

WEEKLY WEATHER AND CROP BULLETIN

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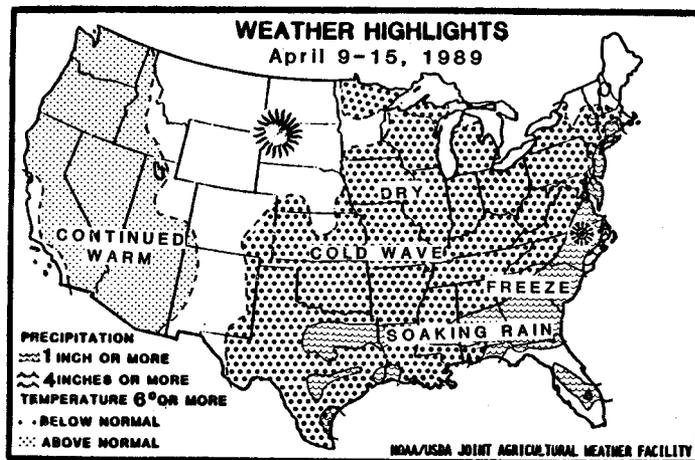
Washington, D.C.

Apr. 18, 1989

National Weather Summary

April 9-15, 1989

PALMER DROUGHT INDEX MAPS



HIGHLIGHTS: Unseasonably cold air spread over the eastern two-thirds of the Nation early in the week. Temperatures dropped below freezing across the Carolinas and northern Georgia, threatening blooming fruit trees and tender vegetables. Unusual late-season snow fell in North Carolina and southern Virginia. Showers and thunderstorms drenched the Gulf Coast States. A low pressure system moving up the Atlantic coast and an eastward moving cold front combined to bring soaking rain to the eastern seaboard at week's end. Dry conditions prevailed over the remainder of the Nation, and abnormally warm weather persisted in the West.

SUNDAY: An unseasonably cold air mass expanded into the Central and Eastern States as numerous stations reported record-low temperatures for the date. In contrast, abnormally warm weather remained in the West. Heavy snow fell across the Great Lakes and in the central High Plains, while widespread rain continued from the lower Mississippi Valley to the southern Atlantic coast. The spring thaw caused severe flooding in the northern Red River Basin.

MONDAY: A large high pressure system gave clear skies and low morning temperatures to a large part of the eastern two-thirds of the Nation. Showers and thunderstorms extended from northern Florida to the Carolinas, while snow showers were scattered in the Northeast. Warm and dry weather again prevailed in the West.

TUESDAY: Cold arctic air overspread the South Central States as freezing temperatures dipped into the lower Mississippi Valley. Dallas and Waco, TX, reported record-low April temperatures, 29° and 30°, respectively. The subfreezing temperatures

slowed runoff and eased flooding problems in the Red River. A low pressure system off the Carolina coast was responsible for unusual late-season snow over North Carolina and southern Virginia.

WEDNESDAY: The cold air moved eastward as morning temperatures dropped below freezing across the Carolinas and northern Georgia. Southeasterly winds from the Gulf provided moisture for rain showers across the southern Plains and snow in the southern Rockies. A frontal system caused a mixture of snow and rain in the Great Lakes and upper Ohio Valley. Fair skies prevailed over the rest of the Nation.

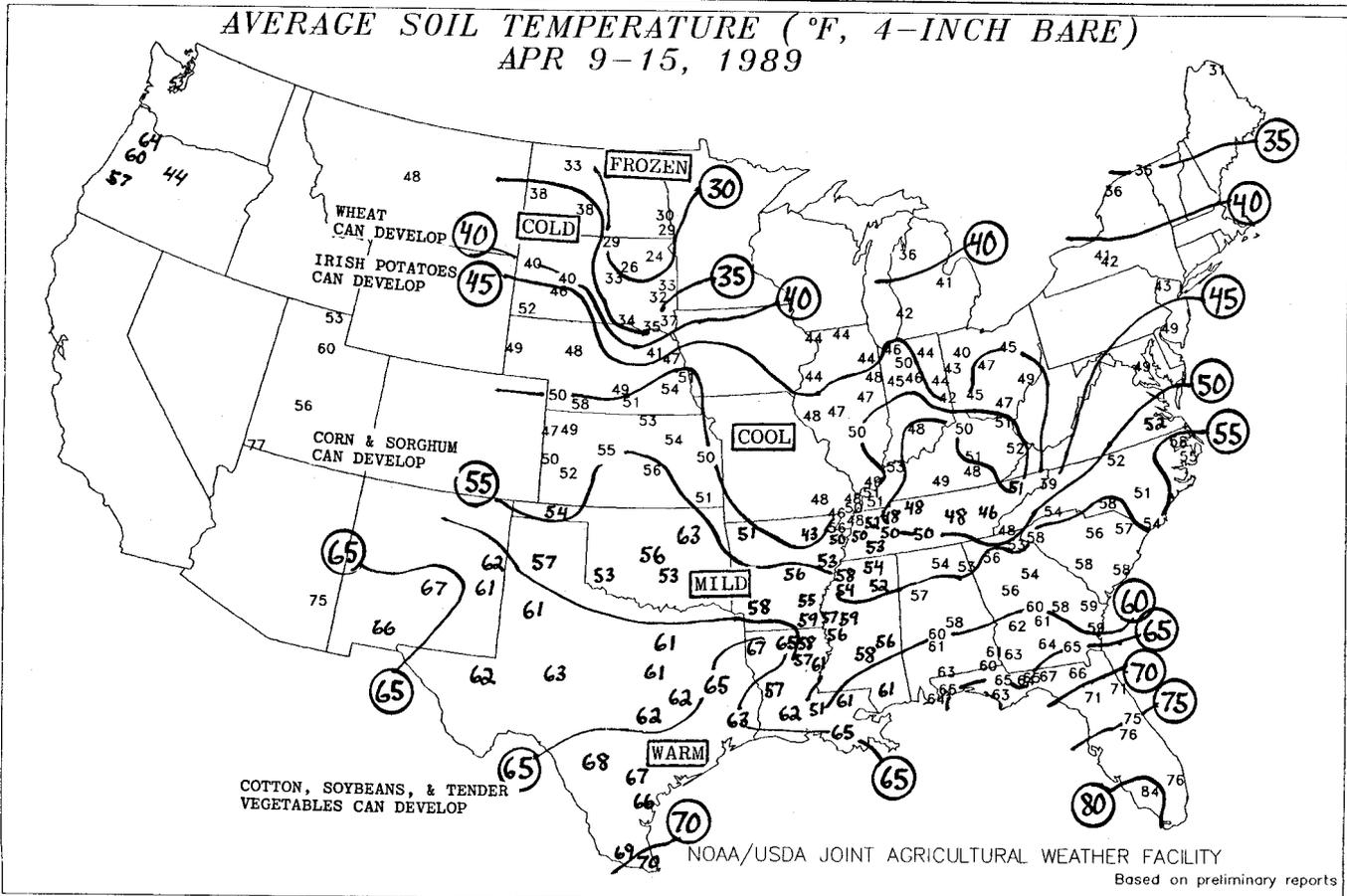
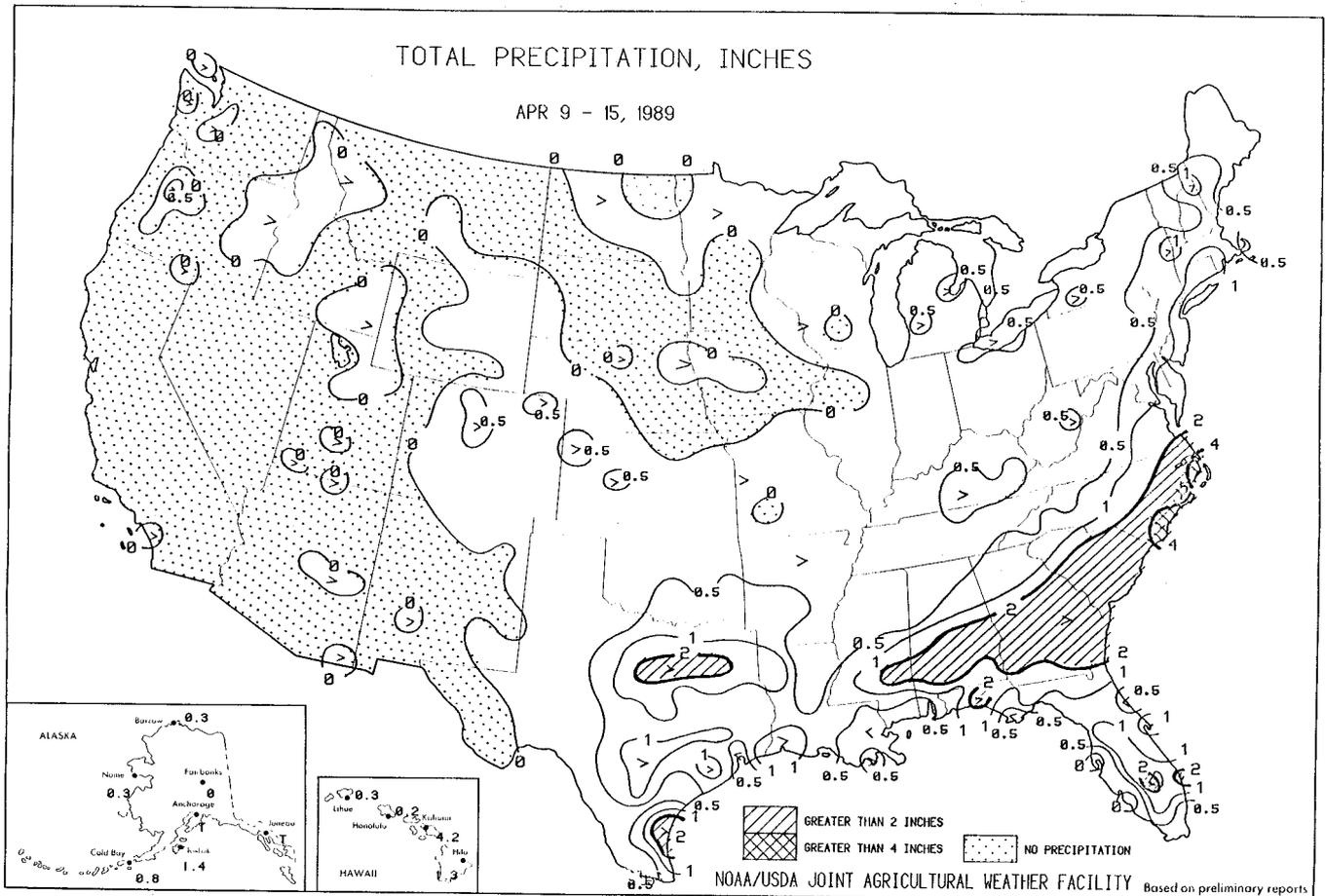
THURSDAY: An upper level disturbance and continued moist southeasterly flow from the Gulf caused widespread showers and thunderstorms across the southern Plains and western Delta. The frontal system spread rain into the Northeast as a second system swung across the northern Plains, causing a few scattered showers.

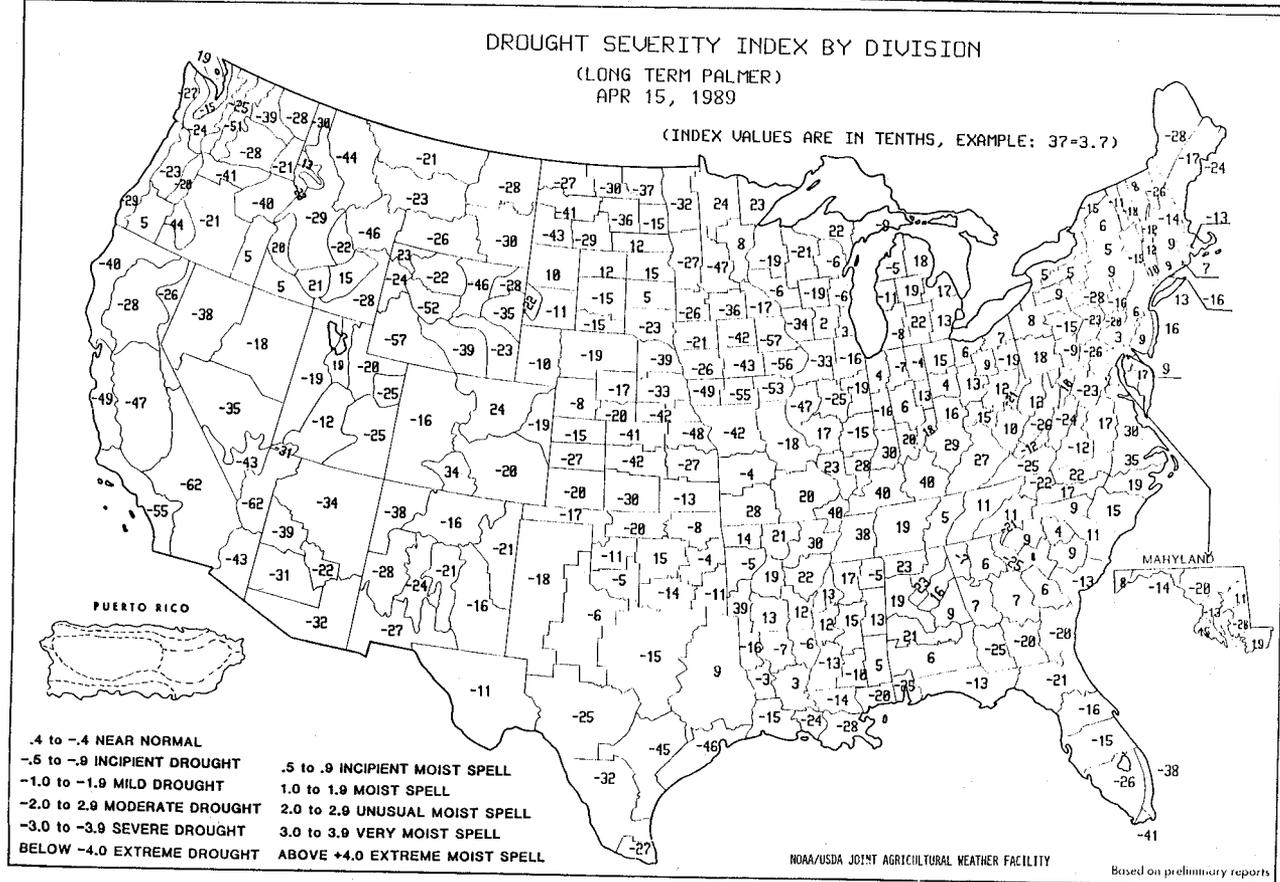
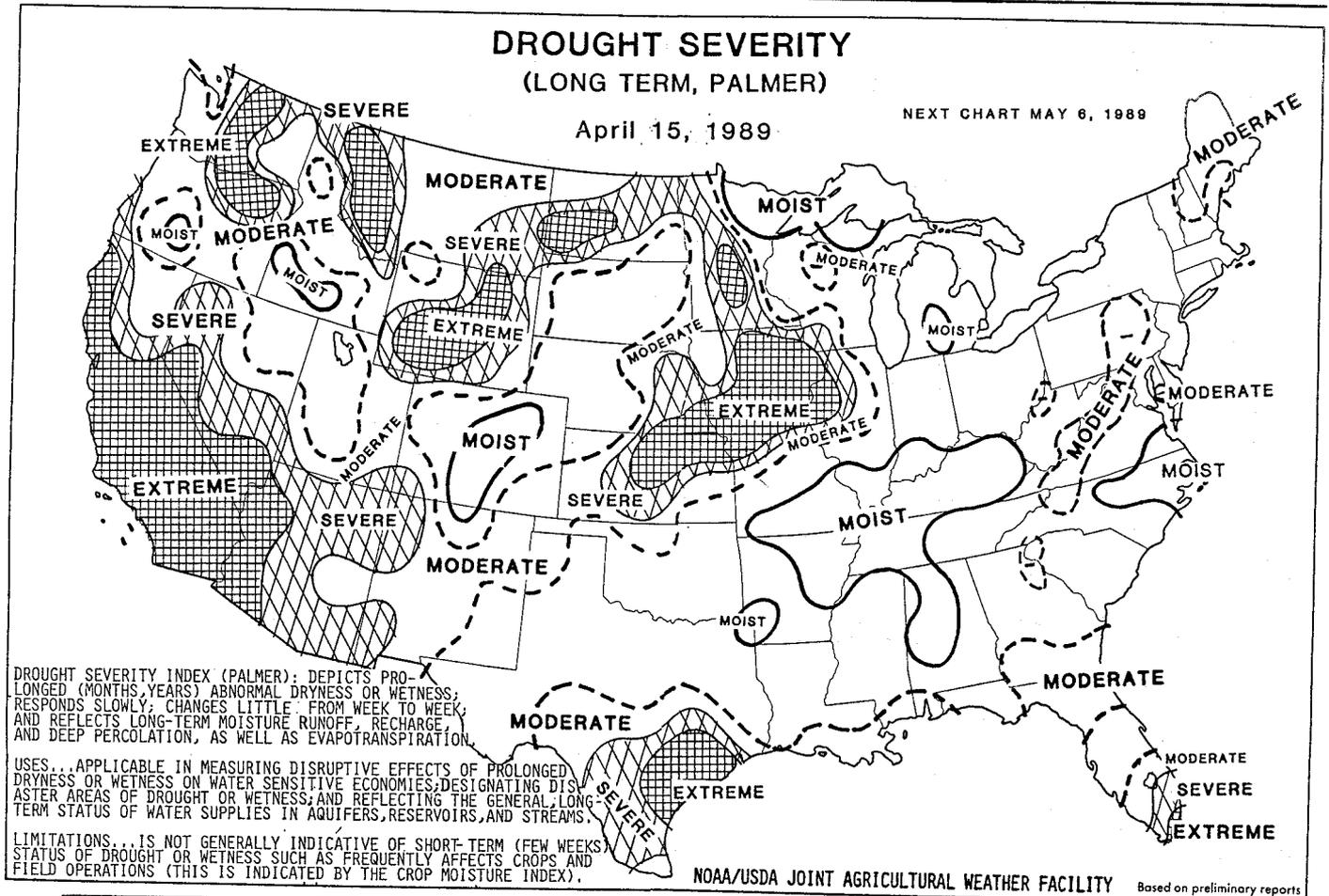
FRIDAY: Numerous rain showers and isolated thunderstorms spread across the lower Mississippi Valley and the Southeast. A cold front curved from the Great Lakes into the central Plains and caused widely scattered showers. Pleasant weather continued across the West.

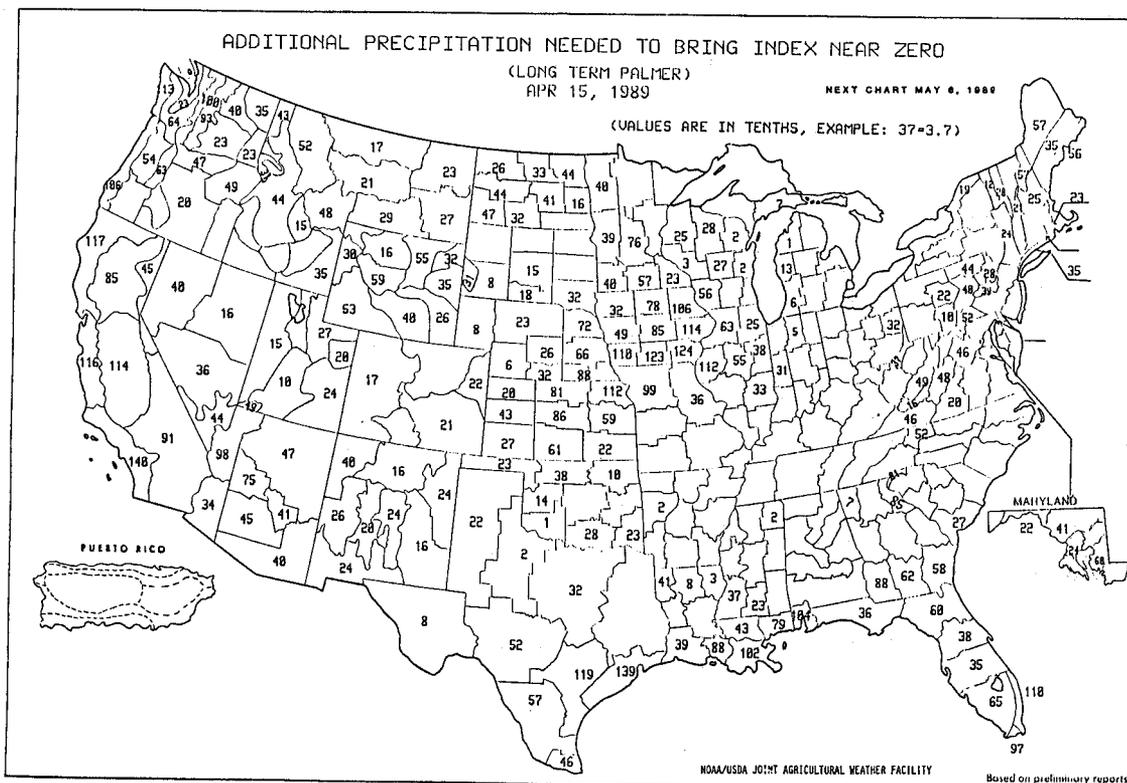
SATURDAY: The combination of a low pressure system over the Carolinas and a cold front tracking eastward brought drenching rain to the eastern third of the Nation. Thunderstorms caused locally heavy rain in the Southern Atlantic Coast States. Another cold front pushed southward into the northern Plains and triggered widely scattered rain.

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Late Spring Frost/Freeze in the Southeast

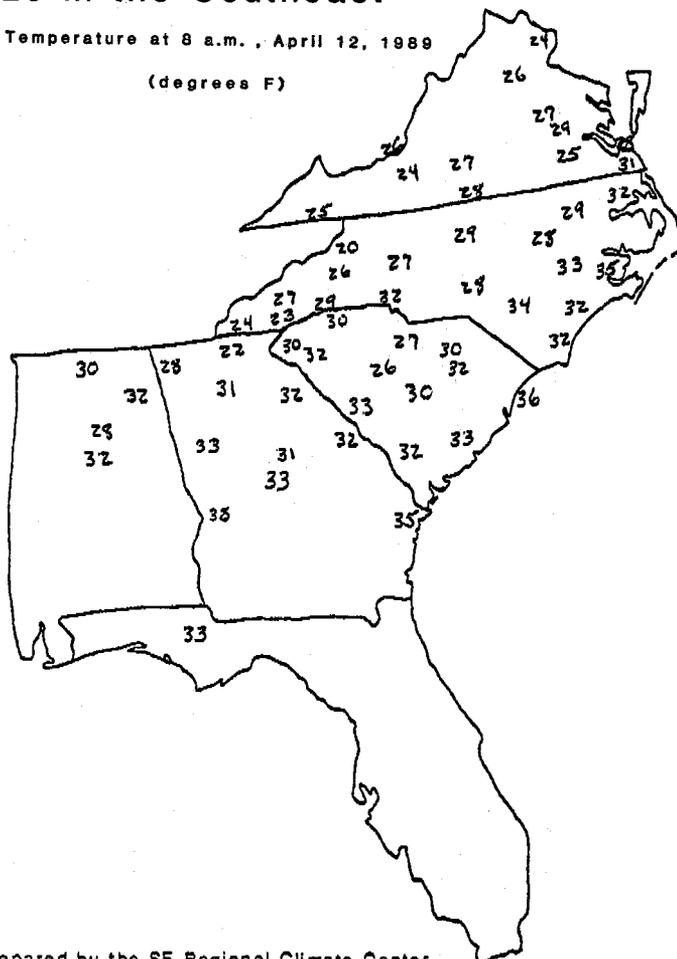
A high pressure ridge from the mid-Atlantic States to the lower Mississippi Valley provided clear skies and light winds on the morning of April 12. This set the stage for record-low and freezing temperatures across the area. The following is an excerpt from a report on the agricultural situation for this region from the Southeast Regional Climate Center:

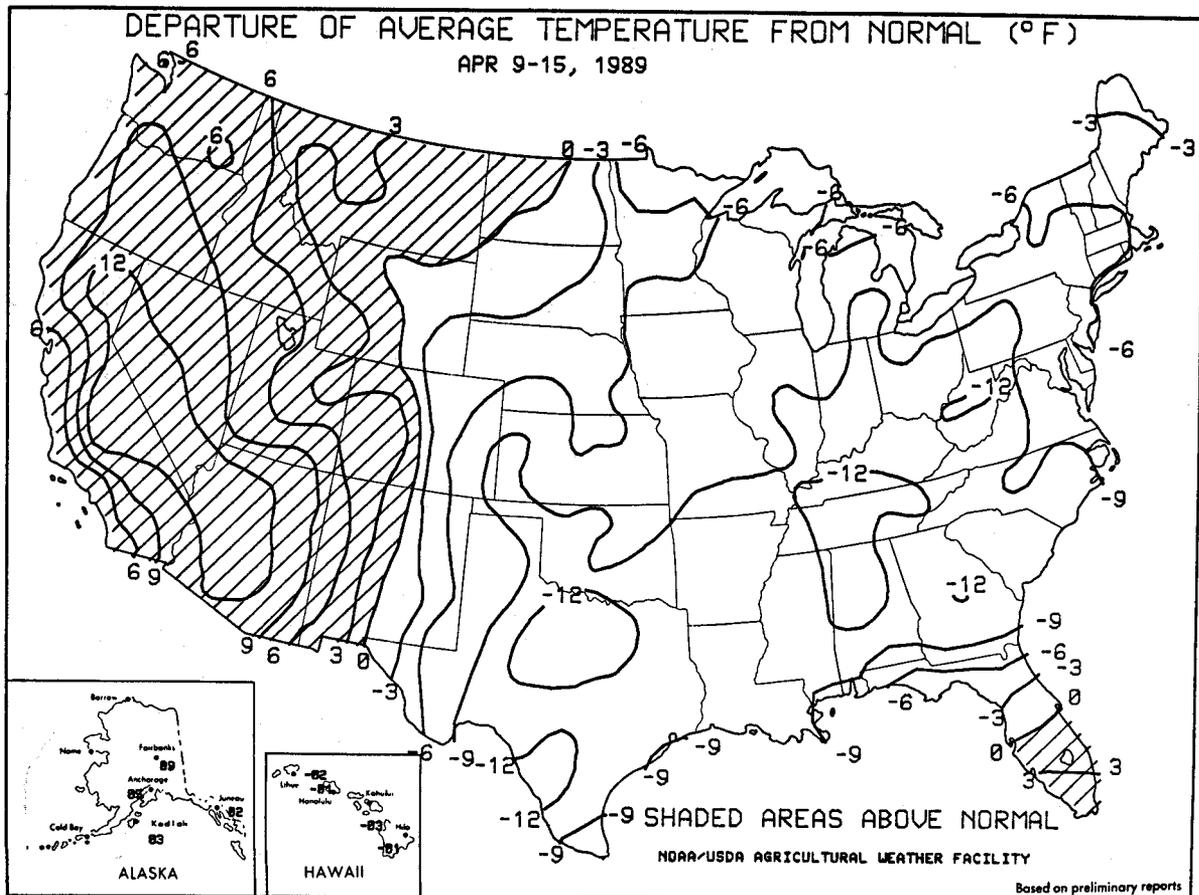
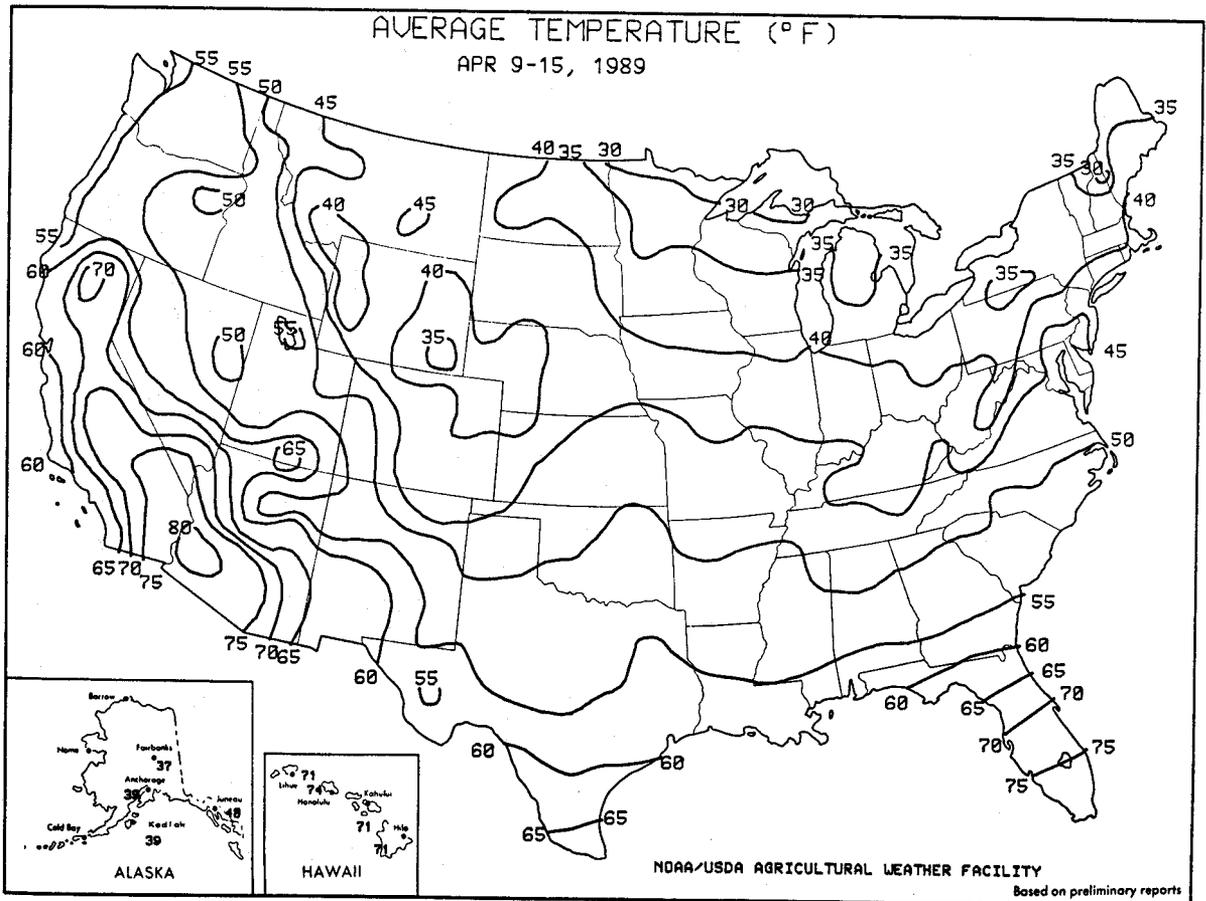
"The stage of the multi-million dollar peach crop in the region ranged from full bloom in Virginia and North Carolina to small fruit stage in Fort Valley, GA and south Alabama. Leaves were showing on most vine crops: kiwifruit, and grapes. Apples were in full bloom across western North Carolina and South Carolina. Transplants of watermelon, tomato, and tobacco were set out across the coastal plains extending from Virginia to south Alabama.... Spring sales of ornamentals, annuals and bedding plants were in full swing at retail chains. Small grains were most vulnerable to cold in the Piedmont areas of the southeast. Cool season pastures were beginning more vigorous growth as temperatures rose in late March. Corn planting was in full swing across Alabama, Georgia, and South Carolina.

"Peach growing areas of AL and GA received scattered frost on the morning of the 12th. The coldest temperatures in both states occurred in mountain areas: 22 degrees at Blairsville, GA and 28 degrees at Sand Mountain, AL. Minimal damage was noted on other crops in the northern half of Alabama and Georgia.

"Apple crop in western NC was damaged. Too early to tell the extent or severity. Critical temperature was 28 to 31 degrees as crop was in full bloom. Temperatures in the growing area ranged from 20 to 27 degrees. Inversion was strong and producers who used wind machines benefited. Otherwise, winter grains sustained minimal frost damage."

Temperature at 8 a.m., April 12, 1989
(degrees F)





National Weather Data for Selected Cities

Weather Data for the Week Ending April 15, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	62	36	71	29	49	-13	.5	-.7	.2	9.4	101	17.6	92	92	41	0	2	4	0
MOBILE	68	47	77	38	57	-10	.3	-1.0	.1	7.4	80	11.0	59	95	52	0	0	3	0
MONTGOMERY	64	42	74	34	53	-12	2.6	1.5	1.7	14.0	169	18.9	112	97	53	0	0	4	2
AK ANCHORAGE	48	30	50	24	39	5	T	-.1	T	.3	27	.7	27	79	41	0	5	0	0
BARROW	26	10	36	-3	18	22	.3	.2	.2	.6	250	.9	144	94	81	0	7	5	0
FAIRBANKS	50	24	54	15	37	9	0	-.1	0	.2	29	1.6	109	83	32	0	7	0	0
JUNEAU	47	33	51	25	40	2	.8	.1	.5	1.8	37	8.6	71	97	55	0	3	4	1
KODIAK	44	34	48	31	39	3	1.4	.6	1.1	4.8	85	8.8	53	94	67	0	1	4	1
NOME	33	24	34	15	28	12	.3	.2	.1	1.4	161	4.3	203	97	83	0	7	5	0
AZ PHOENIX	97	69	102	67	83	16	0	-.1	0	1.1	113	2.3	102	31	12	7	0	0	0
PRESCOTT	79	45	85	38	62	14	0	-.2	0	.6	29	2.2	43	42	8	0	0	0	0
TUCSON	92	58	97	55	75	11	0	-.1	0	.6	72	1.8	79	32	8	6	0	0	0
YUMA	96	65	102	63	80	11	0	0	0	.1	62	.7	89	48	16	7	0	0	0
AR FORT SMITH	61	39	74	25	50	-10	.4	-.6	.3	6.4	108	16.4	160	91	35	0	2	3	0
LITTLE ROCK	59	44	69	33	52	-10	.4	-.9	.4	9.0	124	20.8	139	66	31	0	0	1	0
CA BAKERSFIELD	91	58	97	55	74	13	0	-.2	0	.9	69	1.8	56	73	24	5	0	0	0
EUREKA	63	49	80	42	56	7	0	-.7	0	8.1	120	15.7	83	88	69	0	0	0	0
PHESNO	89	56	95	53	73	13	0	-.3	0	2.3	100	3.9	64	88	27	3	0	0	0
LOS ANGELES	67	59	72	58	63	4	T	-.2	T	.9	38	3.2	41	91	68	0	0	0	0
REDDING	85	56	94	48	71	11	0	-.7	0	11.3	170	14.6	68	74	27	1	0	0	0
SACRAMENTO	80	53	92	47	66	9	0	-.3	0	6.3	224	8.3	86	94	40	1	0	0	0
SAN DIEGO	67	60	70	60	64	3	0	-.2	0	.7	31	1.8	30	83	66	0	0	0	0
SAN FRANCISCO	70	52	90	48	61	7	0	-.4	0	4.0	114	6.6	58	92	58	1	0	0	0
CO DENVER	56	28	74	11	42	-4	.4	0	.4	1.1	55	2.9	92	89	32	0	5	1	0
GRAND JUNCTION	69	38	80	27	53	3	0	-.2	0	.7	65	3.0	135	42	12	0	1	0	0
PUEBLO	60	25	81	13	43	-7	T	-.2	T	.3	25	1.4	86	80	25	0	7	1	0
CT BRIDGEPORT	49	36	52	32	43	-5	1.0	.1	.9	4.2	72	8.1	67	77	51	0	2	3	1
HARTFORD	50	30	55	25	40	-8	1.0	.1	.9	5.6	90	8.3	65	88	40	0	7	3	1
DC WASHINGTON	57	40	63	36	48	-7	.6	-.1	.6	6.0	122	11.3	110	76	33	0	0	1	1
FL APALACHICOLA	73	54	81	43	63	-4	.2	-.6	.1	6.5	112	9.7	74	95	58	0	0	3	0
DAYTONA BEACH	75	60	86	57	68	-1	.3	-.3	.2	2.8	68	10.2	107	96	63	0	0	3	0
JACKSONVILLE	70	52	78	41	61	-7	1.5	.8	1.0	4.3	89	7.8	69	95	59	0	0	4	1
KEY WEST	84	74	85	71	79	2	T	-.3	T	1.1	58	1.8	33	85	65	0	0	1	0
MIAMI	86	70	90	63	78	3	.1	-.6	.1	1.1	35	2.5	35	87	50	1	0	1	0
ORLANDO	81	60	88	57	71	-1	1.0	.5	.6	2.3	53	6.3	65	98	52	0	0	2	1
TALLAHASSEE	72	49	80	34	60	-6	1.6	.7	1.1	6.1	79	9.4	54	95	51	0	0	5	1
TAMPA	80	61	85	54	70	0	T	-.4	T	1.8	42	3.8	39	94	55	0	0	0	0
WEST PALM BEACH	85	66	88	59	75	2	3.9	3.3	3.9	6.5	161	8.5	91	93	55	0	0	2	1
GA ATLANTA	63	43	73	34	53	-8	1.0	-.1	.6	8.3	101	15.2	86	82	38	0	0	3	1
AUGUSTA	64	40	75	32	52	-10	3.2	2.4	1.3	8.2	124	12.9	88	99	50	0	1	4	3
MACON	63	42	74	33	53	-12	2.9	2.1	1.0	10.4	148	16.8	107	99	50	0	0	4	3
SAVANNAH	65	45	74	35	55	-11	2.4	1.7	1.7	4.9	91	6.0	52	94	51	0	0	4	2
HI HILO	76	65	80	63	71	-2	1.3	-1.8	.9	19.6	96	53.5	124	94	70	0	0	4	1
HONOLULU	82	65	84	61	74	-1	.2	-.1	.2	3.5	81	12.1	112	86	51	0	0	1	0
KAHULUI	77	65	79	60	71	-3	4.2	3.9	4.0	16.2	470	23.1	223	93	65	0	0	4	1
LIHUE	77	66	78	61	71	-2	.3	-.4	.2	9.8	157	28.2	175	87	61	0	0	4	0
ID BOISE	69	39	78	30	54	-6	.1	-.2	.1	3.7	232	6.0	140	75	23	0	1	1	0
LEWISTON	71	45	80	39	58	9	T	-.2	T	1.7	111	3.5	92	58	27	0	0	1	0
POCATELLO	63	32	72	21	47	4	T	-.3	T	3.1	214	5.1	150	75	19	0	4	1	0
IL CHICAGO	51	29	62	18	40	-8	.1	-.9	0	2.0	42	3.6	48	78	34	0	5	3	0
MOLINE	54	29	65	22	41	-8	T	-.9	T	2.3	49	4.7	62	76	34	0	5	0	0
PEORIA	53	30	63	22	42	-8	T	-.9	T	3.1	65	5.2	68	80	31	0	4	0	0
QUINCY	55	31	68	24	43	-8	.1	-.8	.1	2.4	48	3.7	48	89	34	0	4	1	0
ROCKFORD	51	27	62	18	39	-7	T	-1.0	T	2.5	54	3.9	55	80	31	0	4	1	0
SPRINGFIELD	54	31	68	24	43	-10	.3	-.7	.3	3.9	77	6.0	73	83	31	0	4	1	0
IN EVANSVILLE	57	32	67	26	45	-11	.1	-.9	.1	9.8	147	20.1	159	88	33	0	4	1	0
FORT WAYNE	51	28	66	19	39	-9	.1	-.7	.1	2.9	61	5.9	68	82	38	0	6	3	0
INDIANAPOLIS	53	30	66	23	42	-9	.1	-.7	.1	6.1	112	9.2	88	80	36	0	6	3	0
SOUTH BEND	49	28	64	18	38	-9	T	-1.0	T	3.6	71	6.3	66	82	33	0	5	1	0
IA DES MOINES	56	28	68	20	42	-7	T	-.7	T	.7	20	3.1	54	77	26	0	6	1	0
SIoux CITY	57	26	74	20	41	-7	T	-.5	T	1.0	37	2.3	54	79	26	0	6	1	0
WATERLOO	52	26	65	21	39	-7	T	-.8	T	1.4	35	2.7	49	86	32	0	6	0	0
KS CONCORDIA	61	32	71	19	47	-5	0	-.5	0	.6	21	1.7	40	70	22	0	4	0	0
DODGE CITY	60	33	79	20	47	-7	.4	-.1	.4	1.3	57	1.8	57	88	38	0	3	1	0
GOODLAND	54	23	74	4	39	-9	.7	.5	.7	1.1	72	1.4	65	88	39	0	4	1	1
TOPEKA	62	33	73	25	47	-6	T	-.7	T	3.7	102	5.8	104	69	27	0	3	1	0
WICHITA	60	34	73	26	47	-8	.2	-.4	.1	2.5	80	3.7	80	84	32	0	2	2	0
KY BOWLING GREEN	54	32	64	24	43	-13	.2	-.8	.2	7.8	101	24.9	153	97	43	0	4	1	0
LEXINGTON	53	33	62	24	43	-11	.3	-.7	.2	8.0	116	22.1	161	77	38	0	4	2	0
LOUISVILLE	56	36	65	27	46	-10	.1	-.9	.1	9.1	134	21.8	163	76	30	0	2	2	0
LA ALEXANDRIA	63	46	70	33	55	-11	.3	-1.0	.2	6.8	88	21.0	125	83	49	0	0	3	0
BATON ROUGE	66	47	73	37	57	-11	.5	-.8	.2	6.5	89	12.1	71	90	49	0	0	3	0
LAKE CHARLES	65	50	75	39	58	-10	1.8	1.0	1.7	6.8	140	12.0	94	90	56	0	0	4	1
NEW ORLEANS	67	50	75	40	58	-10	.1	-.9	.1	7.7	111	10.3	60	94	51	0	0	3	0

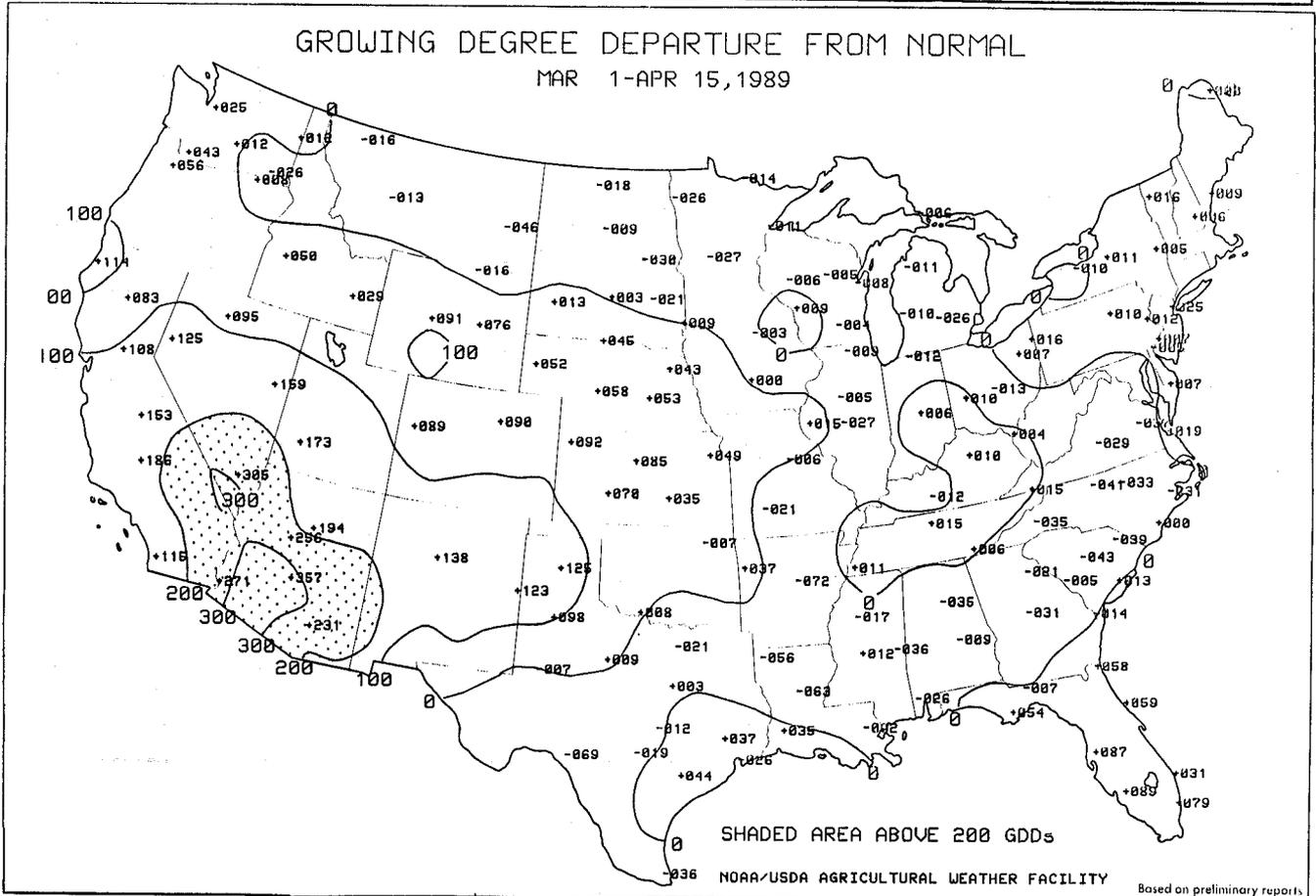
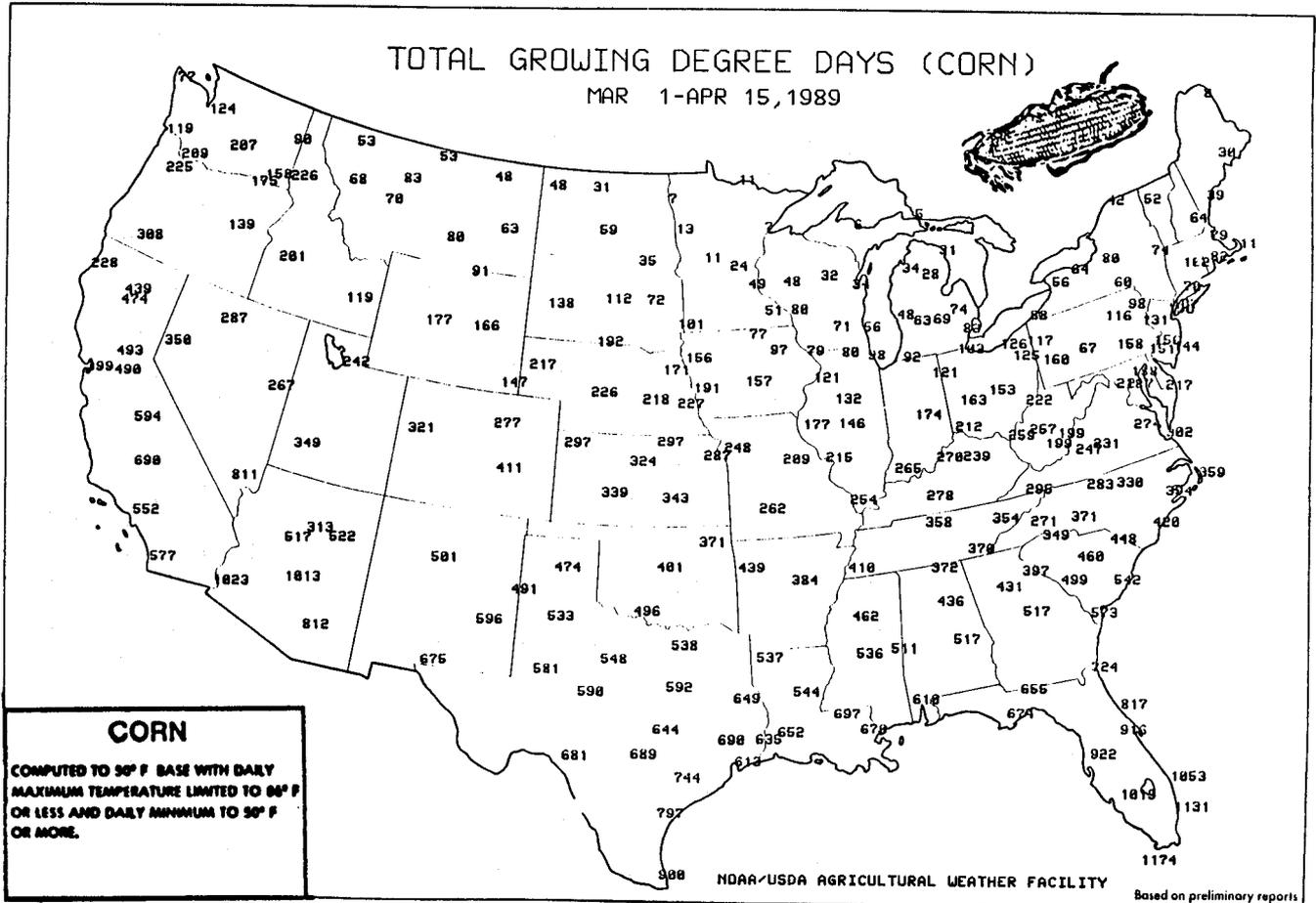
Based on 1951-80 normals

Weather Data for the Week Ending April 15, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
SHREVEPORT	64	45	73	31	54	-10	1.0	-.1	.7	4.5	74	15.7	116	84	42	0	1	2	1	
ME CARIBOU	45	24	51	19	35	-1	T	-.6	T	2.9	78	6.2	76	92	37	0	7	0	0	
PORTLAND	47	28	50	24	38	-4	.3	-.6	.2	4.1	69	7.6	57	89	46	0	3	3	0	
MD BALTIMORE	55	36	60	30	45	-8	.6	-.2	.6	5.9	110	12.3	109	84	35	0	7	3	1	
SALISBURY	56	36	60	27	46	-7	1.1	.3	1.1	10.1	177	14.7	118	93	37	0	3	1	1	
MA BOSTON	50	34	53	32	42	-5	.6	-.3	.5	5.0	83	8.1	59	76	39	0	2	3	1	
CHATHAM	46	36	48	33	41	-3	.4	-.6	.3	7.4	123	12.5	87	82	56	0	0	2	0	
MI ALPENA	44	23	52	14	33	-6	.5	-.1	.4	4.4	143	6.4	105	95	40	0	7	3	0	
DETROIT	48	28	63	20	38	-8	.3	-.5	.2	3.5	84	5.6	73	90	46	0	0	3	0	
FLINT	45	25	58	16	35	-10	.3	-.4	.5	3.3	93	5.2	78	88	45	0	6	6	0	
GRAND RAPIDS	44	26	58	15	35	-10	.9	-.4	.6	3.9	90	5.9	75	89	43	0	6	4	1	
HOUGHTON LAKE	42	23	54	10	32	-8	.3	-.4	.1	3.2	120	5.4	92	89	44	0	6	3	0	
LANSING	45	24	60	14	35	-10	.3	-.4	.1	3.2	82	5.0	73	91	44	0	7	3	0	
MARQUETTE	36	16	47	1	26	-10	.2	-.6	.2	3.8	84	7.3	86	95	50	0	7	3	0	
MUSKEGON	44	27	57	20	35	-9	.1	-.6	.1	2.3	56	5.0	61	92	39	0	6	3	0	
SAULT ST. MARIE	39	24	45	11	31	-5	.4	-.2	.3	3.9	125	8.0	114	93	45	0	6	4	0	
MN ALEXANDRIA	46	22	61	12	34	-6	T	-.5	T	1.7	76	2.6	69	93	44	0	7	0	0	
DULUTH	41	22	53	12	32	-5	.2	-.3	.2	2.7	98	4.9	102	81	39	0	7	2	0	
INT'L FALLS	40	18	52	7	29	-8	T	-.3	T	1.3	73	3.0	91	87	41	0	7	2	0	
MINNEAPOLIS	50	26	63	18	38	-6	T	-.4	T	2.6	100	4.2	98	75	27	0	6	1	0	
ROCHESTER	49	24	62	17	36	-7	T	-.6	T	2.4	82	3.2	72	83	34	0	6	1	0	
MS GREENWOOD	63	41	74	28	52	-11	T	-.3	T	6.5	71	20.2	107	84	38	0	1	1	0	
JACKSON	64	41	74	30	53	-11	.6	-.8	.3	6.2	74	13.1	74	96	42	0	2	2	0	
MERIDIAN	64	40	73	31	52	-12	1.5	-.2	1.1	11.9	124	18.9	99	95	46	0	2	3	1	
MO CAPE GIRARDEAU	58	37	67	26	47	-	.2	-.9	.2	6.9	95	20.8	158	90	36	0	2	1	0	
COLUMBIA	57	32	68	24	45	-9	.3	-.6	.3	4.7	90	7.6	86	81	36	0	3	1	0	
KANSAS CITY	60	32	71	22	46	-9	.1	-.7	.1	3.6	86	5.2	78	72	30	0	3	1	0	
SAINT LOUIS	59	38	70	30	48	-6	T	-.8	T	6.3	126	10.3	117	63	28	0	3	2	0	
SPRINGFIELD	58	33	67	23	46	-9	T	-.9	T	5.1	94	8.7	95	84	34	0	4	0	0	
MT BILLINGS	58	32	73	22	45	2	.1	-.3	.1	2.7	145	4.5	129	72	27	0	4	1	0	
GLASGOW	58	30	72	21	44	2	0	-.2	0	.9	153	2.1	174	81	24	0	4	0	0	
GREAT FALLS	59	31	69	17	45	3	T	-.3	T	1.6	107	3.8	117	71	24	0	4	0	0	
HAVRE	58	30	66	21	44	2	0	-.3	0	.5	46	1.3	61	75	26	0	5	0	0	
HELENA	61	29	69	18	45	4	0	-.2	0	1.4	123	3.6	162	80	21	0	5	0	0	
KALISPELL	62	30	69	23	46	4	0	-.2	0	1.9	147	4.6	116	84	23	0	5	0	0	
MILES CITY	58	30	77	20	44	1	T	-.3	T	1.5	127	2.8	119	67	23	0	4	0	0	
MISSOULA	61	26	70	19	44	1	T	-.2	T	2.3	185	3.5	103	84	23	0	6	1	0	
NE GRAND ISLAND	59	25	72	14	42	-7	T	-.6	T	.4	15	1.8	44	80	22	0	5	0	0	
LINCOLN	60	26	72	19	43	-7	T	-.6	T	.2	7	2.2	45	75	22	0	6	0	0	
NORFOLK	57	27	73	19	42	-5	T	-.5	T	1.3	51	3.0	81	78	24	0	5	1	0	
NORTH PLATTE	59	22	77	13	41	-6	T	-.4	T	.4	22	1.7	62	87	21	0	6	1	0	
OMAHA	57	31	70	19	44	-6	T	-.6	T	.5	14	2.0	41	71	33	0	4	0	0	
SCOTT'SBLUFF	57	22	79	10	40	-5	T	-.3	T	1.1	71	2.2	90	85	26	0	6	1	0	
VALENTINE	59	20	81	9	40	-4	T	-.4	T	.8	48	1.5	67	74	23	0	7	0	0	
NV ELY	69	28	77	23	49	9	0	-.2	0	.6	46	1.6	57	62	15	0	6	0	0	
LAS VEGAS	90	61	95	54	75	13	0	-.1	0	.1	10	.6	43	22	10	4	0	0	0	
RENO	79	39	83	34	59	13	0	-.1	0	.5	49	1.5	47	65	12	0	0	0	0	
WINNEMUCCA	75	35	82	27	55	11	0	-.2	0	1.0	95	1.9	73	61	16	0	3	0	0	
NH CONCORD	50	23	53	18	37	-6	.5	-.3	.4	4.9	109	7.7	79	93	31	0	7	2	0	
NJ ATLANTIC CITY	54	34	57	26	44	-6	1.1	-.3	1.0	7.2	126	13.0	104	94	42	0	3	3	1	
NM ALBUQUERQUE	73	39	82	28	56	2	T	-.1	T	.5	69	1.4	97	57	15	0	1	0	0	
CLOVIS	63	36	81	29	49	-7	.1	-.1	.1	.3	36	1.0	58	84	34	0	3	1	0	
ROSWELL	71	40	87	31	56	-3	T	-.1	T	.3	46	1.1	78	67	22	0	1	1	0	
NY ALBANY	49	27	53	22	38	-7	1.0	-.3	.5	4.9	112	7.0	78	93	38	0	6	4	1	
BINGHAMTON	43	27	51	20	35	-8	.3	-.4	.1	5.2	117	8.7	94	94	39	0	6	4	0	
BUFFALO	44	28	56	22	36	-8	.5	-.3	.2	4.6	102	8.9	90	95	42	0	6	5	0	
NEW YORK	52	40	56	35	46	-5	1.2	-.3	1.1	6.6	110	11.9	98	81	36	0	0	3	1	
ROCHESTER	46	27	57	22	37	-8	.4	-.2	.2	4.8	125	7.5	89	93	45	0	6	4	0	
SYRACUSE	49	29	59	23	39	-5	.4	-.4	.1	4.4	93	7.2	72	96	41	0	6	5	0	
NC ASHEVILLE	56	33	68	27	44	-11	.3	-.5	.3	4.9	74	11.1	86	87	37	0	4	2	0	
CHARLOTTE	61	41	73	32	51	-8	.8	-.1	.8	7.1	108	13.4	95	86	35	0	1	2	1	
GREENSBORO	58	38	70	29	48	-9	.7	0	.7	8.5	155	13.9	113	82	36	0	2	1	1	
HATTERAS	58	45	67	36	52	-7	4.4	3.7	2.0	19.3	347	25.7	178	96	54	0	0	4	3	
NEW BERN	62	42	74	34	52	-9	3.2	2.5	1.6	9.1	180	15.7	120	95	48	0	0	4	3	
RALEIGH	61	37	73	28	49	-9	1.1	-.4	.9	8.5	166	16.3	135	93	33	0	2	3	1	
WILMINGTON	63	41	72	32	52	-10	5.4	4.8	2.9	13.4	242	17.6	140	97	48	0	1	4	3	
ND BISMARCK	55	26	79	19	40	-1	.1	-.3	0	.9	68	1.7	76	87	28	0	7	2	0	
FARGO	47	25	64	17	36	-4	T	-.4	T	2.2	134	4.3	166	89	43	0	6	2	0	
GRAND FORKS	43	24	60	14	34	-5	T	-.3	T	1.3	98	3.1	118	90	48	0	5	0	0	
WILLISTON	55	29	76	21	42	2	T	-.3	T	1.3	114	2.6	128	82	28	0	4	0	0	
OH AKRON-CANTON	47	28	60	19	38	-10	.3	-.4	.2	5.4	108	9.7	100	90	38	0	6	3	0	
CINCINNATI	53	32	63	23	43	-10	.1	-.8	.1	8.2	144	16.1	140	80	31	0	4	1	0	
CLEVELAND	48	30	63	23	39	-8	.6	-.2	.3	5.5	119	9.3	100	93	42	0	5	3	0	
COLUMBUS	50	28	63	24	39	-11	.1	-.6	.1	5.6	114	10.6	109	87	35	0	6	2	0	

Weather Data for the Week Ending April 15, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	51	30	65	22	41	-10	.2							82	38	0	6	2	0	
TOLEDO	50	27	68	18	39	-8	.5							86	37	0	5	4	0	
YOUNGSTOWN	47	27	60	20	37	-9	.2							92	36	0	6	3	0	
OK OKLAHOMA CITY	60	41	74	32	51	-9	.2							111	84	0	1	4	0	
TULSA	61	43	72	34	52	-8	.1							104	74	0	0	3	0	
OR ASTORIA	65	43	75	39	54	7	T							94	46	0	0	0	0	
BURNS	67	36	74	30	51	9	T							87	23	0	3	1	0	
MEDFORD	80	46	86	41	63	14	0							87	26	0	0	0	0	
PENDLETON	67	43	77	36	55	6	.1							70	34	0	0	1	0	
PORTLAND	73	48	80	43	60	11	T							84	30	0	0	0	0	
SALEM	74	44	78	39	59	11	T							89	34	0	0	0	0	
PA ALLENTOWN	52	31	57	26	42	-7	.5							85	30	0	4	2	0	
ERIE	47	30	60	24	38	-6	.4							89	42	0	6	6	0	
HARRISBURG	53	34	60	27	44	-8	.4							79	30	0	3	2	0	
PHILADELPHIA	56	37	61	33	47	-5	.7							82	36	0	0	2	1	
PITTSBURGH	50	29	63	22	39	-10	.1							85	31	0	5	3	0	
SCRANTON	48	30	55	22	39	-8	.5							88	33	0	5	3	0	
RI PROVIDENCE	49	32	51	29	40	-6	.3							88	43	0	5	3	0	
SC CHARLESTON	64	44	74	37	54	-9	3.3							95	56	0	0	4	3	
COLUMBIA	63	40	75	30	51	-11	2.2							98	46	0	1	3	2	
FLORENCE	63	40	75	32	52	-11	1.3							98	43	0	1	4	2	
GREENVILLE	61	38	72	30	50	-10	.6							95	41	0	1	2	1	
SD ABERDEEN	52	27	72	19	40	-3	T							84	37	0	6	0	0	
HURON	54	26	73	19	40	-4	T							87	32	0	5	0	0	
RAPID CITY	58	27	80	16	42	-1	.1							76	28	0	4	1	0	
STIOUX FALLS	54	24	72	16	39	-6	T							83	29	0	6	0	0	
TN CHATTANOOGA	61	36	72	29	49	-11	.3							87	33	0	2	2	0	
KNOXVILLE	59	34	69	26	46	-12	.2							81	17	0	3	1	0	
MEMPHIS	60	41	73	30	51	-11	.3							81	32	0	1	1	0	
NASHVILLE	58	35	69	26	47	-12	.1							83	35	0	2	1	0	
TX ABILENE	60	42	78	33	51	-13	.6							81	42	0	0	2	1	
AMARILLO	59	35	83	26	47	-8	.5							84	33	0	3	3	0	
AUSTIN	62	49	76	41	56	-12	.8							108	49	0	0	3	1	
BEAUMONT	65	50	74	40	58	-11	1.6							89	55	0	0	5	1	
BROWNSVILLE	77	60	95	50	69	-6	.5							70	99	1	0	5	0	
CORPUS CHRISTI	69	56	79	50	62	-10	2.6							96	66	0	0	4	3	
DEL RIO	68	52	82	49	60	-11	.2							108	72	0	0	3	0	
EL PASO	79	45	91	33	62	-1	0							119	57	1	0	0	0	
FORT WORTH	61	42	74	29	52	-13	1.7							149	82	1	1	3	1	
GALVESTON	65	53	71	47	59	-9	.4							106	91	0	0	3	0	
HOUSTON	66	49	76	38	58	-11	.5							92	94	0	0	4	0	
LUBBOCK	63	39	86	31	51	-8	T							102	80	0	1	1	0	
MIDLAND	65	41	86	32	53	-10	.1							110	78	0	1	2	0	
SAN ANGELO	64	42	83	33	53	-13	.2							197	84	0	0	2	0	
SAN ANTONIO	64	50	76	45	57	-12	1.1							96	80	0	0	3	1	
VICTORIA	88	51	78	48	60	-11	.4							101	93	0	0	4	0	
WACO	63	45	76	30	54	-12	.9							110	82	0	1	2	1	
WICHITA FALLS	63	40	77	28	51	-11	.3							128	87	0	1	2	0	
UT CEDAR CITY	71	36	78	29	53	7	0							67	60	0	3	0	0	
SALT LAKE CITY	67	42	76	34	55	7	T							62	23	0	0	0	0	
VT BURLINGTON	48	28	56	21	38	-3	.2							86	34	0	4	3	0	
VA NORFOLK	58	40	63	31	49	-8	1.2							171	90	0	2	3	1	
RICHMOND	59	38	68	29	49	-8	1.5							131	89	0	1	1	1	
ROANOKE	56	34	66	24	45	-10	.2							68	82	0	4	2	0	
WA QUILLAYUTE	63	42	74	36	53	8	T							90	40	0	0	0	0	
SEATTLE-TACOMA	68	45	72	42	57	8	T							92	32	0	0	0	0	
SPOKANE	65	38	72	29	51	7	T							89	73	0	1	0	0	
YAKIMA	72	38	78	31	55	7	T							76	22	0	1	0	0	
WV BECKLEY	50	31	61	20	40	-10	.2							83	70	0	3	2	0	
CHARLESTON	54	32	66	22	43	-12	.4							126	16.3	132	83	35	0	
HUNTINGTON	54	32	66	21	43	-12	.3							128	19.7	166	80	32	0	
PARKERSBURG	53	31	65	21	42	-11	.1							121	14.5	136	80	30	0	
WI GREEN BAY	46	25	57	17	36	-7	T							100	3.9	73	82	35	0	
LACROSSE	50	27	61	19	39	-7	T							84	3.6	70	76	28	0	
MADISON	50	24	63	19	37	-7	T							50	2.9	52	81	27	0	
MILWAUKEE	47	28	63	19	38	-6	T							77	4.8	67	78	33	0	
WAUSAU	43	24	55	12	34	-8	T							68	3.4	68	90	38	0	
WY CASPER	56	23	72	11	39	-2	.1							40	2.2	83	77	20	0	
CHEYENNE	48	21	68	5	35	-6	.1							60	2.4	108	87	35	0	
LANDER	55	29	69	13	42	1	.2							27	1.4	42	59	24	0	
SHERIDAN	57	27	75	14	42	0	T							1.9	98	2.8	79	76	26	0
PR SAN JUAN	85	73	85	69	78	0	0							105	8.3	94	87	0	0	



National Agricultural Summary

April 10-16, 1989

HIGHLIGHTS: Precipitation continued to slow fieldwork in the Southeast and most of the Delta. Soil moisture was mostly adequate to surplus in the Delta, Southeast, and eastern Corn Belt and adequate to short in the western Corn Belt. Soil moisture was mostly short to adequate in the central and northern Great Plains and adequate to short in the southern Great Plains. In the Pacific Northwest, soil moisture was mostly adequate. Days suitable for fieldwork averaged 3-4 in the Delta, Southeast, and Corn Belt and 5-6 in the Great Plains and the West.

Winter wheat was mostly fair. Spring wheat planting was 3 percent (%) complete, 9 percentage points behind the 5-year average. Planting was more than 10 points behind normal in 4 of the 5 major producing States. Cotton planting was 16% finished, 1 point behind normal. Rain and wet soil conditions continued to slow corn planting in the Delta and Southeast. Sorghum planting was 13% complete, 2 points behind normal. In Texas, freezing temperatures damaged some early planted fields. Rain benefited Florida citrus and vegetables in most producing areas. Freezing temperatures damaged fruit and vegetables in portions of the Delta and Southeast. Above-normal temperatures lowered the quality of some vegetables harvested in California.

SMALL GRAINS: Winter wheat was mostly fair. In Kansas, winter wheat was mostly very poor to poor. Winterkill and lack of moisture continued to adversely affect the overall condition of the crop. In Oklahoma, winter wheat was mostly fair to good. Signs of nitrogen deficiency were evident. Winter wheat was mostly fair to poor in Texas. Lack of moisture continued to stress fields in the High Plains. Rain improved crop condition in the Cross Timbers and Blacklands areas. Winter wheat was mostly fair in Colorado and Nebraska. In Nebraska, winterkill was evident. In South Dakota and Montana, winter wheat was mostly fair to good. Winter wheat was mostly good to fair in Idaho and Oregon and fair to poor in Washington. Reseeding was active. In California, winter wheat was mostly good to excellent. Winter wheat was mostly good in the Corn Belt. In the Delta and Southeast, winter wheat was mostly good to fair. Disease and insect infestations were continuing problems in some areas.

Spring wheat planting was 3% complete, 9 points behind normal. Planting was more than 10 points behind normal in 4 of the 5 major producing States. Planting was 1% complete, 6 points behind normal in North Dakota. Spring small grain planting continued in the Pacific Northwest. Wet field conditions slowed seeding in most of the Corn Belt.

OTHER FIELD CROPS: Cotton planting was 16% complete, 1 point behind normal. In California, planting progressed rapidly and was 60% complete, 9 points behind normal. Germination in earlier seeded fields was good. Arizona's cotton planting was 80% complete, 5 points ahead of normal. Cool, wet weather slowed cotton planting in Texas.

Planting was 12% finished, 1 point ahead of normal. Planting began in Georgia, Louisiana, and Mississippi.

Rain and wet soil conditions continued to slow corn planting in the Delta and Southeast. In North Carolina, planting was only 5% complete, 37 points behind normal. Georgia's planting was 71% complete, 13 points behind normal. In Texas, planting was 67% complete, 2 points behind normal.

Sorghum planting was 13% complete, 2 points behind normal. Rain slowed planting progress in the Delta. In Texas, freezing temperatures damaged some early planted fields. Rice planting was 20% finished, 4 points behind normal. Planting was 8% complete, 13 points behind normal in Mississippi. In California, planting had not begun, but land preparation was active. Planting began in Arkansas. Tobacco was mostly good to fair in Kentucky and North Carolina. Cool temperatures slowed tobacco growth in Georgia. Peanut planting continued in Alabama and Georgia.

FRUIT AND NUTS: Rain benefited Florida citrus in most producing areas, but some irrigation continued. Blooming was complete and trees had abundant new growth. Valencia orange harvest increased and grapefruit movement remained active. Honey tangerine and temple orange harvests were nearly complete. Freezing temperatures damaged peaches in portions of the Delta and Southeast. Some early variety apples were also damaged. Freezing temperatures damaged peaches in northeast Texas, but orchards in the Hill Country were not affected. Valencia orange and grapefruit harvests progressed well in central and western Arizona. Freestone peach harvest was expected to begin soon in the Coachella Valley of California. Valencia orange harvest gained momentum, but high temperatures caused some fruit drop in the southern areas. Grapefruit, lemon, and navel orange harvests were active. Almond set appeared to be light in some areas.

VEGETABLES: Scattered showers benefited Florida vegetables in some areas, but irrigation remained active. Winter crop harvests continued. Potato digging began in the Hastings area. Early in the week, freezing temperatures forced some replanting of melons in Arkansas, Georgia, and South Carolina. Vegetables in Mississippi and Louisiana were also damaged. In North Carolina, Irish potato planting continued to lag behind normal. Cool temperatures slowed vegetable growth in the Rio Grande Valley of Texas. Freezing temperatures damaged vegetables in east Texas. Lettuce, cabbage, and asparagus harvests were complete in western Arizona. Mixed vegetable harvest continued in the central area. In California, lettuce harvest continued in the Kingsburg-Dinuba area. High temperatures reduced the quality of the crop. Lettuce harvest was complete in the Palo Verde Valley. Broccoli and cauliflower harvests continued in the Salinas-Watsonville area.

PASTURES AND LIVESTOCK: Livestock was in mostly good condition. Pastures were mostly good to fair.

Crop Progress

FOR WEEK ENDING APRIL 16, 1989

	CORN % PLANTED		
	1989	1988	AVG.
COLO	1	1	3
GA	83	86	84
ILL	0	3	2
IND	0	3	2
IOWA	0	2	0
KANS	5	10	4
KY	2	15	13
MICH	0	0	0
MINN	0	0	0
MO	3	14	11
NEBR	0	3	1
N C	5	47	42
OHIO	0	0	0
PA	0	4	2
S DAK	0	0	NA
TEX	67	68	69
WIS	0	0	0

17 STATES 3 6 NA

EXCL. STATES WITH NA 3 6 5

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

NA - NOT AVAILABLE.

	COTTON % PLANTED		
	1989	1988	AVG.
ALA	4	22	14
ARIZ	80	65	75
ARK	0	0	1
CALIF	60	70	69
GA	1	5	7
LA	1	4	6
MISS	1	0	3
MO	0	0	0
N MEX	40	18	10
N C	0	0	0
OKLA	0	1	0
S C	0	5	10
TENN	0	2	3
TEX	12	13	11

14 STATES 16 17 17

THESE 14 STATES PRODUCED 100% OF THE 1988 COTTON CROP.

	RICE % PLANTED		
	1989	1988	AVG.
ARK	5	6	10
CALIF	0	2	1
LA	41	32	44
MISS	8	14	21
TEX	65	82	69

5 STATES 20 22 24

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

	GRAIN SORGHUM % PLANTED		
	1989	1988	AVG.
ARK	7	12	16
ILL	0	NA	NA
KANS	0	0	0
LA	12	9	23
MISS	3	10	11
MO	0	0	0
NEBR	0	0	0
OKLA	1	1	1
S DAK	0	0	NA
TENN	0	1	2
TEX	50	53	54

11 STATES 12 NA NA

EXCL. STATES WITH NA 13 14 15

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

NA - NOT AVAILABLE.

	WINTER WHEAT % HEADED		
	1989	1988	AVG.
ARK	6	4	NA
CALIF	65	65	66
COLO	0	NA	NA
GA	79	34	50
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 MEX	0	0	NA
N C	8	0	NA
OHIO	0	0	0
OKLA	1	2	10
OREG	0	0	0
S DAK	0	0	NA
TEX	6	10	21
WASH	0	0	0

20 STATES 3 NA NA

EXCL. STATES WITH NA 3 3 7

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

NA - NOT AVAILABLE.

	SPRING WHEAT % PLANTED		
	1989	1988	AVG.
IDAHO	24	49	38
MINN	1	28	13
MONT	2	34	15
N DAK	1	19	7
S DAK	11	59	22

5 STATES 3 30 12

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

Crop Condition

FOR WEEK ENDING APRIL 16, 1989

STATE	PERCENT				
	WINTER WHEAT				
	VP	P	F	G	EX
ARK	0	0	47	53	0
CALIF	0	0	5	75	20
COLO	10	17	44	26	3
GA	5	22	52	21	0
IDAHO	5	7	28	51	9
ILL	0	0	10	81	9
IND	0	6	46	42	6
KANS	40	36	18	5	1
MO	0	10	38	49	3
MONT	6	19	36	37	2
NEB	1	26	43	30	0
N MEX	20	60	15	5	0
N C	0	3	25	69	3
OKLA	10	5	35	50	0
OREG	0	0	22	74	4
S DAK	4	14	38	36	8
TEX	11	27	49	12	1
WASH	6	42	43	9	0

18 STATE 15 21 33 29 2

PREV YEAR 1 7 33 49 10

THESE 18 STATES PRODUCED 86% OF THE 1988 WINTER WHEAT CROP.

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 under 0.20 in. western half, under 0.50 in. eastern half; 1.00 to 1.50 in. local areas. Temperatures 8 to 13° below normal.

Days suitable for fieldwork 2.4. Soil moisture 44% adequate, 56% surplus. Fieldwork progress 83% behind schedule, 15% on schedule, 2% ahead of schedule. Spring planting 53% prepared, 77% 1988, 73% avg. Corn 59% planted, 74% 1988, 64% avg. Sorghum 7% planted, 17% 1988, 10% avg. Cotton 4% planted, 22% 1988, 14% avg. Peanuts 6% planted, 13% 1988, 6% avg. Winter wheat 48% headed, 39% 1988, 41% avg.; 8% turning color, 9% 1988, 2% avg.; 2% very poor, 4% poor, 45% fair, 47% good, 2% excellent. Livestock, pastures mostly good to fair. Primary activities: Preparing land for spring planting; planting row crops, vegetables, irish potatoes; building fish ponds, marketing catfish; spraying fruit trees; applying fertilizer, herbicides, fungicides to winter wheat; fertilizing pastures; general care of livestock, poultry.

ARIZONA: Warm, sunny 9th, 11th. Record breaking temperatures statewide on 9th. Sunny, dry continued, 12th. Dry very warm 13th to 15th. Little rain statewide. Temperatures 5 to 16° above normal.

Cotton planting active 80% planted, 65% 1988, 75% avg. Wheat, barley good to excellent. Statewide 100% jointing, 88% heading, 20% turning color. Early fields harvested, west. Irrigation as needed. Corn, sorghum good growth, west. Alfalfa good to excellent. First, second cuttings active statewide. Harvest shipped head lettuce, cabbage, asparagus, boston leaf, romaine lettuce, west. Artichoke harvested progressed. Spring vegetable season almost complete. Mixed vegetables broccoli, cauliflower, greens, leaf lettuce, cabbage, bok choy, rapini, green onions, parsley, beets, turnips, spinach, leeks, carrots harvested, central. Spring lettuce harvested. Red potato harvest began, central. Valencia orange, grapefruit harvest, west, central.

ARKANSAS: Temperatures below normal freeze early week. Temperature extremes 18°; 86°. Light showers statewide late week. Rainfall 0.02 to 0.73 in.

Days suitable for fieldwork 5.0. Soil moisture 5% short, 76% adequate, 19% surplus. Main farming activities: Preparing land for planting; planting corn, sorghum, rice; fertilizing wheat, pastures, hay; applying fungicides to wheat; vaccinating and worming cattle. Oats 6% headed; 14% 1988; 54% fair, 42% good, 4% excellent. Corn 36% planted; 60% 1988, 51% avg.; 7% poor, 73% fair, 20% good. Septoria, bacterial streak, mildew in wheat. Weevils in alfalfa hay. Nearly all fruits, vegetables damaged by freeze worst losses estimated 90%. Peach damage most severe. Re-planting tomatoes watermelons. Livestock mostly good.

CALIFORNIA: Strong high pressure over west, above normal temperatures. High pressure weakened mid-week, temperatures returned near, below normal. Very little rain.

Seeding small grains late, high elevation areas. Most earlier seeded fields heading. Some early dryland neared maturity. Oat, barley greenchop continued. Some wheat aphid controls. Rice seeding preparations very active. Some stubble burning; first fields seeded. Cotton seeding progress rapid. Germination good. Overwintered sugarbeet harvest active. Desert sudan grass

showed good germination. Chopping, discing orchards active. Apples treated for codling moth. Date pollination complete. Grapes growing vigorously. Mildew, pest controls active. Early variety stonefruit maturing fast, warm temperatures. Freestone peach harvest in Coachella Valley starting soon. Grapefruit, lemon, navel, valencia orange picking active. Almond set light some areas. Later variety walnuts leafing out. Iceberg lettuce harvest; Kingsburg-Dinuba area reduced quality; Salinas-Watsonville variable quality; Palo Verde Valley ended. Asparagus harvest continued Delta region, ground preparation summer crop ongoing. Broccoli heavy supply Salinas-Watsonville, generally good quality. Cauliflower heavy supply, quality variable. Processing tomato fields; Sacramento Valley irrigated, good growth; Merced-Atwater, Kingsburg-Dinuba good start; desert area progressing well. Strawberries; Santa Maria good supply variable quality; Salinas light generally good quality; Orange County showed heat damage with sunburn rot. Other vegetables harvested included squash, radishes, turnips, green onions, diakon, cabbage, mustard greens. Livestock good. Range, pasture fair to excellent. Some valley, foothill areas drying off due to warm, northerly winds. Grass growth northern counties allowed reduction supplemental feeding. Feed, water adequate.

COLORADO: Scattered showers produced very little precipitation crop areas. Areas of heavy snow south kept temperatures cool in east. Temperatures 5 to 8° below normal east, 3 to 6° below normal west, near normal San Luis Valley.

Days suitable for fieldwork 4.4. Soil moisture 18% very short, 45% short, 35% adequate, 2% surplus. Winter wheat 10% very poor, 17% poor, 44% fair, 26% good, 3% excellent and 2% jointed. Corn 1% planted. Barley 57% planted, 20% emerged. Oats 52% seeded, 19% emerged. Dry onions 76% planted. Potatoes 2% planted. Sugarbeets 66% planted. Spring wheat 40% planted, 5% emerged. Livestock fair to good. Cows calves 76%, ewes lambing 81%. Stored feed adequate.

FLORIDA: Temperatures 2 to 10° below normal west, north, near to slightly above central, 2 to 5° above normal south. Extremes 95° Moorehaven Lock, 33° Crestview. Most rain totals 1.00 in. some 3.00 in. amounts south. Greatest weekly total 4.52 in. West Palm Beach. Rain observed on 13th.

Soil moisture mostly adequate Panhandle, generally short Peninsula. Corn, sugarcane, tobacco good. Disease, Hessian Fly lowered yield potential winter wheat, some areas. Peanut, cotton land preparation continued active. Dry soils, much of Peninsula, low nighttime temperatures retarded pasture growth, recovery. General weekend rains, extremely beneficial. Panhandle pastures generally fair to good; elsewhere mostly poor to good depending primarily on soil moisture. Cattle, calves Panhandle good; Peninsula, herds varied, fair to good. Rain most citrus areas, some continued irrigation. Bloom completed; abundant new growth. Valencia harvest increased, grapefruit movement remained active. honey tangerine, temple harvest almost completed. Caretakers cultivating, spraying, fertilizing. Mild weather over major vegetable producing areas. Mostly late week scattered showers, gusty winds. Irrigation continued active. Harvest active, past peak more southerly areas. Volume leaders: Tomatoes, potatoes, cabbage, peppers, cucumbers,

celery, squash. Also available good volume: Lettuce, snap beans, sweet corn, radishes, carrots, eggplant, escarole, endive. First Hastings potatoes dug.

GEORGIA: Cool, temperatures 5 to 10° below normal. Extreme highs low 70s mountains, 80s south. Lows 20s mountains, low 30s central, low, mid 30s south. Rain over entire State. Totals under 0.50 in. north, 1.00 to 3.00 in. central, south.

Days suitable for fieldwork 3.0. Soil moisture 3% short, 65% adequate, 32% surplus. Corn 2% poor, 51% fair, 45% good, 2% excellent; Frost, cool temperatures slowed growth, good stands. Peanuts 1% planted, 6% 1988, 9% avg. Cool temperatures slowed tobacco growth, some resetting needed. Watermelons frost damaged, some being replanted. Other vegetables also damaged by frost. Many wheat fields heavily infested with powdery mildew, rust, Hessian fly. Rye, other small grains mostly fair to good. Apples 7% very poor, 55% fair, 35% good, 3% excellent; 88% blooming, 90% 1988, 83% avg. Frost damage on early varieties, others unknown. Peaches 56% fair, 37% good, 7% excellent; 100% blooming, 100% 1988, 99% avg. Pastures mostly good. Cattle good. Hogs fair to good.

HAWAII: Sunny skies, occasional rainfall, moderate some areas, generally favorable. Strong, gusty trade winds 15-30 mph by week's end. Temperatures low 60s to 70s. Daily rainfall totaled none to 9.30 in.

Days suitable for fieldwork 7.0. Favorable weather allowed resumption of fieldwork. Most crops made satisfactory progress. Soil moisture ample all areas. Papaya production increased seasonally. Spray programs to minimize disease incidence intensified.

IDAHO: Few south central, eastern areas received rainfall. Other areas remained dry. Temperatures slightly above normal across State.

Days suitable for fieldwork 6.0. Soil moisture 17% short, 76% adequate, 7% surplus. Spring wheat 24% planted, 49% 1988, 38% avg. Spring barley 23% planted, 38% 1988, 30% avg. Potatoes 4% planted, 6% 1988, 5% avg. Sugarbeets 32% planted, 89% 1988, 61% avg. Onions 45% planted, 97% 1988, 77% avg. Panhandle, eastern farmers hampered by muddy fields. Other activities included sorting, shipping seed potatoes, repairing machinery, monitoring winter wheat. Winter wheat far to good. Some stands reseeded due to winterkill. Alfalfa hay growth accelerated with warm weather. Fruit trees late bud, early bloom. Ground preparation underway for corn, bean planting. Sheep shearing underway along with late season calving, lambing. Livestock good. Hay, roughage mostly adequate.

ILLINOIS: Temperatures 2 to 10° below normal. Greater deviations generally south half of State. Precipitation 0.25 in. or less.

Days suitable for field work 3.0. Soil moisture 44% short, 38% adequate, 18% surplus. Oats 51% planted, 66% 1988, 63% avg. Alfalfa 39% fair, 59% good, 2% excellent. Pasture 4% poor, 43% fair, 51% good, 2% excellent. Livestock roughage requirements 29%, 40% 1988, 35% avg. Freeze damage apples 4% moderate, 35% light, 61% none, peaches 4% severe, 14% moderate, 43% light, 39% none.

INDIANA: Temperatures 2 to 7° below normal. Lows mid 30s to low 40s, highs 60s to low 70s. Precipitation light, less than 0.25 in. Soil temperatures mid 40s.

Days suitable for fieldwork 1.5. Topsoil moisture 1% short, 60% adequate, 39% surplus. Subsoil moisture 13% short, 74% adequate, 13%

surplus. Spring cropland 69% tilled, 80% 1988, 69% avg. Wheat 6 in. high, 7 in. 1988, 6 in. avg. Wheat 13% jointed, 16% 1988, 11% avg. Oats 28% seeded, 52% 1988, 64% avg. Clover 60% seeded, 74% 1988, 72% avg. Pastures 1% very poor, 10% poor, 58% fair, 29% good, 2% excellent. Soils drying most areas.

IOWA: Temperatures 1 to 5° below normal; extremes 17°; 80°. Traces precipitation, totals none to 0.27 in.

Days suitable for fieldwork 5.3. Topsoil moisture 81% short, 19% adequate. subsoil moisture 93% short, 7% adequate. Winter wheat 4% very poor, 21% poor, 46% fair, 28% good, 1% excellent. Pasture 19% very poor, 35% poor, 39% fair, 7% good. Oats 60% sown, 85% 1988, 59% avg.; oats 8% emerged, 23% 1988, 20% avg. Seedbed preparation 65%. Fertilizer application 62%, 72% 1988, 52% avg. Livestock good. Movement market of cattle. Good weight gains in livestock. Good calving, lambing.

KANSAS: Temperatures 3 to 5° above normal southeast third of State. Near normal northwestern third. Rainfall across northwest, west central just under 0.50 in. far southwest, south central just over 0.20 in., remainder less than 0.05 in.

Days suitable for fieldwork 5.5. Topsoil moisture 62% short, 37% adequate, 1% surplus. Subsoil moisture 85% short, 15% adequate. Wheat continued to deteriorate, 40% very poor, 36% poor, 18% fair, 5% good, 1% excellent. Wheat still showed signs of moisture stress, winterkill continued to adversely affect overall condition. Main insect pest army cutworm. Few more fields corn planted northeast, west central. Farms preparing for corn planting, doing general repairs.

KENTUCKY: Unseasonably cool dry. Daytime lows, lower 30s, highs upper 50, both about 10° cooler than mean. Rainfall 0.25 in.

Days suitable for fieldwork 3.3. Fieldwork 7 days behind normal. Soil moisture 67% adequate, 33% surplus. Tobacco beds 50% emerged, 60% 1988, 46% avg.; plantbeds 1% very poor, 7% poor, 32% fair, 54% good, 6% excellent. Still sowing tobacco beds. Corn planting delayed by wet soil conditions. Wheat 1% very poor, 4% poor, 16% fair, 70% good, 9% excellent. Barley good. Hay fields slow growth. Alfalfa 8 inches tall, over 70% fields have alfalfa weevils. Spraying fields as conditions permit. Some fields alfalfa weevil unchecked because fields too wet to be sprayed. Pastures 1% very poor, 3% poor, 22% fair, 56% good, 18% excellent. Freeze damaged apples, peaches but extent unknown.

LOUISIANA: Temperatures 10 to 12° below normal. Extremes 20°, 83°. Rainfall 0.18 to 0.95 in.

Days suitable for fieldwork 4.9. Soil moisture 5% short, 82% adequate, 13% surplus. Spring plowing 74%, 58% 1988, 68% avg. Corn planted 77%, 58% 1988, 75% avg.; emerged 55%, 35% 1988, 58% avg. Rice emerged 35%, 16% 1988, 30% avg. Rice emergence slow due to cool temperatures. Water mold, bronzing reported several fields. Sorghum emerged 9%, 3% 1988, 10% avg. Wheat headed 80%, 69% 1988, 65% avg. Septoria leaf blotch, rust increasing. Wheat mostly fair to good. Sweetpotatoes planted 2%, 2% 1988, 4% avg. Spraying, fertilizing Sugarcane. Harvesting crawfish, strawberries. Anthracnose fruit rot reported in strawberries. Pastures, livestock mostly fair to good. Vegetables mostly fair. Freezing temperatures across North Louisiana caused some damage to crops, extent unknown. Losses to peach crop reported heavy.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.40 in. Temperature 44^o, normal 52^o. Temperature extremes 64^o; 14^o.

Days suitable for fieldwork 3.3. Topsoil moisture 57% adequate, 43% surplus. Subsoil moisture 90% adequate, 10% surplus. Corn 1% planted, 3% 1988. Wheat, barley, rye good.

DELAWARE: Precipitation 1.00 in. Temperature 45^o, normal 52^o. Temperature extremes 28^o; 61^o.

Days suitable for fieldwork 3.0. Topsoil moisture 57% adequate, 43% surplus. Subsoil moisture 14% short, 71% adequate, 14% surplus. Potatoes 36% planted, 77% 1988. Wheat, barley, rye good.

MICHIGAN: Temperatures 5 to 10^o below normal. Temperature extremes 12^o; 63^o. Precipitation none to 0.87 in. across the state.

Activities: Down State some manure spreading, tilling on lighter soil. Some oats drilled weekend. Getting equipment supplies ready. Up-State frost still in ground some areas. Livestock good. Feed mostly adequate.

MINNESOTA: Temperatures 3 to 7^o below normal. Extremes 5^o; 74^o. Precipitation 0.29 to 0.59 in. below normal. Precipitation trace to 0.08 in. Greatest weekly total 0.22 in.

Cool temperatures continued to slow spring fieldwork. Some small grains planted on lighter soils southern part State.

MISSISSIPPI: Cool, dry. Temperatures 12^o below normal. Extremes 22^o; 79^o. Frosts, freezes across northern half of State. Precipitation 0.32 in., 1.00 in. below normal.

Days suitable for fieldwork 2.8, 4.0 1988, 4.5 avg. Soil moisture 55% adequate, 40% surplus, 5% excessive. Wheat 96% jointing, 94% 1988, 94% avg.; 36% heading, 28% 1988, 30% avg.; 5% poor, 60% fair, 35% good. Corn 33% planted, 45% 1988, 54% avg. Cotton 1% planted, none 1988, 3% avg. Peanuts 2% planted, 6% avg. Rice 8% planted, 14% 1988, 21% avg. Sorghum 3% planted, 10% 1988, 11% avg. Sweetpotatoes 3% planted, 8% 1988, 7% avg. Watermelons 30% planted, 29% 1988, 37% avg. Pastures, livestock good. Peaches 10% very poor, 25% poor, 40% fair, 25% good. Freezes early week damaged peaches, tomatoes, early gardens, watermelons. Activities: Land preparation, shopwork, corn sidedressing south, some spraying small grains.

MISSOURI: Temperatures 8^o below normal north, 12^o below normal south. Precipitation nearly non-existent except Bootheel 0.30 in.

Days suitable for fieldwork 3.7. Topsoil moisture 28% short, 58% adequate, 14% surplus. Subsoil moisture 55% short, 36% adequate, 9% surplus. Tillage for spring crops 61%, 64% 1988, 49% avg. Bootheel still wet, tillage, planting behind normal. Oats 84% seeded, 85% 1988, 69% avg. Pasture 8% very poor, 11% poor, 40% fair, 40% good, 1% excellent. Livestock water 14% critically short, 21% short, 65% adequate.

MONTANA: Temperatures near normal 3^o above east, 1 to 5^o above west. Precipitation sparse, less than 0.10 in.

Days suitable for fieldwork 3.7. Topsoil moisture 14% short, 82% adequate, 4% surplus. Subsoil moisture 53% short, 45% adequate, 2% surplus. Winter wheat still dormant 37%, greening 50%, green, growing 13%. Barley 2% planted; 32% 1988, 17% avg. Oats 1% planted, 21% 1988, 11% avg. Sugarbeets 3% planted; 23% 1988, 8% avg. Calving 80%; 84% 1988, 77% avg. Lambing 65%; 75% 1988, 66% avg. Range grass growth 38% slower than average, 62% avg.

NEBRASKA: Gradual warming. Temperatures normal to 3^o below normal. Extremes 5^o; 81^o. Dry with little or no precipitation, except west.

Days suitable for fieldwork 6.4. Topsoil moisture 74% short, 26% adequate. Subsoil moisture 77% short, 23% adequate. More winterkill damage statewide to winter wheat. Russian wheat aphids, crown, root rot Panhandle. Spraying for pennycress southeast. Oats 77% planted, 82% 1988, 59% avg. Corn, sugarbeet, barley, alfalfa seeding underway. Some oats, alfalfa set back by last weekend frost in east, northeast. Range, pasture feed 56% short, 37% adequate 7% surplus. Limited moisture slowed growth of grasses. Calving nearly complete, calves good, only few scours. Main activities: Preparing to plant corn, applying fertilizer, chopping, disking corn stalks, livestock care, equipment maintenance. Many farmers waiting for moisture to begin planting. Few operators irrigating wheat, corn last week.

NEVADA: Precipitation early confined to northern third, remainder none. Record high temperatures 2nd consecutive week. High pressure ridges produced dry weather, record, near record temperatures all areas.

Planting fall potatoes off to good start. Good progress alfalfa forage harvesting extreme south. Recent sunny weather favorable all fieldwork.

NEW ENGLAND: Precipitation 1.00 to 2.00 in. south, 0.50 to 1.00 in. north. Temperatures mid 30s near Canadian border to mid 40s south coast. Temperatures near normal.

Major farm activities: Moving crops from storage, tending livestock, checking machinery in preparation of spring planting.

NEW JERSEY: Temperatures much below normal. Extremes 19^o; 64^o. Rainfall 0.96 in. north, 1.19 in. central, 0.89 in. south. Heaviest 24-hour total 1.29 in. 15th, 16th. Estimated soil moisture percent field capacity 100% north, 98% central, 96% south. Four inch soil temperatures 42^o north, 44^o central, 46^o south.

Fieldwork progressed well drained soil; weekend rain temporarily halted activities. Most farmers about 2 weeks behind schedule. Peaches bloomed southern counties, neared full bloom northern areas. Cool weather continued slow early spring vegetable growth. Some sweet corn planted under plastic. Fall sown grains need warmer weather.

NEW MEXICO: Scattered precipitation, cooler temperatures first of week; latter part of week warm and dry.

Days suitable for fieldwork 6.7. Soil moisture 100% short. Some light to moderate freeze damage statewide, particularly to apple orchards. Wheat 20% very poor, 60% poor, 15% fair, 5% good. Cattle 55% fair, 45% good. Sheep 25% fair, 75% good. Range 33% poor, 59% fair, 8% good.

NEW YORK: Early week started with cool, damp weather. On 9th storm system crossed Pennsylvania, off coast by 10th. However, cold northwest flow followed, even some lake effect snows occurred 11th, early 12th from western Mohawk Valley west to Buffalo. Precipitation rather light each day with anywhere from trace to about 0.40 in. over 3 days. Temperatures on cool side, 5 to 15^o below normal. Middle week featured dry weather. On 13th temperatures rebounded little closer to seasonal normals. By 14th weak frontal system passed area depositing more light rain, roughly between trace to 0.30 in., even little wet snow higher elevations. Temperatures continued to average below normal. Dry 14th by 15th coastal storm developed along Carolina Coast, moved north. Most precipitation 15th. New York City well over 1.00

in. lighter amounts north, west. Temperatures continued 5 to 7° below normal. Week featured good deal of wet weather with below normal temperatures.

Maple syrup season over conditions not conducive to good sap flow. Growers continued to prepare for planting by plowing fields, fertilizing. Some cold season vegetables being planted.

NORTH CAROLINA: Temperatures 7 to 10° below normal across the State. Temperature extremes 19°; 80°. Precipitation 0.29 in. to 5.48 in.

Days suitable for fieldwork 2.0. Soil moisture 47% adequate, 53% surplus. Pasture 4% poor, 18% fair, 74% good, 4% excellent. Oat 2% poor, 22% fair, 76% good. Barley 2% poor, 22% fair, 76% good. Rye 3% poor, 19% fair, 76% good. Wheat 3% poor, 25% fair, 69% good, 3% excellent. Tobacco plantbeds 1% very poor, 4% poor, 42% fair, 52% good, 1% excellent. Supply 22% short, 76% adequate, 2% surplus. Feed grains 1% very short, 6% short, 93% adequate. Hay, roughage 4% short, 92% adequate, 4% surplus. Irish potatoes 51% planted, 100% 1988, 100% avg.; 23% poor, 45% fair, 32% good. Peach 5% very poor, 18% poor, 32% fair, 45% good. Truck crops 16% poor, 42% fair, 42% good. Major activities: General maintenance; tobacco plantbed maintenance, tending livestock; land preparation; topdress small grains. Other activities: Spraying for alfalfa weevil; pruning fruit trees; fertilizing pasture; planting Irish potatoes; transplanting tobacco.

NORTH DAKOTA: Cool temperatures statewide early week, warmer after mid week. Temperatures 7° below normal northeast to 1° above normal northwest. Extremes: none northeast 9th; 81° south central, 15th. Scattered light precipitation averaged 0.02 in. southeast, northeast to 0.09 in. northwest.

Topsoil moisture improved minimally, while subsoil moisture diminished slightly. Topsoil 17% very short, 28% short, 55% adequate. Subsoil 38% very short, 56% short, 6% adequate. Expected starting date for spring fieldwork is April 22nd, latest since 1983. Planting of hard red spring wheat, oats 1% complete. Winter wheat 10% very poor, 19% poor, 64% fair, 7% good; 65% dormant, 35% turning green. Calving 75%, lambing 82%, shearing 81%. Hay, roughage 72% short, 28% adequate. Grain, concentrate supplies mostly adequate. Range, pasture 76% open for grazing, with 67% still dormant, 30% poor, 3% fair.

OHIO: temperatures 5 to 10° subnormal. Extremes teens, 20s to 60s. Precipitation light; under 0.25 in. Soil temperatures subnormal; 4 in. mid 40s to mid 50s.

Cold weather, wet soils limited fieldwork. Some oats, sweet corn planted, tobacco plantbeds sown. Pastures, wheat growing.

OKLAHOMA: Temperatures 7° below normal south central, 4° below normal west central. Precipitation 0.01 in. west central, north central to 0.55 in. south central.

Days suitable for fieldwork 5.8. Topsoil moisture 40% short, 58% adequate, 2% surplus. Subsoil moisture 30% short, 70% adequate. Wheat 10% very poor, 5% poor, 35% fair, 50% good, 70% jointing, 65% 1988, 75% avg.; 1% heading, 2% 1988, 10% avg. Nitrogen deficiency evident. Tan spot rust appearing major producing areas. Insect activity heaviest west. Sorghum 1% planted, 1% 1988, 1% avg. Cotton none planted, 1% 1988, none avg. Peanuts none planted, none 1988, 1 Avg. Soybeans 2% planted, 1% 1988, none avg. Corn 25% planted, 15.5 1988, 30% avg. Pastures improving. Cattle marketings average, prices down from preceding week.

OREGON: Unseasonably warm, dry. Temperatures above normal all areas; 7 to 10° above normal entire State except northeast 4° above normal. Scant rainfall beginning of week (0.10 in.) north central; end of week (0.10 in.) south central, traces northwest; remainder of State remained dry.

Soil moisture 13% short, 80% adequate, 7% surplus. Barley 72% seeded, 92% 1988, 87% avg. Most fall grains good; fertilizer, spray applications continued; very little Russian wheat aphid activity evident. Spring grain seeding continued or underway all areas. Alfalfa coming out of dormancy eastern high country, some early irrigation started. Sugarbeets 65% planted Malheur County. Full bloom 9th, 10th Anjou, bartlett pears Medford district. Growers applied bloom sprays for blight, scab. Pre-bloom sprays applied to apples, pears Hood River Valley. Full bloom for pears estimated on 20th. Cherries bloomed Dalles district. Cherries full bloom Milton-Freewater; prunes, plums just started to bloom; growers have some pruning left. Dry weather allowed orchardists to catch up on spraying, other work in Willamette Valley. Hazelnuts fully leafed out. Berry crops showed much growth progress during warm, dry weather; herbicides applied. Cranberry growers applied fertilizers south coast, irrigation began. Potato planting continued Hermiston-Boardman; field preparations underway Klamath Basin. Onions 65% planted Malheur County. Sowing onions, green peas, sweet corn, broccoli, snap beans Willamette Valley; planting began to catch up to normal progress. Green pea planting continued Umatilla County, also onions. Asparagus harvest started, excellent quality. Livestock good. Cattle turnout on eastern ranges well underway. Range, pasture mostly good; excellent southwest; poor to fair some areas of northeast. Grass growth behind normal many areas especially north coast, northeast mountains; the exception is Klamath Basin where pasture growth has started early.

PENNSYLVANIA: Unseasonably cool. Early morning temperatures below freezing most areas. Rainfall beginning, end of weekend. Temperature 38°, 7° below normal. Temperature extremes 14°; 67°. Precipitation 0.30 in., 0.52 in. below normal.

Days suitable for fieldwork 4.0. Soil moisture 19% short, 76% adequate, 5% surplus. Plowing 25%, 40% 1988, 30% avg. Corn none planted, 4% 1988, 2% avg. Soybeans none planted, none 1988, none avg. Oats 26% planted, 45% 1988, 30% avg. Potatoes 10% planted, 24% 1988, 10% avg. Tobacco beds 62% planted, 73% 1988, 41% avg. Barley 100% pre-boot, 98% 1988, 100% avg.; none boot, 2% 1988, none avg. Wheat 100% pre-boot, 98% 1988, 100% avg.; none boot, 2% 1988, none avg. Wheat none very poor, 4% poor, 20% fair, 56% good, 20% excellent. Oats none very poor, 2% poor, 42% fair, 33% good, 23% excellent. Hay stands mostly fair. Feed from pastures mostly below average. Peaches 61% pre-pink, 80% 1988, 89% avg.; 28% pink, 13% 1988, 4% avg.; 11% full bloom or past, 7% 1988, 7% avg. Cherries 81% pre-pink, 76% 1988, 85% avg.; 18% pink, 16% 1988, 15% avg.; 1% full bloom or past, 8% 1988, none avg. Apples 88% pre-pink, 96% 1988, 95% avg.; 12% pink, 4% 1988, 5% avg. Activities: Spring plowing; planting oats, potatoes, hay, tobacco; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

PUERTO RICO: San Juan WSFO temperature 78°, minus 0.9, total rainfall 0.32 in. minus 0.46.

SOUTH CAROLINA: Wetter, cooler than normal. Temperatures 7 to 10° below normal. Freezing temperatures 12th over much of inland. Rainfall over 3.00 in. Coastal Plains to less than 1.00 up State.

Days suitable for fieldwork 3.5. Soil moisture 5% short, 86% adequate, 9% surplus. Corn fair to good; 63% planted, 87% 1988, 71% avg. Tobacco fair to good; 29% planted, 39% 1988, 36% avg. Watermelons fair to good, some replanting necessary due to freeze; 76% planted, 75% 1988, 71% avg. Tomatoes fair to good; 81% planted, 93% 1988, 93% avg. Peaches fair to good; light to moderate freeze damage some areas, too early to determine full extent of damage. Wheat good; freeze damage minimal; 43% headed, 17% 1988, 17% avg. Oats good; 39% headed, 31% 1988, 19% avg.

SOUTH DAKOTA: Temperatures 8° below to 2° above normal. Extremes -5°; 83°. Precipitation scattered. Generally less 0.10 in.

Winter wheat mostly good to fair. Winterkill 13%. Field preparation, seeding small grains, calving, lambing, fencing, equipment preparation major activities.

TENNESSEE: High pressure brought cold Canadian air into State early week. Temperatures below normal. Temperatures moderated to near normal. Departures 5° below normal west to 15° middle, east. Low pressure brought light rainfall 14th, 15th. Precipitation 0.75 to 1.00 in. below normal. Ranged 0.10 to 0.50 in.

Days suitable for fieldwork 2.4. Corn planted 2 weeks behind normal due to wet, cold. Cotton, sorghum not yet planted. Some freeze damage fruit. Land preparation main activity.

TEXAS: Early week vigorous cold front brought very cold air to State. Winter like weather returned, snowfall Panhandle, below freezing temperatures northern third. Showers late week eastern half of State. Sunny days, fair nights returned weekend. Cold temperatures early week left entire State with below normal temperatures. Precipitation varied; below normal west, above normal Coastal Bend, deep south.

Crops: Small grains suffered another hard week, temperatures dropped, drier areas remained dry. High Plains many dryland fields poor prospects. Producers plow up many poorer fields. Irrigated fields making good progress. Cooler weather slowed insect activities. Fields heading Cross Timbers, Blacklands. Recent moisture improved prospects; frost early week may have caused light damage. Central moisture benefit crop. Most fields heading. Wheat 6% headed; 10% 1988; 21% avg. Corn planting slowed Plains, Cross Timbers. Planting some progress east, central. Some possible freeze damage Blacklands, northeast. Fields improved Coastal Bend, received good rainfall. Rio Grande Valley remained dry, progress was slow. Fields Upper Coast good progress. Corn 67% planted; 68% 1988; 69% avg. Grain sorghum planting limited progress. Early planted fields damaged by frost. Progress Coastal Bend improved with good rainfall. Prewatering continued High Plains late week. Fields lower valley need moisture. Sorghum 50% planted; 53% 1988; 54% avg. Cotton planting progress slowed by cooler, wetter weather many areas. Cooler temperatures slowed germination northern, western areas. Herbicide applications continued Plains, Cross Timbers. Conditions improved Coastal Bend. Cotton 12% planted, 13% 1987, 11% avg. Rice flushing continued last week fields emerging. Some heading. Rice 65% planted, 82% 1988, 69% avg.; 24% emerged, 9% 1988; 24% avg. Other field crops: Peanuts none planted; 1% 1988; 1% avg. Sugarbeets 47% planted; 41% 1988, 47% avg.

Commercial Vegetables: Rio Grande Valley, progress melons slowed slightly by cloudy, misty, cool conditions. Onion harvest fairly steady. Citrus harvest wind down, only a few packing sheds still open. San Antonio-Winter Garden, light activity occurred. Onions good progress. East

Texas, late frost hurt many growing vegetables, heavy damage to tomatoes. High Plains, irrigation necessary. Land preparation peppers slowed. Trans-Pecos, onions good growth. Land preparations continued peppers, cucumbers. Peaches northeast suffered hard blow with cooler temperatures. Most orchards Hill Country escaped any serious damage from late cold spell.

Range and Livestock: Ranges, pastures greening-up; growth remained slow. Cooler temperatures burned back some growth portions east. Livestock steady. Movement off small grains continued. Cooler weather delayed shearing activities. Lice, hornflies bothering cattle Trans-Pecos.

UTAH: Precipitation none to light. Temperatures 6 to 12° above normal.

Days suitable fieldwork 6.9. Soil moisture 55% short 45% adequate. Land preparation 68% complete, 55% 1988, none avg. Spring wheat 47% seeded, 75% 1988, 54% avg.; barley 47% planted, 83% 1988, 63% avg. Oats 28% planted, 59% 1988, 38% avg. Apricots full bloom, sweet cherries bloom well along, tart cherries bloom. Cows calved 72%, 75% 1988, 74% avg. Ewes lambled farm flocks 89%, range flocks 50%. Sheep sheared farm flocks 54%, range flocks 44%. Livestock good. Range, pastures growing well lower elevations. Major farm activities: Seeding grain, land preparation, fertilizer application, spraying weeds, cleaning irrigation ditches, pruning, spraying orchards, hauling manure, calving, lambing, shearing.

VIRGINIA: Temperatures 10° below normal. Temperature extremes: 17°; 71°. State experienced a freeze. Precipitation ranged 0.25 in. northwest to 1.0 in. southeast. Some light snow.

Days suitable for fieldwork 3.3. Topsoil moisture was 5% short, 65% adequate, 30% surplus. Wet weather continued to delay field activities. Corn 2% planted. Wheat 33% fair, 57% good, 10% excellent. Barley 40% fair, 60% good. Delayed small grain topdressing. Tobacco beds 26% poor, 34% fair, 38% good, 2% excellent. Pastures 34% fair, 46% good, 20% excellent. Apple 20% poor, 40% fair, 40% good. Peaches 44% poor, 33% fair, 23% good. Freeze damage heavy in low areas to minor in high areas. Alfalfa 8% poor, 11% fair, 81% good. Other hay 9% poor, 22% fair, 69% good. Graded feeder cattle sales active.

WASHINGTON: Temperatures 5 to 9° above normal, west; 4 to 7° above normal, East. No precipitation across State.

Days suitable for fieldwork, 6.6. Soil moisture 30% short, 60% adequate, 10% surplus. Range, pasture 44% short, 56% adequate. Hay, other roughage 3% very short, 20% short, 57% adequate, 20% surplus. Planting of most spring crops was in progress. Some spring grains emerged. Wheat reseeding in progress in winterkilled areas. Potato continued planting, 32% complete. Winter damaged alfalfa reported Spokane County. Seeding green peas, onions continued. Asparagus cutting began. Harvest of field rhubarb began. Apricots in full bloom, Grant County. Cherries, peaches, pears in bloom, Yakima County. Range, pasture improving.

WEST VIRGINIA: Temperature 42°, 7 to 10° below normal. Extremes 12° Greenbank, 76° Gary. Precipitation 0.21 in.

Days suitable for fieldwork 3.8. Soil moisture 3% very short, 11% short, 83% adequate, 3% surplus. Wheat, oats, barley fair to good. Oats 30% planted, 4% emerged. Tobacco beds 95% planted, 14% emerged. Hay good to fair. Apples fair to good; light cluster to early pink stage. Peaches fair, petal fall stage. Some freeze damage to apples, peaches. Feed adequate. Cows calved 86%,

ewes lambed 81%. Farm activities: Livestock care, fence building, general farm maintenance, garden preparation, spreading fertilizer, plowing.

WISCONSIN: Temperatures 40°, 5° below normal. Extremes 8°; 76°. Precipitation trace to 0.20 in.

Days suitable for fieldwork 1.7. Soil moisture 47% short, 52% adequate, 1% surplus. Spring plowing 3%, 16% 1988, 14% avg. Oats 2% seeded, 23% 1988, 16% avg. Winter wheat poor low spots. Alfalfa fairly good, new seedings best. Few tobacco frame beds set up.

WYOMING: Temperatures near normal. Precipitation below normal.

Days suitable for fieldwork 5.0. Topsoil moisture 54% short, 46% adequate. Spring wheat 15%

planted, 25% 1988, 35% avg.; none emerged, small amount 1988, 10% avg. Oats 10% planted, 25% 1988, 30% avg.; none emerged, small amount 1988, 5% avg. Barley 50% planted, 60% 1988, 55% avg.; 10% emerged, 15% 1988, 15% avg. Sugarbeets 15% planted, 40% 1988, 40% avg.; none emerged, none 1988, 5% avg. Corn none planted, small amount 1988, small amount avg. Potatoes none planted, 5% 1988, 5% avg. Winter wheat fair to good, mostly none to light wind, freeze damage. Livestock mostly good. Spring calves born 75%, 75% 1988, 70% avg. Death losses light to normal. Farm Flock: Ewes lambed 80%, 75% 1988, 80% avg.; 80% shorn, 60% 1988, 70% avg. Range flock: Ewes lambed 35%, 45% 1988, 45% avg.; 45% shorn, 45% 1988, 45% avg. Death losses light to normal. Range, pasture poor to fair.

International Weather and Crop Summary

April 9-15, 1989

HIGHLIGHTS

WESTERN USSR ... Unseasonable warm weather returns to most of the region. Spring grain planting progresses, helped by several days of dry weather.

EUROPE ... Widespread rain further relieves dryness across the south. Heavy rain causes spring planting delays in sections of the north.

SOUTH ASIA ... Scattered rain covers northern and eastern areas. Warm weather favors maturing winter wheat but stresses immature rice in the south and east.

EASTERN ASIA ... Heavy rain causes fieldwork delays and possible flooding in southeastern China.

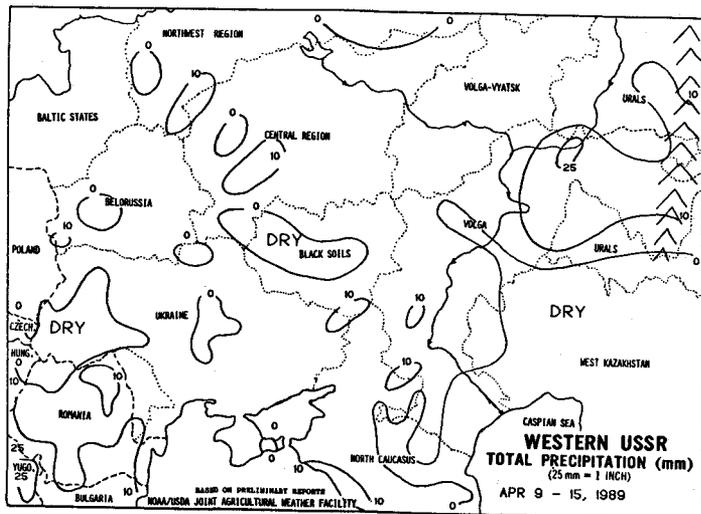
SOUTHEAST ASIA ... Heavy showers cover much of Malaysia, peninsular Thailand, and the eastern Philippines, increasing irrigation reserves.

SOUTH AMERICA ... In Argentina, clearing skies by midweek favor summer crop harvesting. In south-central Brazil, scattered rain causes minor harvest delays, but mostly dry weather in Parana promotes soybean harvest.

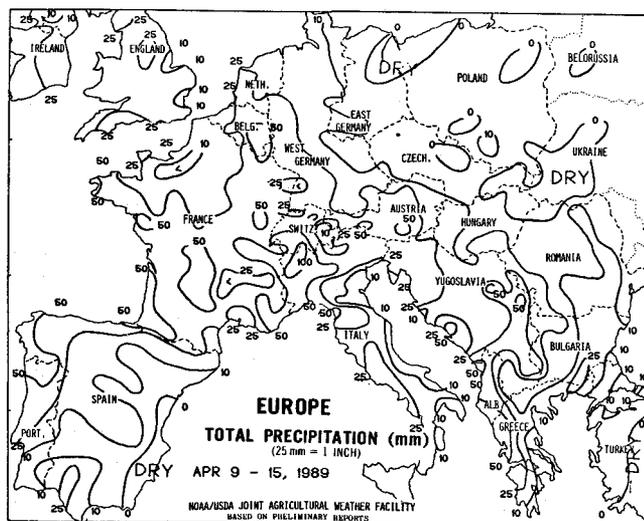
AUSTRALIA ... Moderate to heavy rain causes continued fieldwork delays in sections of Queensland and New South Wales. Favorably dry weather develops over northeastern sugarcane areas.

SOUTH AFRICA ... Minimal rain and seasonably warm weather covers most corn areas, favoring maturation.

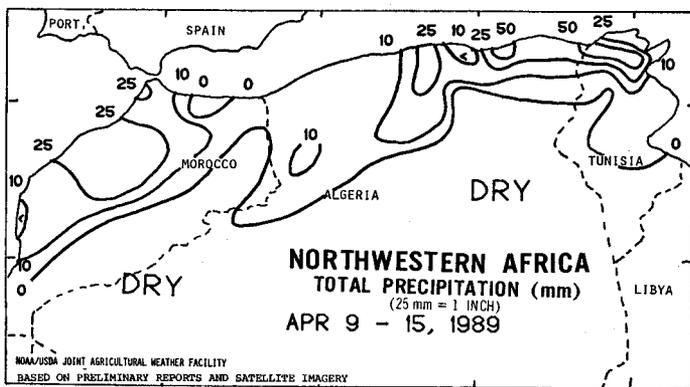
NORTHWESTERN AFRICA ... The first substantial rain since mid-February covers winter grains in Tunisia, stabilizing conditions for winter grains in the filling stage. Showers continue to benefit winter grains in Morocco.



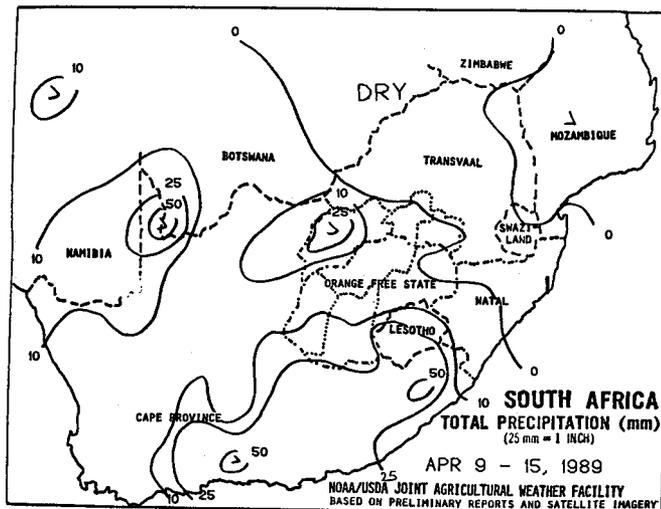
WESTERN USSR ... Unseasonably warm weather returned to most of the region. Weekly average temperatures were 6-8 degrees Celsius (C) above normal in the west and 2-4 degrees C above normal in the east. Winter grains were in the vegetative stage in the Baltic States, Belorussia, Ukraine, southwestern Black Soils Region, and North Caucasus. Winter grains remained dormant in the Central Region, northwestern Black Soils Region, Volga, and Volga Vyatsk. Spring grain and sugarbeet planting continued to progress, helped by several days of dry weather. Weekly precipitation was generally light (less than 10mm) throughout the region. Continued unseasonably warm, dry weather in the southern Ukraine and the western North Caucasus has reduced topsoil moisture to unfavorably low levels, and rain is needed for winter grains in the jointing stage and spring grain emergence.



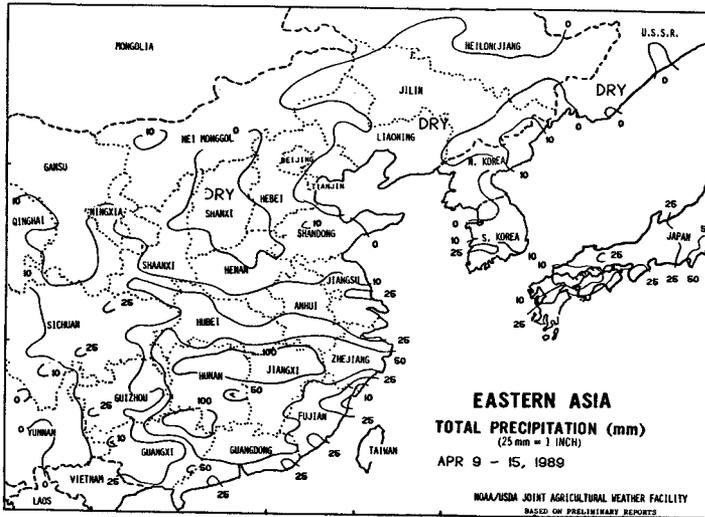
EUROPE ... Widespread rain (10-50mm, with isolated amounts in excess of 50mm) fell across much of southern Europe, further helping to ease dryness in winter grains. Isolated very heavy rain (100-159mm) in northern and central Italy caused localized flooding. In the north, heavy rain (25-50mm, with isolated amounts greater than 50mm) continued to cause delays in spring planting across eastern France, Benelux, and southern West Germany. Light to moderate rain (5-20mm) fell over much of the northeast. Much warmer-than-normal mean temperatures (as much as 9 degrees C above normal in Poland) continued to accelerate winter grains growth and development across eastern crop areas. Near normal to slightly below normal temperatures covered the west.



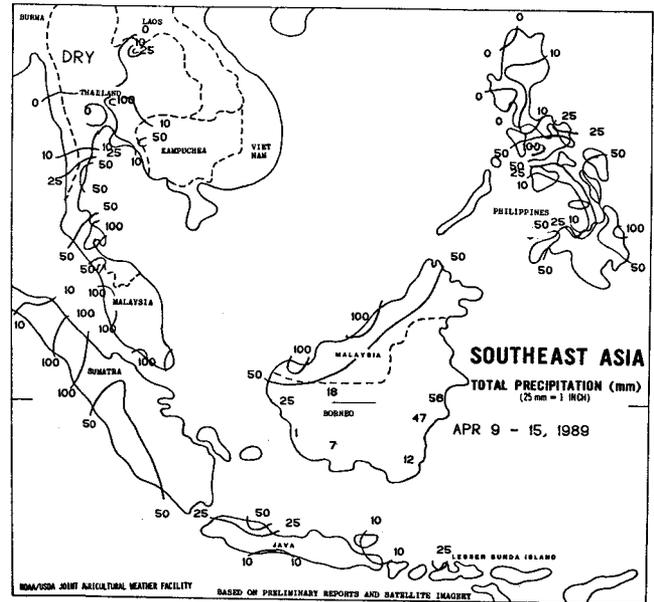
NORTHWESTERN AFRICA ... Widespread showers (10-25mm) continued over Morocco, benefiting winter grains in the filling stage. In Tunisia, the first substantial rain (25-50mm) since mid-February covered the northern two-thirds of the crop area. Although the rain came too late to improve prospects for winter grains in the filling stage, it helped to stabilize crop conditions, halting further declines in potential yields. In Algeria, widespread showers (10-56mm) over northern winter grain areas along the coast favored grain filling. In contrast, minimal rain (less than 10mm) covered southernmost crop areas.



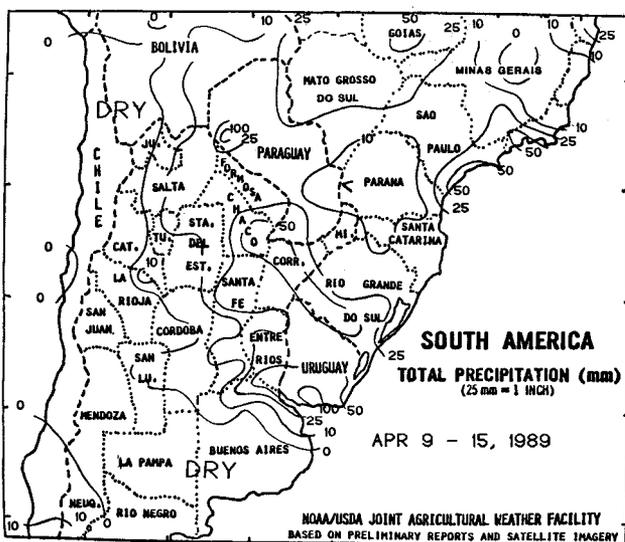
SOUTH AFRICA ... Minimal rain (less than 2mm) covered a large portion of the Maize Triangle, although heavier rain (4-27mm) fell over southern and northwestern areas. Seasonably warm weather continued, favoring maturing corn. The dryness extended into Natal's sugar regions, continuing the drier-than-normal trend that has lasted since early March. Moderate to heavy rain (10-52mm) covered most crop areas of the Cape Province, but rainfall averaged less than 10mm over the southwestern tip. More rain is needed in the southwest for winter wheat planting.



EASTERN ASIA ... Heavy rain (25-75mm, with scattered amounts in excess of 75mm) continued across much of southeastern China, causing extensive fieldwork delays but benefiting recently planted summer crops. Very heavy rain (100-158mm) likely caused flooding on already saturated soils in northern sections of Hunan and Jiangxi. Elsewhere, moderate to heavy rain (15-20mm with isolated amounts in excess of 30mm) fell across western Chinese crop areas and much of Japan, while northern winter crop areas and spring grain areas were mostly dry. Cooler-than-normal mean temperatures slowed crop growth across southern and western China, while warmer-than-normal temperatures continued across much of the north and east.



SOUTHEAST ASIA ... Heavy showers (50-100mm or more) fell from south-central Thailand through peninsular Thailand into Malaysia, increasing irrigation reserves but possibly causing local flooding. Scattered, mostly light rain (1-9mm) returned to eastern Thailand, but hot temperatures continued, maintaining high evaporative losses. Moderate to heavy rain (25-50mm or more) continued over Indonesia, maintaining irrigation reserves for immature crops. In the Philippines, heavy rain (50-100mm or more) fell over most east-central growing areas. Mostly light rain (less than 15mm) continued over Luzon's grain areas, favoring secondary grain harvesting and fieldwork for main season plantings.



SOUTH AMERICA ... In Argentina, early-week heavy rain (50-100mm or more) fell in extreme northeastern Buenos Aires, spreading into southern portions of neighboring Uruguay. The storm system moved northeastward, producing 50-60mm in Argentina's northern cotton areas before clearing skies dominated the region by midweek. Except for isolated heavy showers (25-55mm) in Santa Fe, the remaining primary grain and oilseed growing areas received less than 10mm for the week, allowing summer crop harvesting to progress. Corn, sorghum, and sunflower harvests were about 45, 40, and 65 percent complete, respectively. Soybean harvesting is reportedly just underway. In south-central Brazil, rain spread from south to north during the week, producing highly variable amounts. Weekly rainfall averaged less than 10mm in Parana, while 25-50mm or more was confined mostly to southern Rio Grande do Sul, Mato Grosso do Sul, and southern Goias. Brazil's soybean harvest reached nearly 30 percent, lagging the average pace of about 45 percent resulting from the unusually late plantings.

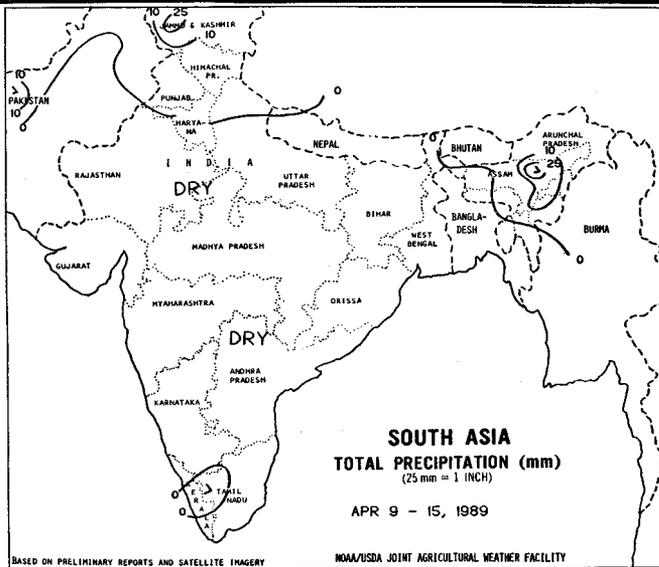
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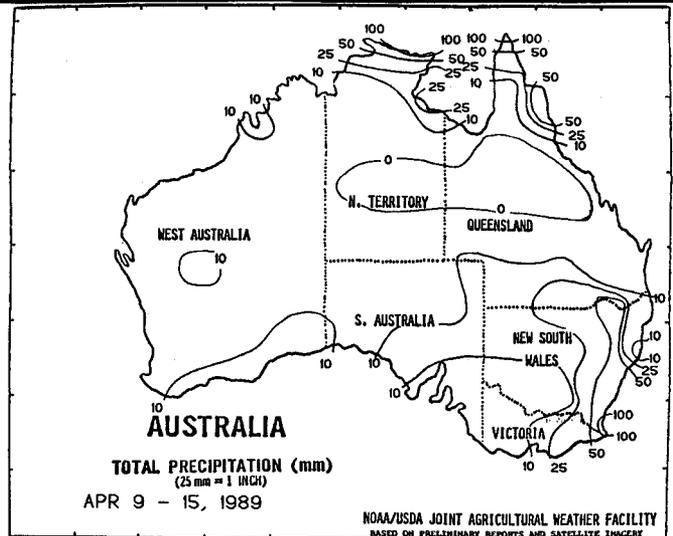
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SOUTH ASIA ... Scattered, light rain (1-10mm) fell from northern Pakistan to Haryana, with a locally heavier shower (25mm) in northernmost India. Temperatures across the northern wheat areas averaged 1-3 degrees C below normal, but maximum temperatures ranged from 35-41 degrees C in all but the northernmost areas, benefiting maturing crops. Scattered showers (4-26mm) fell over eastern Bangladesh and India's eastern states, improving irrigation levels. Dry, hot weather continued elsewhere, with maximum temperatures ranging from 35-43 degrees C over southern and eastern rice areas from Tamil Nadu to Bangladesh, stressing immature crops.



AUSTRALIA ... Moderate to heavy rain (15-50mm, with isolated amounts in excess of 50mm) continued across southern Queensland and much of New South Wales, delaying summer crop harvest and preplanting fieldwork. Winter grains planting began in central sections of Queensland, which remained mostly dry. Favorably dry weather also developed in sugarcane growing areas of coastal Queensland, following excessive rainfall and flooding over the past 2-3 weeks. In the south, light to moderate rain (5-20mm) increased preplanting soil moisture for winter grains in Western Australia, South Australia, and Victoria. Mean temperatures were normal to below normal over most crop areas.

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