

# WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service  
and World Agricultural Outlook Board

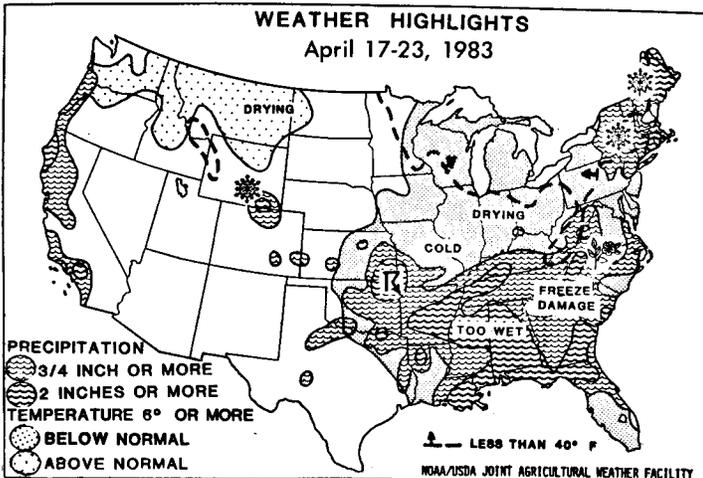
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April 26, 1983

## National Weather Summary

April 17 to 23



Valley and the central Appalachians. Out West, a storm brought light rain, with snow at high elevations, to most of California and the central Plateau.

**TUESDAY...**Nearly 60 cities from the Great Lakes to the Gulf of Mexico reported record-low temperatures. Freezing temperatures damaged fruit and vegetable crops in northern Alabama, central Georgia, and the western Carolinas. Snow fell from Pennsylvania and northwestern New Jersey through New York and western New England, while moderate to heavy rain fell along the Northeast coast. Light showers fell from eastern Texas through the lower Mississippi Delta. A storm system spread light to moderate rain over the west coast.

**WEDNESDAY...**The cold weather again reached into the Southeast, setting records all the way to Miami, Fla., where the mercury dipped to 61. Freezing weather reached to the coast of North Carolina. Ambitious vegetable growers suffered further losses. A mixture of rain and snow continued through New York and western New England, and light rain covered the coast from Delaware northward. Light rain fell in all of the West Coast States with some heavy amounts in southern California. A storm over the Plateau spread rain, snow at high locations, over all of the Plateau, the Rockies, the Southwest, and through Texas to Louisiana.

**THURSDAY...**Record-cold weather still reached into the Southeast. Freezing temperatures again covered the North Carolina coast but did not reach as far into Georgia and Alabama. Jacksonville, Fla., shivered at 38. The mixture of rain and snow continued in New York and western New England with light rain along the coast. Light to moderate showers fell over the Plateau and Southwest, while a storm moving into the central Plains spread showers and thunderstorms from central Texas through Kansas and eastward to the central and lower Mississippi Valley.

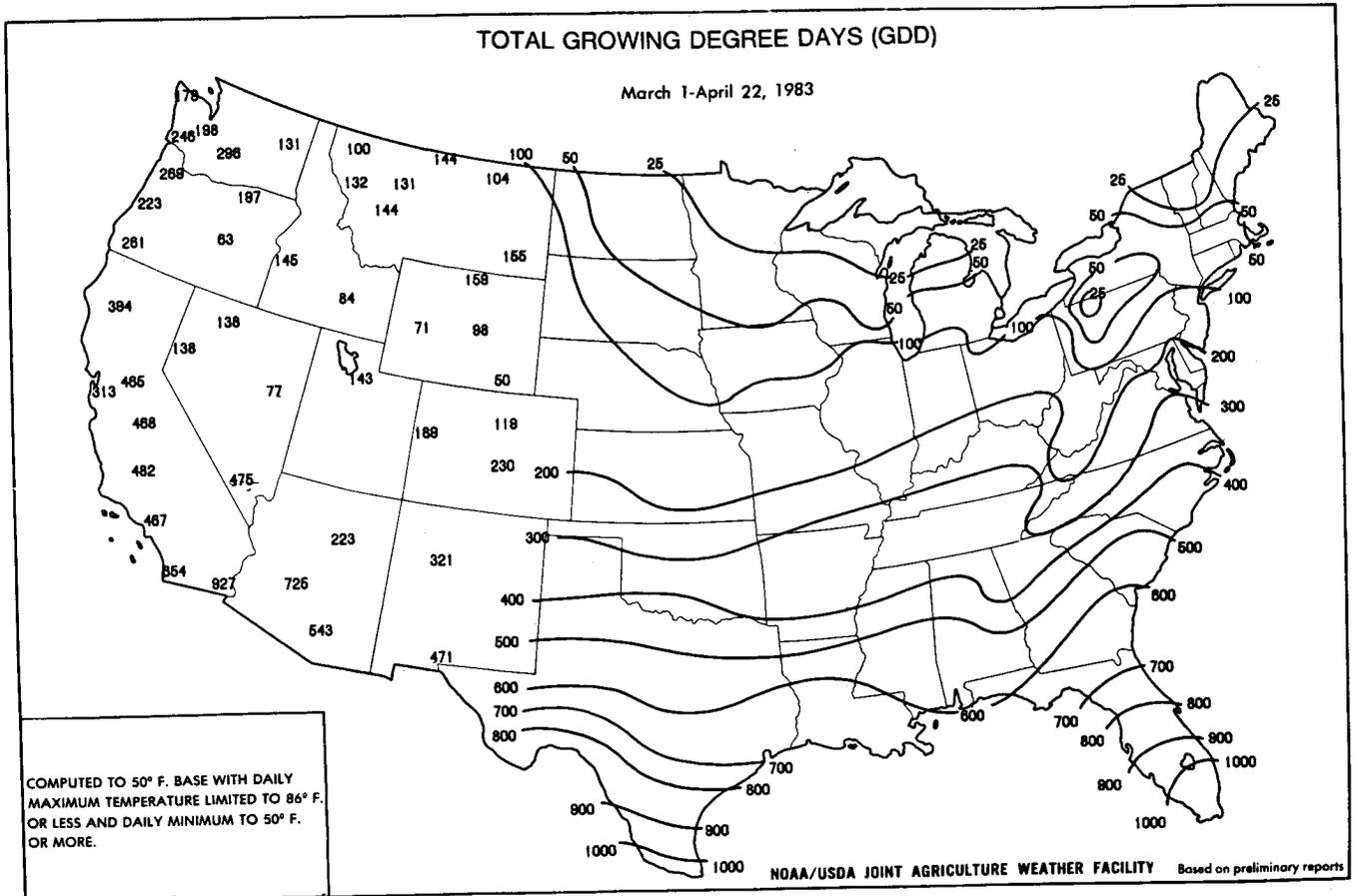
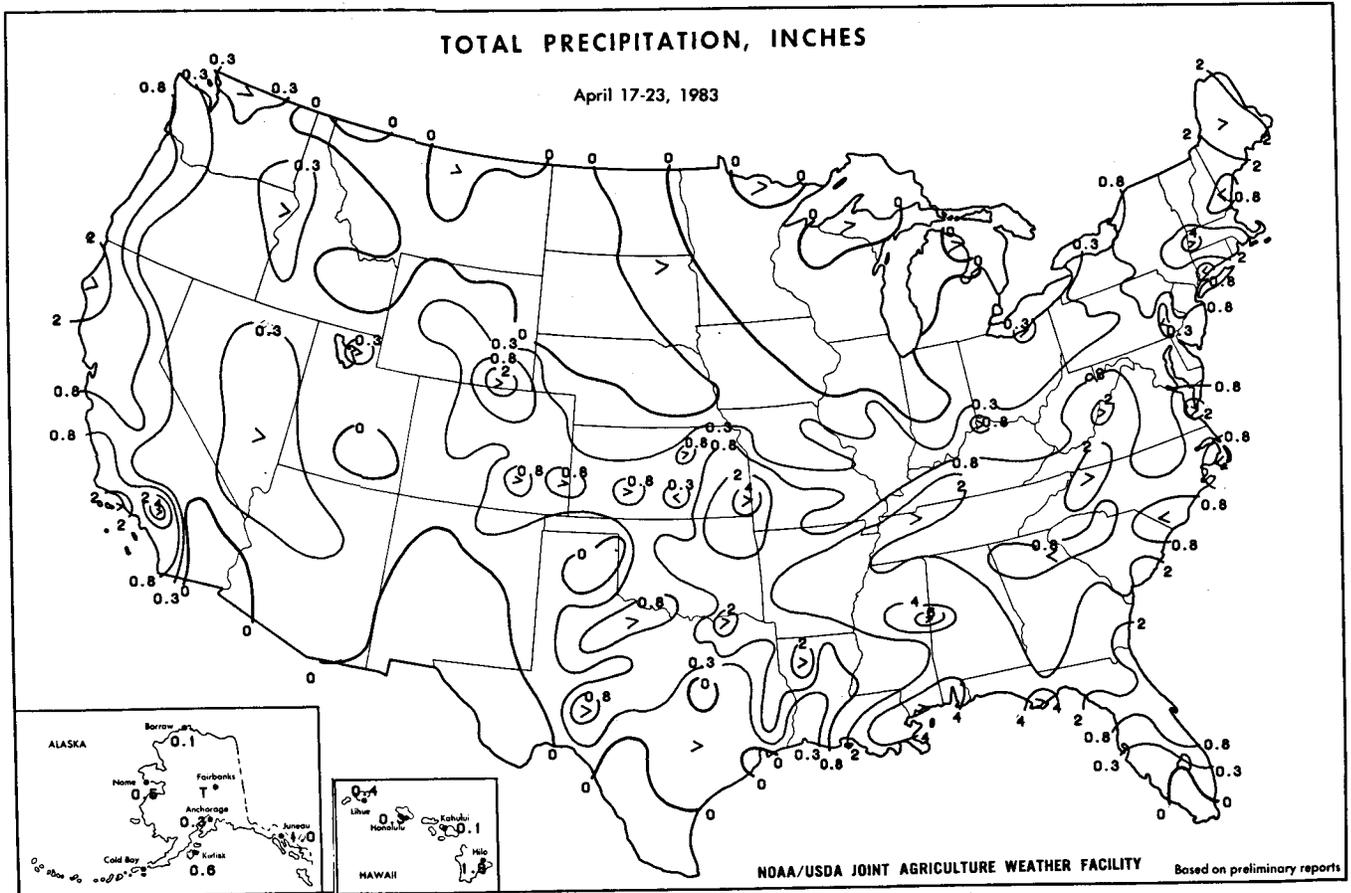
**HIGHLIGHTS:** Storm systems moving eastward from the central Rockies produced heavy rainshowers in eastern Colorado and snow in north-central Colorado and southeastern Wyoming. Showers, thunderstorms, and heavy rain dominated the area from the central Plains and eastern Texas to the Southeast. Moderate to heavy rain covered most of the East Coast States, but snow persisted for several days from New York through western New England. Torrential rains produced local flooding in southeastern Kansas, central Mississippi, the eastern gulf coast, and southern New England. Heavy rain fell along most of the west coast. Cooler than normal temperatures covered the Southwest and the eastern half of the Nation. Averages were 16-18° cooler than normal through Kentucky and Tennessee to the southern Appalachians. Freezing temperatures reached into central Georgia and damaged fruits and vegetables in southern areas.

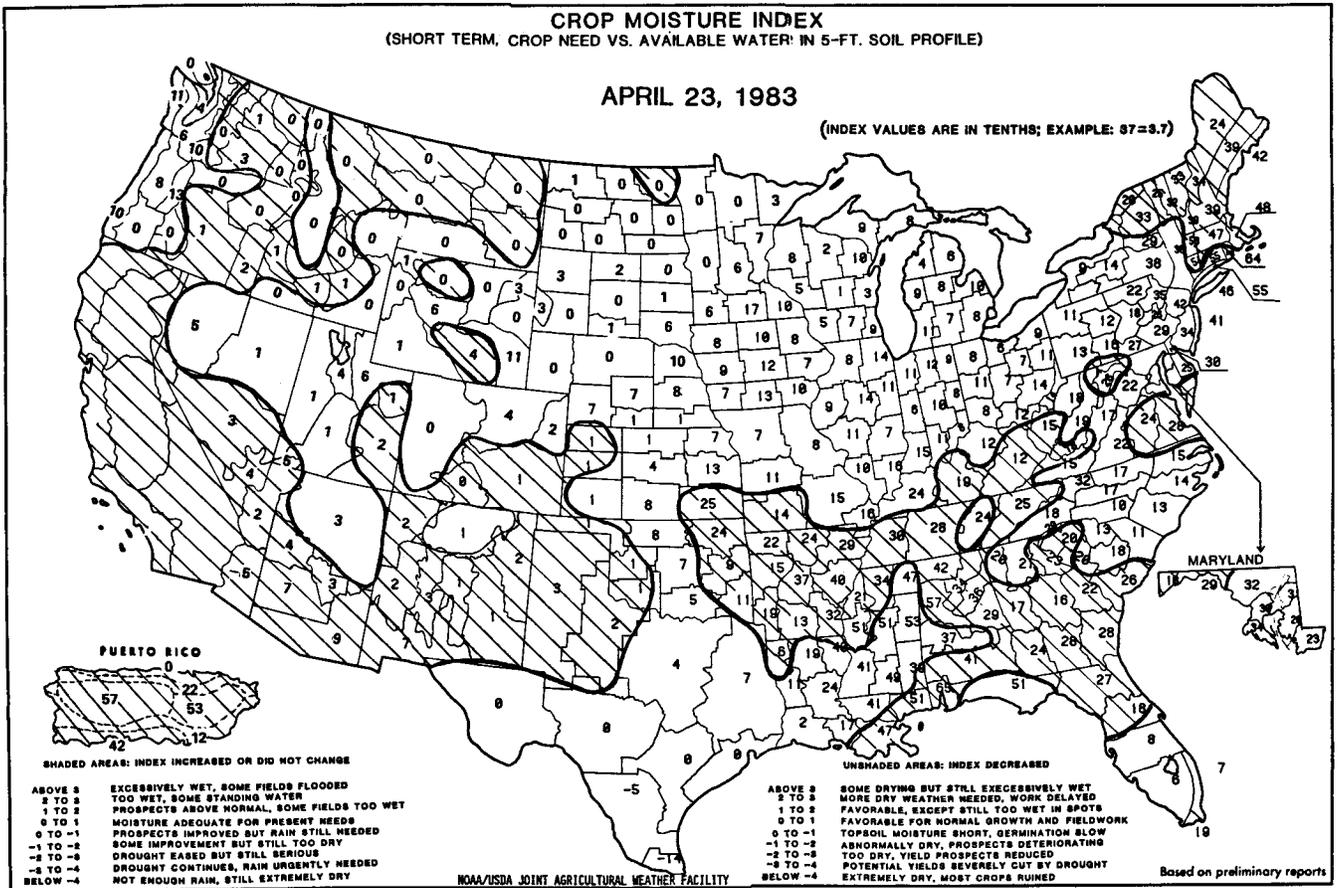
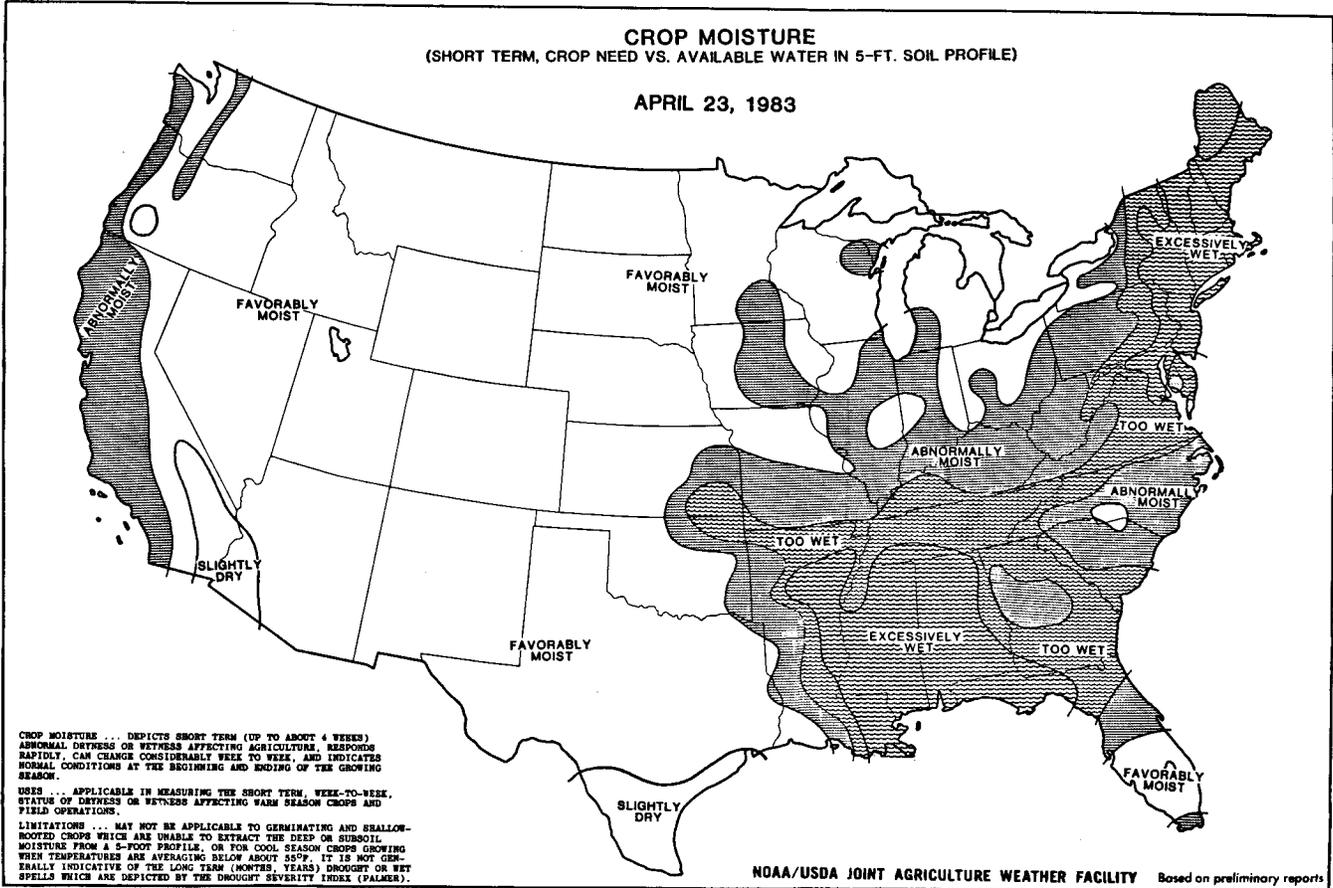
**SUNDAY...**Moderate to heavy rain fell along the coast of northern New England with snow inland. Snow changed to rain in western New York and Pennsylvania and continued as light rain through the Ohio and Tennessee Valleys and the western Appalachians. Light rain covered the mid-Atlantic coast from Maryland to New Jersey. Some moderate rainshowers fell in the upper Mississippi Delta, and a band of light rain extended northwestward to eastern North Dakota. Moderate to heavy showers covered southern California.

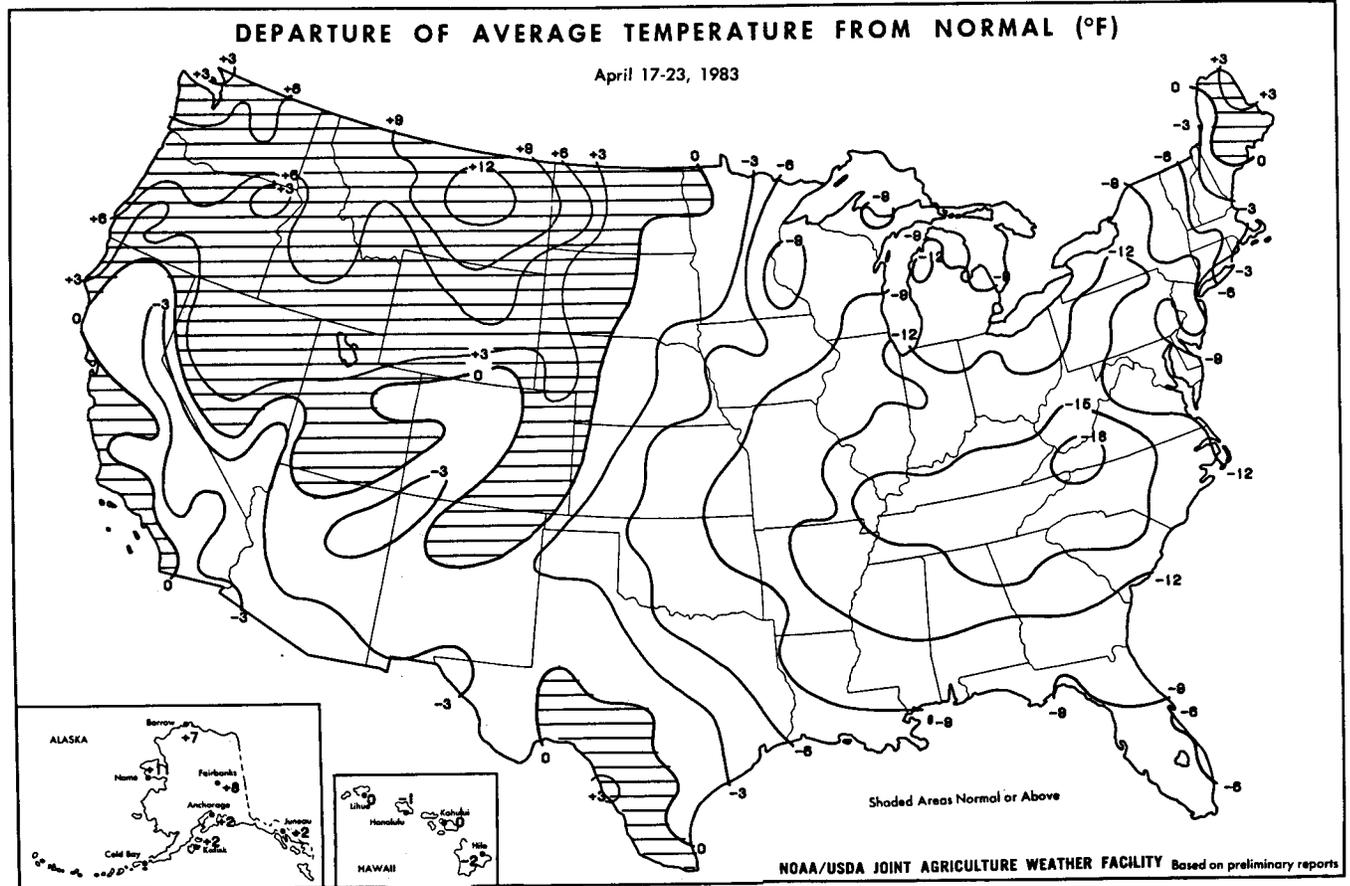
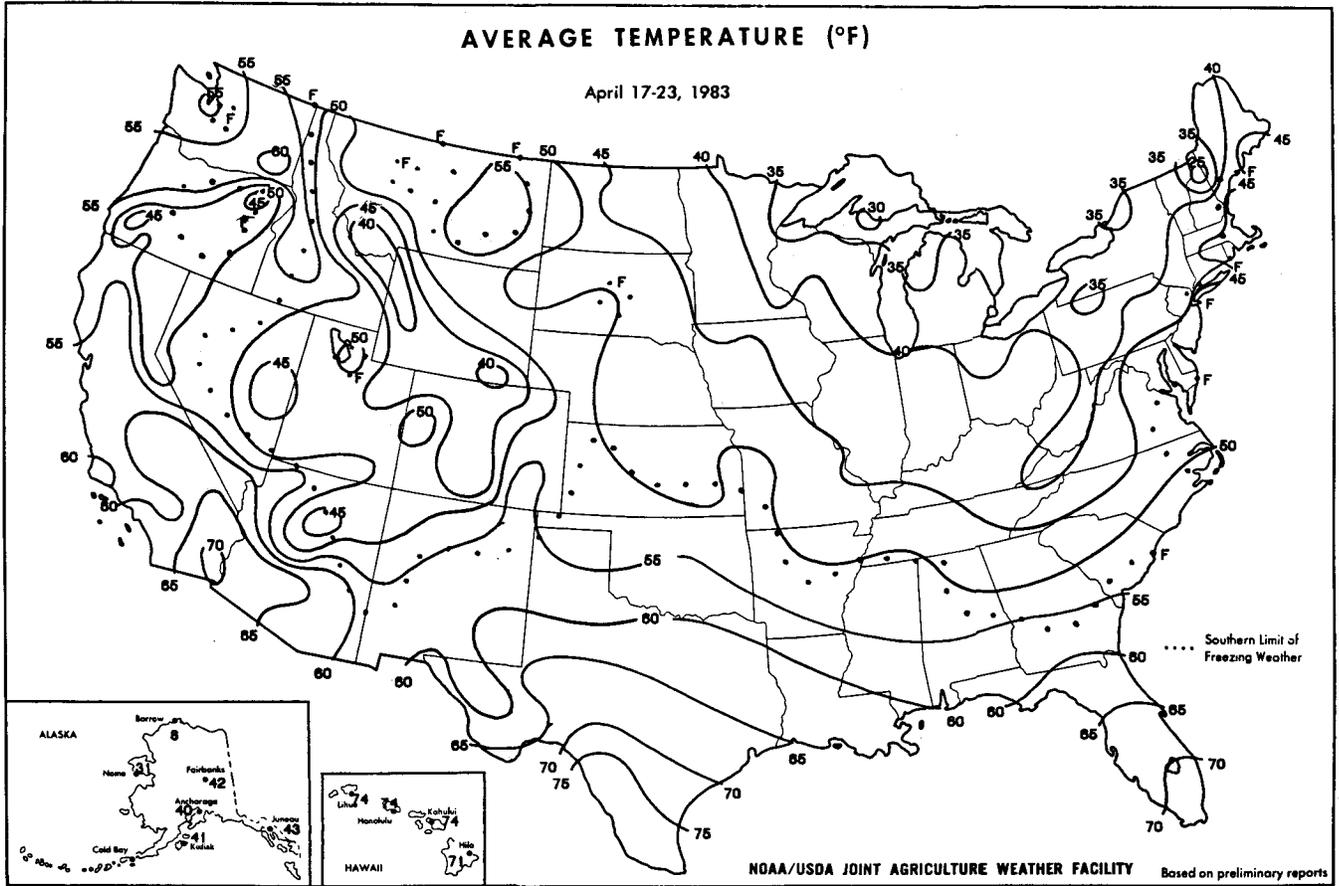
**MONDAY...**A cold front moving through the East triggered light precipitation east of a line from Alabama to Ohio and through the Northeast. Snow covered the area from Ohio through New York and southern New England. Record-cold temperatures spread through the Great Lakes to the Ohio River

(continued on p. 19)

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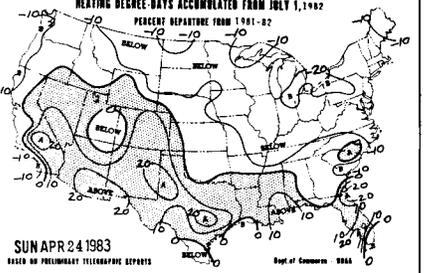
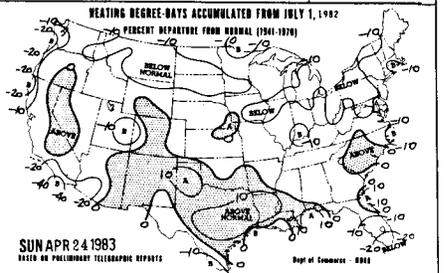
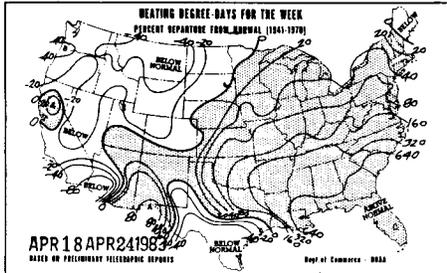




HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING APR. 24, 1983.

BASED ON 1941-70 NORMALS. +ACCUMULATION FROM JULY 1, 1982

Table with columns for STATES AND STATIONS, WEEKLY ACCUMULATION, and SEASONAL ACCUMULATION. It lists data for various states including ALA, ARIZ, ARK, CALIF, COLO, CONN, DEL, D.C., FLA, GA, IDAHO, ILL, IND, IOWA, KANS, KY, LA, MAINE, MD, MASS, MICH, MINN, MISS, MO, MONT, NEBR, NEV, N.H., N.J., N.MEX., N.Y., N.C., N.DAK., OHIO, OKLA, OREG, PA, R.I., S.C., S.DAK., TENN, TEXAS, UTAH, VA, WASH, W.VA., WIS., and WYO.



Weather Data for the Week Ending April 23, 1983

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 FEB. 27	PCT. NORMAL SINCE FEB. 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	62	37	70	30	49	-15	3.0	1.8	1.9	14.4	117	25.6	123	91	34	0	4	4	2
MOBILE	72	46	79	37	59	-10	4.5	3.3	4.3	22.3	176	37.2	180	87	36	0	0	3	1
MONTGOMERY	67	42	77	34	54	-12	2.2	1.2	1.3	21.6	198	34.4	189	85	37	0	0	3	2
AK ANCHORAGE	45	34	51	31	40	2	.3	.2	.2	1.0	91	1.5	54	85	52	0	5	3	0
BARROW	12	4	22	-5	8	7	.1	.1	T	.1	17	.2	18	90	74	0	7	4	0
FAIRBANKS	52	32	60	29	42	8	T	-	T	.2	29	.6	35	67	30	0	3	0	0
JUNEAU	49	36	61	32	43	2	1.0	.3	.7	3.1	47	8.4	64	97	61	0	2	4	1
KODIAK	47	35	49	31	41	2	.6	-.6	.3	10.6	123	27.3	158	88	56	0	2	6	0
NOME	36	26	39	17	31	11	.5	.4	.2	1.0	59	1.2	38	81	64	0	6	4	0
AZ PHOENIX	81	57	93	52	69	0	.2	.1	.1	3.3	275	5.2	208	68	22	1	0	2	0
PRESOTT	59	38	68	34	49	-2	.3	.1	.3	3.3	150	4.8	100	90	46	0	0	1	0
TUCSON	77	48	87	46	63	-4	T	-	T	1.5	136	4.2	168	63	20	0	0	1	0
YUMA	83	58	89	53	70	-2	T	0	T	.2	50	1.0	111	46	19	0	0	0	0
AR FORT SMITH	61	43	75	36	52	-11	1.2	.3	.7	4.8	61	7.9	64	93	52	0	0	4	1
LITTLE ROCK	59	42	73	32	50	-14	3.3	2.1	2.3	10.5	99	14.4	82	94	57	0	1	6	2
CA BAKERSFIELD	72	53	81	48	63	-1	T	-	T	2.8	165	6.1	191	82	39	0	0	1	0
EUREKA	60	48	67	40	54	4	3.3	2.7	1.5	14.6	174	31.6	160	90	66	0	0	6	2
FRESNO	71	53	75	48	62	1	.8	.6	.4	6.3	210	14.4	236	85	40	0	0	5	0
LOS ANGELES	67	54	73	51	60	0	1.5	1.3	.8	9.2	307	19.0	250	91	55	0	0	5	1
RED BLUFF	66	51	72	45	59	-1	.9	.5	.7	12.5	298	25.7	232	83	54	0	0	2	1
SACRAMENTO	65	50	70	48	58	-2	1.1	.8	.6	9.0	231	18.3	191	94	55	0	0	3	1
SAN DIEGO	67	59	69	57	63	2	1.1	.9	.4	8.4	336	13.7	245	86	58	0	0	5	0
SAN FRANCISCO	61	52	68	49	57	2	1.4	1.1	.6	11.1	236	23.9	212	81	59	0	0	3	1
CO DENVER	61	37	72	29	49	0	.7	.3	.5	6.2	200	6.4	173	76	37	0	2	3	0
GRAND JUNCTION	68	41	74	31	55	1	.2	0	.2	2.2	147	3.4	131	82	30	0	1	1	0
PUEBLO	69	38	77	26	54	1	.7	.4	.6	3.1	163	3.7	161	80	29	0	2	3	1
CT BRIDGEPORT	52	36	62	33	44	-6	.8	-.1	.8	13.5	175	21.8	179	0	0	0	0	0	1
HARTFORD	56	33	72	31	45	-6	2.4	1.5	2.3	14.1	168	23.5	172	81	40	0	2	3	1
DC WASHINGTON	58	37	68	33	47	-11	.5	-.2	.4	11.0	167	16.0	145	72	34	0	0	2	0
FL APALACHICOLA	70	50	75	44	60	-9	5.3	4.6	4.9	17.6	217	26.7	195	97	50	0	0	3	1
DAYTONA BEACH	70	50	76	46	60	-10	1.8	1.3	1.1	13.9	248	22.4	224	94	47	0	0	2	2
JACKSONVILLE	72	44	80	38	58	-10	1.2	.4	1.0	13.2	186	24.6	198	95	35	0	0	2	1
KEY WEST	78	69	82	63	73	-5	0	-.4	0	8.5	283	29.6	485	75	53	0	0	0	0
MIAMI	79	60	84	50	70	-6	T	-.8	T	7.4	154	18.1	221	88	41	0	0	1	0
ORLANDO	76	54	85	49	65	-8	.9	.4	.8	9.6	168	19.5	189	91	42	0	0	2	1
TALLAHASSEE	75	45	84	36	60	-8	1.9	1.0	1.7	21.4	208	31.3	179	90	29	0	0	3	1
TAMPA	76	55	85	48	66	-7	.3	-.1	.3	10.8	183	18.9	183	90	46	0	0	3	0
WEST PALM BEACH	79	61	86	49	70	-5	.5	-.3	.4	8.8	144	26.1	251	87	44	0	0	2	0
GA ATLANTA	58	38	64	30	48	-16	.7	-.2	.4	11.8	111	19.5	109	78	36	0	2	3	0
AUGUSTA	65	37	75	27	51	-13	1.7	1.0	1.3	12.9	154	22.6	157	83	33	0	3	2	1
MACON	69	39	80	31	54	-13	1.2	.4	1.0	10.8	117	23.8	147	81	31	0	2	3	1
SAVANNAH	69	42	76	34	56	-11	3.6	2.9	3.2	14.6	192	25.3	204	84	31	0	0	2	1
HI HILO	77	65	78	61	71	-2	1.9	-1.1	.6	10.8	38	12.4	27	90	61	0	0	6	1
HONOLULU	82	67	84	64	74	-1	.3	0	.2	.9	18	1.2	11	87	47	0	0	3	0
KAHULUI	82	67	84	66	74	0	.1	-.1	.1	1.1	26	1.7	17	81	49	0	0	2	0
LIHUE	79	69	81	67	74	0	.4	-.4	.1	1.4	17	2.2	13	80	58	0	0	4	0
ID BOISE	68	44	72	38	56	6	.5	.2	.2	3.6	144	6.5	135	82	36	0	0	3	0
LEWISTON	70	46	77	41	58	7	.4	.1	.4	1.9	95	4.1	108	79	37	0	0	1	0
POCATELLO	63	38	68	31	51	5	T	-.3	T	3.5	152	5.1	134	79	34	0	1	0	0
IL CHICAGO	49	29	64	22	39	-11	T	-.9	T	9.8	151	12.6	145	76	34	0	4	0	0
MOLINE	56	30	69	23	43	-10	T	-1.0	T	7.2	106	9.2	106	82	30	0	5	0	0
PEORIA	56	32	69	22	44	-9	T	-.9	T	8.7	130	10.2	113	77	32	0	4	0	0
QUINCY	53	35	67	24	44	-11	.2	-.7	.2	7.9	113	8.8	96	85	47	0	4	1	0
ROCKFORD	53	27	68	16	40	-10	T	-1.0	T	6.3	90	8.5	93	81	32	0	5	0	0
SPRINGFIELD	55	34	69	24	44	-11	T	-.9	T	6.4	91	7.8	82	82	36	0	4	1	0
IN EVANSVILLE	53	35	62	27	44	-14	.3	-.6	.2	9.6	104	12.2	83	82	42	0	4	4	0
FORT WAYNE	53	31	69	21	42	-9	T	-.8	T	5.2	78	6.9	67	75	34	0	5	2	0
INDIANAPOLIS	52	31	66	23	42	-12	T	-.8	T	6.1	79	8.1	69	82	37	0	4	0	0
SOUTH BEND	50	31	67	22	40	-10	T	-1.0	T	6.2	84	7.9	74	77	38	0	4	1	0
IA DES MOINES	54	36	69	20	45	-8	.4	-.3	.4	7.4	135	10.7	153	74	39	0	4	1	0
SIOUX CITY	54	36	66	28	45	-7	.1	-.5	.1	7.2	185	8.3	173	77	45	0	3	1	0
WATERLOO	55	29	68	20	42	-8	0	-.9	0	6.2	109	8.4	124	87	35	0	5	0	0
KS CONCORDIA	57	38	70	31	47	-8	.1	-.5	.1	5.0	128	7.8	166	91	52	0	1	1	0
DODGE CITY	63	42	74	39	52	-4	1.2	.8	.6	5.5	196	7.4	206	88	51	0	0	2	2
GOODLAND	64	38	72	31	51	0	.1	-.2	.1	3.2	160	4.3	165	85	42	0	1	1	0
TOPEKA	61	41	70	33	51	-5	.8	.1	.6	9.3	175	10.6	163	80	44	0	0	3	1
WICHITA	59	41	73	35	50	-8	.2	-.3	.1	8.4	210	11.5	221	94	58	0	0	4	0
KY BOWLING GREEN	50	35	60	27	43	-16	2.4	1.5	1.8	8.5	83	12.9	69	93	53	0	4	4	1
LEXINGTON	51	34	60	25	43	-14	.5	-.4	.5	4.8	53	7.6	50	77	40	0	4	1	1
LOUISVILLE	52	37	62	27	45	-14	.8	-.2	.8	5.9	62	8.9	59	69	38	0	3	1	1
LA ALEXANDRIA	70	51	77	44	60	-8	.2	-.1	.2	9.2	86	20.1	107	73	47	0	0	2	0
BATON ROUGE	72	49	78	41	61	-9	1.4	0	1.4	19.0	178	29.2	160	88	48	0	0	2	1
LAKE CHARLES	74	53	82	46	64	-6	.1	-.9	T	4.7	63	14.6	97	95	51	0	0	2	0
NEW ORLEANS	72	52	77	41	62	-8	5.3	4.3	5.3	19.1	191	34.8	192	91	47	0	0	1	1

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending April 23, 1983

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 Feb. 27	PCT. NORMAL SINCE Feb. 27	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
ME SHREVEPORT	69	48	78	43	59	-8	.8	-.3	.7	5.1	57	16.1	107	90	57	0	0	2	1
ME CARIBOU	52	36	58	29	44	4	1.8	-1.1	1.0	6.4	125	11.1	128	92	55	0	2	5	1
ME PORTLAND	51	36	58	33	43	-1	.6	-.4	.3	12.9	159	21.4	157	91	52	0	0	3	0
MD BALTIMORE	57	34	69	32	46	-10	.5	-.3	.4	12.3	173	19.4	163	79	31	0	2	3	0
MD SALISBURY	56	34	70	29	45	-11	.6	-.1	.2	11.9	157	17.0	127	96	39	0	2	4	0
MA BOSTON	52	39	58	37	46	-5	.8	0	.5	14.5	179	24.5	173	82	49	0	0	3	0
MA CHATHAM	50	40	55	38	45	+1	.6	-.3	.5	15.8	--	25.1	--	90	68	0	0	3	1
MI ALPENA	44	26	53	22	35	-7	T	-.6	T	5.2	121	8.5	123	82	36	0	7	1	0
MI DETROIT	49	29	64	24	39	-10	.3	-.4	.3	4.9	83	6.5	75	77	40	0	6	1	0
MI FLINT	49	30	62	24	39	-9	.2	-.6	.2	4.9	91	6.9	84	77	40	0	4	1	0
MI GRAND RAPIDS	50	26	65	22	38	-10	0	-.8	0	6.9	110	9.5	108	60	28	0	6	0	0
MI HOUGHTON LAKE	46	25	59	20	36	-8	T	-.6	T	4.5	107	6.6	102	75	32	0	7	0	0
MI LANSING	49	26	62	19	37	-11	.1	-.6	.1	6.0	111	7.8	93	85	41	0	5	1	0
MI MARQUETTE	40	18	49	9	29	-11	.1	-.8	T	8.1	131	14.0	157	91	42	0	7	2	0
MI MUSKEGON	48	26	60	19	37	-10	T	-.8	T	5.9	97	8.2	89	71	35	0	6	0	0
MI SAULT STE. MARIE	41	22	50	15	32	-9	0	-.6	0	5.2	124	8.5	118	78	37	0	7	0	0
MN ALEXANDRIA	55	32	66	24	44	0	T	-.6	T	2.2	67	3.3	80	76	30	0	4	0	0
MN DULUTH	43	24	55	8	34	-7	T	-.5	T	4.2	111	6.0	113	85	45	0	5	0	0
MN INT'L FALLS	54	25	61	14	39	-1	.1	-.4	.1	1.7	59	2.8	72	82	30	0	6	1	0
MN MINNEAPOLIS	51	30	66	21	41	-8	T	-.5	T	6.8	189	8.6	191	86	39	0	4	0	0
MN ROCHESTER	49	26	63	16	38	-9	0	-.6	0	4.3	100	6.3	129	77	39	0	4	0	0
MS GREENWOOD	64	45	72	36	54	-11	3.7	-2.4	3.0	13.4	110	24.7	122	88	46	0	0	3	2
MS JACKSON	68	44	75	35	56	-10	1.0	-.4	.5	21.7	176	35.8	182	97	47	0	0	4	1
MS MERIDIAN	68	43	75	36	56	-10	1.7	-.5	1.1	18.7	150	31.0	154	93	40	0	0	4	2
MO CAPE GIRARDEAU	54	38	62	29	46	--	.4	-.6	.3	8.3	93	9.7	68	94	48	0	2	3	0
MO COLUMBIA	56	36	67	28	46	-11	.2	-.8	.1	7.6	112	8.4	92	86	45	0	4	3	0
MO KANSAS CITY	55	38	66	27	46	-10	.3	-.5	.2	7.4	128	8.6	115	84	49	0	2	2	0
MO SAINT LOUIS	53	36	68	26	45	-13	.4	-.5	.2	7.9	113	9.6	98	94	40	0	4	3	0
MO SPRINGFIELD	59	38	68	32	49	-9	1.4	-.5	.8	8.0	111	9.3	92	80	41	0	1	3	2
MT BILLINGS	70	41	73	33	56	9	T	-.5	T	1.0	33	1.4	36	68	24	0	0	0	0
MT GLASGOW	72	41	76	37	56	11	T	-.2	T	.6	60	.8	44	60	23	0	0	0	0
MT GREAT FALLS	69	36	71	34	53	8	T	-.4	T	1.8	78	2.2	61	69	25	0	0	0	0
MT HAVRE	72	37	74	28	54	10	.1	-.2	.1	.8	42	1.2	46	75	24	0	1	2	0
MT HELENA	70	36	71	30	53	9	T	-.3	T	.7	44	1.1	50	72	22	0	1	0	0
MT KALISPELL	69	33	72	27	51	7	T	-.3	T	2.0	111	3.9	98	90	33	0	4	0	0
MT MILES CITY	72	43	77	38	58	11	0	-.4	0	.9	43	1.2	46	68	22	0	0	0	0
MT MISSOULA	71	37	74	29	54	8	.1	-.2	.1	1.6	89	3.1	91	92	28	0	2	2	0
NE GRAND ISLAND	58	37	62	32	47	-5	T	-.7	T	4.6	118	5.6	127	87	47	0	2	0	0
NE LINCOLN	58	39	66	25	48	-5	T	-.7	T	4.8	112	6.3	126	84	46	0	1	0	0
NE NORFOLK	55	37	63	29	46	-5	T	-.6	T	5.8	166	7.2	160	82	47	0	2	0	0
NE NORTH PLATTE	64	34	74	25	49	-1	.1	-.4	.1	2.9	107	3.5	106	90	39	0	3	1	0
NE OMAHA	54	37	64	25	46	-7	T	-.7	T	7.7	175	9.9	180	81	49	0	3	0	0
NE SCOTT'S BLUFF	66	35	73	24	50	2	.3	0	.3	3.0	130	3.2	128	86	31	0	4	1	0
NE VALENTINE	63	34	68	27	48	0	T	-.5	T	1.8	69	1.9	61	82	34	0	2	0	0
NV ELY	56	32	65	24	44	2	.4	-.2	.4	2.7	135	5.1	176	91	42	0	2	3	0
NV LAS VEGAS	73	50	83	47	62	-3	.4	.4	.3	1.4	175	2.2	147	68	25	0	0	3	0
NV RENO	63	37	66	31	50	3	.1	0	.1	2.0	200	4.7	168	82	31	0	1	1	0
NV WINNEMUCCA	64	38	70	32	51	5	.3	-.1	.1	1.9	119	3.8	123	75	30	0	1	4	0
NH CONCORD	53	31	66	26	42	-4	.7	0	.3	10.8	177	16.9	163	87	40	0	5	4	0
NJ ATLANTIC CITY	56	35	70	32	45	-7	.7	0	.3	12.3	158	18.1	131	97	45	0	3	5	0
NM ALBUQUERQUE	73	39	79	37	56	0	T	-.1	T	.6	60	2.4	150	54	14	0	0	0	0
NM CLOVIS	70	42	78	37	56	-3	.1	-.2	.1	1.2	80	2.6	124	70	23	0	0	1	0
NM ROSWELL	78	46	85	40	62	-1	0	-.1	0	.7	88	1.3	100	59	18	0	0	0	0
NY ALBANY	49	32	60	30	41	-8	1.9	1.2	1.7	11.0	186	16.7	180	90	48	0	4	2	0
NY BINGHAMTON	44	29	60	25	37	-10	1.1	-.4	.6	8.1	135	12.1	123	90	50	0	6	5	1
NY BUFFALO	45	29	60	25	37	-11	.2	-.5	.1	5.2	84	7.9	72	86	50	0	5	4	0
NY NEW YORK	55	40	66	35	47	-6	.9	-.1	.9	17.2	215	24.3	190	88	49	0	0	3	1
NY ROCHESTER	43	30	55	25	36	-12	.7	-.1	.3	4.5	80	7.1	76	91	55	0	6	4	0
NY SYRACUSE	45	29	60	24	37	-11	1.2	.5	.5	6.4	97	9.4	85	96	58	0	6	3	1
NC ASHEVILLE	52	32	60	27	42	-16	1.4	-.6	1.1	11.8	130	20.7	141	81	40	0	6	2	1
NC CHARLOTTE	55	34	64	28	45	-17	.4	-.3	.3	8.7	109	16.4	114	81	31	0	3	2	0
NC GREENSBORO	54	32	67	26	43	-16	1.3	-.6	1.2	11.2	153	16.4	126	81	33	0	5	2	1
NC HATTERAS	58	42	67	34	50	-10	.4	-.3	.3	13.9	193	30.5	209	86	33	0	0	2	0
NC NEW BERN	61	38	72	32	50	-13	1.0	.3	.6	12.5	184	24.5	180	93	33	0	2	2	1
NC RALEIGH	58	33	71	28	45	-15	.6	0	.4	11.6	173	19.4	155	85	30	0	5	2	0
NC WILMINGTON	62	37	70	30	50	-15	.6	0	.4	11.5	158	23.7	182	92	31	0	2	2	0
ND BISMARCK	60	33	66	31	46	1	T	-.4	T	2.3	105	2.8	93	93	40	0	5	0	0
ND FARGO	56	31	65	28	44	-1	T	-.5	T	2.6	100	3.3	106	84	35	0	5	0	0
ND GRAND FORKS	56	33	67	27	45	1	T	-.3	T	2.1	100	2.7	93	82	40	0	2	0	0
ND WILLISTON	70	34	75	25	52	8	0	-.4	0	1.1	58	1.5	60	86	27	0	3	0	0
OH AKRON-CANTON	49	30	66	22	40	-11	.1	-.7	.1	6.5	97	9.4	88	74	40	0	5	2	0
OH CINCINNATI	52	32	64	24	42	-13	.4	-.5	.4	5.4	68	8.1	61	80	35	0	4	1	0
OH CLEVELAND	49	32	63	27	40	-9	.4	-.4	.3	5.5	82	7.4	70	72	38	0	5	2	0
OH COLUMBUS	51	30	65	24	41	-12	.1	-.7	.1	5.2	74	7.1	64	80	34	0	5	3	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

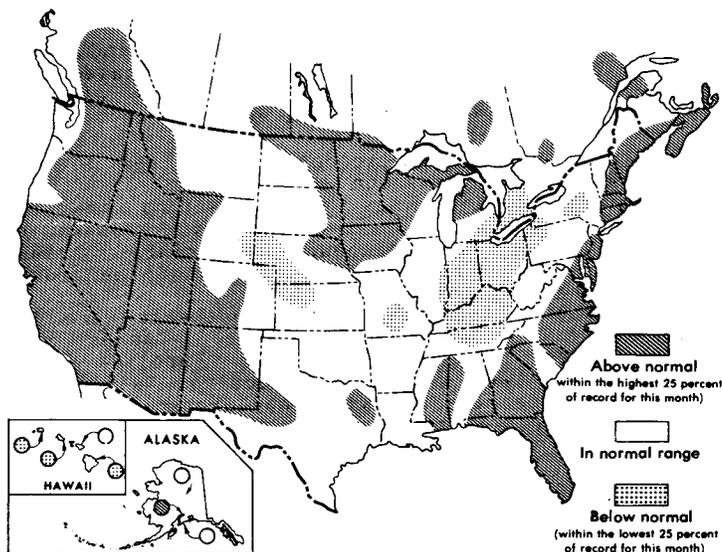
Weather Data for the Week Ending April 23, 1983

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 Feb. 27	PCT. NORMAL SINCE Feb. 27	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	49	30	64	22	40	-13	T	-.8	T	5.8	87	7.9	73	76	37	0	5	2	0
TOLEDO	49	28	65	22	39	-11	T	-.7	T	4.9	86	6.3	72	81	40	0	6	2	0
YOUNGSTOWN	48	30	66	23	39	-10	.1	-.7	.1	6.9	100	9.2	82	73	44	0	5	1	0
OK OKLAHOMA CITY	64	45	73	37	55	-7	.9	.2	.7	4.7	100	9.2	142	91	50	0	0	3	1
TULSA	62	45	77	39	53	-9	2.2	1.2	1.3	5.6	82	10.5	117	92	56	0	0	4	2
OR ASTORIA	63	44	81	41	54	6	.8	-.2	.5	11.9	95	.34.1	121	93	58	0	0	3	1
BURNS	59	37	62	28	48	3	.2	.1	.2	3.5	233	6.3	154	78	46	0	2	4	0
MEDFORD	65	44	73	37	55	4	.3	.1	.3	3.7	128	10.3	126	91	47	0	0	2	0
PENDLETON	67	45	74	41	56	4	.2	0	.2	3.6	180	5.8	135	81	40	0	0	4	0
PORTLAND	67	48	78	41	58	7	.8	.3	.4	8.7	138	22.7	147	86	52	0	0	4	0
SALEM	67	45	75	35	56	6	.8	.3	.5	11.0	151	27.4	152	95	59	0	0	3	0
PA ALLENTOWN	54	34	68	29	44	-8	.3	-.7	-.1	12.1	153	18.2	144	78	39	0	2	3	0
ERIE	46	31	56	29	38	-8	.1	-.7	-.1	5.2	83	7.8	77	74	44	0	5	2	0
HARRISBURG	54	35	69	32	44	-10	.4	-.4	.3	11.0	164	16.6	152	79	37	0	2	3	0
PHILADELPHIA	55	35	70	32	45	-10	.3	-.5	.1	13.3	177	19.6	163	90	39	0	4	3	0
PITTSBURGH	50	29	68	19	40	-12	.2	-.6	.1	7.0	97	9.9	86	75	34	0	5	4	0
SCRANTON	46	31	65	28	39	-11	1.0	.3	.7	10.6	186	13.3	148	86	58	0	5	2	1
RI PROVIDENCE	55	38	68	35	46	-3	2.6	1.7	2.4	17.6	202	26.6	185	83	45	0	0	3	1
SC CHARLESTON	66	41	71	31	54	-12	2.3	1.8	2.1	15.6	208	26.2	205	89	32	0	1	2	1
COLUMBIA	63	34	73	26	48	-17	.8	0	.7	13.9	158	21.9	151	91	29	0	5	2	1
FLORENCE	62	37	72	27	50	-15	.5	-.1	.3	13.4	181	22.1	180	93	32	0	2	2	0
GREENVILLE	56	34	66	25	45	-17	1.6	.6	1.2	10.5	102	18.3	105	78	34	0	3	2	1
SD ABERDEEN	58	34	66	31	46	-1	T	-.5	T	3.2	114	3.6	103	91	47	0	4	1	0
HURON	57	37	68	32	47	-1	.1	-.4	.1	3.4	117	3.5	103	94	51	0	1	1	0
RAPID CITY	63	36	69	31	50	3	T	-.5	T	1.4	48	1.7	52	84	37	0	1	0	0
SIoux FALLS	55	36	64	30	46	-3	.6	-.1	.6	5.9	155	6.7	137	91	49	0	4	1	1
TN CHATTANOOGA	56	35	67	28	46	-16	.9	-.1	.8	10.0	91	17.1	86	87	38	0	3	3	1
KNOXVILLE	53	34	61	25	44	-17	1.3	.4	.6	7.7	79	12.2	68	87	43	0	3	4	2
MEMPHIS	61	42	71	34	51	-13	1.8	.4	1.3	11.8	104	16.6	86	87	45	0	0	4	1
NASHVILLE	55	36	63	26	46	-15	1.6	.6	1.2	10.0	98	15.5	87	92	42	0	3	3	1
TX ABILENE	78	52	86	46	65	-2	.2	-.5	.1	2.5	76	4.8	102	74	24	0	0	3	0
AMARILLO	70	40	78	35	55	-3	T	-.3	T	1.8	106	4.8	200	87	28	0	0	0	0
AUSTIN	78	57	85	43	68	-2	.1	-.7	.1	6.1	130	11.0	122	88	43	0	0	2	0
BEAUMONT	73	56	81	43	65	-6	.1	-.9	.1	5.3	75	14.8	105	94	58	0	0	2	0
BROWNSVILLE	88	65	98	52	77	1	T	-.4	T	.6	29	4.3	93	90	42	2	0	0	0
CORPUS CHRISTI	82	61	90	48	72	-2	T	-.5	T	3.0	100	7.1	116	96	52	1	0	0	0
DEL RIO	89	61	94	52	75	2	T	-.5	T	1.1	44	2.8	76	73	27	4	0	1	0
EL PASO	77	46	81	39	61	-4	0	0	0	1.8	450	2.7	245	62	17	0	0	0	0
FORT WORTH	70	52	78	46	61	-7	.4	-.5	.4	4.8	80	8.6	92	77	43	0	0	2	0
GALVESTON	73	62	82	52	67	-3	T	-.6	T	3.1	61	10.6	107	97	70	0	0	0	0
HOUSTON	75	57	83	44	66	-4	.2	-.8	.2	4.3	61	10.3	78	91	52	0	0	2	0
LUBBOCK	75	45	84	38	60	-2	.2	-.1	.1	1.4	70	4.4	163	75	24	0	0	3	0
MIDLAND	82	48	88	41	65	-1	T	-.2	T	.3	23	1.8	82	65	17	0	0	1	0
SAN ANGELO	83	50	89	39	67	-2	.5	0	.5	2.0	77	4.5	115	87	24	0	0	1	0
SAN ANTONIO	82	56	86	41	69	-2	.1	-.6	.1	3.9	100	6.9	101	84	33	0	0	2	0
VICTORIA	80	60	86	46	70	-2	T	-.7	T	4.5	105	10.0	132	94	49	0	0	1	0
WACO	75	53	81	45	64	-4	T	-1.0	T	3.6	60	7.8	82	84	44	0	0	0	0
WICHITA FALLS	72	45	79	37	59	-7	.9	-.1	.9	3.4	72	6.2	98	90	45	0	0	1	1
UT BLANDING	62	34	66	30	48	0	0	-.1	0	2.4	160	5.5	172	78	31	0	3	0	0
CEDAR CITY	61	38	69	31	50	1	.3	-.1	.2	3.3	150	5.2	163	73	32	0	1	3	0
SALT LAKE CITY	64	43	71	34	54	3	.2	-.3	.1	5.1	121	7.6	129	82	38	0	0	3	0
VT BURLINGTON	44	30	57	26	37	-8	1.6	.9	.6	6.7	137	11.5	149	93	60	0	5	5	1
VA NORFOLK	58	38	68	33	48	-12	1.7	1.0	1.0	10.2	150	18.5	147	81	30	0	0	4	1
RICHMOND	59	37	71	32	48	-11	.5	-.1	.5	10.9	165	16.4	143	93	33	0	1	2	1
ROANOKE	53	34	67	28	43	-14	1.9	1.2	1.8	14.1	201	19.5	165	78	34	0	4	2	1
WA COLVILLE	69	41	73	36	55	7	0	-.3	0	4.4	169	9.4	159	82	45	0	0	0	0
QUILLAYUTE	63	40	77	32	52	5	.4	-1.1	.2	16.1	83	50.1	116	95	46	0	1	4	0
SEATTLE-TACOMA	64	45	74	41	54	5	T	-.5	T	4.9	78	16.4	107	89	47	0	0	1	0
SPOKANE	68	42	71	35	55	8	.2	-.1	.2	2.7	100	6.8	105	84	32	0	0	1	0
YAKIMA	71	41	77	36	56	6	.2	-.1	.1	2.3	256	5.9	197	77	33	0	0	3	0
WV BECKLEY	46	29	62	21	38	-15	.6	-.2	.6	4.6	57	6.6	48	79	38	0	6	2	1
CHARLESTON	53	32	69	26	42	-14	.8	0	.8	5.5	71	9.4	71	70	29	0	4	1	1
HUNTINGTON	53	33	67	27	43	-14	.6	-.2	.6	4.6	59	7.9	62	75	33	0	3	1	1
PARKERSBURG	52	34	67	25	43	-12	.4	-.4	.4	7.5	99	11.3	86	75	34	0	4	1	0
WI GREEN BAY	49	26	63	20	38	-8	T	-.6	T	2.9	66	5.1	86	74	33	0	5	0	0
LA CROSSE	55	28	68	19	42	-8	0	-.8	0	3.7	73	5.3	85	79	23	0	5	0	0
MADISON	52	23	68	16	38	-10	0	-.8	0	4.9	94	7.6	115	87	31	0	6	0	0
MILWAUKEE	45	30	61	22	37	-9	T	-.8	T	8.7	147	11.7	148	73	40	0	4	0	0
WAUSAU	51	27	64	17	39	-7	T	-.7	T	2.6	54	4.7	72	82	26	0	5	0	0
WY CASPER	64	36	68	27	50	6	.2	-.2	.2	3.4	142	4.3	143	87	31	0	1	2	0
CHEYENNE	54	35	62	30	44	1	1.6	1.3	1.1	5.7	271	5.7	211	86	53	0	2	3	1
LANDER	60	37	65	34	49	5	.4	-.1	.3	4.9	153	5.5	141	74	36	0	0	2	0
SHERIDAN	70	36	72	28	53	9	0	-.5	0	1.0	32	1.3	33	67	27	0	2	0	0
PR SAN JUAN	90	75	97	74	83	4	4.5	3.6	1.3	6.2	107	7.1	63	91	61	3	0	7	3

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

## STREAMFLOW DURING MARCH

Department of the Interior  
Geological Survey



Streamflow conditions were generally above average over most of the United States during March, and April began with record-breaking flows on several streams in Mississippi and Louisiana, according to the U.S. Geological Survey (USGS), U.S. Department of the Interior.

New record-high streamflows were set on the Amite, Tangipahoa, and Natalbany Rivers and the Bogue Chitto in Louisiana, and the Wolf and Biloxi Rivers and Red Creek in Mississippi. The flow of the Amite River at Denham Springs, La., for example, peaked at about 59.7 million gallons per minute (gpm) on April 8, about 21 percent over the previous record-high flow of 49.4 million gpm on April 23, 1977.

Wetness dominated streamflow conditions over most of the country during March, but flows in the Ohio River Valley were unseasonably dry and drought conditions in Hawaii worsened.

West of the Mississippi River, 68 percent of the key index gaging stations reported above-normal streamflows--within the highest 25 percent of record for March. Only three stations reported below-average streamflows, one each in Missouri, Kansas, and Nebraska.

Severe storms battering California and Oregon early in March pushed some streams to record-high daily flows and others to record-high levels for the month. Other record-high streamflows during March occurred in Arizona, Nevada, Iowa, Minnesota, South Carolina, and Connecticut.

In Utah, above-average precipitation added to the problem of the rising Great Salt Lake, which rose 9 inches in March, making a total increase of almost 40 inches in the past year. The lake is now at its highest point since 1927.

In contrast to most of the Nation during March, streamflow conditions in the Ohio River Valley were well-below average throughout Indiana, Ohio, and Kentucky, and also in northern Tennessee, eastern Illinois, southern Michigan, western Pennsylvania, and extending eastward into southwestern New York.

Dry weather continued to grip Hawaii. The island of Hawaii was designated as a drought disaster area. Streamflows at the four USGS index stations were below-normal, with stations on the islands of Maui and Hawaii reporting new or record-equaling monthly or daily minimum flows.

The combined flow of the Nation's "Big Five" rivers--Mississippi, St. Lawrence, Ohio, Missouri, and Columbia--averaged 962 billion gallons a day (bgd), 1 percent below average for March. These large rivers account for streamflow runoff for more than half of the conterminous United States, and their combined flow provides a useful check on the status of the Nation's water resources. Indicative of the dry conditions in the Ohio River Valley, flow of the Ohio River at Louisville, Ky., averaged 79 bgd, 50 percent below the long-term March average and 10 percent below the February flow. Most of the key index gaging stations on streams feeding the Ohio River also reported below-average flows.

Working in cooperation with Federal, State, and local officials, USGS routinely collects data on the quantity and quality of the Nation's surface- and ground-water resources at more than 45,000 sites across the country. The highlights of water-resources conditions for March are:

- \***Individual Flows of the "Big Five"**--Reflecting the reduced flow from its Ohio River tributary, flow of the Mississippi River at Vicksburg, Miss., averaged 478 bgd, 9 percent below average for March; St. Lawrence River near Massena, N.Y., averaged 173 bgd, 7 percent above average for this time of year; Columbia River at The Dalles, Ore., 154 bgd, 94 percent above average for March; Ohio River at Louisville, Ky., 79 bgd, 50 percent below average for this time of year; and the Missouri River at Hermann, Mo., 77 bgd, 61 percent above for March.
- \***Record-High Flows Across Country**--New record-high flows for March were set on several streams across the country. Flow for Lynches River at Effingham, S.C., averaged 3.2 bgd, 117 percent above average and the highest March flow in 54 years of record. Flow of the Crow River at Rockford, Minn., averaged 2.7 bgd, 850 percent above average and the highest flow of the month in 58 years of record. Flow of the Des Moines River at Fort Dodge, Iowa, averaged 7.1 bgd, the highest flow in 51 years of record. This was the sixth consecutive month that the flow of the Des Moines has set a new record-high monthly average. Flow of the John Day River at Service Creek, Ore., averaged 6.5 bgd, 231 percent above average and the highest March flow in 55 years of record.
- \***New York**--Streamflow conditions varied in New York during March. Boosted by abundant rainfall at midmonth, streamflows in the southeastern part of the State were well-above average for March, within the highest 25 percent of record. Flows in the western part of the State, however, were generally below average. Ground-water levels responded significantly to heavy precipitation in much of New York, owing partly to the lack of snow cover which allowed the moisture to seep into the underlying ground-water reservoirs. Twelve of the 20 key index wells in the State reported water levels that were above the monthly average, and three wells set new record-high levels for March.
- \***Minnesota**--Streamflow was generally above average during March. Flow of the Mississippi River at St. Paul averaged 28 bgd, the highest flow for March in 86 years of record. In northwestern Minnesota, streamflow of the Roseau River near Caribou averaged 194 million gallons a day, the second highest March discharge in 28 years of record. Flow of the Des Moines River at Jackson in southwestern Minnesota averaged 1.5 bgd, the highest March flow in 49 years of record and the seventh consecutive month that flow has been above-normal--within the highest 25 percent of record. Storage at monthend in the Mississippi River Headwater System increased 17 percent and is 13 percent above average and 21 percent of capacity.

## National Agricultural Summary

April 18 to 24

**Highlights:** Colder than normal temperatures retarded growth and development of crops and pastures across the eastern half of the Nation. Freezing temperatures early in the week dipped as far south as central Georgia, causing widespread damage to blooming fruit trees and tender vegetables. Heavy rains continued to plague the Southeast, pushing planting progress further behind schedule. Soil moisture supplies were adequate to surplus in most areas of the Nation. Farmers had generally 1 to 3 days suitable for fieldwork from the Corn Belt through the Southeast. Winter wheat continued in mostly good condition. Corn planting was 2% finished in the 17 major producing States, 3 points behind normal. Cotton was 18% planted in the 14 major producing States, 1 point behind last year. Spring wheat seeding reached 10% completion, well behind the 24% average. Rice was 24% planted, lagging last years 31%. Peanut planting was active in Georgia and Texas. Pastures and livestock were in fair to good condition.

**SMALL GRAINS...**Winter wheat continued in mostly good condition. However, abnormally cool temperatures continued to retard growth from Oklahoma northward. All areas had sufficient soil moisture to sustain growth and development. The crop slowly continued greening in the northernmost growing areas.

Kansas winter wheat was in mostly good to excellent condition. Thirty-five percent of the stands were past the jointing stage, compared with the 45% average. Growers sprayed light greenbug infestations in southern areas of the State. Some stands had light to moderate disease problems. Oat and barley seeding continued on schedule.

Cool weather continued to slow wheat growth throughout Oklahoma. Stands need warm weather to achieve growth potential, however, the crop continues in good condition.

Winter wheat and other small grains in Texas benefited from warmer temperatures and made good growth. Wheatfields headed as far north as the Low Plains, and some stands began turning color in central and South Texas. The winter wheat crop was mostly in good condition with 20% headed, compared with 27% last year and the 19% average.

Spring wheat seeding of the five major producing States reached 10% completion, ahead of last year's slow pace of 5% but behind the average of 24%. Seeding had begun in all States except South Dakota.

**CORN...**Corn planting in the 17 major producing States was 2% completed, 3 points behind average. Planting was just getting started in Colorado, Kansas, Kentucky, Missouri, and Ohio. Most activity centered in the Southeast, however, wet fields hampered progress. Planting was 70% finished in Georgia and 15% complete in North Carolina, both well behind normal. Emerging plants in the South were mostly in fair condition due to cool, wet weather.

**COTTON...**Cotton planting gained momentum in the Southwest but was just starting elsewhere. Growers in the 14 major producing States planted 18% of the acreage, 9 points behind average. Planting was underway in all States except Arkansas, Missouri, North Carolina, and Oklahoma. Arizona growers were 75% finished; 25% of the acreage was seeded during the week. In California, 65% of the acreage had been planted.

**OTHER CROPS...**Sorghum planting in Texas was 61% complete, 2 points behind last year and the average. Planting was underway in the Low Plains. Growers actively irrigated fields in

South Texas and the Rio Grande Valley. Planting reached 9% completion in Arkansas, 4% in Georgia, and 24% in Louisiana.

Rice seeding was 24% finished, lagging last year's progress of 31%. All five major States had begun planting. Texas with 85% of the acreage seeded was the only State to be ahead of normal.

Soybean planting was just getting started in Georgia. Growers had seeded only a few fields compared to the 2% average.

Peanut planting was just starting in the Southeast due to cool, wet conditions. Growers in Georgia were 7% finished, 18 points behind normal. Texas producers planted 11% of the crop, 2 points ahead of the average.

Tobacco transplants in the Southeast were in mostly fair condition. Freeze damage to transplanted fields in South Carolina was widespread, and some replanting will be necessary. Georgia producers had transplanted 85% of the crop; South Carolina growers were 23% finished.

**FRUITS AND NUTS...**Freezing temperatures pushed southward into central Georgia, causing widespread damage to fruit trees from Virginia and Kentucky southward. Peaches sustained the most damage with South Carolina growers reporting partial to total losses. Texas peach growers will thin orchards as the fruit set is heavy. Apples and peaches were beginning to bloom as far north as New Jersey and Pennsylvania.

In the Pacific Northwest, fruit trees were mostly at or past full bloom. Orchardists were protecting against frost at night. Most areas had good pollination weather.

Citrus groves were in excellent condition with ample moisture in Florida. Valencia orange picking was active, but the grapefruit harvest was slowing.

The Texas grapefruit harvest was slow, with large amounts of small fruit remaining. Valencia orange harvest was moving well.

Citrus harvesting in Arizona was slow due to a weak market. Harvesting of Valencia oranges and lemons increased slightly to fill orders.

California growers were actively spraying and removing dead trees from orchards. Apple orchards were blooming in the foothills and were virtually complete in the valleys. Navel orange harvesting continued steady, while larger volumes of Valencia oranges were picked.

**VEGETABLES...**Freezing temperatures damaged early-planted tender vegetables as far south as central Georgia. Replanting will be necessary in some areas.

Florida's vegetable shipments increased 11% from the previous week. Carrots, cauliflower, and strawberries were the only crops registering declines.

Warm temperatures aided the growth of all vegetable in Texas, but moisture is becoming short in some southern regions. Carrot and spinach harvesting was active, however, volumes were light.

Spring lettuce cutting reached its peak in central Arizona. Melon crops made satisfactory progress, despite cool nighttime temperatures.

Intermittent rains delayed vegetable fieldwork in California. Lettuce harvesting peaked in the San Joaquin Valley but was very light in coastal areas. Rains delayed strawberry picking and caused some quality reduction. Tomato planting was active in all areas. Light to moderate volumes of all vegetables were harvested.

**PASTURES AND LIVESTOCK...**Pastures were in fair to good condition. Below-normal temperatures limited

(continued on p. 19)



Interior. The highest recorded temperature was 83° at both Blythe and Thermal. The lowest, 13°, at Huntington Lake. Long range forecasts show above normal precipitation and slightly below normal temperatures.

Crop activity near standstill, 65% cotton planted, 2% rice. Cotton replanting results from weather. Sugarbeet harvest underway, safflower being planted. Oats harvested, baled. Corn, dry bean ground prepared. Clear weather provided drying conditions, aiding crop development, increasing field activity. Cultivation and herbicide sprays applied. Fungicide spraying increasing. Dead trees being removed. As weather warms, more almond, walnut and peach trees expected to collapse. Heaviest outbreak of peach leaf curl ever reported. Apples blooming in Foothills, virtually complete in valley. Sulfering and cutworm treatment began for grapes. Prune orchards by Sacto River riddled by beavers. Federal trappers at work. Navel orange harvest continues. Valencia oranges picked in larger volumes. Intermittent rains delayed vegetable fieldwork. Artichokes fairly light supply. Asparagus cutting ended Desert, volume Delta, Salinas Valley light. Broccoli harvest fairly heavy Salinas; light Santa Maria. Cauliflower volume light to moderate Central Coast. Celery harvest moderate. Lettuce harvest peaking San Joaquin Valley; very light coastal areas. Onion grading starting Desert. Strawberry harvest delayed by rains; some quality reduction. Planting market tomatoes San Joaquin Valley. Planting processing tomatoes very active central and northern district. Range pasture growth improved warmer temperatures. Grass beginning mature few Foothill areas. Movement livestock from Foothill districts starting. Livestock making good gains.

COLORADO: The week began dry and mild across State. Scattered clouds and showers midweek, precipitation widespread at end of week. Rain fell at lower elevations while a mixture of rain and snow fell in the higher country on 21st, and 22nd. Precipitation on eastern Plains up to 1.00 in. Up to 8 in. of snow fell in mountains. Daily temperatures 60 to 70° at lower elevations, and 30 to 40° in mountains at beginning of week. Temperatures cooled sharply on 21st and 22nd with daytime highs in the 40 to 50's at lower elevations and 30 to 40's in mountains.

Winter wheat: Excellent condition Statewide; 8% jointed. Small grain and row crop seedings behind normal due to wet soils. Corn: 1% seeded; last year, 15%; average, 5%. Barley; 56% seeded; last year, 71%; average, 50%; 15% emerged. Spring wheat: 51% seeded normal about 50%. Oats: 27% seeded; 1982, 61%; average, 46%. Days suitable for fieldwork: 2.0. Topsoil and subsoil moisture: Adequate to surplus. Range and pasture condition good. Livestock in good condition: Cows calved 77%; ewes lambed, 75%.

FLORIDA: Scattered light rains occurred over State 18th and 19th. Widespread rain, thunderstorms across Panhandle and north late 22nd, morning 23rd. Showers and thunderstorms developed across central, south afternoon of 23rd; ended over State by morning of 24th. Locally heavy rains 2.00 to 3.00 in. common in north, with rainfall around 0.25 in. or less elsewhere. Isolated heavier amounts reported in some thunderstorms. Temperatures more like early March than April, but some warming occurred 23rd. Temperatures averaged more than 10° below normal north; 5 to 8° below normal south.

Soil moisture adequate south, adequate to excessive all other areas as rains continue. Corn planting continues. Early corn, tobacco slow growth due cool, wet conditions. Land being prepared for soybeans, peanuts where

soils are dry enough. Wheat headed, disease increasing. The sugarcane season over, a record tonnage produced. Young cane good condition. Pasture conditions mostly fair to good Statewide. Cool, rainy weather in the central, north, Panhandle have slowed growth of spring pastures. Cattle fair to good condition across State. Citrus groves excellent condition, moisture adequate. Rain most areas last weekend, bloom cycle over. New growth most all trees. Valencia harvest active picking grapefruit slowing. Mild days, cool nights prevailed in vegetable areas. Temperatures averaged below normal. Skies mostly clear to partly cloudy. Rain generally limited to light, scattered showers during week. Heavy rains occurred last of week in the north but were mostly light elsewhere. Total shipments increased 11% from previous week. Harvest gained snap beans, celery, Chinese cabbage, sweet corn, cucumbers, eggplant, escarole, lettuce, okra, potatoes, radishes, Southern peas, squash and tomatoes. Supplies about steady cabbage, parsley and peppers. Volume declined carrots, cauliflower and strawberries. Commercial harvest of strawberries, Hillsborough-Manatee area, decreasing but u-pick increasing. Watermelon harvest underway but volume very light. Moderate supplies expected by mid May.

GEORGIA: One of the coldest mid April periods on record. Temperatures 12 to 15° below normal Statewide, freezing temperatures well into south 19th and 20th. Rainfall early in week averaged near 0.75 in. southeast but only about 0.25 in. elsewhere. Wet and stormy 23rd. Rainfall 2.00 to 3.00 in. southern third and northeast. Temperatures warm south 23rd. Otherwise cool.

Soil moisture 52% adequate, 48% surplus. Days suitable for fieldwork 3.0. Cold temperatures and wet soils delaying planting, freeze damage to fruit and vegetable crops, slow growth for emerged crops. Corn 70% planted, 90% last year, average 86%. Condition 33% poor, 61% fair, 5% good. Cotton 12% planted, 23% last year, 41% average; condition 31% poor, 69% fair. Grain sorghum 4% planted, 14% last year and average: Condition 9% poor, 46% fair, 45% good. Peanuts 7% planted, 15% last year, 25% average: Condition 33% poor, 67% fair. Soybeans only few scattered fields planted, 1% last year, average 2%. Tobacco 85% transplanted, 99% last year, 93% average: Condition 28% poor; 67% fair, 5% good. Watermelons 78% planted, 88% last year, 85% average: Condition 14% very poor, 41% poor, 45% fair. Wheat 95% jointing, 77% boot, 57% headed: Condition 6% poor, 54% fair, 38% good. Rye 6% poor, 52% fair, 40% good: Other small grains 6% poor, 52% fair, 41% good. Apples 81% in bloom. Apples mostly very poor to poor in northern one-third, elsewhere conditions quite variable ranging from very poor to fair. Peaches rated very poor in northern one-third, poor in central and fair to good in south.

HAWAII: Weather was generally favorable. Showers in most major crop areas. Light production of bananas and papayas. Supplies of vegetables adequate. Leafy vegetables in moderate to heavy supply. Sugarcane and pineapple harvest continues active.

IDAHO: Precipitation amounts across the State were well below normal as high pressure dominated weather picture the first part of week. Pacific moisture began filtering into the region the later part of week causing scattered, light showers throughout State. Temperatures were about 5° above normal

and ranged up to 11° above normal except for Malad which averaged 2° below normal. The coolest reported temperature was 12° at Hamer while the highest was 78° at Orofino and Lewiston.

Farmers continued to press ahead with their fieldwork. Spring wheat seeded was 60% complete versus 40% last year and 53% average. Barley at 38% complete was ahead of 1982's 31% but trailed the average of 42%. Sugarbeets planted reached 74% complete, 24 points ahead of last year's weather delayed percent and 12 points ahead of average. Potato planting continued to make good progress at 17% complete. Winter wheat was in good to excellent condition. Lambing was virtually complete across the State with calving close to it.

ILLINOIS: Temperatures averaged 9 to 16° below normal. Minimums below freezing several days.

Precipitation light ranging from none to 0.55 in. Soil moisture 34% adequate, 66% surplus. Days suitable for fieldwork: 1.5. Corn planted less than 1%, 1982 2%, normal 3%. Oats 35% seeded, 1982 67%, normal 67%. Tillage for 1983 corn and soybean acres 78% complete, 1982 77%, normal 78%. Pasture supplying 38% livestock roughage requirements. Winter wheat condition 8% excellent, 66% good, 25% fair, 1% poor. Alfalfa and pastures in mostly good condition. Livestock in fair to good condition.

INDIANA: Fieldwork averaged 1.0 day. Topsoil and subsoil moisture mostly adequate to surplus. Spring cropland 70% tilled, 1982 65%, average 70%. Corn 0% planted, 1982 5%, average 0%. Oats 50% seeded, 1982 45%, average 60%. Oats 2 in. tall, 1982 0 in., average 2 in. Clover 70% seeded, 1982 70%, average 85%. Wheat fair to mostly good. Wheat height 8 in., 1982 6 in., average 7 in. Wheat 25% jointed, 1982 15%, average 20%. Tobacco beds 75% seeded. Pastures fair to good.

IOWA: The fifth consecutively cold week. Little to no precipitation since the snowstorm of the 17th fell over a third of State in an 80 mile wide zone from the northwest district southeastward across Des Moines to Keosauqua and Keokuk. Elsewhere little precipitation has fallen since 14th.

Topsoil moisture: 68% surplus, 32% adequate. Subsoil moisture: 76% surplus, 24% adequate. Oats sown: 15%, last year 62%, normal 68%. Fertilizer application complete: 40%. Total plowing completed: 40%. Days suitable for fieldwork 1.6. Livestock in fair to good condition.

KANSAS: Precipitation averaged 0.10 to 0.25 in. northwest district, 2.00 in. southeast, 0.33 to 0.50 in. elsewhere. Temperatures averaged 48 to 52°. Normal northwest, 4 to 5° below normal west central and southwest, 7 to 12° below normal central and east.

Wheat condition good to excellent northwest, west central and north central districts, fair to excellent elsewhere. Wheat acreage in or past jointing stage 35%, 55% last year, 45% average. Some light wind damage. Light greenbug infestations southern districts. Light to moderate disease infestations of soil-borne mosaic, tan spot and speckled leaf blotch. Oats acreage seeded 85%, 95% last year, 85% average. Barley acreage seeded 80%, 80% last year, 85% average. Corn acreage seeded: 2%. 15% last year, 10% average.

KENTUCKY: Chilly spring continued with temperatures 12 to 16° below normal, including subfreezing temperatures during two mornings. Precipitation totaled 0.50 in. in north to 2.50 in. in south central. Much fell over weekend as storm moved east over Gulf Coast States.

Fieldwork continues at virtual standstill due to wet conditions and cold soil temperatures. Field-

work 7 days behind normal. Days available for fieldwork: 3.6. Soil moisture 34% surplus, 61% adequate and 5% short. Corn 2% planted, 9% 1982, 13% average. Tobacco plants up in 62% beds sowed, same as last year, average 67%. Growth slowed by cold weather. Still sowing late beds. Winter wheat and barley under stress due to leaf diseases and wet soils. Topdressing and spraying for garlic. Peach and apple crops experienced considerable freeze damage with peaches most severely hurt. Spraying alfalfa to control alfalfa weevil. Alfalfa 7 in. tall, last year 15 in.

LOUISIANA: Rainfall averaged 0.40 to 3.00 in. Statewide. Temperatures averaged 6 to 11° below normal. High 82°, low 34°.

Soil moisture adequate. Days suitable 3.8. Spring plowing 61%; 81% 1982. Corn planted 61%; 85% 1982; 76% average. Corn emerged 58%; 81% 1982, 64% average. Condition fair. Cotton planted 1%; 7% 1982, 17% average. Rice planted 44%; 62% 1982, 68% average. Rice emerged 30%; 51% 1982, 56% average. Condition poor. Water mold, blackbirds continue to affect stands. Sorghum planted 24%; 41% 1982; sorghum emerged 13%; 26% 1982; condition very poor. Wheat headed 40%; 84% 1982; 64% average. Wheat turning color 16%; 12% 1982. Condition fair. Sugarcane rated fair to good. Vegetables rated fair to good. Sweetpotatoes 5%, 15% 1982; condition very poor. Pastures and livestock continue fair to good.

MARYLAND AND DELAWARE: Temperatures averaged 9 to 13° below normal. Precipitation light in western Maryland - varying amounts elsewhere. The 23rd was cloudy and warm with light showers. Highs in the upper 60's and lows in the upper 30's to low 40's. The 25th cooler with rain all day. Highs in the upper 50's to low 60's and lows in the low to mid 40's.

Wet weather since March has delayed fieldwork. Acreage plowed 10% completed; 75% last year. Small grains wintered in fair to good condition. Disease developing due to excess rain and cool temperatures. Rains delayed fertilization. Tobacco beds 95% planted; last year 100%. Tobacco sales through 21st amounted to 26.3 million pounds, average price \$156.12 per cwt. Vegetable acreage planted behind last year. Potatoes 50% planted; 100% last year. Green peas 55% planted; 85% last year. Snap beans less than 5% planted. Sweet potato beds 85% planted; 100% last year. Peach bloom 80% equal to last year. Very little winterkill or freeze damage. Fieldwork possible only 2.0 days due to wet soils and rain.

Delaware: Cool wet spring. Fieldwork far behind last year. Plowing 15% completed; 80% last year. Small grains wintered in mostly good condition with little winterkill. Sussex County grains in fair condition as result of wet spots. Wet fields delayed spring applications of fertilizers. Vegetable planting about one month behind normal. Green peas: 55% planted; last year 85%. Potatoes: 20% planted; 100% last year. Fruit crops appear good at this time. Peach bloom late from cool weather although about 75% bloomed in Sussex County.

MICHIGAN: Well below normal temperatures were reported across State again. Temperatures averaged 7 to 11° below normal. The fact that it was dry was the only redeeming factor for this week. Rivers were receding towards more normal level and the fields started to dry.

Farming activities picked up as fields began to dry. Onion planting underway in west central areas. More dry and warm days for general spring planting to get underway.

MINNESOTA: Temperatures averaged near normal north-west and north central and 2.0 to 7.4° below normal

elsewhere. Extremes 72° at International Falls and 12° at both Duluth and Faribault. Precipitation averaged 0.39 to 0.65 in. below normal throughout the State. Precipitation totals were a trace north central and southwest; elsewhere no precipitation recorded. Snowfall during past week: Trace reported southeast none elsewhere. Snowdepths at weeks end, trace south central; elsewhere none.

Seeding of small grains and sugarbeets began midweek in northwest and west central districts and became very active by weeks end. Soils still waterlogged in southern counties, so fieldwork has been minimal to date.

MISSISSIPPI: Temperatures 10 to 15° below normal. Extremes 25 and 79°. Cold front first part of week brought rain to northern counties. Cold front last of week brought rain Statewide. Greatest rainfall was 5.02 in. the 22nd and 23rd.

Soil moisture surplus. Rains first of week and near end of week continue to delay land preparation and planting. Fieldwork 2.4 days suitable, 1.0 last year, 3.5 average. Cotton 2% planted, 2% last year, 17% average. Rice 9% planted, 30% last year, 45% average. Corn 26% planted, 58% last year and average; 16% to stand, 40% last year. Condition poor to fair. Wheat 90% jointing; 15% heading; condition fair to good. Pasture condition good to fair. Livestock condition fair to good.

MISSOURI: Temperatures remained cool, with averages of 9 to 13° below normal. Some snow fell in the northern half of the State in the first part of week. Precipitation was widespread but generally light. Local storms brought as much rainfall as 3.70 in. to parts of the western Ozarks in southwest. The rest of the State averaged less than 0.50 in.

Corn 2% planted, 19% last year, 13% normal. Cotton 0% planted, 2% last year, 4% normal. Ground temperatures in Bootheel still too cool to make cotton planting progress, also too wet. No significant fieldwork accomplished during week.

MONTANA: Warm days and cool nights over all State. Temperatures were 5 to 14° above normal. Most areas had maximum temperatures in the 70s and 80s. Highest 81° at Malta and Poplar, lowest 17° at West Yellowstone. Precipitation was light to none.

Soil moisture short to adequate, more needed to start crops. Winter wheat good condition--green and growing. Planting progress excellent with 7.0 days suitable for fieldwork. Spring wheat 30% seeded, normal 20%. Barley 39%, normal 20%. Sugarbeets 45%, normal 35%. Oats 20%, about normal. Calving 80% complete, lambing 75%. Shearing 70% done. Ranges starting to grow. Stock water adequate.

NEBRASKA: Temperatures 2° above normal in west to 6° below normal east. Precipitation light at midweek.

Drying weather finally arrived late in week. Winter wheat good. Oat seeding 15%, 75% normal. Sugarbeet planting active in west. Pasture and range feed development slow due to cool temperatures. Above normal calf losses continued. Topsoil moisture adequate to surplus. Subsoil moisture adequate to surplus. Days suitable: 2.9.

NEVADA: Beginning of week began with rain across entire State. Week ended with showers over parts of the State. Temperatures were near normal except in south where temperatures were 4° below normal and northeast 2 to 5° above normal.

Wet fields prevent much fieldwork although some potatoes were planted. Some alfalfa hay harvest extreme south. Ranges continue to benefit from the abundant moisture supply. Livestock movement to summer ranges continue.

NEW ENGLAND: Temperatures averaged near normal along the coast from Cape Cod thru most of Maine, and 4 to 8° below normal elsewhere in New England. Five days of precipitation brought over 1.00 in. of rainfall throughout the region with many places receiving well over 2.00 in. Precipitation fell as snow in Arlington, VT and Pittsfield, MA early in the week, with accumulations of 8 in.

NEW JERSEY: Temperatures averaged 9° below normal. Extremes 28° at many locations on the 20th and 22nd and 75° at Trenton on the 23rd. Weekly rainfall averaged 2.32 in. north, 2.22 in. central and 1.89 in. south. The heaviest 24-hour total 1.75 in. at Canoebrook on the 24th to 25th. Estimated soil moisture, in percent of field capacity, averaged 100% north, 99% central and 99% south. Four in. soil temperatures averaged 46° north, 51° central and 51° south.

Fieldwork: Ranged 0 to 2.0 days suitable. Cool, wet weather delaying farm activities. Some progress 3 weeks behind schedule. Scattered light asparagus harvest begun. Peaches in full bloom in southern counties.

NEW MEXICO: Temperatures near or slightly below normal. Scattered showers latter part of week. Maximum temperature 85° southeast plains. Minimum temperature 20° western mountains. Mostly open weather.

Cotton 20% planted. Alfalfa fair to good, cutting started south. All wheat good condition, 40% irrigated jointed, 25% dryland jointed. Barley fair to good, 60% jointed. Corn planting underway. Lettuce, onions good condition. Some lettuce being harvested by week's end. Chile planting complete. Pecan trees breaking buds. Cattle, sheep good condition. Range mostly fair, some poor in southwest. Cotton planted: 20%, last year 30%, average 40%.

NEW YORK: Wet, cool week. Temperatures 6 to 11° below normal. Major snow storm on 20th, up to 2 feet in Catskills.

Fieldwork at a standstill, most fields wet and unworkable. Plowing, oat planting behind usual pace. Growth of wheat, hay crops slow. Some winter injury to cherries, other fruit trees came through winter in good condition. Replanting likely on some early planted vegetable fields.

NORTH CAROLINA: Temperature well below normal Statewide. Precipitation below or near normal.

Soil moisture: 2% short, 44% adequate and 54% surplus. Days suitable for fieldwork: 2.7. Condition: Small grains mostly good. Tobacco plant beds: 9% poor, 50% fair, 41% good. Irish potatoes: 41% poor, 36% fair and 23% good. Peaches: 82% poor, 14% fair and 4% good. Pasture: 31% fair, 61% good and 8% excellent. Truck crops: 22% poor, 62% fair and 16% good. Planted corn 15%, 71% last year, 79% average. Irish potatoes: 70%, 100% last year, 92% average. Major farm activities: Tending tobacco beds, corn planting, planting potatoes, land preparation and transplanting tobacco.

NORTH DAKOTA: Most of week sunny and warm, with temperatures below normal southeast and above normal west. Extremes from 76° southwest to 15° north central. Precipitation for week 0.20 to 0.46 in. below normal.

Fieldwork and seeding lag normal due to wet soil conditions. Good weather promoted drying allowing fieldwork to start in some southern counties. With continued drying weather, most southern, central areas expect fieldwork to be general by weeks end. North central, northeast areas general fieldwork will be delayed 1 week to 10 days. Soil moisture adequate over entire State and still too wet for field operations in many areas. About 1% small

grain seeding done. Averages hard red spring wheat 14%, durum 7%, oats 12%, barley 11%. Winter wheat, rye greening and in mostly good condition. Half of pastureland still dormant, rated mostly fair.

**OHIO:** Temperatures averaged well below normal. Cool weather held growing degree day accumulations from 25 to over 40 below normal in most sections. Rainfall was light with less than 0.10 in. at most locations.

Cool weather and wet fields held back most field activities. Favorable weekend weather helped to improve conditions. Winter wheat height to 8 in. Low temperatures on 18th and 19th damaged fruit in some areas of the State. Corn planted 3%, 5% 1982, 4% average. Potatoes planted 7%, 10% 1982, 15% average. Oats planted 40%, 25% 1982, 35% average. Tobacco beds sown 85%, 75% 1982. Days favorable for work 1.5. Pasture condition good. Soil moisture 49% adequate, 51% surplus.

**OKLAHOMA:** Temperatures ranged from 6° below normal Panhandle and southwest to 10° below normal eastern 2/3 of State. Rainfall ranged from 0.20 in. Panhandle to 2.50 in. northeast.

Abnormally cool spring weather continued to retard wheat growth throughout State. Mostly cloudy skies during week curtailed development of all spring crops. Warm, open weather desperately needed to achieve crop potential. Wheat still in good condition. Pastures and livestock in good to fair condition. Little growth made on pastures due to cool temperatures. Cotton planted: 0%, 0% 1982, 0% average.

**OREGON:** Temperatures 6° above normal west; 3° above normal east. First half of week dry; rain last half throughout State.

Winter wheat responding well to drier warmer temperatures. PIK acres being pastured or destroyed. Spring seeding progressing. Corn being planted. Early grass seed fields starting to head; rust sprays going on ryegrass and bluegrass fields. Green chopping in Coastal counties. Hood River pears look good in spite cold weather and heating for freeze. Apples full bloom. Sprays for fire blight going on pears southwest State. Strawberries early bloom stages; cultivating and spraying. New strawberry fields being planted; some red stele older fields. Lophodermium twig blight increasing cranberry bogs. Potato plantings well advanced Hermiston-Boardman area; early fields emerged some concern over recent frosts. Onion planting final stages Malheur County; full swing Willamette Valley. Green peas emerging; additional plantings going in. Broccoli and cauliflower being planted. Asparagus harvest slowed from cold weather. Livestock, range and pastures good to excellent shape. Spring growth good.

**PENNSYLVANIA:** Week continued the cool spring with State average temperature of 41° being 9° below the normal. Every station reported frost at least 1 time during the week and many places were at least 10° below normal. There was some warming near the end of the week. Extremes were 71 and 12°. Average State precipitation of 0.71 in. was only 0.11 in. below normal. Early last week a freak spring storm dumped about a foot of snow in a few places in the extreme northeast. The snow quickly melted, however.

Days suitable: 2.0. Moisture mostly surplus. Activities: Plowing, planting oats, hauling manure, spreading fertilizer, repairing equipment, and shoveling snow. Plowing 25% complete, last year 28%, average 41%. Oats 17% planted, last year 30%. Potatoes 9% planted compared with 21% last year. Planting tobacco beds 60% complete. Hay stand conditions good to fair. Feed from pastures below average. Peaches 14% pink, last

year 58% pink. Cherries 17% pink, last year 60%. Apples less than 5% pink, last year 16%.

**PUERTO RICO:** Island average rainfall 6.58 in. or 5.47 in. above normal. Highest weekly total 16.90 in. Highest 24-hour total 10.50 in. Temperatures averaged about 80 to 79° on Coasts and 74° Interior Divisions. Mean station temperature ranged from 82.4 to 64.3°. Extremes 97 and 55°.

**SOUTH CAROLINA:** Record low temperatures 18th and 19th nights with 20th generally in 20's except coast around 30°. Weekend rainfall heaviest in south. Windstorm or tornadoes Aiken to Bamberg Counties late 23rd.

Soil moisture adequate to surplus. Days suitable for work at 3.0, with plowing at 36% completion. Corn severely hurt by cold, most expected to recover, others replanting, conditions poor Statewide; 23% planted, 80% last year, 74% average. Cotton planting underway, although, soils cold, 3% compared to 18% year ago, 43% average. Tobacco crop widely damaged, some killed and will be replanted. Few beds damaged by freezes with potential transplant shortage. Crop condition poor, 37% planted, 90% last year, 86% average. Peaches injured severely in all production regions, some orchards total loss and others assaying percentage lost; condition very poor to poor. Apple loss up to 95% of major county, other losses seem partial. All fruit damaged by unseasonable cold. Tomato frost damage spotty, including total loss and no damage, as much as 10% lost and damage to about half; conditions overall at poor to fair. Other vegetable, melon injury more severe, replanting where killed. Wheat in heading stage was susceptible to cold injury, but most escaped. Damage evaluations continuing; conditions fair; heading at 20%, 57% year ago, 65% average.

**SOUTH DAKOTA:** Temperatures ranged from 7° below normal extreme southeast to 6° above normal northwest. Extremes: 19 to 74°. Snow fell over parts of east on 17th with accumulation up to 6 in. at Sioux Falls. Warmer, drier weather prevailed late in the week. Precipitation totals for the year ranged from 1.77 in. below normal in the Black Hills to 2.86 in. above normal in the southeast.

**TENNESSEE:** Below freezing temperatures caused severe damage to fruit and vegetable crops. Extent of damage unknown at this time. Some reports of total fruit loss. Early strawberry report indicated 50 to 75% loss. Days suitable for fieldwork, 1.8. Soil moisture 50% adequate, 50% surplus. Corn planted 5%, 1982 19%, average 27%. Cotton planted 1%, 1982 5%, average 11%. Wheat headed 1%, 1982 10%, average 20%. Wheat in fair to good condition. Tobacco in fair condition. Tobacco beds with plants up, 75%. Pastures fair. Cattle good.

**TEXAS:** Brief, mostly light rain showers occurred North Central, East Texas first part of week. Around midweek, thunderstorms increased. Damaging winds, hail reported over North, West Texas. Temperatures 3 to 4° below normal Low Plains, North Central and East Texas, Trans-Pecos, Upper Coastal Plains. Elsewhere, temperatures were near normal. Rainfall 0.50 to 0.75 in. below normal over State.

**Crops:** Fieldwork progressed well, conditions generally good. With soil temperatures increasing, planting corn, sorghum and cotton making good progress. Cotton planting made good progress, continues behind previous years. Open weather, warmer soil temperatures enabled producers to continue planting. Early planted fields Rio Grande Valley, Coast progressing slowly. Sorghum planting gained momentum, planting underway Low Plains. Stands early fields developing well. Some greenbug damage

South Texas. Irrigation active South Texas, Rio Grande Valley. Corn planting made excellent progress, moved north into High Plains. Early planted fields responding to warmer temperatures, recovering from slow start caused by cool, damp conditions. Wheat, small grains continue to benefit from warmer temperatures. Fields heading as far north as Low Plains, some fields Central, South Texas turning color. Greenbug problems diminished. Reported conditions 84% of normal compared with 69% last year. By week's end 21% excellent; 49% good; 28% fair; 2% poor. Rice planting winding down, crop emerging. Cotton planted 11%, 15% 1982, 18% average. Rice planted 85%, 81% 1982, 84% average. Rice emerged 30%, 49% 1982, 43% average. Sorghum planted all purposes 61%, 63% 1982, 63% average. Wheat headed 20%, 27% 1982, 19% average. Corn planted for all purposes 66%, 68% 1982, 64% average. Peanuts planted 11%, 4% 1982, 9% average. Sugarbeets planted 85%, 96% 1982, 93% average. Sunflowers planted 2%, 3% 1982, 2% average.

Commercial vegetables: Rio Grande Valley, harvest of spring onions continued, good volumes being shipped. Carrot harvest active, volumes light. Watermelons making good growth. Citrus harvest continued, Valencia oranges moving well. Grapefruit harvest slow, large amount of small fruit remaining. Coastal Bend, growth of cucumbers, watermelons good. Lack of moisture now becoming problem. San Antonio-Winter Garden area, warm weather aided growth of onions, cucumbers for pickles. Carrot, spinach harvest continued, shipments decreased. East Texas, tomato, watermelon planting slow. Some tomato transplanting necessary as cold temperatures damaged earlier sets. Trans-Pecos region, onions, carrots, potatoes are developing well. Moisture becoming short. Plains, onions, potatoes developing well, irrigation need increasing. Pecans developing rapidly, now setting leaves. Insect problems light, good crop expected. Peach trees setting fruit. Fruit set heavy, some thinning may be necessary.

Range and livestock: Range, pasture condition continued to show improvement. Moisture short in many areas, additional rainfall needed. Livestock in good to excellent condition, adequate grazing most areas. Supplemental feeding continued where pastures developed slowly.

UTAH: Precipitation moderate to heavy western and central, light eastern. Below normal temperatures all divisions.

Spring progress again limited by poor weather. Less than 4.0 days suitable for fieldwork. Some progress in spring planting. Spring wheat and barley 1/3 seeded, onions about 3/4 in. Calving and lambing continue, with losses a little above normal. Shearing 70% complete. Frost losses in apricots 21%. Other fruits not hurt. Need warm weather for pollination.

VIRGINIA: Unseasonably cool temperatures brought snow to the State on 18th with 2.00 to 6.00 in. in the southwest, 1.00 to 3.00 in. over the North Carolina border areas--2.00 to 4.00 in. in Tidewater sections and a trace or less central and northern areas. Frost reported in all sections of the State during midweek as temperatures remained cold. Average temperatures were 10 to 20° below normal. More rainfall over the weekend--23rd and 24th--of 1.00 to 3.00 in. continued to keep ground saturated and minor flooding again occurred on small streams, creeks and at points along all the major rivers in the State.

Topsoil moisture continued to improve despite the snow and rain and is now rated 47% adequate and 53% surplus. Corn seeding progressed to 11% complete compared with 38% last year and 34% average. Potato planting about 64% complete, 83% last year and 96% average. Wet soils still causing rotting and reseeded reported necessary on some

farms. Field activities limited to well drained, light soils and consisted of overseeding and top-dressing hay and pastures, soil preparation for seeding and some seeding, cutting of rye and fertilizer and lime applications. Powdery mildew still present in wheat in southeast but generally in excellent condition. Fruit is doing well with spotty damage due to frost in all areas except for the important southwest and south central areas, these two reported more damage to peaches. Tobacco plant beds reported in fair condition after several nights of temperatures in the 20's. Freeze damage was significant in the southwest and south central regions. Livestock in good condition. The wet, cold, snowy conditions made it necessary to continue supplemental feeding. Pastures in excellent condition but wet. Feeder cattle sales still active.

WASHINGTON: Weather: High pressure covered State most of week. Associated off-shore flow kept skies clear allowing for warm days and cool nights.

East and West: Wheat and barley crops good condition. Stripe rust and yellow dwarf virus starting to show. Fieldwork continued to increase. Activities include summerfallow cultivation and fertilization for next year's grain crops. Potato and grain corn continue to be planted. Early planted corn emerged. First cutting alfalfa should be near normal, cool weather slowed growth. Hop growers stringing yards. Frost damage minimal. Strawberries starting to bloom, blueberries full bloom. Raspberries leafing, blossoms starting to develop. Apple trees early areas blooming. Small fruit varieties west developing a week ahead of normal. Planting cauliflower, broccoli, carrots, peas, spinach, beets. Early peas and lettuce emerged. Harvest continues rhubarb, winter cauliflower, and asparagus crops. Pastures and range grass excellent growth. Stockmen turning livestock out. Dairymen continue green chopping. Livestock good condition.

WEST VIRGINIA: Temperatures averaged 13° below normal in the northwest, north central and south central areas of the State; 15° below normal in the central and southern areas and 8° below normal in the northeast area. The high was 70° and the low was 16°. Precipitation was above normal across the State except in the northwest where it was near normal.

The soil moisture was adequate to surplus. Days worked averaged 2.4. Hay supplies were adequate to short. Grain and other feed supplies were adequate. Cold, wet weather slowed fieldwork and delayed pasture growth.

WISCONSIN: Cool temperatures early in the week gradually moderated to mild temperatures by 21st. North winds cooled State 23rd, but warm temperatures returned 24th. The high for the week was 70° at Richland Center on the 22nd. The low for the week was 10° at Phillips on the 18th.

Widely scattered snow flurries fell 18th and isolated rain showers occurred 21st, 22nd and 23rd. Precipitation was very light with only a few stations reporting more than trace amounts for the entire week.

Corn planted 0%. Soil moisture: 66% surplus, 34% average. Days suitable for fieldwork: 1.0.

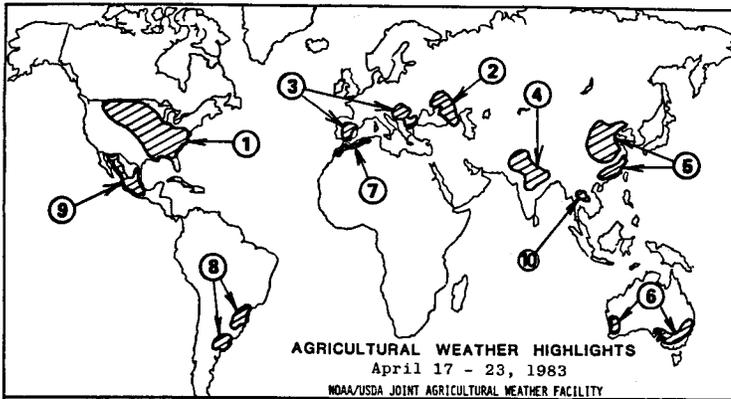
WYOMING: Southeast experienced abundant moisture. Elsewhere, amounts near to slightly below normal. Temperatures most parts near normal.

Topsoil moisture adequate 98% State. Days suitable for fieldwork: 4.0. Spring wheat 25% planted. Oats 20% planted. Small amount of both emerged. Barley planted 40%, emerged 20%. Sugarbeets planted 30%. Small amount of corn, potatoes

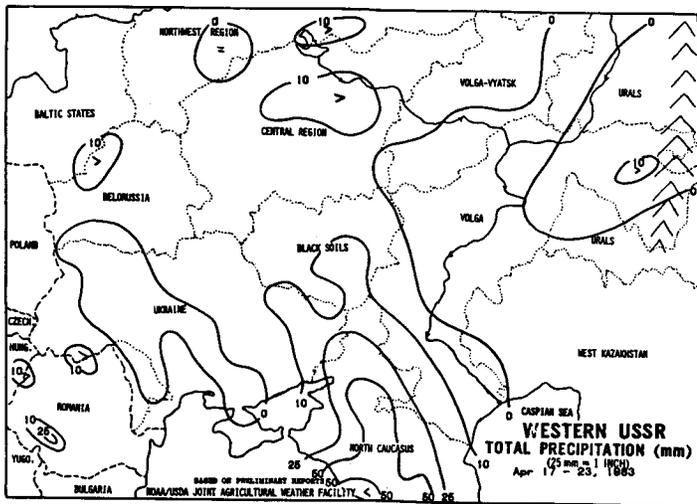
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# International Weather and Crop Summary

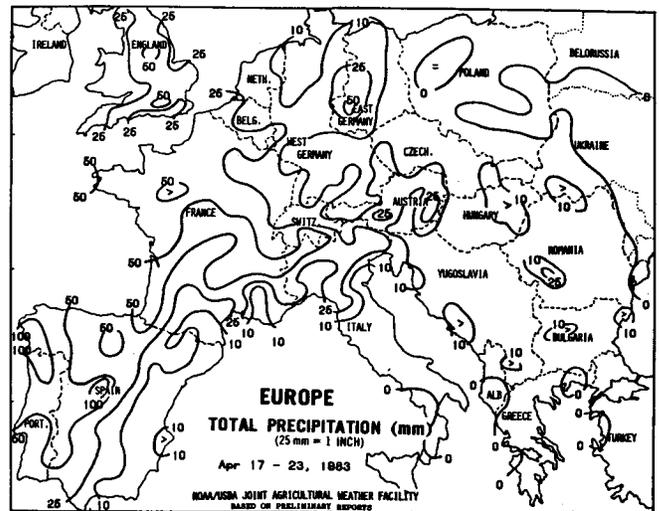
April 17 to 23



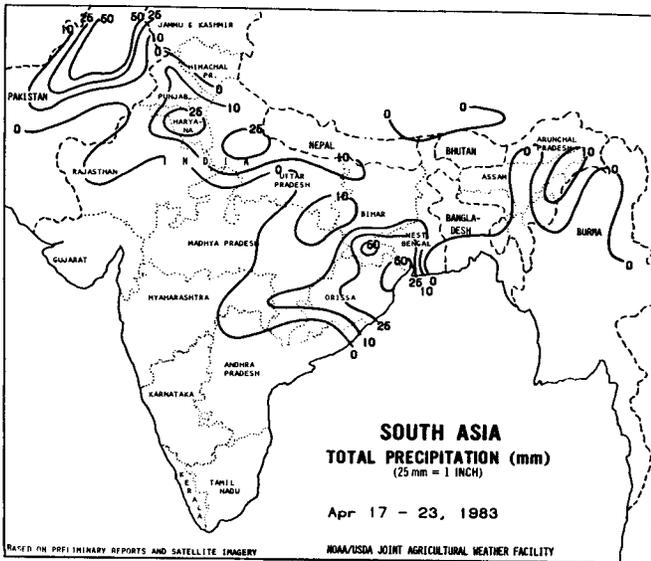
1. UNITED STATES ... Drying conditions in Corn Belt and spring wheat areas favor preplanting activities, while prolonged wetness plagues the Southeast. Record cold in East slows crop development and heavily damages fruits and vegetables in upper Southeast.
2. WESTERN USSR ... Beneficial, widespread rains in the North Caucasus, eastern Ukraine, and southern Black Soils aid emergence of spring crops and favor winter grain growth.
3. EUROPE ... Rains benefit winter grains in Spain, improving crop prospects in the north and decreasing the potential for further yield losses in the south. Moisture supplies are slightly short for winter grains in the southeast.
4. SOUTH ASIA ... Dry weather benefits winter grains in Pakistan and northern India following a rainy period.
5. EASTERN ASIA ... Heavy rains continue to plague crop areas south of the Yangtze River. More rain is needed for spring growth in the North China Plains, Nei Monggol, and Liaoning.
6. AUSTRALIA ... Light, scattered showers cover winter grain areas, but widespread rains are needed in upcoming weeks for winter grain planting.
7. NORTHWESTERN AFRICA ... Light showers bring limited relief to winter grain areas of Morocco. Continued dry weather stresses winter grains in the heading stage in Algeria and Tunisia.
8. SOUTH AMERICA ... Wet weather slows harvesting in some Brazilian soybean areas. In Argentina, rains benefit preplanting moisture conditions in Buenos Aires but slow the cotton harvest in Chaco and Formosa.
9. MEXICO ... Abundant sunshine benefits most fieldwork but depletes soil moisture, especially in parts of Northeast which was unseasonably hot.
10. SOUTHEAST ASIA ... Premonsoon showers in northern Thailand aid reservoirs. Corn areas are still awaiting onset of rains before planting can begin.



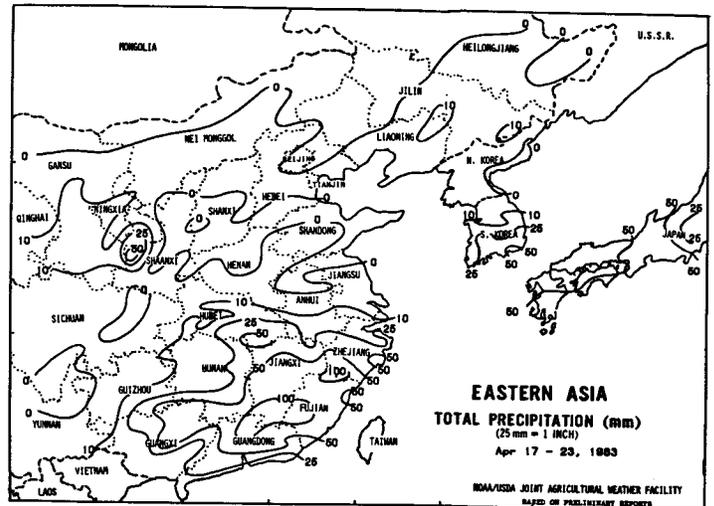
**WESTERN USSR...** Showers benefited grain areas in the North Caucasus, the extreme eastern portion of the Ukraine, and parts of the southern Black Soils early in the week. Precipitation amounts ranged from 25 to 50 mm in the North Caucasus and were the first significant amounts reported since early March. The much needed showers improved topsoil moisture conditions required for proper germination of spring crops and benefited winter grains in the vegetative stage. In contrast, unfavorably dry weather continued over crop areas in the southern Ukraine. Elsewhere, continued wet weather over much of the west and northern half of the region in past weeks gave way to drier weather and lighter amounts of rainfall this past week. Temperatures were near normal in the west and above normal in the east.



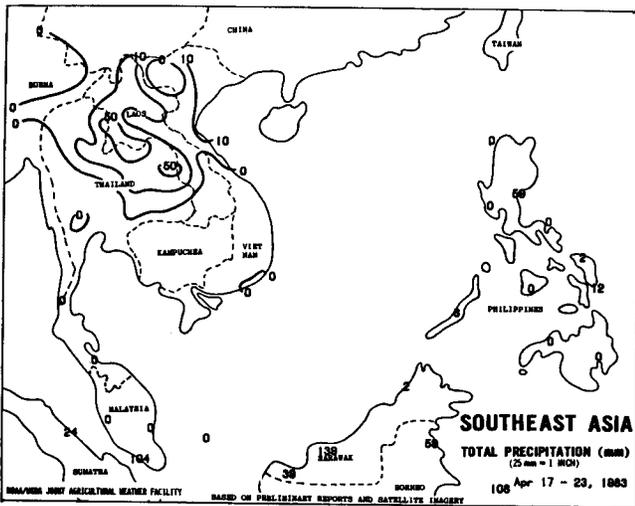
**EUROPE...** Beneficial, widespread showers (around 25 mm) fell on winter grains in the Iberian Peninsula. The precipitation relieved persistent dryness which had covered the region since December. The moisture in the south benefited winter grains in the late heading stage, halting further yield losses. In contrast, grains further north should just be entering the heading stage, and the timely rains will improve crop prospects there. The moisture will also promote planting of spring crops. Elsewhere, wet weather covered England and France, while drier weather allowed some spring fieldwork in northern Europe. In the southeast, light precipitation covered most crop areas, but locally, soil moisture supplies are becoming short, particularly for winter grains in the vegetative stage.



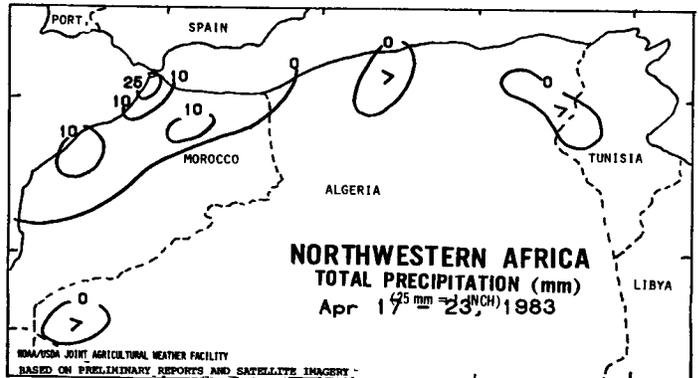
**SOUTH ASIA...**Rain over winter grain areas in northern Pakistan and northern India early in the week was followed by sunshine and beneficial drying weather. Last week, heavy rains and gusty winds in these areas likely caused crop lodging and delayed harvest activity. However, the drier weather of this past week allowed the wheat harvest to resume. Elsewhere, dry weather continued over south peninsular India which normally receives premonsoon showers in April. The lack of these premonsoon showers may be an early indication of a delayed summer monsoon. However, the summer monsoon normally does not arrive in southern India until late May or early June.



**EASTERN ASIA...**Heavy rains continued to plague crop areas south of the Yangtze River. Rainfall amounts ranged from 50 to 100 mm, increasing the likelihood of localized flooding. Lighter amounts of rain spread eastward, benefiting winter grains in South Korea as well as crops grown in Japan. In contrast, crop areas north of the Yangtze River received little, if any, precipitation. Significant precipitation is needed in the North China Plain for winter grains in the vegetative stage and spring crop planting. Rains are especially needed in Nei Monggol and Liaoning where cumulative precipitation since last autumn has been below normal.



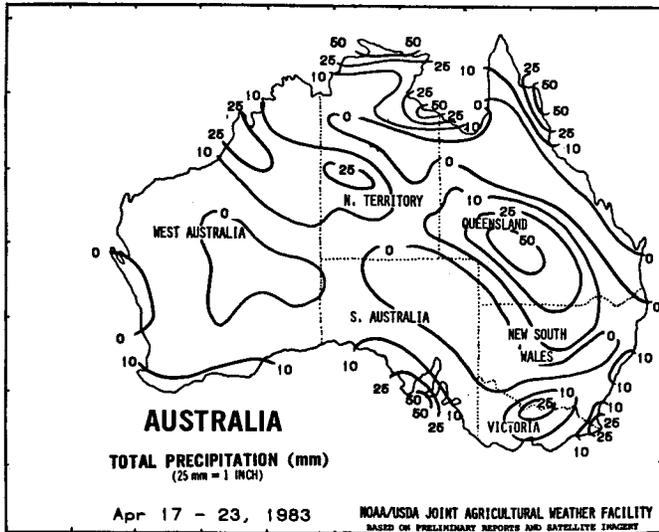
**SOUTHEAST ASIA...**Premonsoon showers covered parts of Laos and northern Thailand, aiding reservoir levels. Hot, dry weather blanketed corn areas of the central plains in Thailand, thus, farmers are still awaiting the onset of significant rains before planting can begin. Also, farmers will plant the wet-season rice crop when significant monsoon rains begin, normally in early May. However, the current lack of moisture in southern Thailand and Malaysia may be an indicator of a delayed arrival for the monsoon over Thailand.



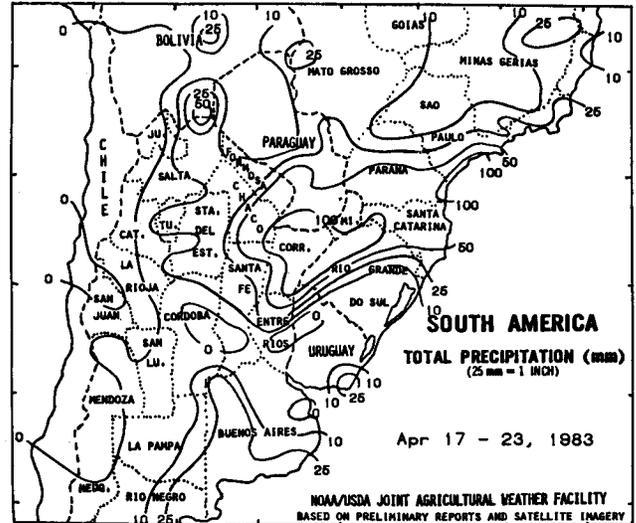
**NORTHWESTERN AFRICA...**Light, widespread showers covered winter grains in Morocco, bringing limited relief from the dry weather of past weeks. In contrast, winter grain areas in northern Algeria and northern Tunisia received little or no precipitation. Winter grains, now in the moisture sensitive heading stage, urgently need rain in all areas to improve crop yield potential. Weekly temperatures moderated to below normal over Morocco but rose to above normal in Algeria and Tunisia.

**State Summaries** (continued from p. 16)

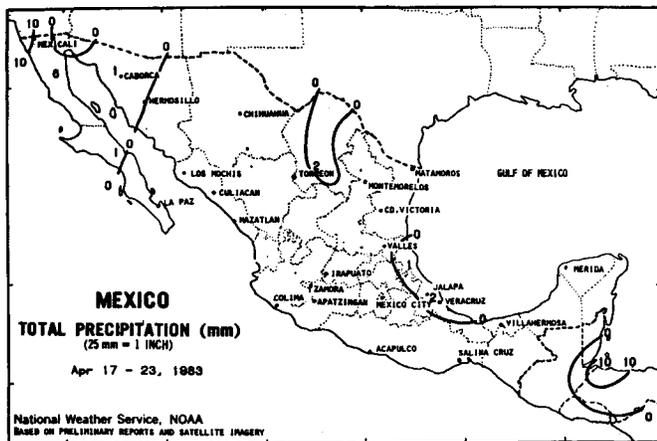
planted. Fertilizer supplies adequate Statewide. Livestock mostly good condition. Heavy losses due to scours and pneumonia in some areas. Spring calves born 75%. Farm flock: Ewes lambed 75%; shorn 70%. Range sheep: Ewes lambed 50%; shorn 45%. Calf, lamb losses light to normal, some heavy losses. Ranges, pastures mostly good condition.



**AUSTRALIA**...Light, scattered showers covered winter grain areas in the southwest portion of West Australia, south coastal areas of South Australia, Victoria, and inland coastal areas of eastern New South Wales and eastern Queensland. However, most of the significant precipitation in Queensland fell west of the wheat area. The planting season for winter wheat usually begins in May and extends into June and July across the Australian wheat belt. Optimal planting for wheat usually is achieved by June 15. However, grazing lands and crop areas of eastern Australia suffered from a drought last year, as did much of the southern half of the continent. As a result, widespread rains will now be needed in upcoming weeks to improve soil moisture conditions to levels needed for planting and proper emergence of autumn-sown crops.



**SOUTH AMERICA**...Heavy rains covered Brazil's soybean areas of northern Rio Grande Do Sul, Santa Catarina, and southern Parana, interrupting the harvest. However, mostly dry weather in northern Parana and Sao Paulo allowed soybean and cotton harvests to progress with few delays. In Argentina, widespread rains covered wheat areas of southern Buenos Aires and eastern La Pampa, increasing soil moisture supplies prior to planting in the upcoming weeks. Further north, generally dry weather aided the corn, sorghum, and soybean harvests in northern Buenos Aires, Cordoba, southern Santa Fe, and Entre Rios. Cotton areas in Chaco and Formosa received some showers, locally heavy in the south, which probably produced some harvest delays.



**MEXICO**...Dry weather continued over most areas and allowed fieldwork to proceed on schedule. Unseasonably hot weather developed over parts of the northeast where the afternoon reading climbed into the low forties (C). This temperature increase caused high-water requirements for crop and livestock--more typical of summer than spring. Irrigated crops should have progressed well across the country, but the water supply is unusually short in several areas, especially in the southern Plateau corn belt.

**National Weather Summary** (continued from front cover)

**FRIDAY**...Temperatures warmed in the Southeast, although some points in the Appalachians and Piedmont reached freezing. A storm system moving eastward from the central Plains spread showers and thunderstorms from the central Rockies and the central and southern Plains to the Southeast coast. Torrential downpours caused local flooding in southeastern Kansas and from central Arkansas through Mississippi and Alabama. A new Pacific storm dumped heavy rain over northwestern California and lighter amounts from Washington and Oregon to the northern Rockies.

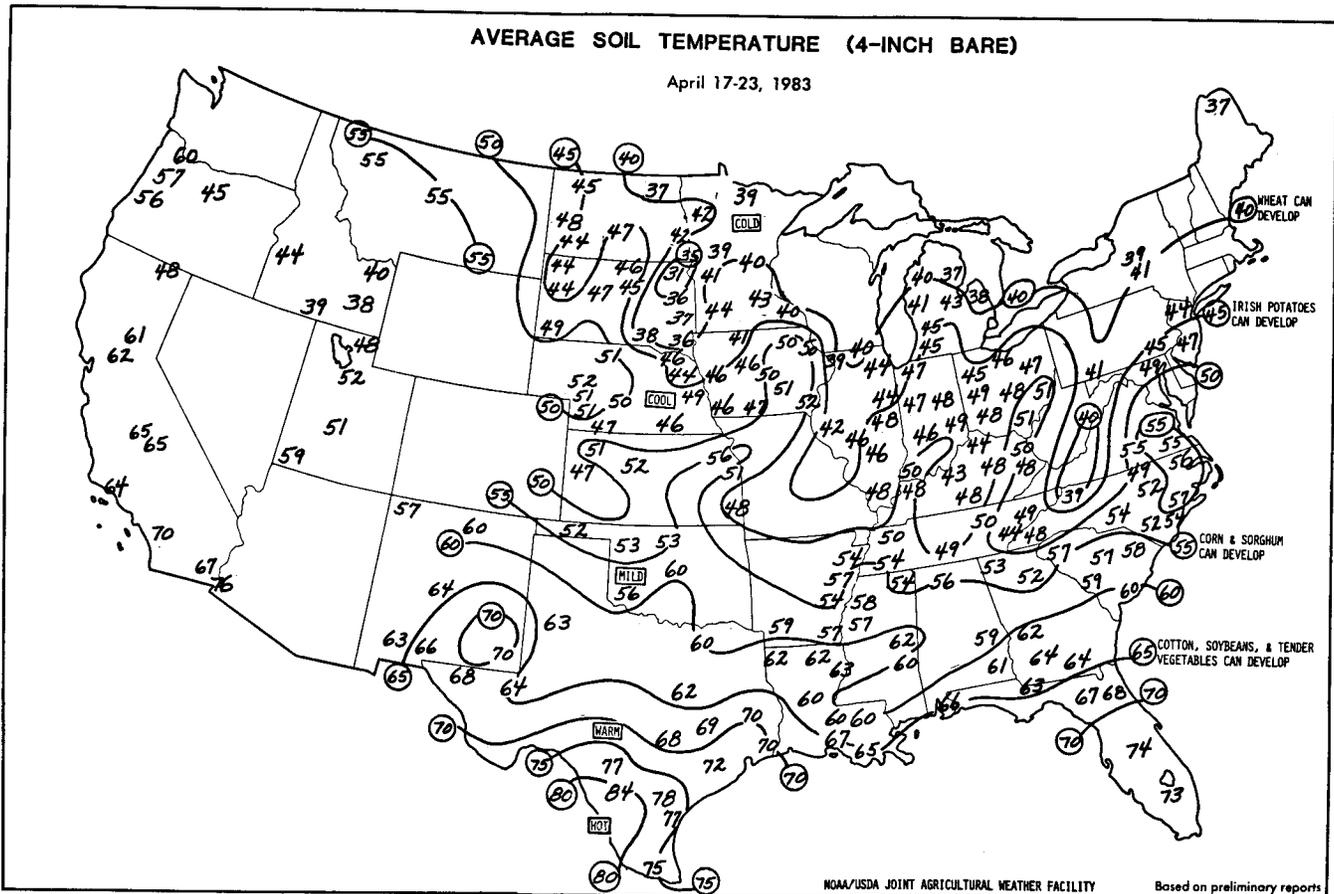
**SATURDAY**...The storm moved eastward to the southeastern coast, spreading a shield of rain, showers, and thunderstorms from Louisiana to Missouri to the east coast, through the Ohio Valley, and over all the East Coast States except Maine. Precipitation was heavy from Tennessee to the central Appalachians, the central and southern Piedmont, and along the east coast. The Pacific storm spread rain from central California through Washington and eastward through Idaho. Some heavy rain fell in western Idaho and northeastern Oregon.

**National Agricultural Summary** (continued from p. 10)

grass growth in the eastern half of the Nation. However, ample soil moisture in most areas should boost growth when temperatures warm. Supplemental feeding continued in many areas due to wet field conditions. Calving and lambing were well advanced in northern areas. Weather-related problems caused an above-normal number of deaths in some areas.



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