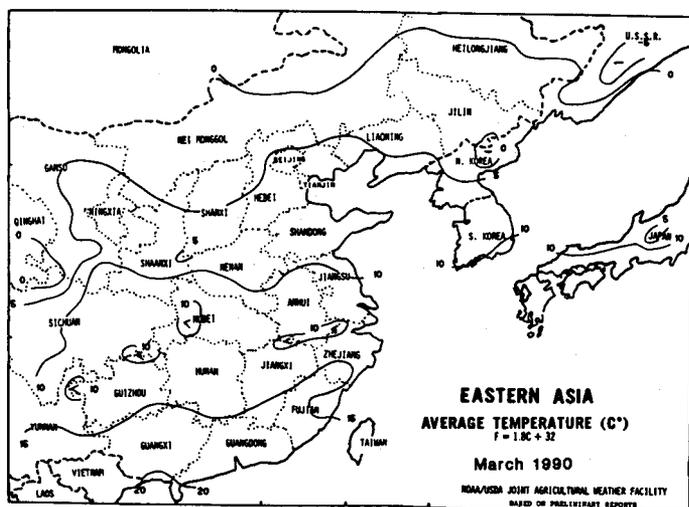
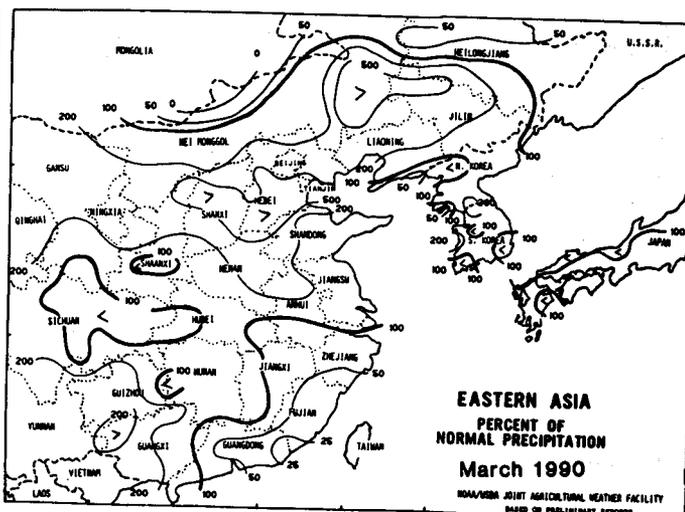
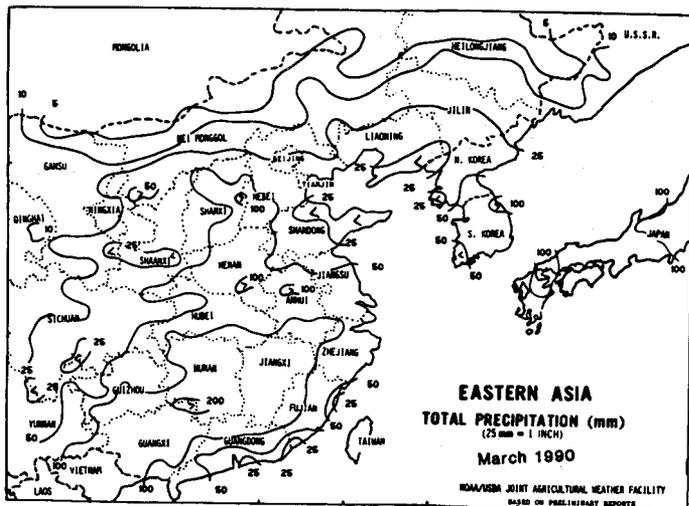
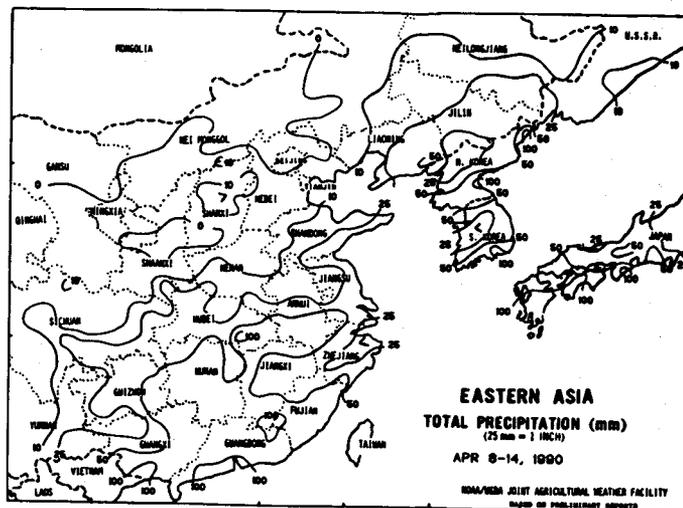


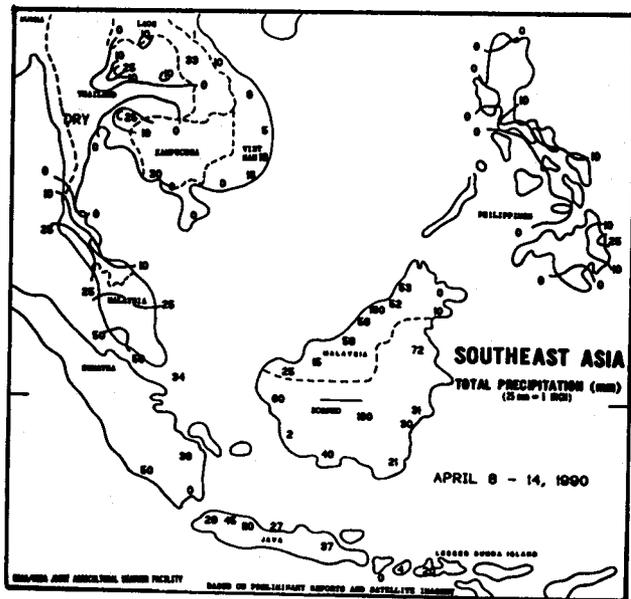


SOUTH AFRICA ... Mostly dry, warmer-than-normal weather dominated the Maize Triangle for much of the week, with rainfall averaging less than 10mm in the northwest for the third consecutive week. Late-week showers (10-52mm), however, in the eastern half of the Maize Triangle reflected the recent trend of chronically rainy weather that has slowed crop maturation. Light to moderate rain (2-25mm or more) swept across the Cape Province and Natal. In March, early-month moderate to heavy rain across the region benefited immature crops but left maturing corn in the west unfavorably wet. Drier weather since mid-March has brought relief to the west, but in the east, frequent light to moderate rain (exceeding 200 percent of normal in local areas) and near- to below-normal temperatures slowed crop development. Near- to above-normal rainfall covered the eastern Cape Province and Natal, with local flooding likely in the southern sugarcane areas.

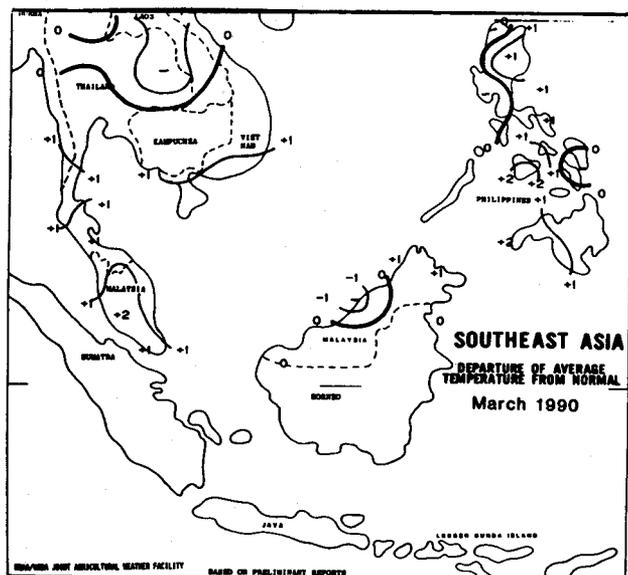
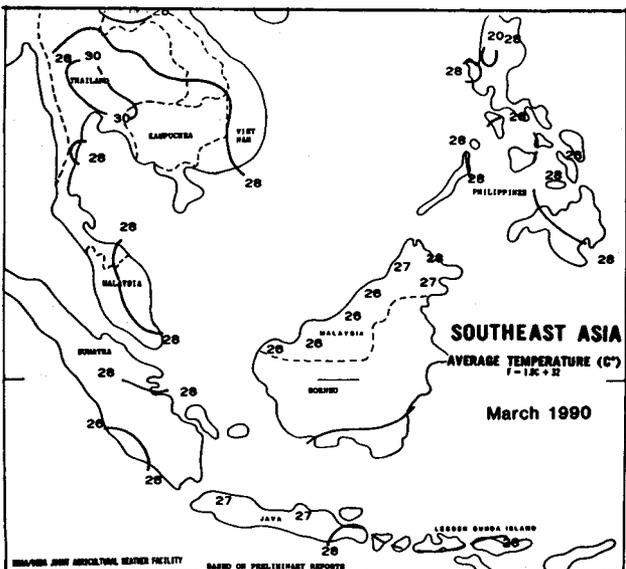
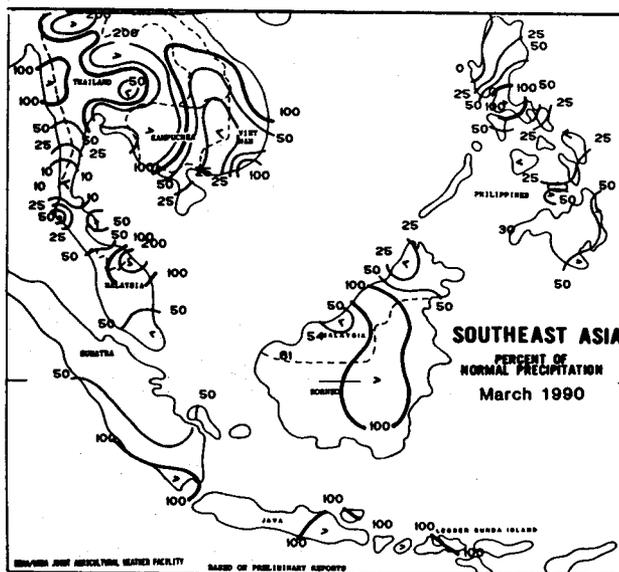
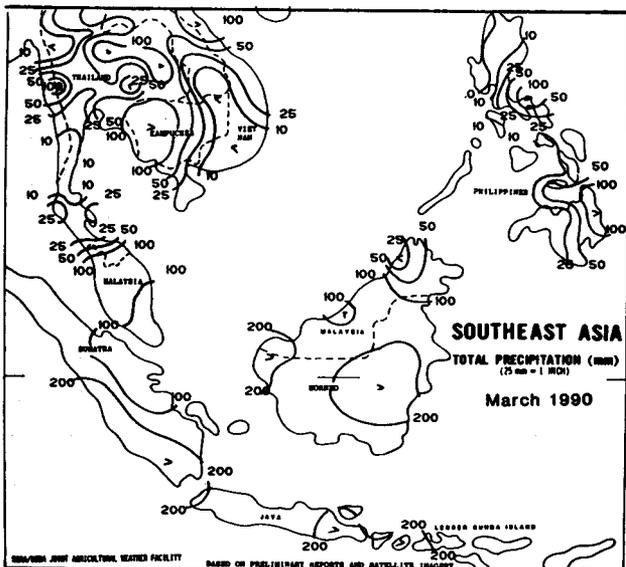


EASTERN ASIA ... Heavy rain (25-50mm, with scattered amounts in excess of 50mm) fell over much of southern China, favoring early crop rice but possibly causing localized flooding in sections of Guizhou, Guangxi, and Hunan, where heavy rain persisted during much of March and early April. In the North China Plain, light to moderate rain (5-20mm, with isolated rainfall greater than 20mm) continued to favor vegetative crops. Above-normal rainfall in March over nearly all of the North China Plain has raised the production potential for winter grains and oilseeds. Widespread rain and snow (10-45mm, with isolated amounts greater than 45mm) also continued to increase preseason soil moisture for spring and summer crops in southern Manchuria and the Korean Peninsula. Mean weekly temperatures ranged from above normal in the east to below normal in the west.

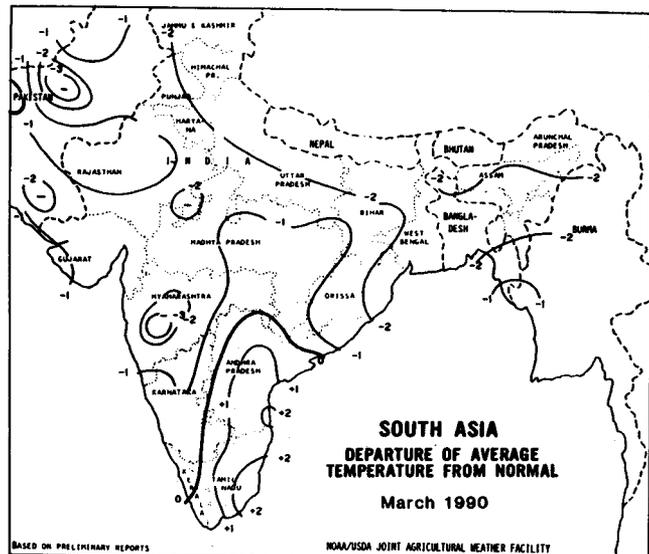
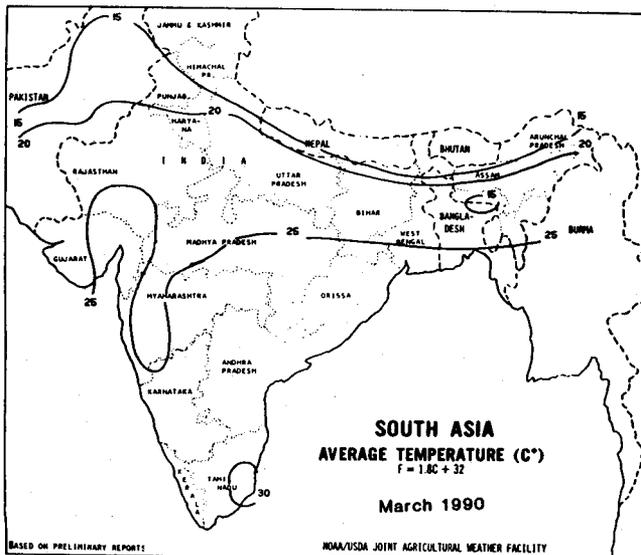
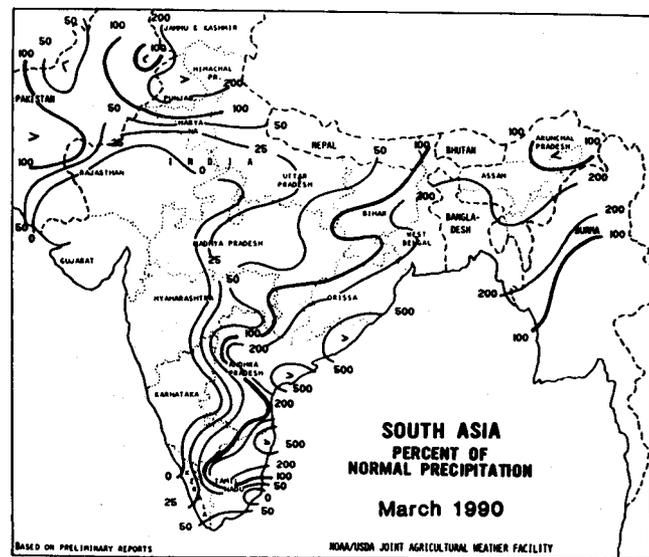
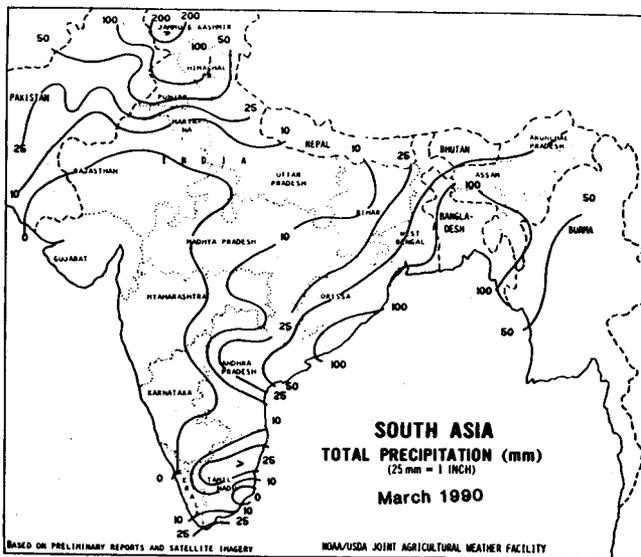
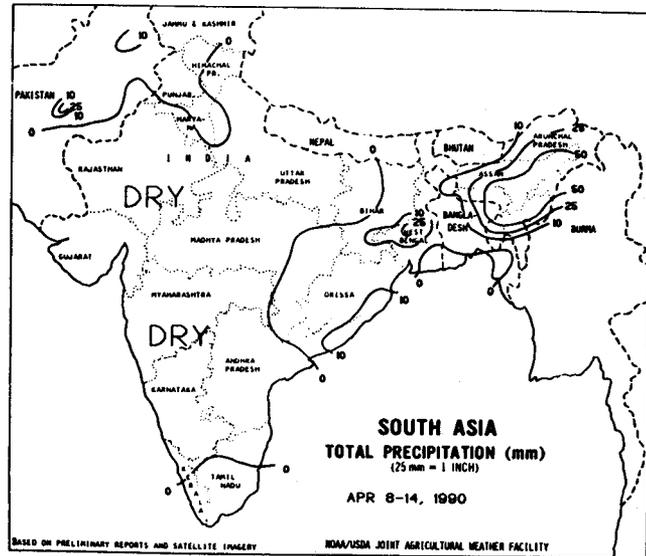


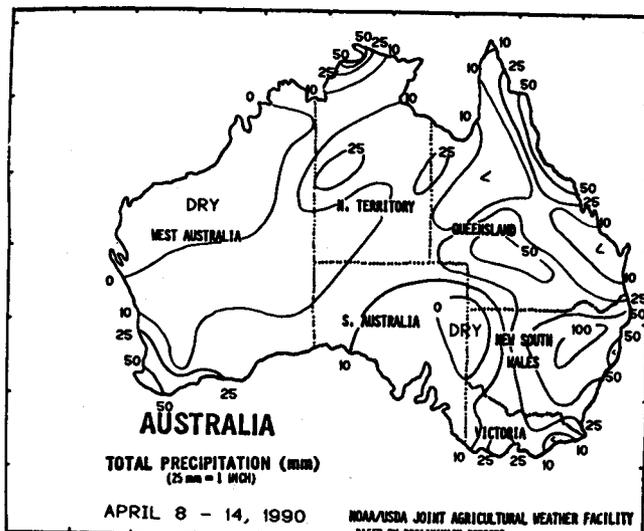


SOUTHEAST ASIA ... Scattered, mostly light showers (1-30mm) fell early in the week in Thailand, but hot, dry weather the remainder of the week maintained high evaporative losses. Variable rain (10-50mm or more) continued over the southern Malay Peninsula and eastern Malaysia, as well as much of Indonesia. In the Philippines, moderate rain (10-25mm or more) was limited to southeastern Luzon and northeastern Mindanao. In March, near- to above-normal rainfall, heaviest early in the month, improved preplanting moisture conditions over much of Indochina. Temperatures averaged near to slightly below normal, but by month's end, seasonably hotter weather dominated Thailand. Rainfall continued to be near to above normal over southern Indonesia but, except for local areas, was near to below normal in northern Indonesia and Malaysia. Much-drier-than-normal weather again dominated the Philippines, although local areas of southern Luzon and eastern Mindanao reported 50-170mm rainfall.

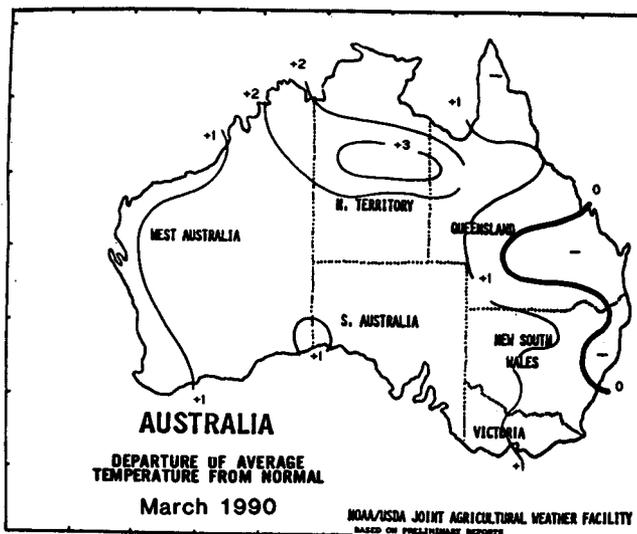
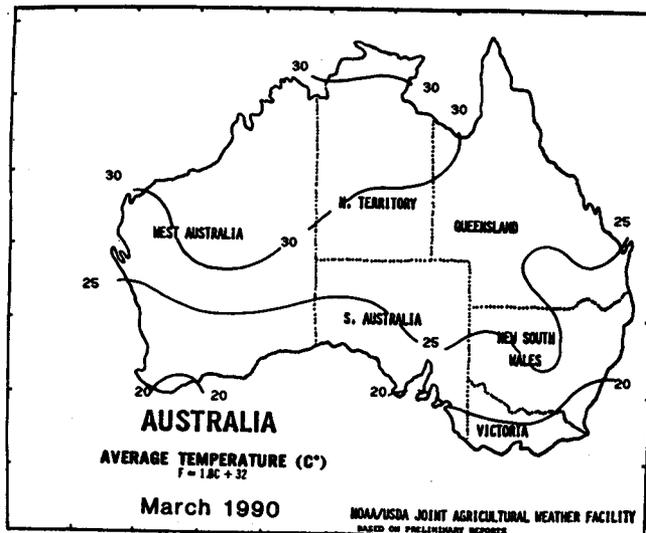
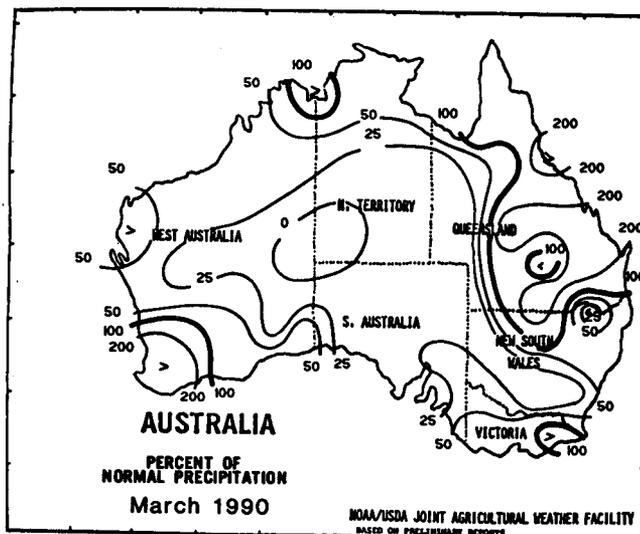
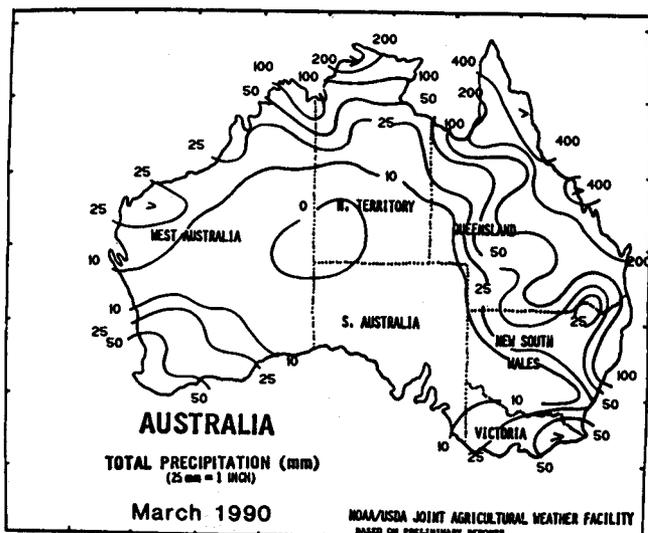


SOUTH ASIA ... Light to moderate rain (10-25mm or more) continued in the rice areas from eastern Andhra Pradesh to the eastern states, improving irrigation reserves. Amounts reached 70-90mm in eastern Bangladesh and nearby areas of India. Mostly light rain (1-5mm) fell over the primary winter wheat areas across the north, although locally heavier rain (24-37mm) continued in Pakistan. Temperatures continued to average 1-3 degrees C below normal, slowing crop maturation. By week's end, however, high temperatures ranged from 37 to 41 degrees C as far north as southern Punjab (India). In March, frequent, showery weather (25-138mm, with temperatures averaging 1-2 degrees C below normal) in northern Pakistan and northernmost India boosted irrigation reserves for early plantings but slowed wheat maturation. Rainfall was above normal in the east with amounts of 50-100mm or more benefiting immature rice from Andhra Pradesh eastward. Temperatures averaged 1-2 degrees C above normal over India's southern tip but below normal elsewhere.

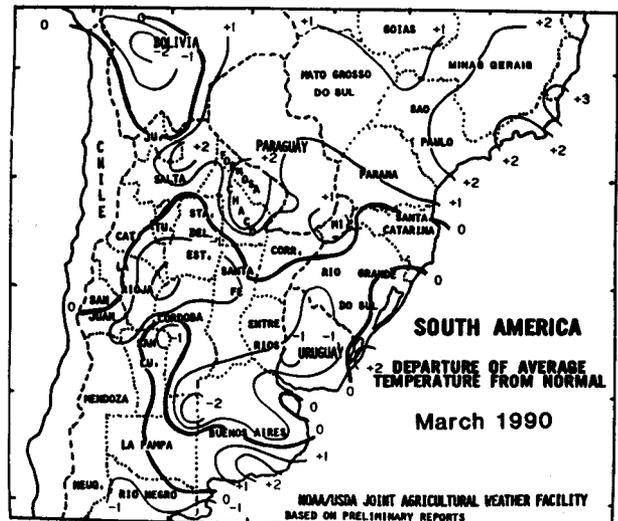
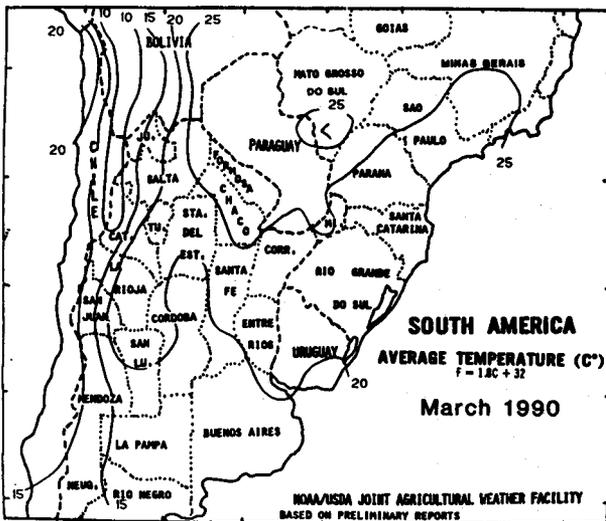
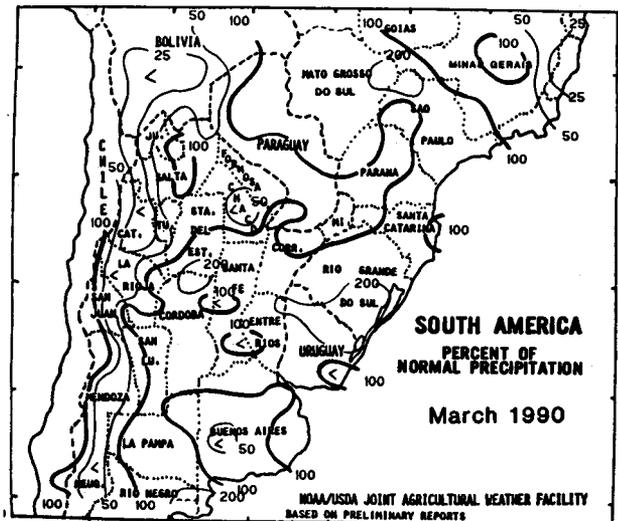
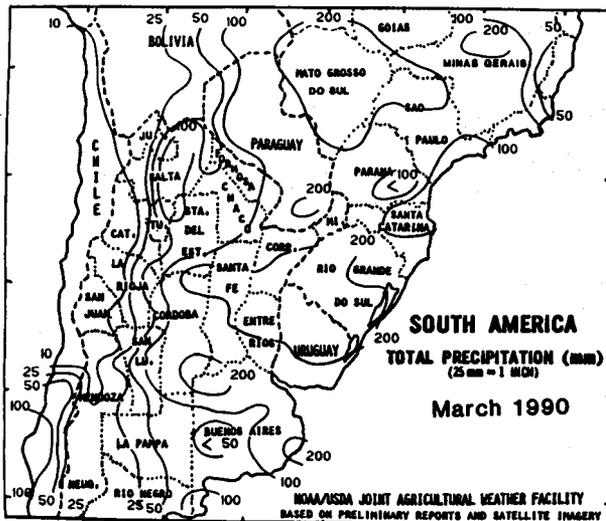
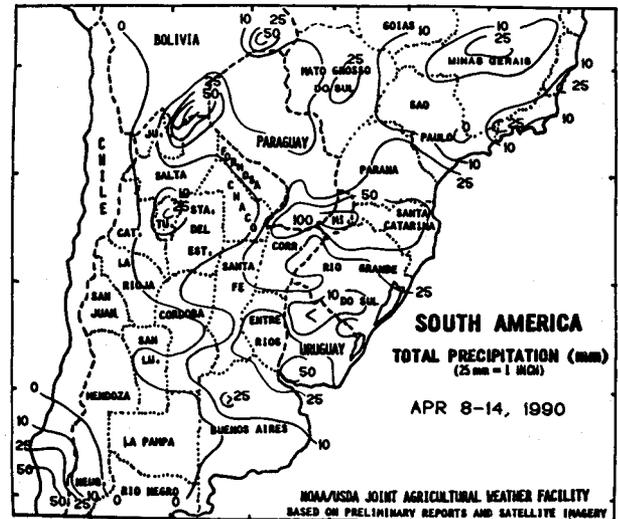


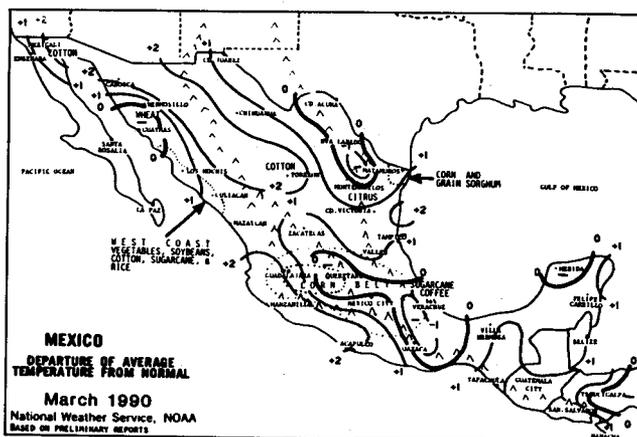
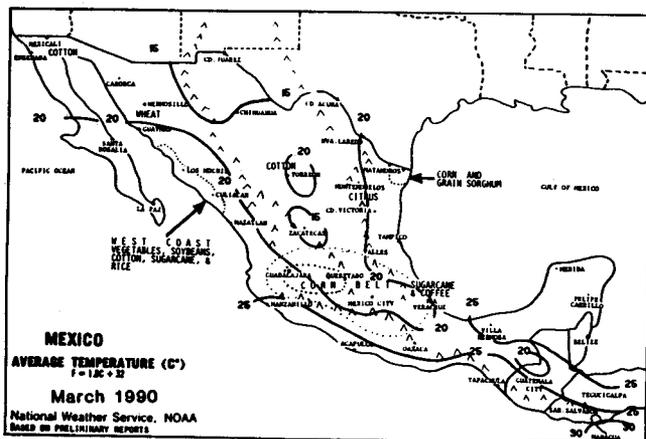
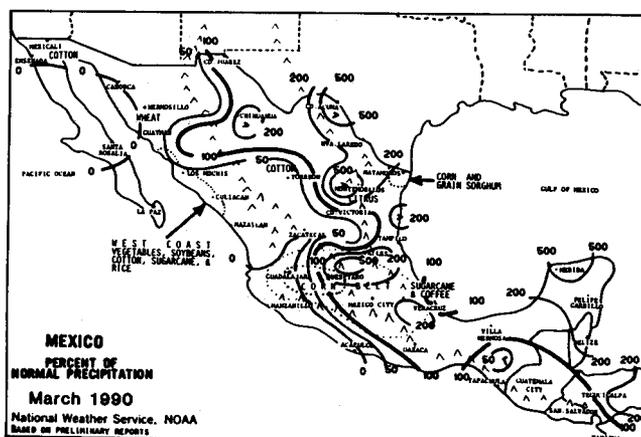
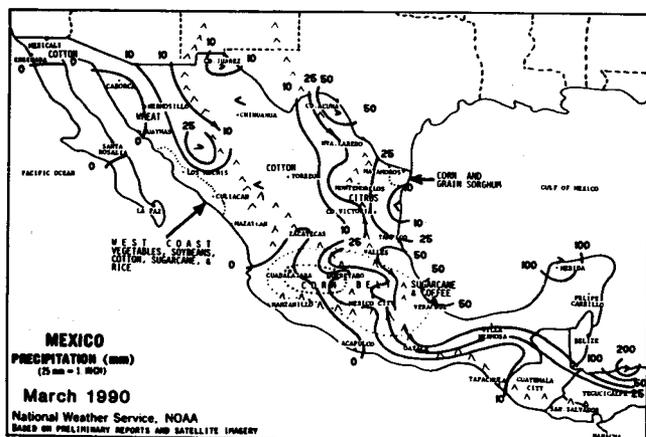


AUSTRALIA ... Heavy rain (20-80mm, with isolated amounts in excess of 80mm) persisted across eastern Australia, continuing a much-wetter-than-normal trend over the past 3-4 weeks. The rain greatly improved soil moisture for sugarcane and yet-to-be-planted winter grains, but caused flooding and extensive delays in summer crop harvest. In the south, a frontal system brought moderate to heavy rain (15-60mm) to crop areas of Western Australia and mostly light rain (less than 10mm) to South Australia and western Victoria. Above-normal rainfall in March increased preplanting soil moisture to favorable levels in Western Australia. In contrast, below-normal rainfall in March and early April has left some soils abnormally dry in South Australia and Victoria.



SOUTH AMERICA ... In Argentina, early-week showers covered most corn and soybean areas as well as eastern cotton areas in the north. Mostly dry weather prevailed for the remainder of the week, improving harvest progress which had been hampered by persistent wetness. March rainfall averaged near to above normal in most areas, slowing the harvest of grains behind last year's pace. The recent drier weather helped the onset of soybean harvesting in the major producing areas of Cordoba, Santa Fe, and Buenos Aires. In south-central Brazil, early-week heavy rain (50-96mm) continued to drench soybean areas of northern Rio Grande do Sul and Santa Catarina. Widespread, variable showers (10-35mm) interfered with soybean harvesting in Parana and Mato Grosso do Sul. Near-to above-average March rainfall also slowed early harvesting, except in far northern crop areas of Goias and Minas Gerais. Drier weather during the latter part of the week improved harvest conditions throughout the soybean belt.





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(Continued from front cover)
and **Oklahoma**. Fortunately, heavy thunderstorms also developed in **southeastern Florida**, dumping up to 5.3 inches of rain on the parched **Miami** area. Other portions of **peninsular Florida**, however, remained relatively dry. Considerably north and west of the systems, light to moderate snows blanketed portions of the **northern Plains** and **Great Lakes** with a few inches of snow.

(Continued from p. 15)

Days suitable for fieldwork 6.7. Soil moisture 60% short, 40% adequate. Range, pasture 60% short, 40% adequate. Hay, other roughage 20% very short, 30% short, 45% adequate, 5% surplus. Farmers were busy seeding, cultivating, weeding, fertilizing, plowing. Small grain planting, development was ahead of normal. Spring wheat planted 80%, 56% 1989, 63% avg. Fruit trees, caneberries were in full bloom. Some areas need moisture for planting, pasture, range growth.

WEST VIRGINIA: Temperature 46^o, 3 to 7^o below normal. Extremes 17^o; 79^o. Precipitation 0.72 in., 0.50 in. below to 0.21 in. above normal.

Days suitable for fieldwork 2.5. Soil moisture 91% adequate, 9% surplus. Livestock good to fair. Calving 82% complete; lambing 84% complete. Feed supplies adequate to surplus. Wheat, barley good. Oat planting 27% complete. Tobacco beds good to fair; 94% planted, 22% emerged. Hay good to fair. Farm activities: Fencing, plowing, livestock care.

WISCONSIN: Temperature 40^o, 4^o below normal. Extremes 5^o; 69^o. Precipitation 0.10 to 0.90 in. Days suitable for fieldwork 3.1. Soil moisture 55% short, 45% adequate. Spring plowing 12% complete, 3% 1989, 10% avg. Oats planted 8%, 2% 1989, 11% avg. Alfalfa, winter wheat winterkill mostly light to moderate.

WYOMING: Temperatures northern areas below normal, above normal elsewhere. Precipitation above normal most areas.

Days suitable for fieldwork 4.0. Topsoil 2% short, 64% adequate, 14% surplus. Spring wheat planted, 20%, 15% 1989, 20% avg.; emerged 5%. Oats planted 20%, 10% 1989, 15% avg.; emerged 5%. Barley planted 55%, 50% 1989, 45% avg.; emerged 30%, 10% 1989. Sugarbeets planted 15%, 15% 1989, 15% avg. Winter wheat mostly good. Wind, freeze damage light most areas. Army cutworms are a problem in eastern areas. Russian aphids are becoming more active in southeastern areas. Livestock mostly good. Spring calves born 75%, 75% 1989, 60% avg. Farm flock: Ewes lambed 65%, 80% 1989, 70% avg.; shorn 75%, 80% 1989, 60% avg. Range flock: Ewes lambed 30%, 35% 1989, 35% avg.; shorn 45%, 45% 1989, 35% avg. Calf, lamb losses light to normal. Ranges, pastures mostly fair to good.

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