WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
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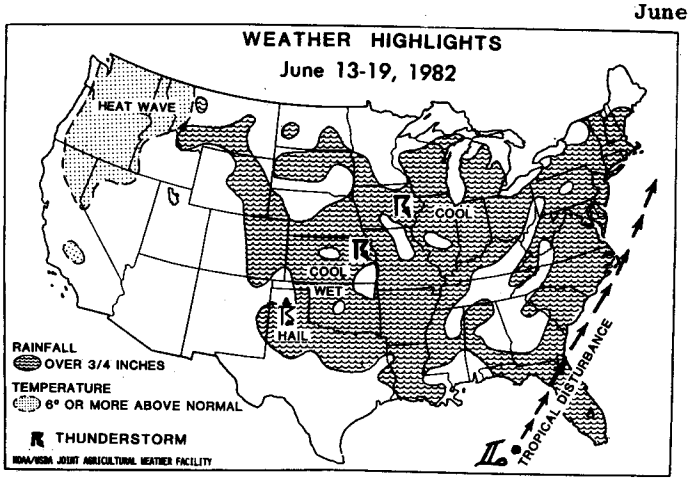
National Weather Summary

June 13-19



HIGHLIGHTS: Average temperatures for the week were cooler than normal over the Corn Belt and the hard red winter wheat region. A heat wave ensued in the West, and temperatures averaged up to 10° warmer than normal through the interior of Washington and Oregon and into Canada. Precipitation totals were very light in the West, but nearly all of the area east of the Rockies experienced showers and thunderstorms. Tropical rain dropped large amounts of moisture over much of the Southeast. Severe weather in western Texas produced hail, devasting some cotton fields.

SUNDAY...Showers and thunderstorms continued along the east coast and central gulf coast. A low pressure center over the mid-Atlantic region triggered heavy rain over much of the area. A few showers fell over the northern Plateau and Rockies and in the High Plains of Texas. Late in the day, showers developed from Kansas to the Dakotas. Morning temperatures were cool over most of the Nation, but afternoon highs reached the low eighties in parts of the northern Plains and the Ohio Valley.

MONDAY...Light showers fell over the northern Rockies, but thunderstorms triggered heavy rain and severe weather throughout Kansas and to Wisconsin and into Michigan. A few showers lingered over the New England coast and in northern Florida. Temperatures were warm in the West--approaching 100° in the Central Valley of California--and reached the high eighties through the southern Plains to Kansas and the low eighties in the Ohio Valley and Michigan.

TUESDAY...A cold front reached from southern Lake Michigan to the Texas Panhandle and moved slowly eastward. Showers and thunderstorms developed ahead of the front, and a few showers continued behind the front. The most intense storms were from northern Louisiana to southern Missouri, but some heavy rain reached to Michigan and Ohio. Scattered showers and thunderstorms reached through the Tennessee Valley to the Carolinas. Showers were widely scattered in the northern Rockies but were more frequent along the east central slopes.

WEDNESDAY...Numerous showers and thunderstorms developed from Louisiana to Ohio, through the Northeast, and to the Atlantic coast. The weather was more severe from Louisiana to Kentucky, but heavy showers occurred throughout the East. Another cold front moving into the northern Plains triggered showers and thunderstorms from the northern Rockies to Nebraska and the Dakotas, and across Minnesota to the western Great Lakes. Cool weather prevailed behind the easternmost front. Record cold morning temperatures were reported in Wisconsin and Minnesota.

(cont. on last page)

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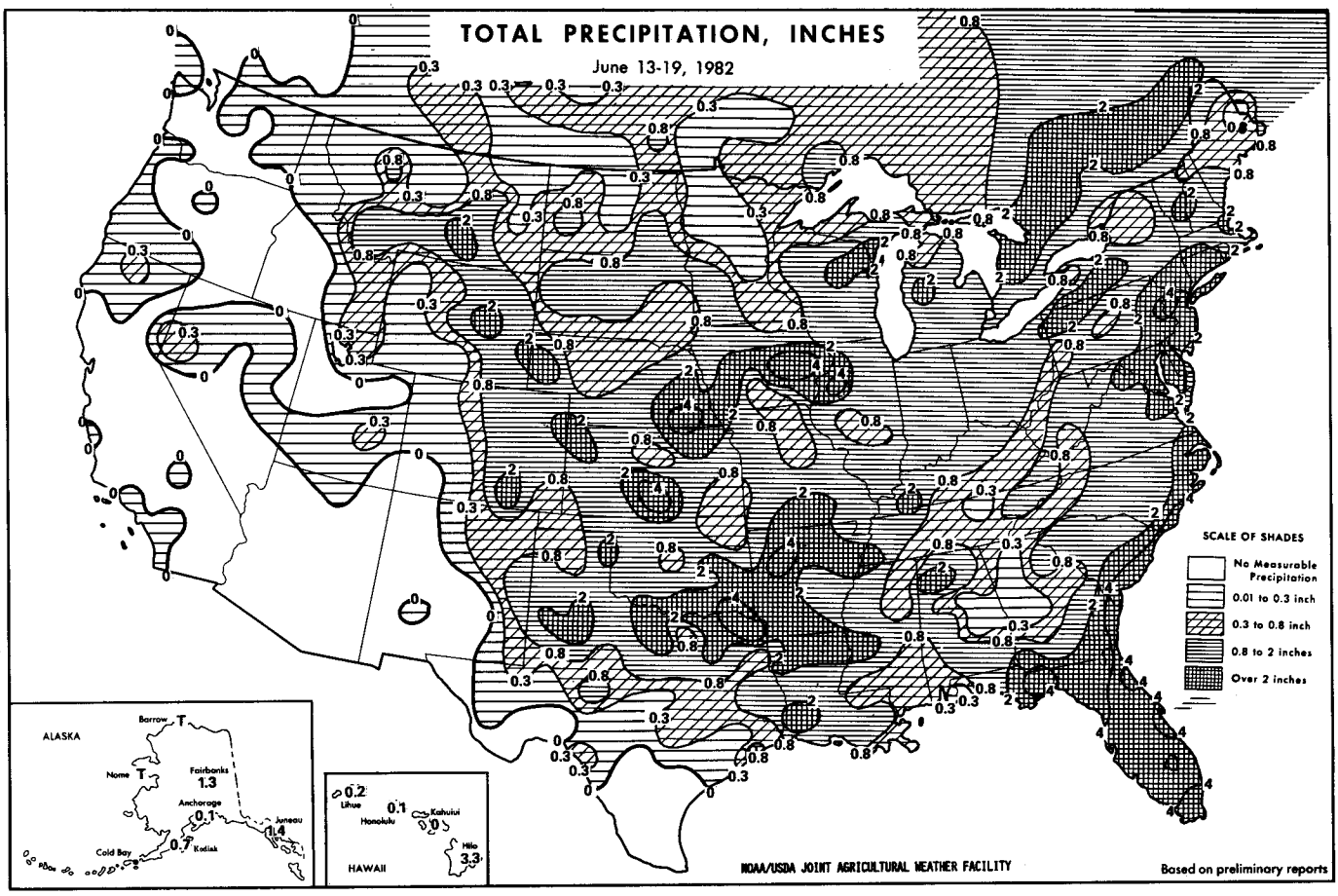
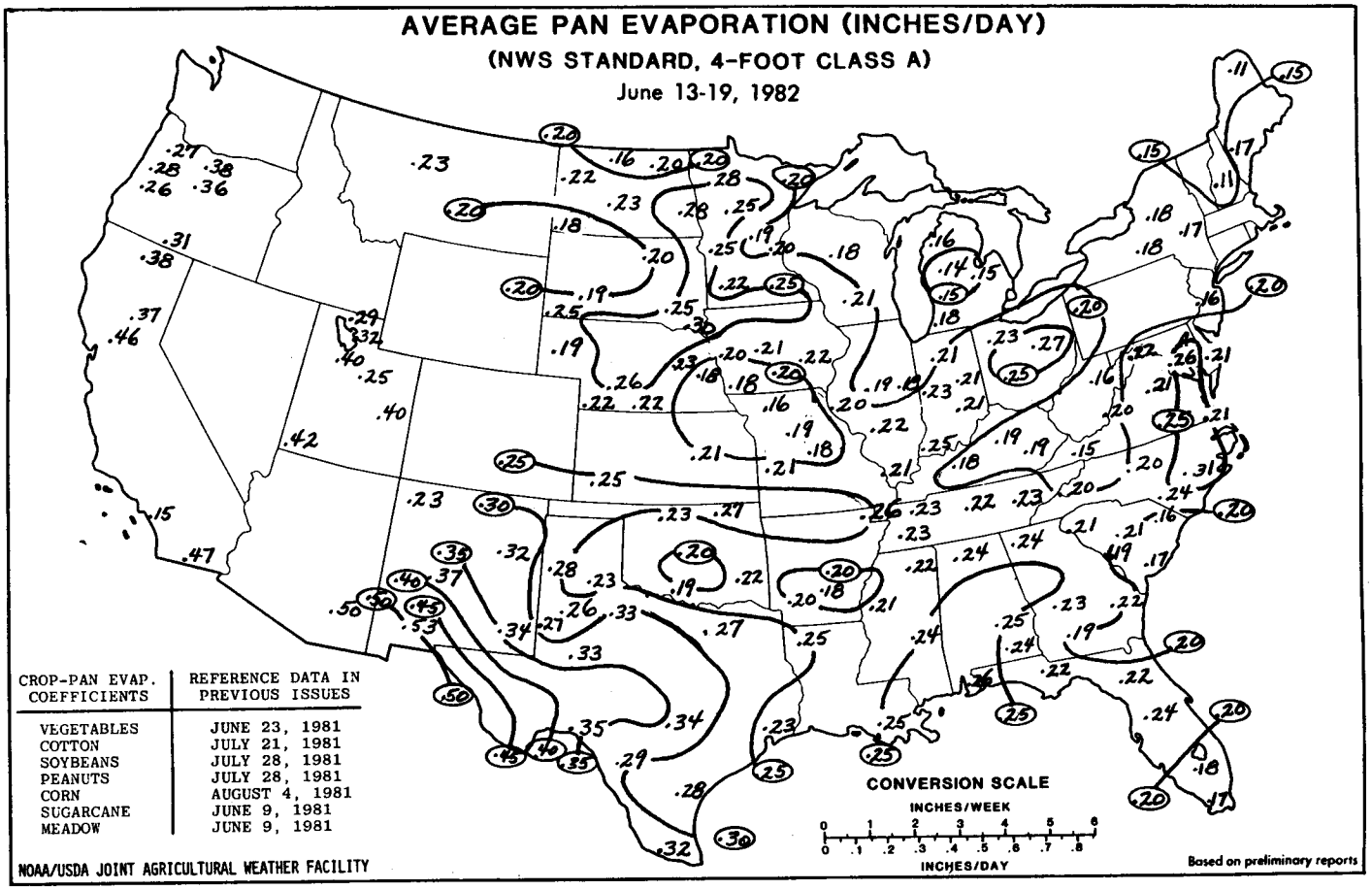
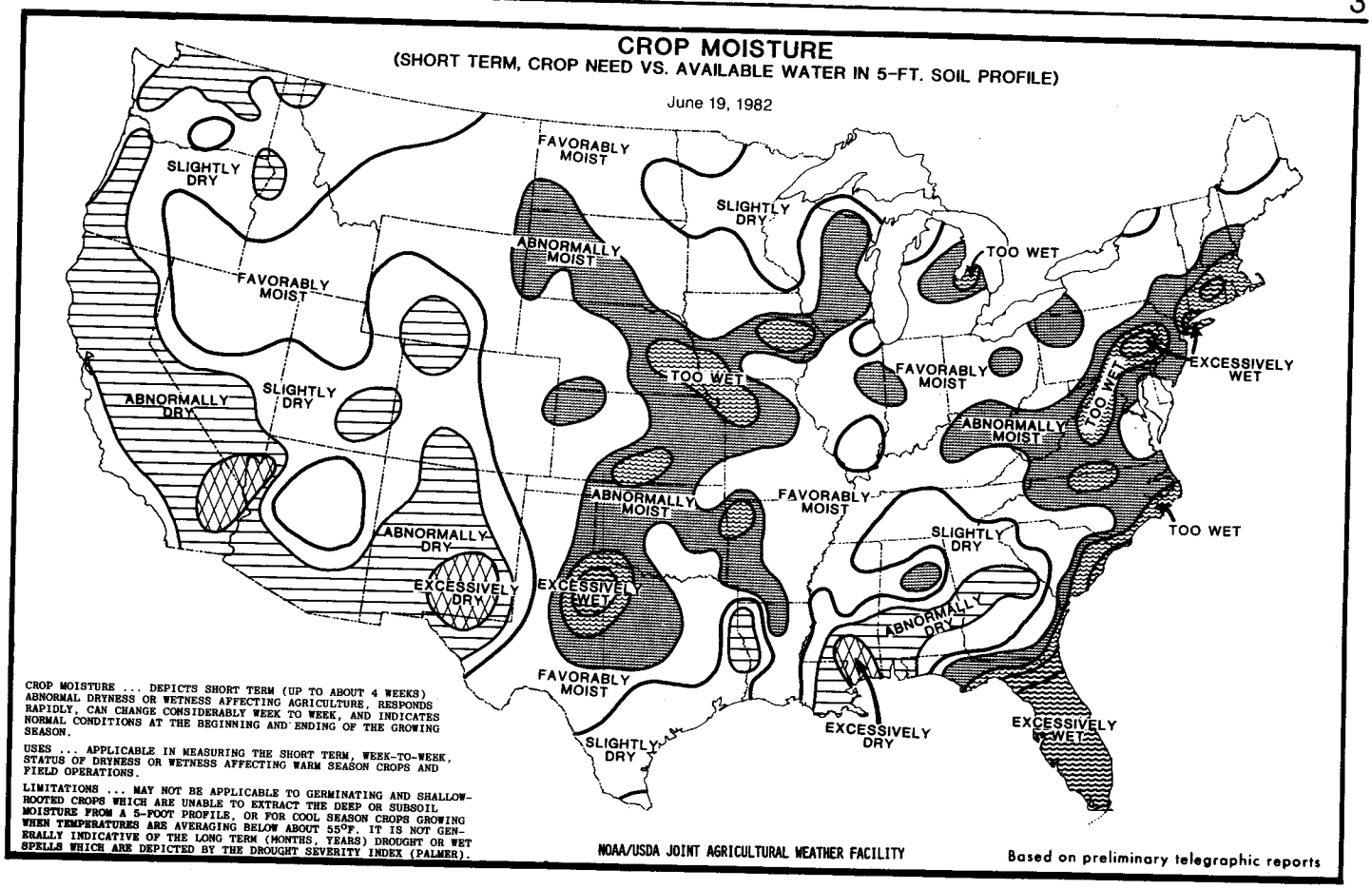
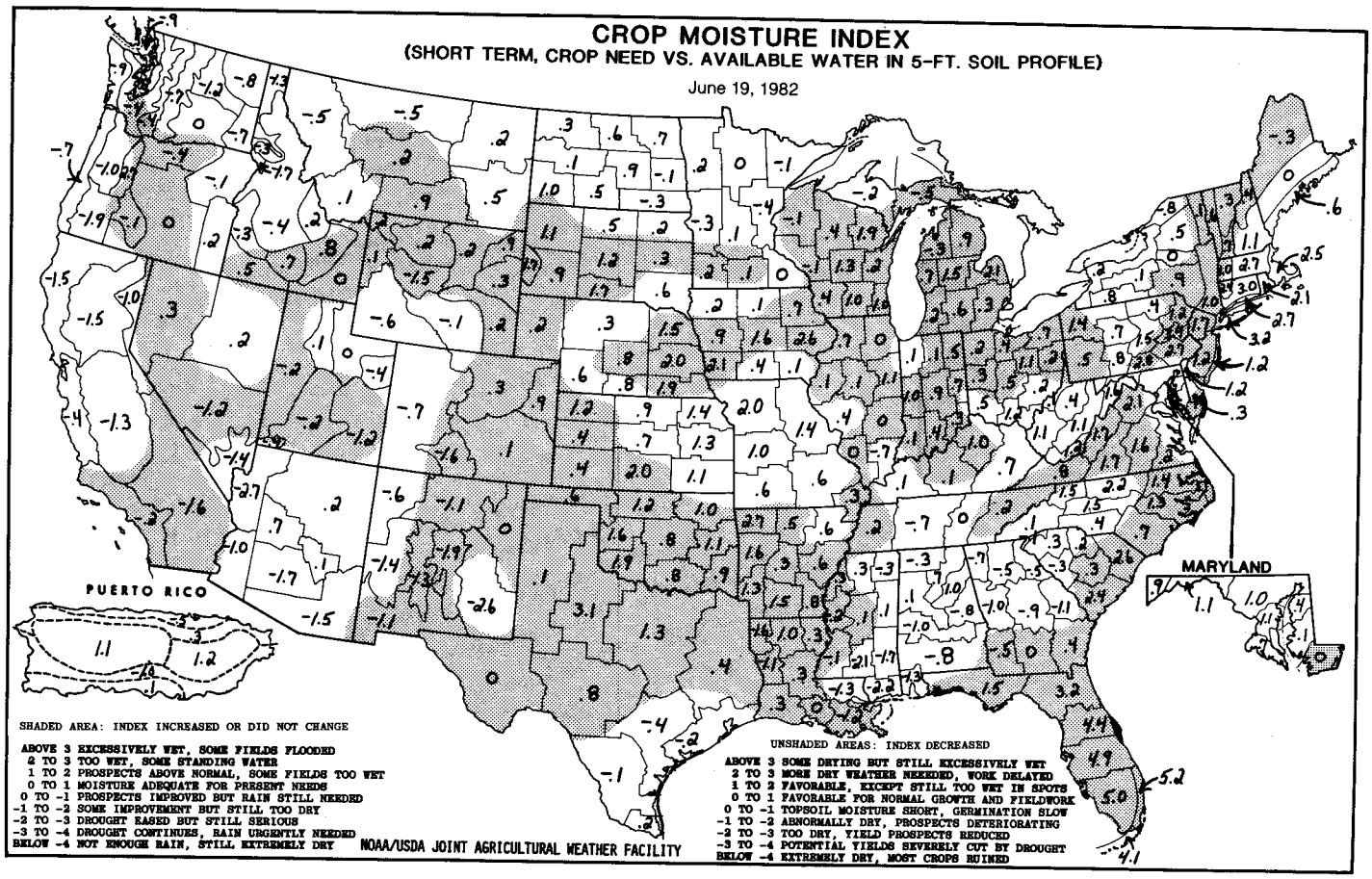
PRICE INCREASE

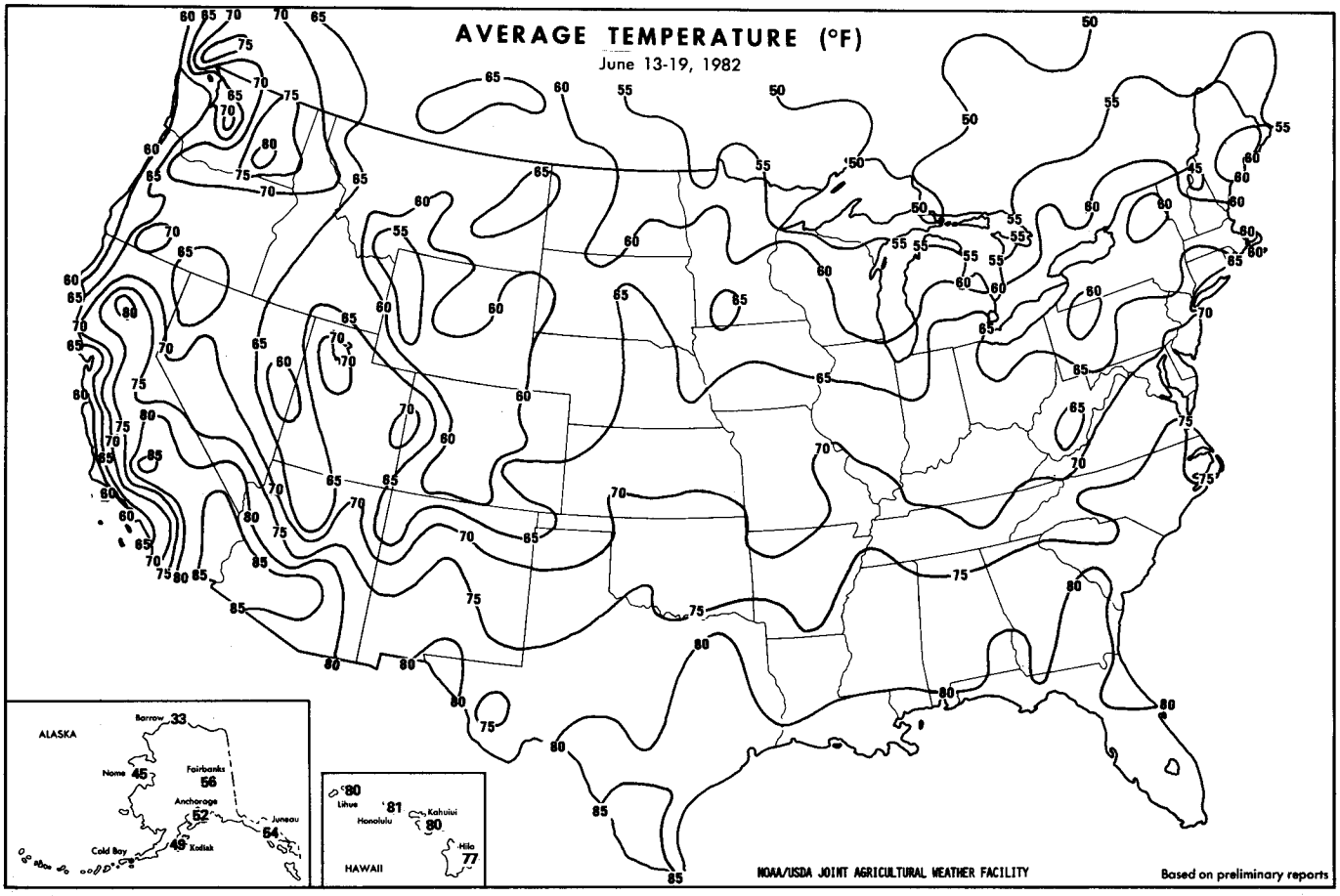
Due to increased printing costs and budgetary limitations, the price of the Weekly Weather and Crop Bulletin will be increased to $25 for domestic and $33 for foreign subscriptions on July 1, 1982.

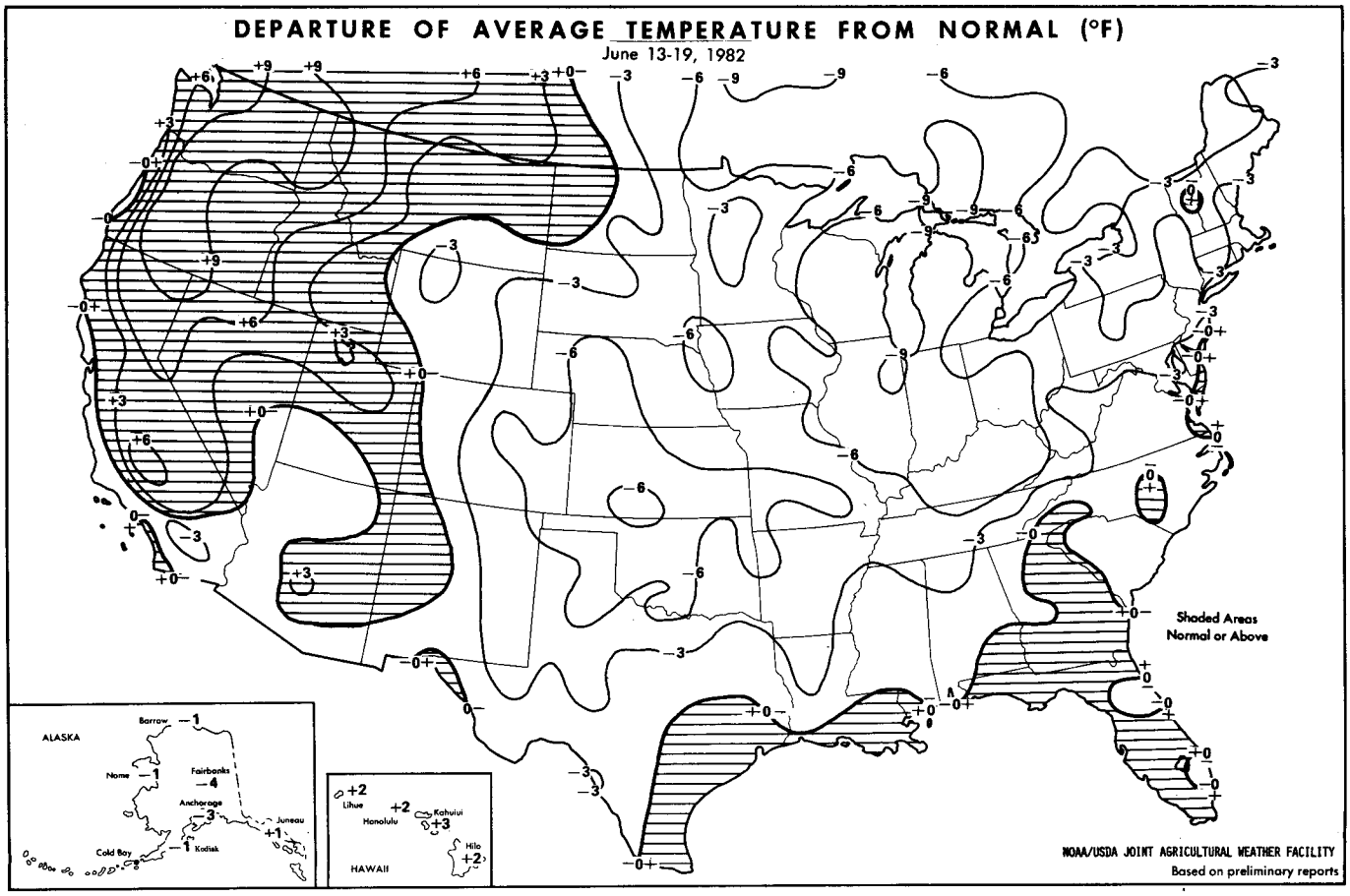

TOTAL PRECIPITATION, INCHES
June 13-19, 1982
SCALE OF SHADES
No Measurable Precipitation
0.01 to 0.3 inch
0.3 to 0.8 inch
0.8 to 2 inches
Over 2 inches
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Kodiak
HAWAII
Lihue
Honolulu
Kahului
Hilo
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


AVERAGE PAN EVAPORATION (INCHES/DAY)
(NWS STANDARD, 4-FOOT CLASS A)
June 13-19, 1982
CROP-PAN EVAP. COEFFICIENTS
REFERENCE DATA IN PREVIOUS ISSUES
VEGETABLES JUNE 23, 1981
COTTON JULY 21, 1981
SOYBEANS JULY 28, 1981
PEANUTS JULY 28, 1981
CORN AUGUST 4, 1981
SUGARCANE JUNE 9, 1981
MEADOW JUNE 9, 1981
CONVERSION SCALE
INCHES/WEEK
INCHES/DAY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


CROP MOISTURE
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
June 19, 1982
SLIGHTLY DRY
FAVORABLY MOIST
SLIGHTLY DRY
ABNORMALLY MOIST
TOO WET
FAVORABLY MOIST
ABNORMALLY DRY
SLIGHTLY DRY
TOO WET
FAVORABLY MOIST
EXCESSIVELY WET
TOO WET
ABNORMALLY MOIST
ABNORMALLY MOIST
FAVORABLY MOIST
SLIGHTLY DRY
TOO WET
ABNORMALLY DRY
EXCESSIVELY DRY
EXCESSIVELY WET
ABNORMALLY DRY
FAVORABLY MOIST
SLIGHTLY DRY
EXCESSIVELY DRY
EXCESSIVELY WET
CROP MOISTURE ... DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK, AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND ENDING OF THE GROWING SEASON.
USES ... APPLICABLE IN MEASURING THE SHORT TERM, WEEK-TO-WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS.
LIMITATIONS ... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW-ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX (PALMER).
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


CROP MOISTURE INDEX
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
June 19, 1982
PUERTO RICO
MARYLAND
SHADED AREA: INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET, SOME FIELDS FLOODED
2 TO 3 TOO WET, SOME STANDING WATER
1 TO 2 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET
0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL TOO DRY
-2 TO -3 DROUGHT EASED BUT STILL SERIOUS
-3 TO -4 DROUGHT CONTINUES, RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN, STILL EXTREMELY DRY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
UNSHADED AREAS: INDEX DECREASED
ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
2 TO 3 MORE DRY WEATHER NEEDED, WORK DELAYED
1 TO 2 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS
0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW
-1 TO -2 ABNORMALLY DRY, PROSPECTS DETERIORATING
-2 TO -3 TOO DRY, YIELD PROSPECTS REDUCED
-3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT
BELOW -4 EXTREMELY DRY, MOST CROPS RUINED


AVERAGE TEMPERATURE (°F)
June 13-19, 1982
ALASKA
Barrow 33
Nome 45
Fairbanks 56
Anchorage 52
Juneau 54
Cold Bay 49
Kodiak
HAWAII
Lihue 80
Honolulu 81
Kahului 80
Hilo 77
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
June 13-19, 1982
Shaded Areas Normal or Above
ALASKA
Barrow −1
Nome −1
Fairbanks −4
Anchorage −3
Juneau +1
Cold Bay −1
Kodiak
HAWAII
Lihue +2
Honolulu +2
Kahului +3
Hilo +2
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

Weather Data for the Week Ending June 19, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	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 May 30	PCT. NORMAL SINCE May 30	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	86	65	90	61	76	-2	.1	- .9	.1	6.9	265	33.2	130	98	52	1	0	1	0
MOBILE	90	71	93	68	80	-1	.6	- .8	.4	1.2	32	25.9	92	82	46	4	0	4	0
MONTGOMERY	88	70	92	68	79	0	.3	- .7	.3	2.8	104	32.9	142	83	48	3	0	1	0
AK ANCHORAGE	59	45	64	42	52	-3	.1	- .2	.1	1.5	214	3.4	89	80	48	0	0	2	0
BARROW	36	30	40	27	33	-1	T	- .1	T	0	0	1.6	123	99	85	0	7	0	0
FAIRBANKS	65	46	72	43	56	-4	1.3	.9	.5	1.7	170	4.7	138	90	44	0	0	6	0
JUNEAU	61	47	70	45	54	1	1.4	.8	.5	1.5	79	19.6	109	83	59	0	0	5	0
KODIAK	54	44	54	37	49	-1	.7	- .2	.5	3.3	110	25.8	109	92	76	0	0	4	1
NOME	54	37	75	33	45	-1	T	- .2	T	1.5	300	7.1	165	78	52	0	0	0	0
AZ PHOENIX	102	75	107	72	89	4	0	0	0	0	+100	3.3	138	28	9	7	0	0	0
PRESCOTT	87	55	92	49	71	2	0	- .1	0	0	0	6.4	110	39	12	2	0	0	0
TUCSON	97	64	101	61	81	-2	0	0	0	0	+100	3.4	121	30	6	7	0	0	0
YUMA	99	72	101	69	85	0	0	0	0	0	+100	1.6	160	41	15	7	0	0	0
AR FORT SMITH	83	62	88	57	72	-6	1.0	.1	1.0	4.1	137	23.8	111	93	51	0	0	1	1
LITTLE ROCK	84	64	89	62	74	-4	1.4	.6	1.0	3.5	140	28.3	114	90	54	0	0	2	1
CA BAKERSFIELD	97	73	104	66	85	8	0	0	0	0	+100	4.3	116	46	22	6	0	0	0
EUREKA	62	51	64	49	56	1	T	- .1	T	.2	33	23.8	108	93	72	0	0	1	0
FRESNO	92	63	100	55	78	4	0	0	0	0	0	8.3	132	75	27	6	0	0	0
LOS ANGELES	68	59	70	57	63	-1	T	0	T	0	+100	8.6	115	87	65	0	0	1	0
RED BLUFF	97	66	108	59	82	6	T	- .1	T	0	0	11.0	87	72	25	6	0	1	0
SACRAMENTO	87	56	96	50	71	1	0	0	0	0	0	18.0	155	83	36	3	0	0	0
SAN DIEGO	69	63	71	61	66	0	T	0	T	0	+100	9.0	161	83	67	0	0	2	0
SAN FRANCISCO	68	53	71	49	60	-2	0	0	0	0	0	22.5	199	84	59	0	0	0	0
CO DENVER	68	50	77	43	59	-7	1.4	1.0	.7	2.0	143	6.2	82	85	47	0	0	4	2
GRAND JUNCTION	86	59	90	53	72	1	T	- .1	T	0	0	2.3	62	57	19	1	0	2	0
PUEBLO	78	55	91	49	66	-5	1.5	1.2	1.0	2.3	256	5.3	106	89	43	1	0	3	1
CT BRIDGEPORT	71	57	78	49	64	-4	2.5	1.9	1.4	10.3	572	27.7	166	98	69	0	0	5	2
HARTFORD	74	57	85	50	66	-3	2.8	2.0	1.3	12.4	517	29.6	160	93	57	0	0	5	2
DC WASHINGTON	81	65	88	58	73	-2	1.8	1.0	1.7	6.1	244	21.5	130	84	55	0	0	2	1
FL APALACHICOLA	89	72	92	69	80	0	2.7	1.4	2.7	3.3	100	24.7	124	88	60	3	0	1	1
DAYTONA BEACH	87	71	89	69	79	-1	5.0	3.4	2.8	7.5	183	26.5	161	97	65	0	0	4	2
JACKSONVILLE	91	70	95	68	81	1	3.3	1.8	1.7	5.2	127	20.0	104	97	55	5	0	5	2
KEY WEST	86	78	89	76	82	-1	2.4	1.2	1.4	9.1	294	21.9	181	86	71	0	0	4	1
MIAMI	88	76	92	71	82	1	3.5	1.4	1.4	9.6	157	31.0	149	91	61	3	0	4	3
ORLANDO	91	72	94	70	81	1	4.6	2.8	2.7	7.8	170	24.7	140	96	55	6	0	5	2
TALLAHASSEE	91	69	95	67	80	0	5.8	4.3	5.6	6.7	163	27.3	109	98	51	5	0	2	1
TAMPA	88	74	93	72	81	0	4.3	2.7	2.6	10.4	267	21.9	132	97	60	3	0	4	2
WEST PALM BEACH	86	74	89	68	80	-1	5.6	3.6	3.8	9.4	168	44.8	206	93	70	0	0	4	2
GA ATLANTA	87	66	89	63	76	0	T	- .8	T	2.6	108	26.7	111	87	44	0	0	2	0
AUGUSTA	91	70	95	67	80	2	.4	- .4	.4	1.0	42	18.9	95	88	44	4	0	2	0
MACON	88	68	93	65	78	-2	.2	- .7	.2	1.9	73	24.9	116	96	51	3	0	1	0
SAVANNAH	87	71	93	69	79	-1	4.3	2.9	2.5	8.6	221	24.4	121	91	58	4	0	4	3
HI HILO	84	69	86	66	77	2	3.3	1.9	1.5	5.1	109	86.9	147	93	62	0	0	6	2
HONOLULU	89	73	90	69	81	2	.1	0	.1	.5	167	20.6	172	76	49	4	0	1	0
KAHULUI	90	69	92	67	80	3	0	0	0	.1	50	20.5	195	81	51	4	0	0	0
LIHUE	87	72	88	68	80	2	.2	- .2	.1	.4	33	38.5	188	92	62	0	0	2	0
ID BOISE	85	55	91	48	70	5	T	- .3	T	0	0	5.5	80	70	26	1	0	0	0
LEWISTON	89	61	98	58	75	10	T	- .4	T	0	0	5.4	83	69	28	5	0	1	0
POCATELLO	80	47	85	44	64	2	.2	- .1	.1	.4	36	6.8	106	88	34	0	0	3	0
IL CHICAGO	73	50	83	45	61	-7	1.2	.2	1.0	1.4	48	14.1	99	93	51	0	0	3	1
MOLINE	75	55	82	50	65	-7	2.4	1.3	1.7	3.2	107	17.7	123	91	48	0	0	3	2
PEORIA	76	56	82	51	66	-6	1.1	.2	.9	1.9	70	19.0	119	92	47	0	0	2	1
QUINCY	74	58	77	54	66	-8	1.1	0	.6	4.1	124	19.1	--	98	60	0	0	2	1
ROCKFORD	74	52	84	49	63	-6	1.3	.3	1.0	1.7	59	14.8	97	92	52	0	0	3	1
SPRINGFIELD	78	57	83	52	68	-6	.5	- .5	.3	2.8	100	18.8	125	95	52	0	0	3	0
IN EVANSVILLE	80	57	93	53	69	-6	1.1	.2	.8	3.3	122	25.8	122	93	43	1	0	3	1
FORT WAYNE	74	55	83	50	65	-5	1.5	.6	.6	4.3	159	22.5	136	89	50	0	0	4	2
INDIANAPOLIS	77	55	86	49	66	-6	1.9	.9	.7	3.1	103	22.8	124	89	49	0	0	3	2
SOUTH BEND	73	52	82	43	63	-6	.9	0	.5	1.5	60	16.8	110	90	48	0	0	4	0
IA DES MOINES	75	57	80	53	66	-5	.6	- .6	.5	1.0	28	18.5	130	87	49	0	0	2	0
SIOUX CITY	75	53	80	47	64	-6	.9	- .2	.4	2.2	65	12.6	106	88	49	0	0	3	0
WATERLOO	75	52	81	45	63	-6	2.0	.8	1.7	3.4	100	17.0	124	88	48	0	0	4	1
KS CONCORDIA	79	59	88	53	69	-4	1.2	.1	1.2	3.7	103	16.7	135	83	47	0	0	2	1
DODGE CITY	80	59	91	52	70	-4	1.6	.9	.8	2.5	114	8.1	95	86	44	1	0	5	1
GOODLAND	74	52	82	46	63	-6	2.8	2.1	1.2	6.1	305	12.7	179	93	55	0	0	4	3
TOPEKA	80	58	84	56	69	-5	1.5	.1	.8	4.9	120	18.0	120	92	49	0	0	4	1
WICHITA	81	60	89	56	70	-6	3.1	2.0	1.6	7.5	250	19.9	166	86	46	0	0	4	2
KY BOWLING GREEN	80	56	90	51	68	-8	.3	- .6	.3	1.1	42	21.3	87	99	48	1	0	2	0
LEXINGTON	77	57	85	54	67	-6	1.8	.9	1.3	3.7	132	19.5	91	91	55	0	0	4	1
LOUISVILLE	78	58	87	53	68	-6	1.9	.9	1.2	3.9	130	22.0	100	91	49	0	0	3	2
LA ALEXANDRIA	89	69	92	65	79	-2	1.0	.2	1.0	3.7	128	21.2	--	80	48	4	0	2	1
BATON ROUGE	92	71	95	68	82	1	.8	0	.8	.8	35	22.1	89	88	51	6	0	2	1
LAKE CHARLES	89	71	90	69	80	-1	2.7	1.5	2.4	2.7	79	19.6	83	98	62	3	0	4	1
NEW ORLEANS	91	70	93	66	81	0	1.5	.4	1.2	2.0	65	22.0	88	96	55	5	0	2	1

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending June 19, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	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 May 30	PCT. NORMAL SINCE May 30	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	89	69	93	66	79	-2	.7	- .1	.4	.8	32	15.2	66	100	53	4	0	2	0
ME CARIBOU	67	48	74	43	58	-2	.9	.1	.7	1.8	78	13.6	102	91	61	0	0	2	1
PORTLAND	66	50	78	44	58	-4	1.4	.7	.4	5.5	250	23.1	126	96	71	0	0	5	0
MD BALTIMORE	79	61	88	53	70	-2	2.8	1.9	1.6	5.6	224	21.5	121	91	59	0	0	2	2
SALISBURY	81	65	88	57	73	0	2.2	1.3	1.1	4.7	188	20.9	111	99	61	0	0	3	2
MA BOSTON	71	56	85	48	63	-5	2.3	1.5	1.2	11.4	475	26.8	136	91	68	0	0	5	2
CHATHAM	62	53	68	46	57	--	1.5	--	.9	4.2	--	22.0	--	97	87	0	0	4	1
MI ALPENA	65	44	72	37	54	-7	1.0	.3	.6	3.0	150	10.5	95	98	58	0	0	4	1
DETROIT	75	54	86	50	65	-4	1.4	.6	.7	1.7	71	13.8	97	91	48	0	0	2	2
FLINT	72	53	80	49	63	-4	1.7	.9	.9	2.7	117	10.1	80	96	53	0	0	3	2
GRAND RAPIDS	72	50	81	43	61	-7	1.0	.2	.5	2.0	83	14.0	102	93	50	0	0	3	1
HOUGHTON LAKE	65	48	78	41	56	-7	1.1	.3	.6	2.7	117	13.0	117	96	59	0	0	4	1
LANSING	72	52	81	48	62	-6	1.9	1.0	.8	3.2	128	11.2	81	98	56	0	0	3	2
MARQUETTE	62	40	73	37	51	-8	.5	- .5	.4	1.2	40	14.6	107	95	54	0	0	4	0
MUSKEGON	67	48	75	40	58	-9	1.2	.6	.9	1.9	100	14.7	111	94	58	0	0	3	1
SAULT STE. MARIE	62	35	70	32	48	-11	.5	- .3	.4	1.2	50	14.6	122	98	58	0	1	3	0
MN ALEXANDRIA	73	51	80	46	62	-2	.4	- .7	.3	1.0	33	10.4	103	90	37	0	0	3	0
DULUTH	66	43	77	34	55	-5	.7	- .3	.4	1.1	37	11.9	101	86	41	0	0	2	0
INT'L FALLS	67	45	75	38	56	-5	.4	- .6	.2	2.5	93	10.0	108	97	50	0	0	4	0
MINNEAPOLIS	75	52	83	43	63	-4	.3	- .7	.2	.7	24	12.0	115	82	36	0	0	2	0
ROCHESTER	72	50	80	45	61	-5	.7	- .4	.6	1.6	48	15.6	136	91	50	0	0	2	1
MS GREENWOOD	87	70	92	67	79	-2	1.1	.3	1.1	2.8	117	27.3	--	93	53	1	0	1	1
JACKSON	89	68	94	66	79	-1	3.2	2.4	3.2	4.7	196	26.5	109	98	51	4	0	1	1
MERIDIAN	89	67	93	64	78	-1	.8	- .1	.7	2.4	100	25.9	104	93	50	4	0	2	1
MO CAPE GIRARDEAU	82	62	91	58	72	-5	1.3	.3	.9	4.7	152	27.7	132	98	51	1	0	2	1
COLUMBIA	77	58	81	54	68	-6	.4	- .7	.3	4.6	139	18.8	116	97	62	0	0	3	0
KANSAS CITY	78	59	81	55	68	-5	1.2	- .2	1.0	8.2	210	23.9	154	94	55	0	0	4	1
SAINT LOUIS	80	61	87	58	71	-5	1.3	.2	.6	5.8	187	21.5	130	97	49	0	0	4	2
SPRINGFIELD	81	57	84	50	69	-5	1.2	0	1.0	4.0	118	18.5	102	96	56	0	0	2	1
MT BILLINGS	72	52	78	47	62	0	2.3	1.7	1.3	4.6	256	11.6	155	93	52	0	0	4	2
GLASGOW	77	51	84	42	64	2	.2	- .5	.2	.7	37	6.5	141	83	35	0	0	1	0
GREAT FALLS	74	52	80	46	63	2	.2	- .6	.1	.8	35	9.5	117	81	39	0	0	3	0
HAVRE	77	49	81	44	63	1	T	- .6	T	0	0	7.8	142	80	28	0	0	1	0
HELENA	77	50	82	43	64	5	.3	- .3	.2	1.0	56	6.3	113	86	33	0	0	3	0
KALISPELL	78	48	86	44	63	6	.1	- .5	.1	.5	28	7.8	105	94	37	0	0	2	0
MILES CITY	76	54	83	46	65	0	T	- .8	T	3.2	139	7.8	116	87	38	0	0	2	0
MISSOULA	81	52	88	49	67	8	.1	- .4	.1	.3	20	8.6	139	90	33	0	0	2	0
NE GRAND ISLAND	77	55	85	49	66	-5	2.0	.9	1.7	2.7	84	18.0	161	93	48	0	0	5	1
LINCOLN	76	54	83	47	65	-7	3.9	2.7	3.8	4.9	140	17.1	140	90	57	0	0	3	1
NORFOLK	75	54	80	48	65	-6	1.1	- .1	.5	1.9	54	14.2	126	83	40	0	0	4	1
NORTH PLATTE	75	49	78	42	62	-7	.4	- .6	.4	1.7	63	10.4	117	97	50	0	0	1	0
OMAHA	74	56	79	50	65	-6	1.9	.7	1.2	2.9	81	18.2	141	85	60	0	0	4	1
SCOTTSBLUFF	72	52	79	45	62	-5	3.0	2.4	2.1	5.8	290	10.2	138	95	47	0	0	3	2
VALENTINE	74	49	83	42	62	-5	.3	- .6	.3	1.5	60	10.3	129	84	41	0	0	3	0
NV ELY	77	41	85	35	59	1	T	- .2	T	0	0	5.7	133	85	28	0	0	0	0
LAS VEGAS	95	71	102	66	83	1	0	0	0	0	+100	1.8	113	33	14	6	0	0	0
RENO	84	50	92	42	67	6	.6	.6	.3	.6	300	3.8	95	80	24	2	0	3	0
WINNEMUCCA	87	48	92	42	68	6	.1	- .2	.1	.1	11	2.4	48	70	20	4	0	2	0
NH CONCORD	71	53	80	47	62	-3	1.2	.4	.5	5.9	257	20.2	134	91	53	0	0	4	0
NJ ATLANTIC CITY	80	64	88	56	72	1	1.8	1.0	1.2	3.3	143	17.5	91	95	63	0	0	4	1
NM ALBUQUERQUE	90	59	94	53	75	0	T	- .1	T	0	0	1.9	79	49	11	4	0	0	0
CLOVIS	84	58	96	55	71	-3	1.2	.6	.9	1.3	72	4.2	--	78	38	2	0	2	1
ROSWELL	87	60	95	58	74	-3	0	- .3	0	.1	11	1.7	41	78	30	4	0	0	0
NY ALBANY	74	54	82	50	64	-4	1.0	.3	.6	3.7	176	17.1	124	96	57	0	0	5	1
BINGHAMTON	71	54	78	49	63	-2	1.9	1.1	1.1	4.5	188	18.0	114	94	55	0	0	4	1
BUFFALO	72	54	78	51	63	-3	.7	.2	.4	2.8	187	19.4	129	95	53	0	0	4	0
NEW YORK	74	60	85	51	67	-5	2.3	1.7	1.4	4.0	200	19.6	111	94	62	0	0	3	2
ROCHESTER	75	55	78	51	65	-2	.8	.3	.6	3.0	167	13.3	97	94	54	0	0	5	1
SYRACUSE	75	53	81	50	64	-3	1.0	.2	.5	3.1	141	14.8	93	99	56	0	0	4	1
NC ASHEVILLE	81	62	87	58	72	1	.5	- .4	.3	3.4	126	24.7	124	100	58	0	0	2	0
CHARLOTTE	83	66	88	63	75	-2	1.3	.4	.9	3.5	140	22.6	116	98	57	0	0	4	1
GREENSBORO	81	64	87	58	73	-2	1.2	.3	.9	8.4	323	27.5	154	100	68	0	0	4	1
HATTERAS	80	65	84	54	73	-2	3.7	2.6	3.1	4.3	134	30.0	147	100	71	0	0	3	2
NEW BERN	81	66	87	60	74	-3	3.5	2.2	1.6	4.5	129	22.4	103	96	63	0	0	5	2
RALEIGH	85	66	90	63	75	1	1.1	.3	.4	7.5	313	25.8	145	91	57	1	0	5	0
WILMINGTON	83	68	88	61	76	-2	4.1	2.8	3.1	5.4	154	25.4	127	89	57	0	0	3	2
ND BISMARCK	71	47	77	43	59	-5	.2	- .7	.1	1.8	72	8.5	118	91	46	0	0	4	0
FARGO	73	48	79	40	61	-4	.2	- .6	.2	1.5	65	6.7	85	82	37	0	0	2	0
GRAND FORKS	72	46	81	41	59	-5	.1	- .7	.1	1.8	78	7.7	101	95	43	0	0	3	0
WILLISTON	79	52	87	40	65	3	.3	- .6	.3	1.5	65	7.4	109	92	40	0	0	1	0
OH AKRON-CANTON	75	54	83	50	64	-4	1.5	.7	.8	2.2	85	16.8	102	87	52	0	0	3	2
CINCINNATI	77	56	84	50	66	-6	1.1	.2	.5	3.8	146	23.0	118	84	49	0	0	3	2
CLEVELAND	75	54	86	50	65	-4	1.4	.7	.9	2.6	118	15.9	100	93	50	0	0	3	2
COLUMBUS	77	54	83	49	66	-5	1.3	.4	.9	2.4	86	19.2	105	97	53	0	0	3	1

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending June 19, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	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 May 30	PCT. NORMAL SINCE May 30	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	75	56	83	52	66	-6	1.4	.5	.8	2.2	79	22.1	128	89	52	0	0	3	1
TOLEDO	75	54	83	48	65	-5	1.0	.2	.5	1.4	56	13.8	99	95	54	0	0	3	0
YOUNGSTOWN	73	53	80	49	63	-5	2.0	1.2	1.2	4.1	171	18.3	106	100	62	0	0	4	2
OK OKLAHOMA CITY	81	61	87	57	71	-6	.8	- .2	.5	3.0	91	22.6	149	91	53	0	0	3	0
TULSA	85	65	92	59	75	-3	.3	- .8	.3	4.0	114	19.1	111	88	50	1	0	3	0
OR ASTORIA	68	52	91	48	60	3	T	- .6	T	.5	28	39.4	125	89	62	1	0	0	0
BURNS	84	48	83	42	66	8	T	- .2	T	.7	117	5.7	93	--	--	1	0	0	0
MEDFORD	92	55	100	48	73	9	.1	- .1	.1	.2	25	8.4	82	79	29	5	0	1	0
PENDLETON	87	58	93	56	73	7	0	- .2	0	.1	13	4.8	75	70	24	5	0	0	0
PORTLAND	84	58	100	54	71	9	T	- .4	T	1.3	100	20.0	110	83	39	3	0	1	0
SALEM	87	55	102	50	71	9	T	- .3	T	.7	64	20.2	98	89	41	4	0	0	0
PA ALLENTOWN	76	59	85	50	67	-3	4.3	3.5	2.4	6.3	263	22.5	123	100	60	0	0	3	2
ERIE	71	53	80	49	62	-3	1.9	1.0	1.3	4.8	192	18.2	117	84	56	0	0	3	1
HARRISBURG	79	57	83	50	68	-4	1.5	.6	1.5	7.9	165	24.1	126	100	59	0	0	0	1
PHILADELPHIA	79	61	86	53	70	-3	3.6	2.8	2.2	5.6	224	25.8	154	95	56	0	0	3	2
PITTSBURGH	75	52	80	48	64	-6	.4	- .5	.3	2.0	77	17.3	102	90	53	0	0	3	0
SCRANTON	74	56	79	49	65	-4	2.2	1.4	1.3	6.1	254	20.5	143	94	62	0	0	4	2
RI PROVIDENCE	71	55	81	47	63	-4	1.7	1.1	.8	10.1	532	28.2	152	98	64	0	0	5	2
SC CHARLESTON	83	71	91	69	77	-1	6.0	4.5	3.7	7.3	183	23.9	120	92	64	1	0	4	3
COLUMBIA	86	68	91	63	77	-2	1.3	.4	1.2	4.3	165	22.6	112	100	56	2	0	3	1
FLORENCE	84	68	92	66	76	-2	.8	- .3	.4	5.1	176	22.5	124	100	64	1	0	5	0
GREENVILLE	82	66	85	63	74	-2	.8	- .1	.5	3.7	142	27.4	121	93	56	0	0	3	1
SD ABERDEEN	73	52	78	42	62	-3	--	--	--	--	--	--	--	86	48	0	0	0	0
HURON	75	51	80	42	63	-4	.5	- .4	.3	1.9	70	10.0	112	92	52	0	0	3	0
RAPID CITY	70	51	75	46	61	-4	1.4	.5	.6	2.9	112	12.2	136	92	55	0	0	5	1
SIOUX FALLS	75	49	81	40	62	-6	.6	- .4	.6	2.2	71	9.8	88	90	44	0	0	3	1
TN CHATTANOOGA	86	62	90	58	74	-3	.7	- .1	.4	1.1	48	26.0	104	93	44	1	0	2	0
KNOXVILLE	82	63	84	58	73	-3	.9	0	.5	2.3	92	28.4	127	100	62	0	0	2	0
MEMPHIS	85	70	93	68	77	-2	2.2	1.4	1.8	4.3	172	31.3	123	86	52	1	0	2	1
NASHVILLE	83	61	90	58	72	-5	.4	- .4	.4	2.1	88	25.0	109	94	48	1	0	1	0
TX ABILENE	90	67	94	62	79	-2	.4	- .2	.4	.9	43	10.8	99	85	43	5	0	2	0
AMARILLO	83	57	92	53	70	-5	.6	- .2	.6	1.3	57	4.8	64	92	41	2	0	3	1
AUSTIN	92	71	94	67	82	0	.7	- .1	.7	1.8	75	14.7	95	89	49	7	0	1	1
BEAUMONT	90	74	92	72	82	1	.5	- .6	.3	.5	15	24.2	108	93	58	3	0	2	0
BROWNSVILLE	94	77	95	74	86	3	T	- .7	T	0	0	14.2	161	85	50	7	0	0	0
CORPUS CHRISTI	93	74	94	71	83	1	0	- .6	0	.1	5	13.9	123	99	55	7	0	0	0
DEL RIO	94	73	97	68	84	-1	.7	.2	.7	1.8	113	6.6	85	85	47	6	0	1	1
EL PASO	96	65	101	62	81	0	0	- .1	0	0	0	1.1	55	57	13	7	0	0	0
FORT WORTH	87	69	91	63	78	-3	.5	- .2	.3	1.7	74	23.9	145	93	48	2	0	3	0
GALVESTON	87	78	90	76	83	1	1.0	.1	1.0	1.0	37	13.2	85	91	71	1	0	1	1
HOUSTON	95	73	97	70	84	3	.1	- 1.0	.1	.1	3	14.2	69	86	45	7	0	1	0
LUBBOCK	82	61	93	57	72	-6	1.5	.9	.8	2.3	110	10.3	130	95	51	2	0	3	2
MIDLAND	91	66	100	60	79	-2	.3	- .1	.3	.4	33	5.2	95	84	33	5	0	1	0
SAN ANGELO	87	66	94	58	77	-5	1.5	1.1	1.5	2.5	167	10.5	131	90	45	3	0	1	1
SAN ANTONIO	92	71	94	64	81	-1	T	- .7	T	1.0	48	11.3	94	92	48	7	0	0	0
VICTORIA	94	73	96	71	84	2	T	- .8	T	.1	4	16.1	113	89	46	7	0	0	0
WACO	91	70	94	66	80	-2	.7	.1	.4	1.2	55	16.3	100	91	49	5	0	2	0
WICHITA FALLS	86	63	95	59	74	-7	3.2	2.4	1.3	5.9	219	26.8	205	96	52	1	0	4	3
UT BLANDING	82	51	86	46	66	0	0	- .1	0	0	0	4.6	102	50	20	0	0	0	0
CEDAR CITY	80	48	90	43	64	-1	.3	.2	.3	.3	100	7.0	167	68	21	1	0	1	0
SALT LAKE CITY	83	56	86	53	70	4	.3	0	.2	.4	44	7.9	99	71	23	0	0	2	0
VT BURLINGTON	71	52	80	48	61	-4	1.2	.4	.9	3.2	133	14.2	111	98	58	0	0	5	1
VA NORFOLK	83	66	91	62	75	0	1.1	.3	.4	2.7	113	19.4	112	96	57	1	0	5	0
RICHMOND	82	66	90	59	74	-1	2.1	1.3	1.5	5.1	213	20.7	122	96	64	1	0	3	2
ROANOKE	82	59	89	52	71	-1	1.6	.8	1.6	5.2	208	22.7	134	96	52	0	0	2	1
WA COLVILLE	88	56	87	53	72	11	.3	- .1	.3	.7	54	9.0	111	76	41	2	0	1	0
QUILLAYUTE	72	49	96	45	60	5	T	- .8	T	.1	4	60.4	122	97	51	1	0	2	0
SEATTLE-TACOMA	79	56	94	51	68	8	0	- .4	0	0	0	19.4	107	74	36	2	0	0	0
SPOKANE	85	58	92	56	72	10	.1	- .2	.1	.2	20	7.4	85	79	30	1	0	1	0
YAKIMA	90	56	95	52	73	8	T	- .2	T	0	0	3.1	78	70	23	5	0	0	0
WV BECKLEY	75	55	81	51	65	-3	.3	- .6	.1	2.9	104	19.1	96	97	53	0	0	3	0
CHARLESTON	82	57	87	52	69	-3	.7	- .1	.5	6.5	295	24.5	133	97	46	0	0	3	0
HUNTINGTON	78	56	82	51	67	-5	.5	- .2	.5	4.9	213	22.7	122	99	56	0	0	3	0
PARKERSBURG	81	58	86	52	69	-2	.6	- .5	.4	3.7	116	18.5	89	95	48	0	0	3	0
WI GREEN BAY	69	47	80	43	58	-7	1.0	.2	.8	1.1	46	9.7	88	94	54	0	0	5	1
LA CROSSE	74	50	81	43	62	-6	.4	- .6	.4	.4	14	9.0	74	99	51	0	0	3	0
MADISON	71	45	77	38	58	-8	1.7	.6	1.0	2.3	77	13.6	111	94	52	0	0	4	1
MILWAUKEE	69	49	83	45	59	-6	1.2	.3	1.0	1.3	52	14.9	120	88	54	0	0	3	1
WAUSAU	69	48	76	42	58	-6	2.3	1.2	1.6	3.5	109	14.2	113	94	51	0	0	6	1
WY CASPER	72	47	83	43	60	-3	2.5	2.2	2.1	3.3	275	8.0	131	87	36	0	0	5	1
CHEYENNE	67	46	73	41	56	-5	1.2	.7	.6	2.3	144	7.0	100	96	50	0	0	4	1
LANDER	72	48	79	42	60	-1	.4	0	.2	.8	53	4.3	52	82	40	0	0	5	0
SHERIDAN	73	47	77	41	60	-1	1.1	.3	.5	2.6	113	7.3	84	85	43	0	0	3	1
PR SAN JUAN	90	78	90	76	84	3	.2	- 1.0	.2	3.3	83	24.8	119	88	60	5	0	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Spring Weather Review

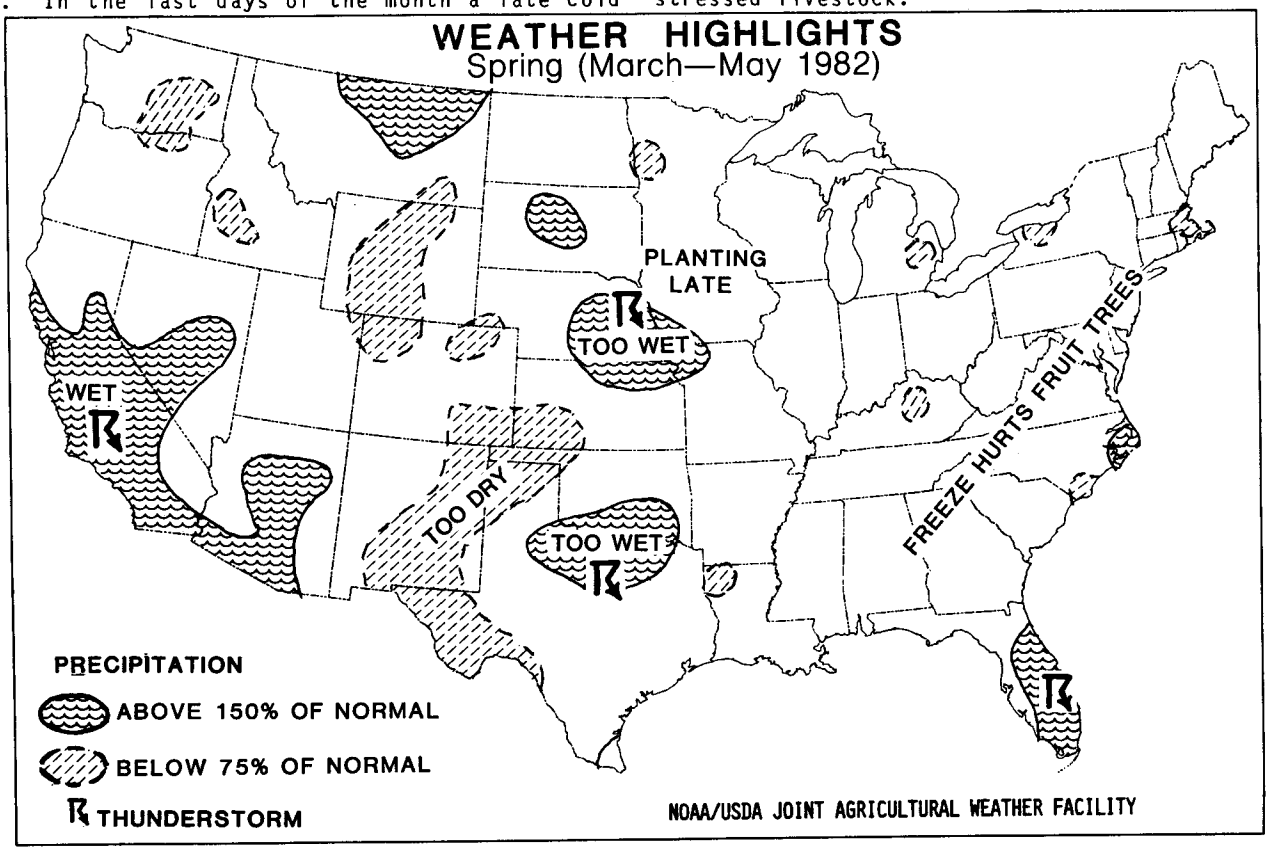
(MARCH, APRIL, AND MAY)

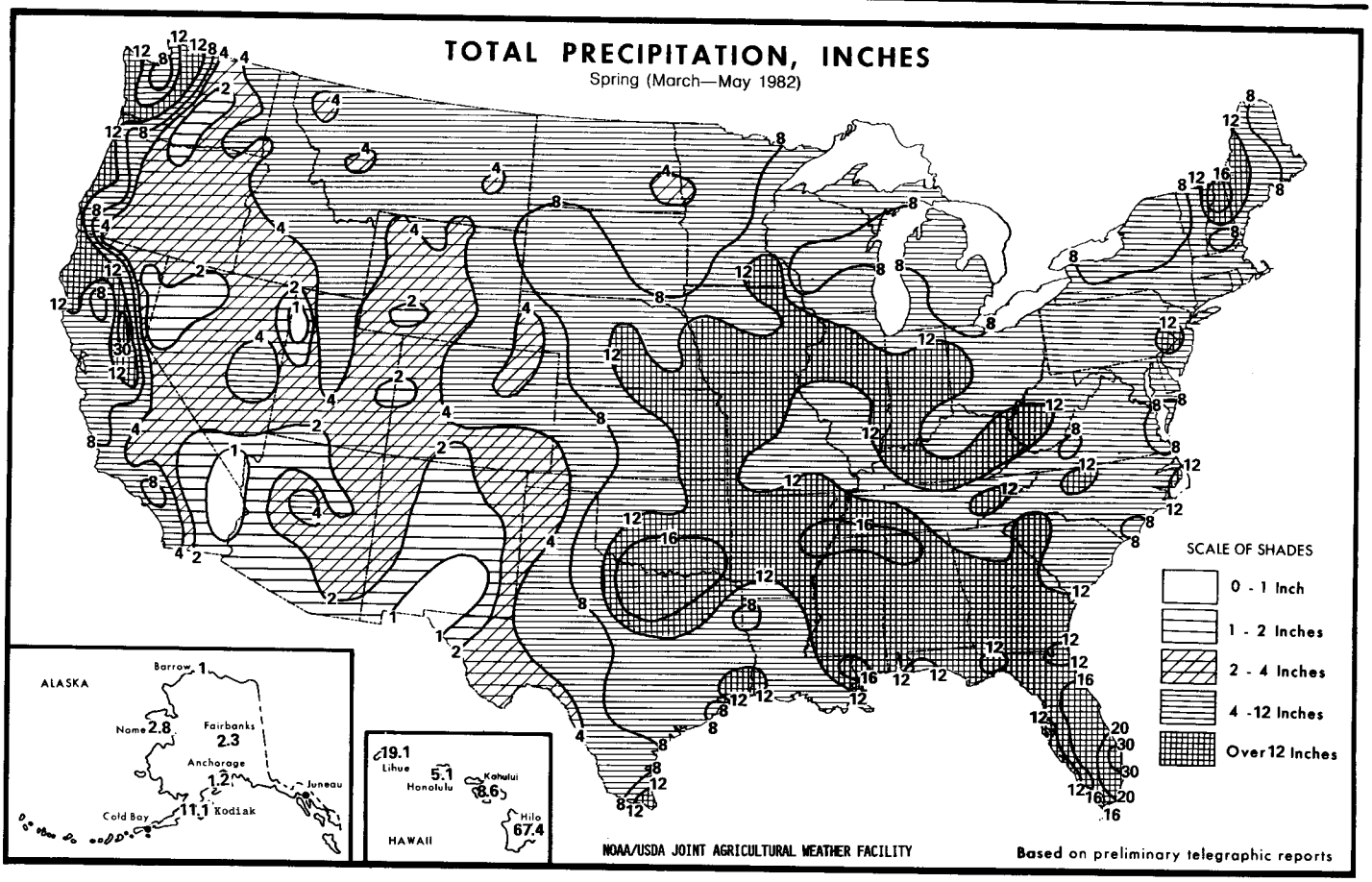
HIGHLIGHTS: Winter persisted early in March as a cold outbreak plunged southward through the Plains and spread over all of the Nation. Subsequent warm weather melted snow and caused flooding in the area south of the Great Lakes. Freezes in late March and early April severely damaged fruit from New Jersey to Georgia and in the west coast region. Warm, open weather beginning in late April allowed planting to start in the Corn Belt and advance rapidly in the eastern portion during May. However, near continuous wet weather in the western portion during most of May seriously delayed planting after a good start. Thunderstorms produced deluges of rain in the central Plains and elsewhere. Standing water and lodging was deleterious to winter wheat.

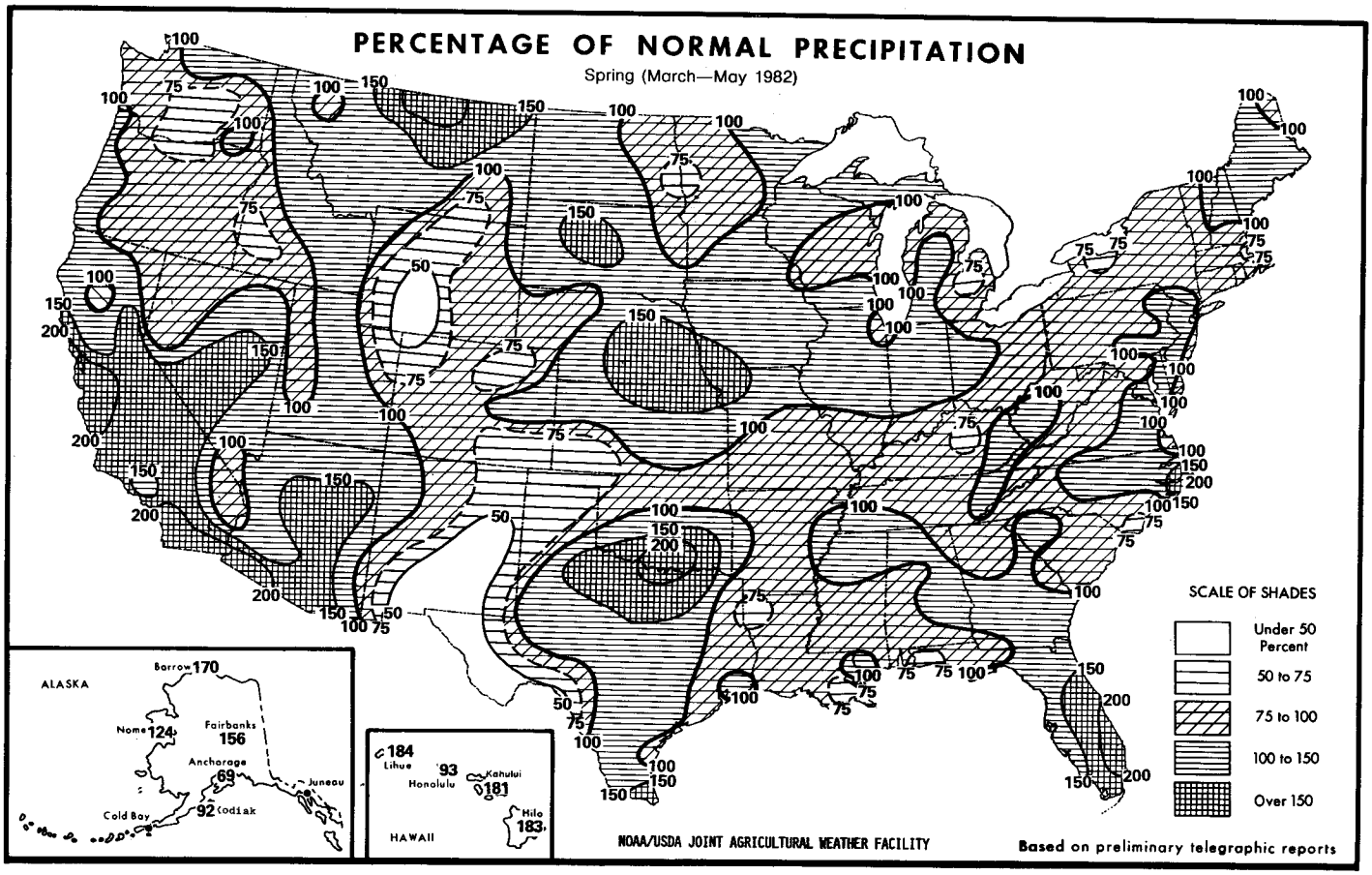
MARCH...Pacific storms continued to lash the west coast with wind and rain early in the month and snow piled up in the mountains. Heavy snow accumulated over the central Plateau. Showers brought needed moisture to the Southwest during most of the month but tapered off in the last week. Snow covered the central Plains early in the second week before a cold outbreak carried freezing temperatures southward into Mexico. The cold air spread over all of the Nation except the extreme Southeast and the west coastal region. After the cold outbreak, warm weather spread over the East. Snow began melting as far north as the Great Lakes and thunderstorms brought heavy rains to the South. Fieldwork and planting began across the South but was delayed because of the rain. Fruit trees budded in central areas and bloomed across the South and in parts of California. However, early morning freezing temperatures reached the Pacific coast in Washington and Oregon. Late in the month, thunderstorms brought hail to parts of California and damaged stone fruit. In the last days of the month a late cold outbreak pushed into the Southeast and damaged fruit crops from Virginia to Georgia.

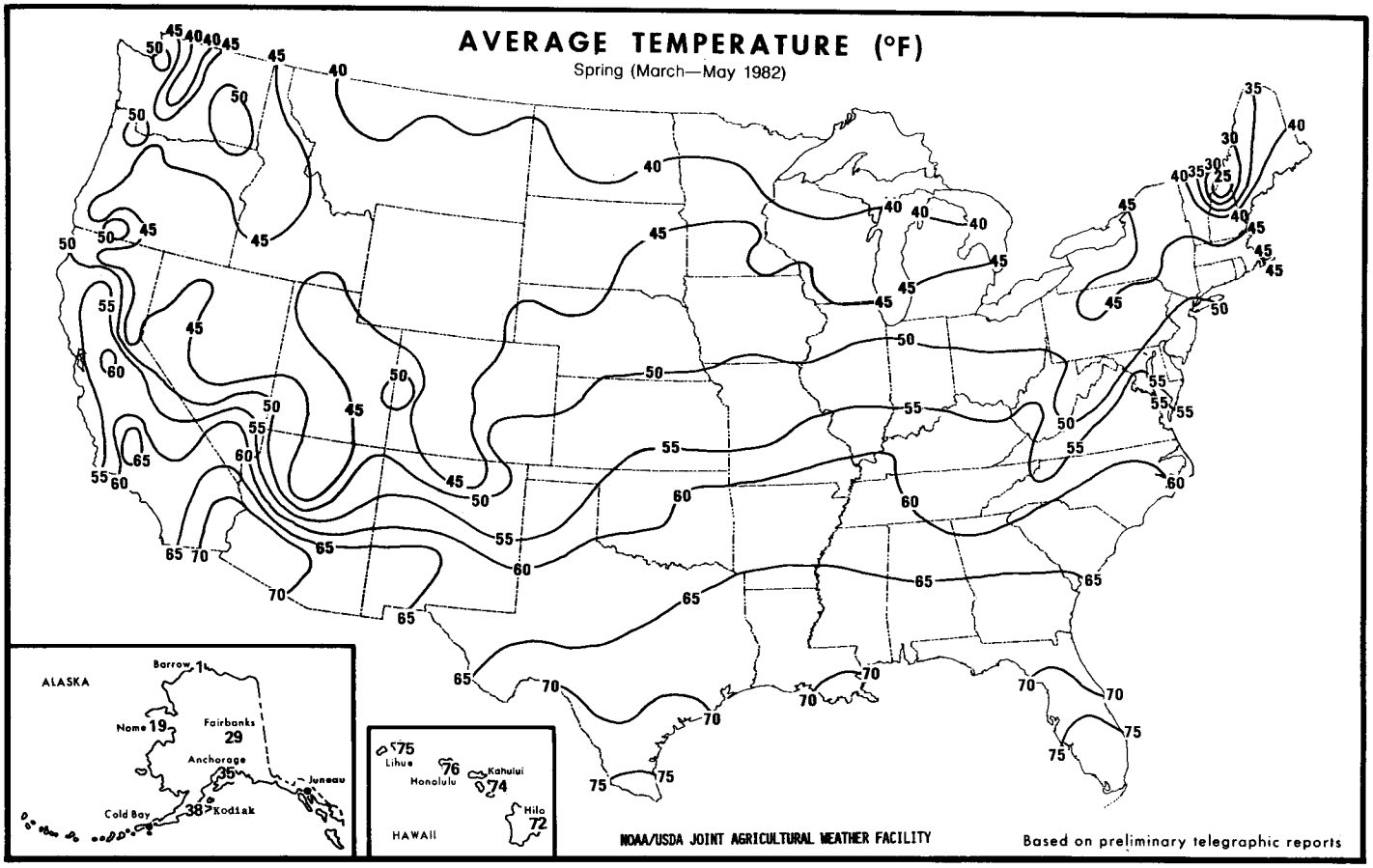
APRIL...Unusually cool weather dominated most of the Nation. The cool weather slowed crop development in southern areas and delayed early planting in others. Early in the month, record cold temperatures were reported across the northern tier of States and another freeze damaged fruit from the mid-Atlantic States to Georgia. Heavy rain, with snow in the mountains continued over much of the west coast and some heavy snow fell in the northern Rockies. Rain in the Southeast further delayed spring fieldwork. Winter wheat greened in the southern Plains but cool weather slowed development. Dry weather in parts of the area from western Texas through eastern Colorado stressed the crop. Corn planting got underway in the Corn Belt and made rapid progress but was halted by rainy weather in the western portion at month's end.

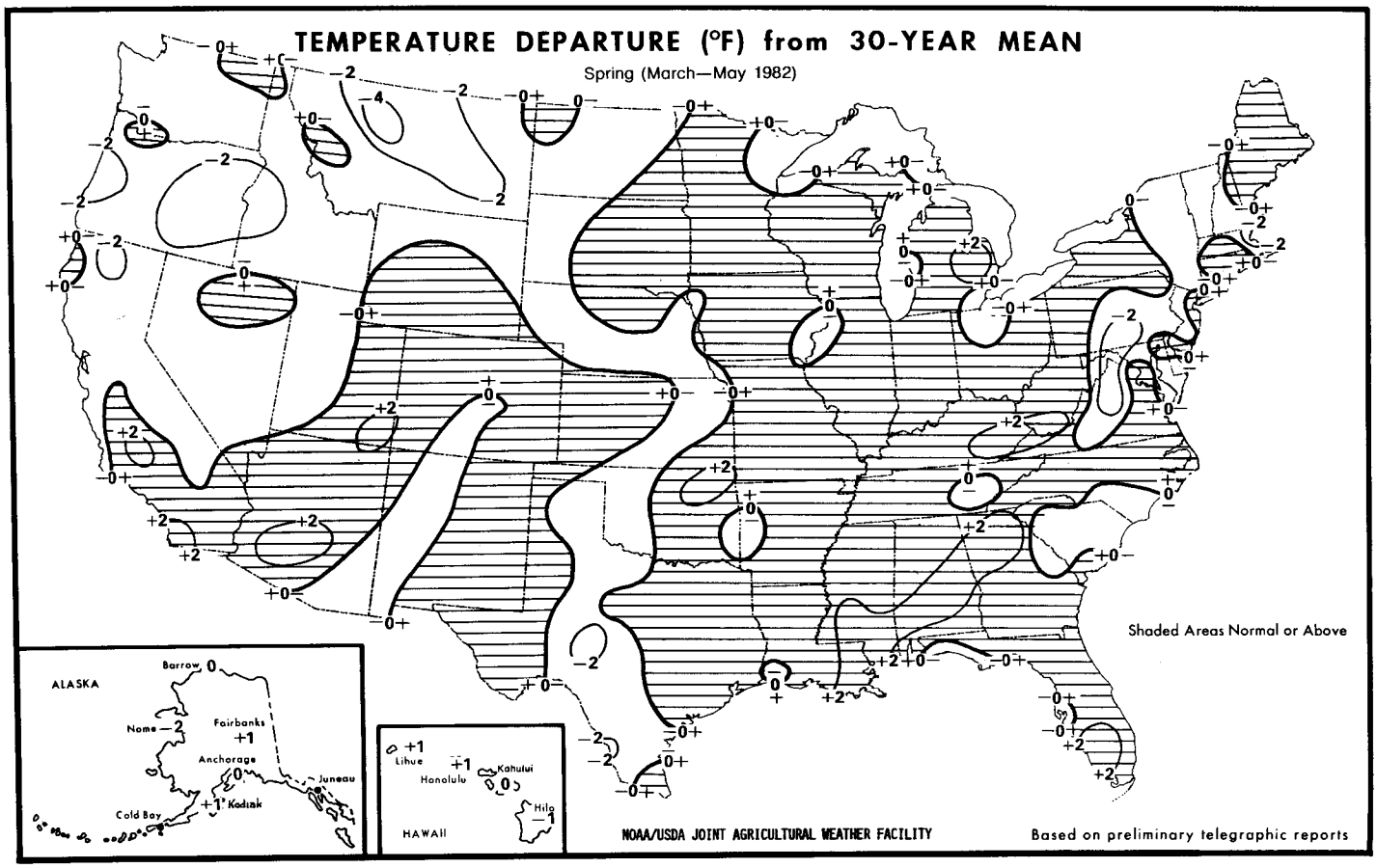
MAY...Warm, open weather in the Corn Belt from Illinois eastward allowed planting to continue and promoted excellent early growth of corn and soybeans but cooler, wet weather later in the month slowed development. Almost daily rain and occasional downpours in the western Corn Belt kept planting at a standstill all month. Thunderstorms produced severe weather and some heavy downpours from central Texas to southeastern Minnesota. Winter wheat in the southern Plains was badly lodged in some areas and standing water in flood areas did further damage. Showers and thunderstorms spread into the dry areas of western Texas, Oklahoma and Kansas, and eastern Colorado relieving the moisture stress on much of the winter wheat. The weather was cool through the Rockies. Some snow fell in the northern portion and cold rain reached out over the High Plains and stressed livestock.

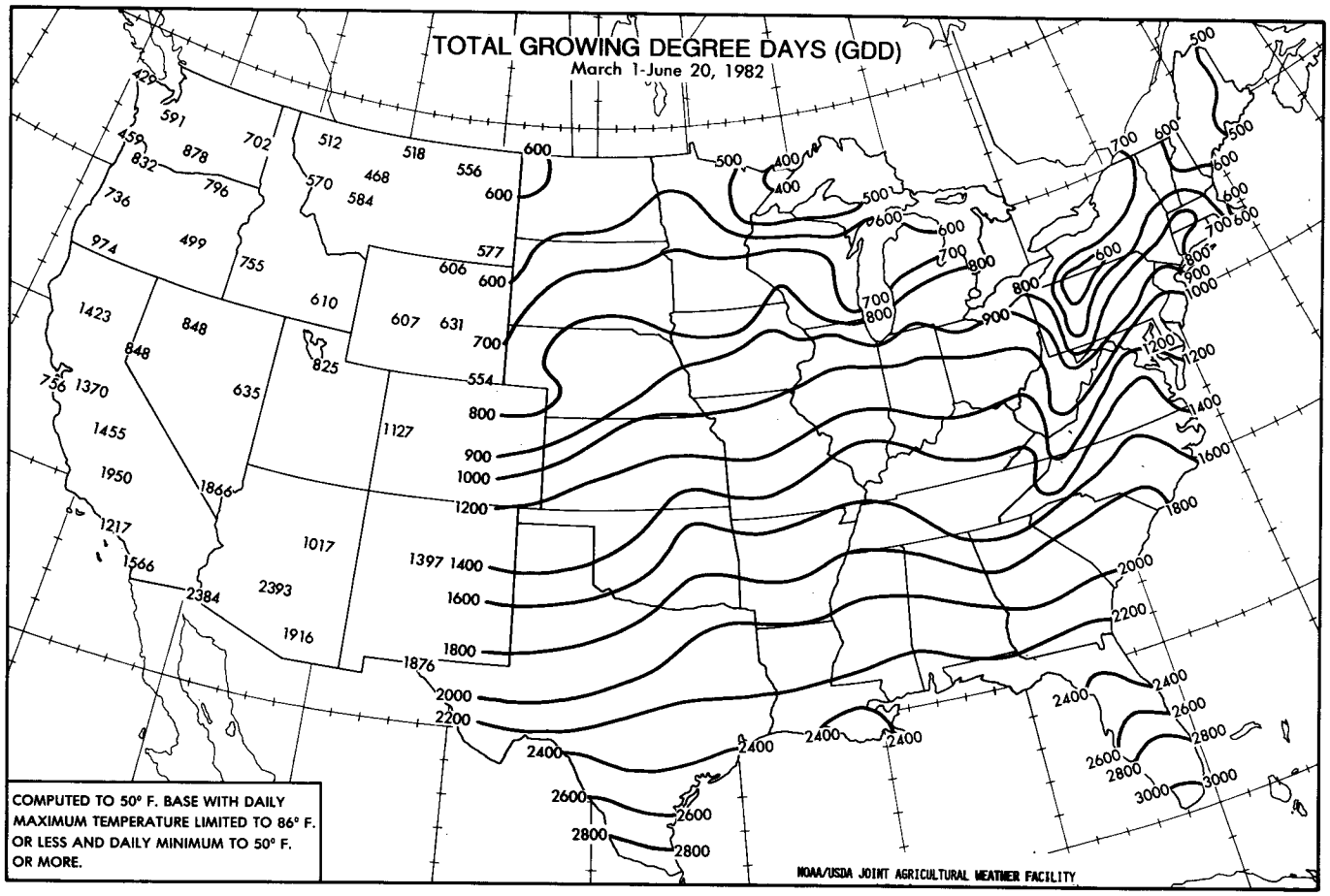


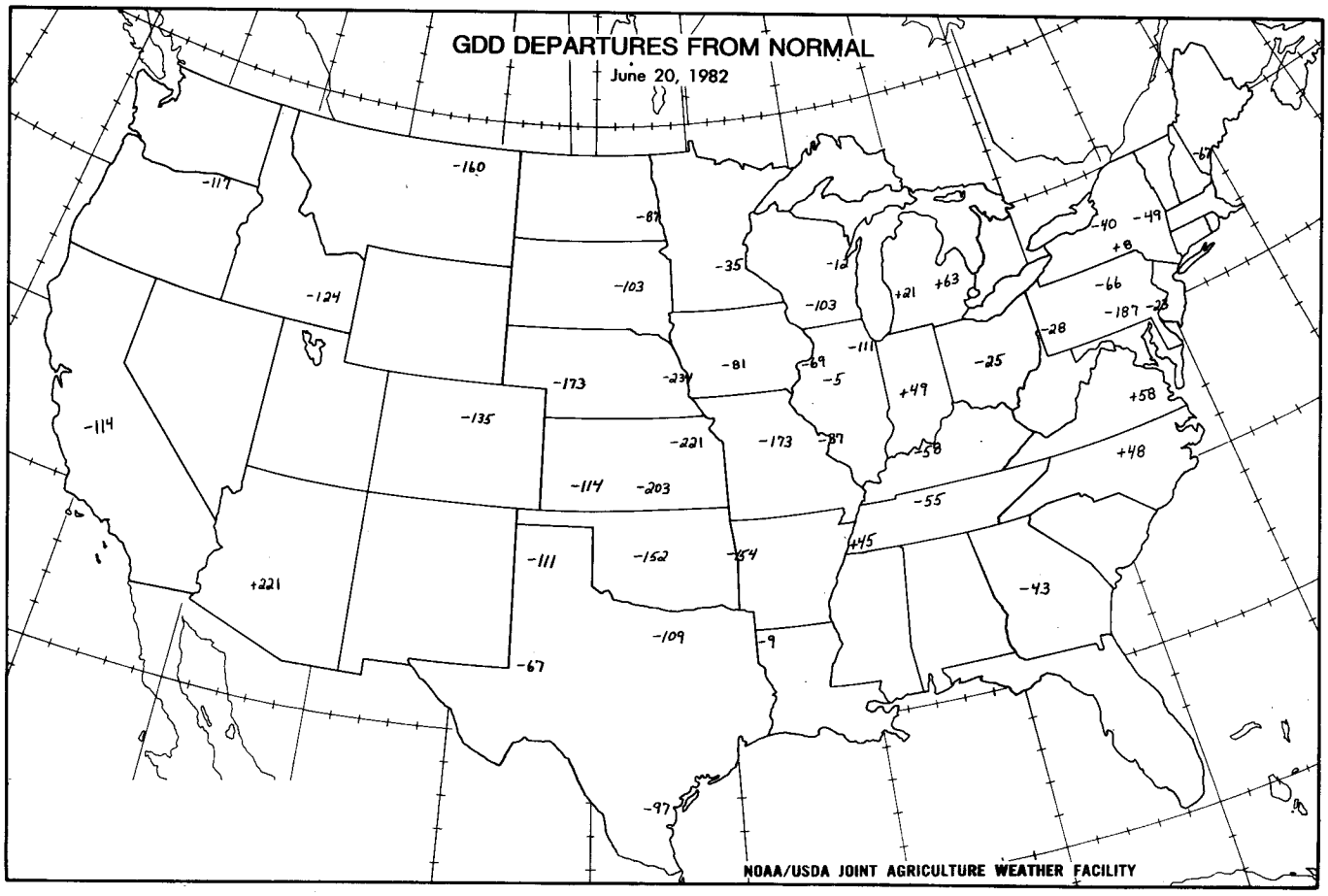

TOTAL PRECIPITATION, INCHES
Spring (March—May 1982)
SCALE OF SHADES
0 - 1 Inch
1 - 2 Inches
2 - 4 Inches
4 -12 Inches
Over 12 Inches
ALASKA
Barrow 1
Nome 2.8
Fairbanks 2.3
Anchorage 1.2
Juneau
Cold Bay 11.1
Kodiak
19.1 Lihue
5.1 Honolulu
Kahului 8.6
Hilo 67.4
HAWAII
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


PERCENTAGE OF NORMAL PRECIPITATION
Spring (March—May 1982)
SCALE OF SHADES
Under 50 Percent
50 to 75
75 to 100
100 to 150
Over 150
ALASKA
Barrow 170
Nome 124
Fairbanks 156
Anchorage 69
Juneau
Cold Bay 92
Kodiak
184 Lihue
93 Honolulu
Kahului 181
Hilo 183
HAWAII
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


AVERAGE TEMPERATURE (°F)
Spring (March—May 1982)
ALASKA
Barrow 1
Nome 19
Fairbanks 29
Anchorage 35
Juneau
Cold Bay 38
Kodiak
HAWAII
Lihue 75
Honolulu 76
Kahului 74
Hilo 72
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


TEMPERATURE DEPARTURE (°F) from 30-YEAR MEAN
Spring (March—May 1982)
Shaded Areas Normal or Above
ALASKA
Barrow 0
Nome −2
Fairbanks +1
Anchorage 0
Juneau
Cold Bay +1
Kodiak
HAWAII
Lihue +1
Honolulu +1
Kahului 0
Hilo −1
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


TOTAL GROWING DEGREE DAYS (GDD)
March 1-June 20, 1982
COMPUTED TO 50° F. BASE WITH DAILY MAXIMUM TEMPERATURE LIMITED TO 86° F. OR LESS AND DAILY MINIMUM TO 50° F. OR MORE.
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


GDD DEPARTURES FROM NORMAL
June 20, 1982
NOAA/USDA JOINT AGRICULTURE WEATHER FACILITY

National Agricultural Summary

June 14-20

HIGHLIGHTS: Wet conditions again limited fieldwork on most of the central and southern Plains. Planting progress fell further behind schedule in Kansas, Missouri, and Oklahoma, and winter wheat harvesting was delayed. Cool weather slowed crop growth and development in most areas of the Nation. Soil moisture supplies were adequate to surplus in all areas except parts of the Delta, Southwest, and some areas in Minnesota where supplies were rated short to adequate. Farmers had 3 to 5 days suitable for fieldwork except in the central Plains where rain limited the fieldwork to 2 days. Winter wheat was in fair to good condition. Harvesting gained momentum, reaching 8% completion. Spring wheat was 96% emerged and in fair to good condition; 4% of the acreage was headed. Corn was rated in fair to good condition. The crop was silking across the South. Soybean planting was 83% completed, 6 points behind average. Planting was well behind normal in Kansas and Missouri. Farmers began planting double-cropped soybeans in the Southeast as small grains were harvested. Cotton planting neared completion except in Oklahoma where planting reached 55% finished. Cotton was squaring on 23% of the acreage. Heavy rains and hail damaged some Texas fields. Sorghum was 72% planted, behind the average of 92%. Progress fell further behind in Kansas and Oklahoma. Peach harvests became more widespread. Pastures and livestock were in fair to good condition.

SMALL GRAINS: Winter wheat remained in fair to good condition. Harvesting in the 15 major producing States was 8% finished. Combining was just getting underway in the Corn Belt and was 35% completed in California and 36% finished in Texas. Harvesting in Kansas had not yet started, although some fields in southern areas were ready but were too wet for combines to enter. Kansas wheat was rated in good to excellent condition in the western two-thirds of the State but was rated in very poor to fair condition in the eastern third due to the dominating wet weather. The Oklahoma harvest, at 15% completion, lagged behind schedule due to continued wet fields. The quality suffered from excessively moist conditions in a few localities. Harvesting was in full swing throughout Texas with few rain delays reported. Cool, damp weather prevented drying in some areas where green, immature wheat delayed combining. Development of Montana winter wheat continued well behind normal--only 5% of the acreage was headed compared with the average of 60%.

Spring wheat seeding was virtually finished. Plants had emerged on 96% of the acreage. For the 5-State area, 49% of the acreage had headed, behind last year's 28% and the average of 20%. The crop was in fair to good condition.

CORN: Corn planting neared completion in all major growing regions. Emerged plants were in fair to good condition, although continued wet weather in some areas caused some yellowing. Silking was well advanced across the South. Some of the earliest planted fields reached the dough stage of development. Warmer weather is needed for good growth.

SOYBEANS: Soybean planting in the 18 major producing States slowly moved forward to 83% completion, ahead of last year's slow progress of 78% but behind the average of 89%. Nebraska producers took advantage of several good days and were able to plant 20% of their acreage during the week; planting reached 85% completion, 13 points behind average. However, continued wet weather in Kansas and Missouri delayed fieldwork. Kansas growers had seeded only 25% of their acreage, 55 points behind schedule. Planting in Missouri moved to 52% completion, 33 points slower than normal. Emerged plants were in fair to good condition, although wet conditions caused some yellowing. Farmers in the Southeast began planting double-cropped soybeans. However, progress was slow because wet weather has delayed harvesting of small grains.

COTTON: Cotton planting was nearly finished in all States except Oklahoma where planting was only 55% completed, well behind last year's 100% and the average of 95%. Cotton was squaring on 23% of the acreage in the 14 major producing States. Heavy rains and hail severely damaged or destroyed some cotton fields on the Texas Plains. Replanting was active in many areas. Stands were blooming from central Texas southward.

SORGHUM: Sorghum planting in the 7 major producing States was 72% completed, lagging last year's 85% and the average of 92%. Nebraska farmers planted 30% of their acreage during the week while growers in South Dakota planted 31%. Wet weather caused progress to fall 40 percentage points behind normal in Kansas and 35 points behind in Oklahoma. In Texas, 53% of the acreage was headed and 23% was turning color.

OTHER CROPS: Rice planting was completed and plants had emerged on nearly all of the acreage. Stands were in fair to good condition. Growth was good as warmer weather prevailed.

Peanut planting progressed well on Edwards Plateau in Texas, although locally heavy rains washed out some fields. Planting in the States reached 53% completion, behind the average progress of 77%.

Tobacco transplanting continued active as the weather permitted. Setting neared completion in most areas. Harvesting became more widespread. Georgia's acreage was 10% harvested and South Carolina's 1%. Wet conditions have caused disease in some fields. Blue mold was found in some fields in Kentucky.

FRUITS AND NUTS: The peach harvest was 26% complete in North Carolina and 56% finished in Georgia. Harvesting in South Carolina was active; very few orchards in the Piedmont were producing due to earlier freeze damage. The Michigan fruit set ranged from average to heavy. The sweet cherry harvest in Washington was underway. New crop fruit in Florida was growing very well. The Valencia harvest slowed down toward completion. California's table grape harvest picked up momentum. Growers harvested Freestone peaches, avocados, apricots, nectarines, and desert grapefruit. Grapefruit picking in other areas of the State was getting underway. Texas producers harvested an increasing volume of Freestone peaches. Pecan trees had heavy infestations of webworms in Edwards Plateau. The nut set was light in most areas.

VEGETABLES: Wet weather in many areas slowed planting and harvesting. Warmer weather is needed for good growth. Florida's vegetable harvest neared completion in northern areas. The watermelon harvest was past peak and declining. Texas growers harvested a wide variety of crops. In the Plains areas, adverse weather affected most crops. Producers were trying to determine the extent of hail damage to the onion crop. California's vegetable harvest continued very active.

PASTURES AND LIVESTOCK: Pastures and ranges were in mostly good condition. Most areas had ample moisture for lush growth of grasses. Livestock were in fair to good condition. Most herds had been moved to summer grazing areas.

CROP PROGRESS

FOR WEEK ENDING JUNE 20

WINTER WHEAT % HARVESTED

	1982	1981	AVG.
CALIF	35	40	NA
COLO	0	NA	NA
IDAHO	0	0	0
ILL	1	6	9
IND	1	1	1
KANS	0	15	5
MO	12	18	23
MONT	0	0	0
NEBR	0	1	0
OHIO	0	0	0
OKLA	15	70	50
OREG	0	0	NA
S DAK	0	0	0
TEX	36	45	45
WASH	0	0	0
15 STATES	8	NA	NA
EXCL. STATES WITH NA	9	23	18

THESE 15 STATES PRODUCED 88% OF THE 1981 WINTER WHEAT CROP.

NA - NOT AVAILABLE

WINTER WHEAT % HEADED

	1982	1981	AVG.
CALIF	100	100	NA
COLO	95	93	94
IDAHO	36	51	59
ILL	100	100	100
IND	100	100	100
KANS	100	100	100
MO	100	100	100
MONT	5	70	60
NEBR	100	100	100
OHIO	100	100	100
OKLA	100	100	100
OREG	95	96	NA
S DAK	79	99	94
TEX	100	100	NA
WASH	85	98	84
15 STATES	92	97	NA
EXCL. STATES WITH NA	90	96	95

THESE 15 STATES PRODUCED 88% OF THE 1981 WINTER WHEAT CROP.

NA - NOT AVAILABLE

COTTON % SQUARING

	1982	1981	AVG.
ALA	40	54	20
ARIZ	65	74	64
ARK	41	19	20
CALIF	0	12	NA
GA	61	73	68
LA	43	39	31
MISS	60	70	46
MO	1	2	1
N MEX	5	1	NA
N C	36	11	NA
OKLA	0	0	5
S C	69	80	72
TENN	22	19	18
TEX	15	22	NA
14 STATES	23	28	NA
EXCL. STATES WITH NA	42	44	33

THESE 14 STATES PRODUCED 99% OF THE 1981 COTTON CROP.

NA - NOT AVAILABLE

SOYBEANS % PLANTED

	1982	1981	AVG.
ALA	82	86	85
ARK	71	55	69
GA	78	79	83
ILL	95	88	96
IND	96	65	96
IOWA	88	100	100
KANS	25	60	80
KY	74	40	72
LA	86	85	86
MICH	98	95	96
MINN	97	99	99
MISS	84	84	85
MO	52	67	85
NEBR	85	100	98
N C	69	76	82
OHIO	100	55	90
S C	77	83	86
TENN	80	49	76
18 STATES	83	78	89

THESE 18 STATES PRODUCED 95% OF THE 1981 SOYBEAN CROP.

SPRING WHEAT % EMERGED

	1982	1981	AVG.
IDAHO	100	100	100
MINN	98	99	98
MONT	90	100	100
N D	96	99	98
S DAK	100	100	100
5 STATES	96	99	99

THESE 5 STATES PRODUCED 92% OF THE 1981 SPRING WHEAT CROP.

SPRING WHEAT % HEADED

	1982	1981	AVG.
IDAHO	7	29	20
MINN	4	43	32
MONT	0	0	2
N D	2	14	14
S DAK	13	81	41
5 STATES	4	28	20

THESE 5 STATES PRODUCED 92% OF THE 1981 SPRING WHEAT CROP.

SORGHUM % PLANTED

	1982	1981	AVG.
COLO	62	83	87
KANS	45	70	85
MO	61	64	86
NEBR	90	100	98
OKLA	55	95	90
S DAK	78	91	92
TEX	92	95	96
7 STATES	72	85	92

THESE 7 STATES PRODUCED 92% OF THE 1981 SORGHUM CROP.

State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by SRS State Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures averaged below normal. Rainfall varied from 0 to near 3.00 in.

Soil moisture mostly adequate. Fieldwork: 4.9 days. Corn silked 60%, 57% 1981, 36% average. Sorghum planted 78%, 83% 1981, 70% average. Soybeans planted 82%, 86% 1981, 85% average. Wheat harvested 80%, 79% 1981, 74% average. Hay harvested 56%. Cotton squaring 40%, 54% 1981, 20% average. Conditions: Cotton, peanuts, wheat, livestock, pastures, corn, and sorghum mostly good. Activities: Planting sorghum and soybeans, cultivating field crops, controlling pests on fruit, vegetables, and crops; harvesting hay, wheat peaches and early vegetables.

ARIZONA: Sunny skies except for isolated over extreme north during latter part of week. Average temperatures 3° below normal to 4° above.

Squaring in progress, 65% of cotton fields, behind last year's 74%. Flowering, boll setting continued, limited scale. Barley harvest approaching completion. Wheat combining past peak all areas except southeast where harvest in early stages. Corn for grain approaching 4 feet in height. Sorghum planting continued, established stands making good progress. Sugarbeet digging over 70% complete. Safflower in full bloom, some blooms starting to dry. Alfalfa baling seasonal. Dry onion bagging, carrot digging approaching completion. Green onions harvested on demand. Table stock potato digging finished, processing potatoes will finish July 5th. Grape harvest, full swing. Shipping cantaloupes, honeydews, watermelons at halfway point western area, gaining momentum central area. Valencia orange harvest completed. Grapefruit picked on demand. Ranges northern, southeast remained fair to good. Central, southern areas reported poor range conditions. Southwestern ranges very poor. Livestock mostly fair to good condition. Water supplies ranged short to adequate.

ARKANSAS: Temperatures below normal. Rain fell Statewide. Highest temperature 94°, lowest 52°. All departures from normal ranged from -2 to -5°. Most rainfall 4.56 in., least 0.80 in.

Four days available for fieldwork. Soil moisture adequate to surplus. Crop growth moderate to rapid. All crops in good condition. Soybeans planted 71%, 55% 1981, 69% average; emerged 63%, 41% 1981, 54% average. Rice virtually all emerged, same as last two years. Cotton squaring 41%, 19% 1981, 20% average. Wheat harvest 69%, 74% 1981, 68% average. Oat harvest 83%, 79% 1981, 77% average. Sorghum virtually planted, same as 1981, 92% average. Haying delayed by rain. Good pastures. Peach and tomato harvests becoming more active.

CALIFORNIA: The Central Valley and North Coast had above normal temperatures while the Central and South Coast and southern Deserts were below normal. Precipitation was spotty and mostly at high elevations in showers and thunderstorms associated with a low pressure area aloft that lingered in the area midweek. Willows, in the western Sacramento Valley received about 0.50 in. during the week. Large temperature variation as individual stations in the Sacramento Valley were 7° above normal and some South Coast stations were 5° below normal.

Winter wheat harvest picking up with 35%, 40% 1981. Rice plantings complete, young seedlings doing well. Herbicide application active. Irrigation, cultivation of cotton fields active, development of cotton remains behind schedule. Small grain field burning and discing active for planting of second crops. Sugarbeets in good shape, harvest remains active. Planting of dry beans continues in Central Valley. Milo and corn planting active. Alfalfa hay harvest continues. Watsonville Delicious apple crop down. Tilton apricots underway. Hass avocados marketed. Calimyrna fig caprification ongoing. Perlette, Cardinal, Flame seedless table grapes moving. May Grand nectarines yield high volume. Flavor Crest, June Lady, Red Top Freestone peaches harvested. Desert grapefruit to finish by June end. Other area grapefruit starting. Below average quality lemons reported. Valencia orange elimination low. Almond growers irrigate. Pistachio owners spray thrips. Walnut tip hardening in Paynes, Serrs. Artichoke supplies seasonally light. Asparagus volume decreasing. Green bean harvest active. Broccoli fairly heavy supply. Brussels sprouts planting well along. Bushberry harvest active. Cantaloup harvest full swing Desert, excellent quality. Cauliflower supplies fairly light. Carrot harvest moderate. Celery harvest slowing South Coast, increasing Central Coast. Sweet corn harvest slowing Coachella Valley, increasing later area. Lettuce volume fairly heavy Central Coast. Spring potato harvest active Kern District. Market tomato volume decreasing Desert, increasing later areas. Processing tomato harvest continues Desert. Desert watermelon harvest full swing. Movement livestock higher elevations irrigated pastures continues, summer ranges good condition with adequate water supplis. Cool temperatures beneficial poultry.

COLORADO: Shower and thunderstorms, some severe, produced accumulations of over 1.00 in. at many locations across the Eastern Plains. Moisture west of the Divide was light. Temperatures in the east were 3 to 6° below normal, while averaging 1 to 6° below normal elsewhere.

Prospects for most crops improving as recent moisture has offset the dry conditions earlier in the season. Emergence of spring grains virtually complete. Barley, 99% emerged, 39% headed, 4% turning color. Sugarbeets, 68% thinned, fall potatoes 70% emerged. Dry beans 85% planted, 57% emerged. Corn doing well with 99% planted, 96% emerged. It has attained an average height of 5 in. Sorghum in fair condition due to limited moisture; 62% planted, 50% emerged. Winter wheat crop in fair to good condition; 100% jointed, 95% headed, 18% turning color. Subsoil and topsoil moisture levels rated short to adequate in most areas. Four days suitable for fieldwork. Livestock in good condition.

FLORIDA: Partly cloudy with typical afternoon thunderstorms early week a strong storm moved across northern Peninsula on the 18th, bringing heavy rains, high winds. Rainfall for the period averaged 4.00 to 6.00 in. except lesser amounts western Panhandle. Temperatures near normal.

Soil moisture mostly adequate following rains late in the week. Some dry areas, mostly western Panhandle still persist but low, poorly drained areas have a surplus. Corn good progress. Soybean planting continues. Tobacco, hay harvest active. Peanuts, sugarcane good condition. Small grain harvest complete. Grazing condition continued to improve with ample rainfall last half of week. Pasture rated good to excellent with surplus forage in some central counties. Pastures wet in low, poorly drained areas. Cattle

mostly good condition. Hard rain all citrus areas last week. Lakes, ponds, streams full. New foliage growth continues. New crop fruit growing very well. Valencia harvest winding down. Grapefruit movement all but over. Partly cloudy skies, near normal temperatures, scattered afternoon showers prevailed most of week in vegetable areas. A strong low pressure system caused heavy rains, high winds on the 18th. Partly cloudy skies, scattered afternoon thundershowers occurred weekend. Harvest nearing completion northern areas. Escarole, parsley harvest complete. Volume declined all remaining vegetables still under harvest. Watermelon harvest has passed peak and decreasing.

GEORGIA: Temperatures 1 to 3° below normal. Rainfall averaged 2.00 to 3.00 in. southeastern third, mainly from general rains late in week. Rainfall elsewhere averaged 0.75 in. to 1.00 in. from scattered showers daily. Except near coast, rainfall over 19th and 20th was generally light, averaged near 0.10 in. Coastal rains on 18th averaged 1.00 to 2.00 in.

Soil moisture 30% short, 57% adequate and 11% surplus. Four days suitable for fieldwork. Planting, haying, harvesting and spraying active. Corn 7% poor, 27% fair, 59% good and 7% excellent, 83% silked, 80% last year, 43% dough stage this year and last, 11% in dent stage, 7% last year. Cotton 4% poor, 29% fair, 59% good, 8% excellent, 61% squaring, 73% last year, 68% average, 8% setting bolls, 16% last year and 14% average. Peanuts 4% poor, 21% fair, 66% good, 9% excellent, 61% blooming, 72% last year, 71% average. Pegging 19%, last year 31%, average 32%. Sorghum 75% planted, 73% last year, 67% average. Soybeans 24% fair, 69% good, 5% excellent, 78% planted, 79% last year, 83% average, 2% blooming, 4% last year. Weeds a problem in many areas. Tobacco 8% poor, 28% fair, 64% good, 10% harvested, 6% last year and average. Wheat 14% poor, 55% fair, 29% good, 83% harvested, 84% last year, 82% average. Other small grains 6% poor, 57% fair, 36% good. Watermelons some disease problems 2% very poor, 3% poor, 35% fair, 60% good, 12% harvested, 14% last year, 9% average. Peaches 14% very poor, 18% poor, 20% fair, 48% good, 51% picked, 34% last year, 39% average. Apples 16% very poor, 23% poor, 26% fair, 33% good, 2% excellent. Hay crops 22% fair, 72% good, 4% excellent. Pastures 3% poor, 17% fair, 75% good, 5% excellent. Cattle and hogs good.

HAWAII: Weather variable. Heavy rains second half of the week, slowed crop progress some parts of the Islands. Irrigation necessary in some sections to insure fair to good crop progress. Regular spray program keeping disease and insect damage to minimum. Vegetables: Supplies adequate. Tomato harvest very active. Bananas: Supplies light. Younger orchards making good progress. Pineapples: Harvesting active. Canneries operating two 8 hour shifts. Expect to go on 24 hr. basis in two weeks. Sugar: Weather favorable in growing areas. Harvesting very active. Pastures: Generally fair to good. Rains beneficial.

IDAHO: Average temperatures were above normal Statewide with some portions of the north up to 11° above normal. The high was at Hagerman with 95° while Stanley was once again the cool spot with 34°. Precipitation was from 0.25 to 0.50 in. below normal in all areas except southeast. Malad was over 0.50 in. above normal and reported a weekly total of 0.89.

Warm weather improving crop growth and outlook. Winter wheat 36% headed, 57% boot. Last year 51% headed, 32% boot. Spring wheat 7% headed, 29% last year. Barley 8% headed. Potatoes 84% emerged, 70% in 1981. Dry beans 73% emerged, 86% last year. Corn 100% emerged. Alfalfa hay crop late with first cutting 28% complete, 37% last year. Sugarbeet thinning 89% complete.

ILLINOIS: Temperatures 4 to 8° below normal. Precipitation heavy in most areas, 1.00 to 3.00 in.

Winter wheat 8% excellent, 69% good, 22% fair, and 1% poor; 100% of the crop headed, 90% turning yellow, 25% ripe, 1% combined. Corn 13% excellent, 76% good, and 11% fair. Soybeans planting 95%, 88% 1981, 96% average. Soybeans 6% excellent, 74% good, 19% fair, and 1% poor. Alfalfa 84% of the first crop was cut, red clover 65% of the crop was cut. Oats 80% of the crop was headed, 50% filled, 5% turning yellow. Pastures 24% excellent, 73% good, and 3% fair. Soil moisture 3% short, 61% adequate, 36% surplus.

INDIANA: Wet, cool week. Temperatures 5° below normal and ranged from 40 to 93°. Sunshine 66% of possible. Humidities near normal. Division rainfall 1.00 to 1.90 in. Four-week totals 3.50 to 6.00 in.

Fieldwork averaged 3 days. Topsoil moisture adequate to surplus. Subsoil moisture mostly adequate. Soybeans 96% planted, 1981 65%, average 96%. Soybeans 95% emerged, 1981 60%, average 90%. Soybeans 7 in. high, 1981 3 in., average 5 in. Corn 26 in. high, 1981 12 in., average 18 in. Corn and soybeans fair to mostly good condition. Wheat 1% combined, 1981 1%; average 1%. Wheat 10% ripe, 1981 15%, average 15%. Wheat 55% turning color. Oats 70% headed, 1981 80%, average 70%. Alfalfa hay 85% cut first time, 1981 65%, average 90%. Clover hay 60% cut. Tobacco plants 65% set, 1981 85%, average 85%. Pasture condition good.

IOWA: Quite cool with heavy rains the 14th, 15th across parts of southwest, west central, central and east central. Considerable flooding and standing water. Elsewhere, precipitation was light to moderate.

Topsoil moisture: 61% surplus, 39% adequate. Subsoil moisture: 55% surplus, 45% adequate. Corn acreage planted: 98% complete, last year 100%, normal 100%. Corn acreage emerged: 94%, last year 100%, normal 100%. Soybean acreage planted: 88% complete, last year 100%, normal 100%. Soybean acreage emerged: 65%, last year 98%, normal 98%. Oat acreage headed: 50%, last year 93%, normal 75%. First crop alfalfa hay harvested: 65%, last year 93%, normal 88%. First crop clover harvested: 35%, last year 66%, normal 58%. Fieldwork: 3.7 days suitable. Crop conditions: Corn and soybeans, fair to good; pasture wheat, oats and hay mostly good. Livestock in good condition.

KANSAS: More rain, heaviest west and south central, 1.50 to 2.00 in., elsewhere 0.75 to 1.25 in. Temperatures averaged 66° northwest, 68 to 71° elsewhere, 3 to 6° below normal.

Wheat 75% turning, 90% last year, 80% average; 5% ripened, 55% last year, 20% average; 0% harvested, 15% last year, 5% average. Wheat condition good continues good to excellent western two-thirds, very poor to fair eastern third. Some wheat south ready, but fields too wet for combines. Corn 95% planted, 100% last year and average. Sorghum 45% planted, 70% last year, 85% average. Soybeans 25% planted, 60% last year, 80% average. First cutting alfalfa hay 75% complete, 98% last year, 97% average; second cutting 5% complete, 25% last year, 20% average. Pasture and range continue good to excellent, ponds full. Soil moisture adequate west, adequate to surplus central, surplus east. Fieldwork: 2.0 days suitable.

KENTUCKY: Near or above normal temperatures early but much cooler for latter half week. Average temperatures of 4 to 5° below normal. Near record cold readings occurred early on 20th. Average rainfall amounts were mostly 0.50 to 2.00 in. However, isolated amounts of near 4.00 in. were reported.

Days suitable fieldwork average 3.7. Soil moisture 7% short, 58% adequate, 35% surplus. Burley tobacco nearly 90% set. Some resetting because of pythium soft rot and wet fields. Blue mold has been found in some fields and many plant beds. Corn average height 30 in. and growing well. Soybeans 74% planted, 40% last year, 72% average. Farmers anxious to harvest small grain and plant double crop beans. Wheat 20% harvested, last year and average 25%. Barley 70% harvested. Haying has been hampered by rain. Pastures good to excellent.

LOUISIANA: Rainfall averaged near 1.00 to 3.00 in. Temperatures near normal.

Soil moisture short to adequate. Days suitable: 4.4. Corn silked 87%, 81% 1981, 70% average; dough 45%, 54% 1981; condition fair to good. Cotton squaring 43%, 39% 1981, 31% average; condition fair to good. Rice headed 16% 1982 and average, 17% 1981; condition fair to good. Sorghum planted 96%, 93% 1981, 88% average; emerged 92%, 87% 1981, 81% average; headed 20%, 22% 1981; condition fair to good. Soybeans planted 86% 1982 and average, 85% 1981; emerged 78% 1982 and 1981, 77% average; flowering 1%, 2% 1981; condition fair to good. Sweetpotatoes transplanted 95%, 92% 1981, 90% average; condition fair to good. Wheat harvested 97%, 95% 1981, 94% average. Sugarcane condition fair to good. Pecans rated fair. Peaches harvested 32%, 38% 1981. Watermelon harvest to begin this week. Vegetables rated fair to good. Hay first cutting 90%, 81% 1981. Pastures rated fair to good; livestock good.

MARYLAND AND DELAWARE: Maryland: 4 days suitable for fieldwork. Barley harvest 50% on Southern Eastern Shore, equal last year. Wheat harvest just began. Diseases and insects hurting yields. Acreage turned color; barley, 100%; rye, 95%; wheat, 75%. Last year 100%, 90%, 90%. Soybeans 75% planted, 80% year ago, 65% average. First cutting alfalfa 80% this year and last, 2nd cutting 10% completed. Tobacco, 75% transplanted, 90% last year; 70% average. Rains caused fertilizer leaching and bed overgrowth. Anthracnose, damping off moderate. Vegetables nearly all planted. Pea harvest 25% over, 15% year earlier, cuke harvest begun.

Delaware: 5 days suitable for fieldwork. Barley harvested 50% in south, 55% year ago. Grains all turned except wheat 85% equal last year. Soybeans 85% planted, 85% last year, 75% average. Alfalfa 1st cutting 100%, last year 95%; 2nd cutting 10%, last year 5%. Other hays 80% harvested, 95% in 1981.

Temperatures 3 to 4° below normal. Highs upper to low 80's, lows upper 50's to low 60's. Precipitation fell at all stations across two-state area. Average amount 2.02 in. Largest quantities recorded in northern Maryland.

MICHIGAN: Spring ended cool and wet as temperatures averaged from 4 to 8° below normal. Highs ranged from 70 to the mid-70's in the Upper Peninsula and mid-70's to mid-80's throughout the Lower Peninsula. Early and late week rains fell over most of the rest of the State. Amounts ranged from 0.25 in. to better than 3.50 during the week.

Wet and cool weather limited field activity. Statewide 3.5 days suitable for fieldwork. Soybean planting virtually complete. Dry beans 75% planted behind last year's 85% and 84% average. Winter wheat headed at 95%, 90% last year and 84% average. Oats heading at 15% behind last year's 30% and 24% average. First cut hay 50% complete. Last year hay 40% and averages 54%. Strawberries harvested near last year and average with 30%. Some crops in the Upper Peninsula were hurt by low temperatures. Vegetables in other parts of the State had mostly normal development. Fruits set ranged from average to heavy across the State.

MINNESOTA: Another cool week with showery unsettled weather. Temperatures averaged from the mid-50's in the northeast to low 60's in the south and generally 4 to 8° below normal. Highest reported temperature was 85° at Browns Valley and the coolest temperature reported was 33° at Hibbing. Rainfall was scattered with northwest half of the State generally averaging less than 0.50 in. and the southeast half of State averaging 0.50 to 1.00 in. Heaviest rainfall reported was 2.56 in. at Willmar.

Growth of crops continued at a slow pace due to cool weather. Many areas becoming dry with only light rains during June. Topsoil moisture rated 29% short, 65% adequate, and 6% surplus. Planted: Soybeans 97%, 1981 99%, normal 99%; sunflowers 97%, 1981 99%, normal 99%; dry beans 94%. Emerged: Field corn 96%, 1981 99%, normal 99%; soybeans 83%, 1981 94%, normal 95%. Height: Field corn 8 in., 1981 13 in., normal 15 in.; soybeans 3 in., 1981 5 in., normal 6 in.; sunflowers 3 in., 1981 6 in., normal 4 in. Jointing: Spring wheat 55%, 1981 90%, normal 68%; oats 60%, 1981 90%, normal 70%; barley 53%, 1981 91%, normal 68%. Heading: Spring wheat 4%, 1981 43%, normal 32%; oats 5%, 1981 49%, normal 36%; barley 5%, 1981 58%, normal 39%.

MISSISSIPPI: Temperatures 2 to 7° below normal except for coastal area with slightly above normal temperatures. Extremes: 50 and 96°. Cold front midweek produced thunderstorms over most areas. Heaviest amount 3.85 in. at Vicksburg.

Soil moisture adequate over most areas. Fieldwork: 3.9 days suitable. Much needed rainfall about midweek slowed wheat harvest and soybean planting. Cotton 60% squaring, 70% last year, 46% average; good to fair condition. Soybeans 84% planted, 84% last year, 85% average; good to fair condition. Sorghum 88% planted; sweetpotatoes 87%. Corn 34% silked. Winter wheat 85% harvested, peaches 22%, hay 46%. Rice condition good to fair, pasture condition good to fair.

MISSOURI: Temperatures averaged 5 to 6° below normal. Precipitation averaged 1.00 to 1.50 in. with locally heavy amounts of 3.00 in. or more. Flooding continued.

Fieldwork: 1.6 days suitable. Grain sorghum 61% planted, last year 64%, normal 86%. Soybeans 52% planted, last year 67%, normal 85%. Wheat 88% coloring, last year 100%, normal 87%. Wheat 12% harvested, last year 18%, normal 23%. Alfalfa hay-1st cutting 58% harvested, last year 93%, normal 89%. Alfalfa hay-2nd cutting 6% harvested, last year 12%, normal 16%. Other hay 26% harvested, last year 50%. Condition of corn fair to good. Condition of pasture mostly good. Topsoil moisture supply mostly surplus.

MONTANA: Warm week as temperatures averaged from 7° above normal west to near normal over northeast and southeast. Daytime temperatures 80's and 90's were common by end of week. Precipitation moderate to heavy, 1.00 to 4.00 in., over much of southwest and south central. Light to moderate elsewhere with mostly 0.50 to 1.00 in.

Topsoil and subsoil moisture adequate. Days suitable for fieldwork: 4. Winter wheat condition fair to good, percent headed, compared with last

year and normal: 5, 70, 60. Percent emerged: Spring wheat: 90, 100, 100; barley 95, 100, 100. Percent headed spring wheat 0, 0, 2. Condition of spring wheat, oats and barley good. Potatoes 95% planted. Hay and range rate of growth slow to average. Livestock 90% moved to summer ranges.

NEBRASKA: Precipitation: Heavy rains beginning of week. Most crop reporting districts averaged near 1.00 in. up to 2.50 in. in southeast and east central. Temperatures: 3 to 7° below normal.

Wheat fair to good. Heading 100%, same last year and normal. Coloring 25%, 70% last year and 50% normal. Disease problems becoming more serious in the southeast. Nearly 50% of southeastern wheat rated poor. Harvest expected to start near July 1. Corn emergence 90%, 100% last year and 99% normal. Cool temperatures hindered development. Sorghum planting 90%, 100% last year, 98% normal. Emerged 60%, 95% last year and 97% normal. Soybeans 85% planted, 100% last year and 98% normal. Emergence 55%, well behind 96% last year and normal. Curing of hays difficult due to wet conditions. Pasture and range feed good. Muddy feedlots continue to slow gains. Topsoil moisture adequate to surplus. Subsoil moisture adequate to surplus. Days suitable for fieldwork: 3.5.

NEVADA: High pressure systems and above normal temperatures prevailed most of week. A series of afternoon and evening thunderstorms started midweek that persisted remainder of period. Rainfall amounts locally heavy in Sierras and western areas. Some agricultural flooding occurred west central. Temperatures averaged 4° above normal north, 2° above central, and 1° above south. Extremes: 106 and 34°.

Alfalfa hay harvest extending farther north. Warm weather favorable for vegetative growth. Frequent showers last half of week benefited ranges west areas.

NEW ENGLAND: Temperatures averaged a few degrees subnormal while precipitation was above normal. Most significant precipitation days were the 14th, 16th and 19th.

Soil moisture: Mostly surplus. About 4 days favorable for fieldwork. Grazing adequate. Cranberries: 5% blossomed. Good control of gypsy moth. Average apple set. Corn for silage 95% emerged. Hay: Some loss of quality of rained-on hay, lodging, 33% harvested. Maine potatoes: 75% emerged, dry. Blueberries, dry. Strawberries, good prospects, some fruit rot from rainy weather.

NEW JERSEY: Temperatures averaged slightly below normal. Extremes: 42° at Charlotteburg on 14th and 89° at Hammonton on 16th. Rainfall averaged 1.06 in. north, 0.81 in. central and 0.24 in. south. Heaviest 24-hour total: 1.33 in. at Charlotteburg on 16th to 17th. Estimated soil moisture, in percent of field capacity averaged: 94 north, 90 central and 80 south. Four inch soil temperature averaged: 64° north, 68° central and south.

Fieldwork: 4 days suitable. Wet conditions continue to hamper fieldwork. Cloudy cool weather slowing crop progress. Summer vegetable harvest increasing. Blueberry harvest begun. Apples and peaches sizing. Strawberry volume tapering off. Barley combining begun. Wheat coloring. Hay being cut when conditions permit. Field corn and soybean planting continue. Pasture growth heavy.

NEW MEXICO: Average temperatures were about 5° below normal over the eastern plains and near or a little below normal over the remainder of the State.

Outdoor activities were interrupted in all areas, except the west side of the State, due to showers and thundershowers. Soil moisture remains in short to adequate supply. Hail and wind damage were moderate in most areas. Cotton was in good condition in most areas. Alfalfa hay in good condition with about 90% of the first cut completed. Grain sorghum planting continuing. Corn in good condition. Irrigated wheat and barley in good condition with the dryland crop in mostly poor condition. Harvest about 20% complete. Sweetpotatoes in fair condition and about 80% set. Onion harvest in the Mesilla Valley remains active. Pecans in good condition. Ranges in fair condition. Cattle and sheep in good flesh.

NEW YORK: Temperatures below normal. Rain above normal, especially southern tier counties, Lower Hudson Valley, Long Island. Northern counties driest.

Fieldwork slowed. Corn planting almost done; slow growth and yellowing from excess moisture. Bad haying week. Some fields too wet to work. First cutting alfalfa 24% done, 17% 1981, 31% average. Clover-Timothy hay 12% complete, 11% 1981, 20% average. Grass silage 30% done, 27% 1981, 40% average. Dry bean planting behind schedule. Insect numbers appear higher than normal on vegetable crops. Long Island sweet corn, tomatoes showing slow growth.

NORTH CAROLINA: Temperatures: Near normal over all sections except 1 to 2° below normal on the coast. Precipitation: From less than 0.25 in. in the west to over 5.00 in. on the coast.

Soil moisture: 4% short, 46% adequate, and 50% surplus. Fieldwork: 3.9 days suitable. Conditions: Pasture mostly good; tobacco fair to mostly good; corn, cotton, peanuts, soybeans, hay, Irish potatoes, sweetpotatoes and truck crops mostly good; apples mostly poor to fair. Plantings: Sweetpotatoes 83%, 1981 86%, 90% average; sorghum 75%, 1981 85%, 84% average; soybeans 69%, 1981 76%, 82% average; burley tobacco 98%, 1981 97%, 95% average. Harvests: Irish potatoes 13%, 1981 34%, 29% average; wheat 39%, 1981 60%, 47% average; oats 45%, 1981 74%, 61% average; barley 42%, 1981 75%, 66% average; rye 40%, 1981 73%, 58% average. Phenological stages: Cotton squared 36%, 1981 11%; corn silked 11%, 1981 26%; peaches 26%, 1981 27%, 16% average; hay 50%, 1981 58%, 56% average. Major farm activities: Harvesting small grains, planting soybeans, and cultivating tobacco.

NORTH DAKOTA: Temperatures averaged from 1° above normal northwest to 4° below normal north central, northeast and east central. Averages ranged from 63° northwest to 58° north central. Temperature extremes ranged from 87° northwest to 35° west central. Precipitation averaged from 0.06 in. below normal central to 0.91 in. below normal southeast. Averages ranged from 0.85 in. central to 0.07 in. southeast.

Row crop planting virtually complete with small grains completely seeded. Sunflower 97% planted compared to 98% last year and 98% average. Cool temperatures and lack of sunshine slowed the development of small grains and emerged row crops. Average of 6.5 days suitable for fieldwork. Through June 20, 5% of the State had short topsoil moisture, 93% was adequate and 2% surplus. Last year, 6% was short, 80% adequate and 14 surplus. Small grain maturity lagging normal; percentages jointing or beyond along with last year and average: Hard red spring wheat 52, 75, 65; durum 39, 61, 55; barley 70, 76, 66; oats 48, 76, 64. Ninety-six percent of hard red spring wheat emerged, 2% headed.

OHIO: Temperatures averaged 4 to 5° subnormal. Growing degree day accumulations ranged from

90 northwest to 125 southwest. Precipitation widespread, 1.00 to 2.00 in. except southeast. Evaporative totals ranged from 1.19 to 1.60 in.

Frequent strong storms kept soils wet, drowned out crops in low spots, lowered curing hay quality, and lodged some small grains and hay. Overall crops rated good except wheat fair. Cool nights slowing crop development noteably soybeans--some yellowing in both corn and beans. Strawberries 70% picked. Shortage of tobacco plants due to May dry weather. Cherries, early apples ripening. Cutting cabbage in south. Wheat headed 100%, 100% 1981, 100% average. Soybeans planted 100%, 55% 1981, 90% average. Alfalfa (1st cutting) 75%, 55% 1981, 75% average. Other hay (1st cutting) 50%, 30% 1981, 55% average. Tobacco transplanted 70%, 60% 1981, 75% average. Oats headed 70%, 65% 1981, 55% average. Days favorable: 3.5. Pasture condition good. Soil moisture 52% adequate, 48% surplus.

OKLAHOMA: Rainfall ranged from 0.89 in. central to 1.76 in. southwest. Temperatures ranged from 3° below normal southeast to 7° below normal Panhandle.

Wheat harvest lagging behind schedule due to continued wet fields. Crop quality suffering from excessively moist conditions in few localities. Wheat harvesting: 15%, 70% 1981, 50% average. Sorghum planted: 55%, 95% 1981, 90% average. Sorghum up to stand: 25%, 75% 1981, 55% average. Cotton planted: 55%, 100% 1981, 95% average. Days suitable for fieldwork: 3.4.

OREGON: Precipitation over weekend less than 0.50 in. except up to 1.10 in. in High Plateau. Average temperatures ranged 57 to 67°, which was 3° above normal.

Moisture supplies mostly short. Moisture stress in wheat and spring grains. Winter wheat 95% headed; 96% last year. Barley turning color. Wheat 27% turned color. Grass seed fields good condition. Haying continues. Strawberry harvest full swing. Raspberries in some fields show some root rot problems. Cherry harvest to start in Wasco County. Thinning of pears and apples. Peach crop looks poor. Heat a major concern to green pea harvest prospects. Potatoes growing well. Onions behind normal and some fields spotty. Cole crops being harvested. Final bean and corn plantings to go in. Livestock good. Range and pastures poor to good. Non-irrigated pastures drying fast.

PENNSYLVANIA: A series of frontal systems plus post-frontal showers produced rainfall across the State 2 to 4 days of the week. Heaviest amounts were over the southeast and ranged from 2.00 to 4.00 in. Allentown reported 4.15 in. Elsewhere the range was 0.75 to aroung 1.00 in. Temperatures were once again quite cool as the State average was approximately 5° below normal. Extremes: 88 and 38°.

Three days suitable. Moisture surplus to adequate. Activities: Spraying; making hay and haylage; harvesting green peas, strawberries, cherries, and lettuce; transplanting tobacco; mowing pastures; and planting soybeans. Soybeans 80% planted, last year 82%. Tobacco transplating 83% complete, same as last year. Barley 58% turning yellow and 6% ripe, last year 48% turning yellow and less than 5% ripe. Wheat 16% turning yellow, last year 20%. Oats 47% headed, last year 53%. Average corn height 12 in., last year 13 in. First cutting alfalfa 40% harvested, last year 56%. First cutting clo-tim 19% harvested, last year 37%. Quality of hay made poor to fair. Feed from pastures average to above average.

PUERTO RICO: Island average rainfall 0.30 in. or 1.25 in. below normal. Highest total 1.12 in. Temperatures averaged about 82 to 83° on Coasts and 77 to 81° Interior Divisions. Extremes: 96 and 60°.

SOUTH CAROLINA: Temperatures varied, average about normal or 1 to 2° below. Scattered thunderstorms except later along coast where tropical showers and/or thunderstoms produced 4.00 to 8.00 in. with near gales along south coast.

Soil moisture variable, averaging adequate; 4 working days. Corn good condition, 57% silked behind 74 year ago, near 52 average; 12% dough stage, 29 year ago. Cotton condition fair to good, large acreage destroyed by previous hailstorm; 69% squared, 80 last year, 72 average; no bolls set behind 6% last year. High insect counts reported in cotton. Tobacco stressed by recent weather, fair to good condition, 44% topped, 46 last year, 31 average; 1% harvested ahead of 1981, average. Soybean planting following small grains held back by wet conditions, planting time remaining critical, 77% planted, 83 last year, 86 average. Peach harvest of Redhaven, Coronet varieties continuing; size, quality variable. Very few Piedmont orchards producing, but the few peaches include good quality. Statewide peach condition fair. Virtually no apple crop due to previous freezes. Tomatoes threatened by flooding, drainage rided by plastic. Crop condition good since tomatoes didn't crack. Watermelon conditions fair to good with 3% harvested this year and last. Good prospects unless frequent rains induce diseases. Small grain harvest generally interrupted by wet conditions. Some good yields reported. Wheat 72% harvested, 84 year ago, 77 average.

SOUTH DAKOTA: Cool temperatures remain with averages 3 to 6° below normal. Extremes: 38, 86°. Precipitation varied. Extremes: 2.99, 0.03 in. West half of State above average, northeast and a few other East River stations below average for the year.

Four days suitable. Crops good condition, but behind average in development. Tan leaf spot subsiding, but Hessian Fly problem increasing in spring wheats. Planting, haying, cultivating, spraying weeds main activity. Ranges good to excellent. Some black leg and grass tetany. Flax planted 96%, 1981 100%, average 99%. Corn planted 95%, 1981 100%, average 100%. Sorghum planted 78%, 1981 91%, average 93%. Soybeans planted 91%, 1981 100%, average 99%. Sunflower planted 74%, 1981 91%, average 92%. Flax emerged 83%, 1981 94%, average 94%. Winter wheat heading 79%, 1981 99%, average 94%. Rye heading 84%, 1981 100%, average 97%. Spring wheat heading 13%, 1981 81%, average 41%. Oats heading 16%, 1981 82%, average 49%. Barley heading 19%, 1981 82%, average 51%. Winter wheat turning color 7%, 1981 44%, average 20%. Rye turning color 7%, 1981 16%, average 13%.

TENNESSEE: Weak high pressure was the primary weather control. Scattered showers and thunderstorms 15th and 16th and scattered light showers 19th. Temperature highs in the 80's and lows mostly in the 60's averaging 2 to 4° below normal.

Fieldwork: 4.7 days available. Soil moisture 68% adequate, 25% short, 9% surplus. Soybeans 80% planted, 1981 49%, average 76. Tobacco 97% transplanted, 1981 95%, average 94%. Wheat 47% harvested, 1981 39%, average 49%. Oats 30% harvested, 1981 31%, average 35%. Cotton 22% squaring, 1981 19%, average 18%.

TEXAS: Two frontal systems moved through State during week triggering scattered, numerous thunderstorms. Temperatures 4 to 6° below normal West Texas. Elsewhere, they were near normal. Rainfall was 0.10 in. below normal Trans-Pecos; 0.25 to 0.50 in. below normal South Texas. Elsewhere, 0.75 to 1.00 in. above normal.

Crops: Adverse weather dominated agricultural situation. Heavy rains, hail taken toll many crops across Plains; replanting operations active many areas. Hail, thunderstorms over weekend severely damaged or destroyed many cotton, corn fields southern High Plains. Wheat fields ready for harvest also damaged; some fields likely abandoned. Southern half State, crops maturing rapidly under hot, dry conditions. Drying winds rapidly depleting soil moisture some areas. Severe weather over weekend across Plains damaged, destroyed several cotton fields. Some fields total loss. Replanting underway previously damaged fields, although many fields replanted soybeans, sunflowers. Stands blooming Central Texas southward. Insect populations increasing Blacklands, South Central Texas. Sorghum fields rapidly turning color under hot, dry weather. Dryland fields planted across High Plains; early irrigated fields emerged, good condition. Midge problems some South tentral Texas stands. Statewide condition 81% of normal with 7% excellent; 62% good; 29% fair and 2% poor. This compares with 95% of normal last year. Corn progressing well; many stands across Plains completely destroyed by hail over weekend. Irrigated fields excellent condition South Texas. Condition across the State 88% of normal with 15% excellent; 69% good; and 16% fair. This compares with 91% of normal last year. Wheat harvest underway across northern High Plains. Cool, damp weather prevented drying out; green, immature wheat delaying harvest some areas. Harvest full swing throughout Texas with few rain delays reported. Some fields South Central Texas not be harvested because weeds. Test weights light Blacklands. Reported condition across the State 71% of normal with 5% excellent; 36% good; 54% fair; and 5% poor. This compares with 75% of normal last year. Rice making good progress with hot weather. Condition along the coast was 86% of normal with 85% good and 15% fair. This compares with 95% last year. Peanut planting good progress Edwards Plateau; some fields washed by locally heavy rains. Seeding operations continue Cross-Timbers.

Commercial vegetables: Lower Rio Grande Valley, citrus make good progress. Vegetable harvest active with steady markets. San Antonio-Winter Garden, watermelon harvest underway. Cucumber, potato harvest active. Weak markets slowed onion harvest. East Texas, disease problem some tomato fields. Potatoes, onions and tomatoes harvested. Trans-Pecos, cabbage, potato harvest underway El Paso County. Onion harvest making good progress across area. Plains, adverse weather conditions affect most vegetables. Producers trying to determine extent of recent hail damage to onion crop. Harvest of Freestone peaches gaining momentum across State; demand good. Pecan trees heavy infestations webworms some areas Edwards Plateau and South Central Texas. Light nut set most areas.

Range and livestock: Despite heavy weed populations, grazing good most areas. Grasshoppers problem, control measures active. Livestock good condition and "fleshing out" with good grazing. Needlegrass, speargrass problem many sheep producers Edwards Plateau.

Crop progress: Cotton planted 96%, 96% 1981, 97% average. Cotton squaring 15%, 22% 1981. Cotton setting bolls 8%, 14% 1981. Rice emerged 100%, 100% 1981. Rice headed 10%, 31% 1981. Sorghum planted all purposes 92%, 95% 1981, 96% average. Sorghum headed 53%, 54% 1981. Sorghum turning color 23%, 26% 1981. Sorghum mature 0%, 4% 1981. Wheat headed 100%, 100% 1981. Wheat turning color 92%, 96% 1981. Wheat harvested for grain 36%, 45% 1981, 45% average. Oats harvested 54%, 64% 1981, 78% average. Peanuts planted 53%, 59% 1981, 77% average. Soybeans planted 61%, 54% 1981, 76% average. Sunflowers planted 47%, 77% 1981, 71% average.

UTAH: Recurring periods scattered showers and thunderstorm activity. Accumulated amounts moisture extremely variable ranging from little or none to well over an inch. Average temperatures during period ranged from 5° below to 6° above normal. Pan evaporation accumulations ranged from 2.00 in. north to 2.95 in. extreme southwestern portion of State.

Irrigation, hay harvest, and livestock movement were major survey week activities. First crop hay 54% harvested. Quality and yield below average. Fall grains heading, spring grains in boot. Grain crops rate fair to good. Corn 97% planted and 83% emerged. All crops behind normal development. Dryland crops and ranges beginning to show stress. Livestcok mostly moved to summer ranges in fair to good condition.

VIRGINIA: Rainfall ranged from 1.00 to 2.00 in. with the least amounts falling in northern areas. Totals for most areas have already reached normal for June. Temperatures averaged near or a little below normal.

Scattered showers continued to delay hay making and reduce quality. Small grain harvest progressed rapidly as slightly less rainfall fell in the east and southeast. Some wheat and barley lodging in the north as the result of excess water and a few wet corn fields showed some yellowing. Double-crop soybean plantings picked up near the end of the week. Topsoil moisture rated 55% surplus, 43% adequate and 2% short. Days suitable for fieldwork: 2.9. Pastures rated in excellent condition as were soybeans, peanuts and corn. Tobacco rated good to excellent. Flue-cured, burley and fire-cured transplanting virtually complete, about the same as last year and average. Sun-cured growers have set 94%, 94% 1981 and 100% average. Wheat 19% cut, 24% 1981, 16% average. Barley 46% complete, 68% in 1981 and 46% average. Oats 26% harvested, 30% 1981 and 28% average. Potato growers expect to start harvesting early next week. Livestock fulfilling all roughage requirements from pastures.

WASHINGTON: A strong ridge of high pressure was the prevailing weather feature. A weak onshore flow kept temperatures close to normal during the first part of the week, west of the Cascades, however, by midweek an offshore flow developed and caused temperatures to soar. The eastern half of the State, significant shower activity was reported in the southwest and northeast sections early in the week from minor upper level disturbances skirting the borders. The remainder of the State saw just very spotty showers, mainly near higher terrain.

West: Strawberry harvest progressed. Good crop reported. Raspberries look good. Green pea, sweet corn, broccoli, and cauliflower plantings continue. Green peas in bloom stage. Cucumbers look good. Harvest of spinach and radishes continue. Sweet corn fields look good. Livestock and pastures in good condition. Dairymen busy green chopping, cutting silage, and baling hay. Feed supplies adequate.

East: Soil moisture fair to poor in most grain areas. Dryland areas in need of rainfall. Some wheat stands beginning to turn color. Planting of field corn, potatoes, green peas, dry peas, and dry beans all winding down. Alfalfa hay cutting in full swing. Early green peas, Walla Walla sweet

onions, asparagus, and sweet cherries harvested. The apple crop growing well. Pear fruit drop heavier than normal. Livestock in good condition. Feed supplies adequate.

WEST VIRGINIA: Soil moisture adequate to surplus. Days worked: 3.0. Main activities: Hay harvesting and gardening. Wheat fair to good condition: 6% pre-headed, 90% headed, 4% ripe; 2%, 87%, and 10% with 1% harvested in 1981. Barley good to fair condition: 4% pre-headed, 87% headed, 8% ripe, 1% harvested: 2%, 74%, 22%, and 2% in 1981. Oats fair to good condition: 44% pre-headed, 53% headed, 3% ripe; 62%, 32%, and 4% with 2% harvested in 1981. Corn good to fair condition: 97% planted, 92% emerged; 86% and 81% in 1981. Tobacco poor to fair condition: 83% set, 66% in 1981. Hay fair condition: 1st cutting 33% complete, 22% in 1981. Pastures good to fair condition. Peaches poor condition. Apples poor to fair condition.

WISCONSIN: Temperatures averaged 8° below normal as a cold front moved through the State. Locally heavy rains came on the 14th and lasted through the 15th. Heaviest precipitation totals came from the north central and northeast districts. Some stations reported over 2.00 in. of rainfall. The 16th was a sunny, pleasant day. Showers returned on 17th and 18th and lingered through 19th in some areas. High temperatures, 83°, was recorded in Milwaukee on the 14th.

Fieldwork: 5 days suitable. Farmers continued to make good progress with the first crop hay harvest. Currently 60% of the first crop has been harvested, 55% 1981, 41% average. Hay quality generally very good. Some alfalfa weevil damage reported in southern counties. Delayed planting and recent cool weather hampered corn growth and development. Average corn height 7 in., 11 in. 1981, 10 in. average. Percentage of oats headed also behind schedule. Currently 3% of oats have headed, 30% 1981, 16% average. Winter wheat headed and appears to be a good crop. Pastures continue to look good, rated at 90% of normal, 75% 1981, 85% average. Strawberry crop looks good, picking started. Tobacco planting generally on schedule. Topsoil moisture supplies were rated 24% short, 78% adequate and 2% surplus. Moisture supplies were short in the northwest district where they were rated 60% short.

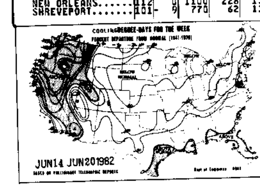
WYOMING: Temperatures warmed but still below seasonal at most stations. Only five widely scattered locations slightly above average. Rainsfalls mostly well above average. Greatest amount 2.52 in.

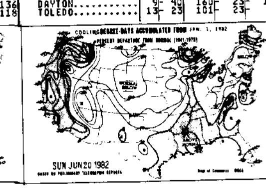
Topsoil moisture adequate 94% State. Average 4 days suitable fieldwork. Dry beans planted, 90%. Dry beans emerged: 45%; year ago 65%; normal 80%. Potatoes emerged: 85%; year ago 85%; normal 78%. Corn emerged: 95%; year ago 95%. Spring planted crops, alfalfa, fair to good condition. Sugarbeets 55% thinned. First cutting alfalfa started. Some light hail damage to crops. Contracting livestock starting.

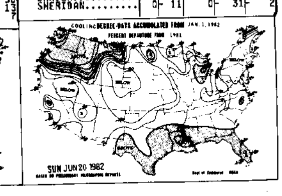
COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JUN. 20, 1982.

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

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL DEPARTURE*	DEPARTURE FROM 1981
ALA. BIRMINGHAM	76	-14	527	-8	-56
MOBILE	111	-1	872	39	75
MONTGOMERY	101	0	736	87	34
ARIZ. FLAGSTAFF	0	-4	0	-4	-34
PHOENIX	171	31	1188	289	-262
TUCSON	111	-12	625	-53	-211
WINSLOW	48	-5	97	-85	-143
YUMA	147	0	1173	-43	-244
ARK. FORT SMITH	56	-39	385	-93	-83
LITTLE ROCK	65	-31	513	-46	-36
CALIF. BAKERSFIELD	145	58	708	246	35
EUREKA	0	0	0	0	-4
FRESNO	99	33	323	-2	-257
LOS ANGELES	1	-13	20	-55	-221
RED BLUFF	124	46	377	-4	-147
SAN DIEGO	9	-6	124	33	-173
SAN FRANCISCO	0	-7	13	-5	-49
STOCKTON	73	20	206	-16	-285
COLO. DENVER	0	-27	7	-49	-99
GRAND JUNCTION	44	-6	136	-24	-96
PUEBLO	13	-36	89	-68	-149
CONN. BRIDGEPORT	16	-9	28	-43	-69
HARTFORD	25	-1	50	-23	-102
DEL. WILMINGTON	52	4	161	4	-56
D.C. WASHINGTON	66	-5	288	1	-161
FLA. APALACHICOLA	110	3	768	-50	46
DAYTONA BEACH	101	-3	946	16	87
FORT MYERS	121	8	1711	398	273
JACKSONVILLE	113	11	900	96	57
KEY WEST	120	-12	2200	243	509
LAKELAND	112	0	1168	2	186
MIAMI	115	3	1842	349	262
ORLANDO	116	8	1304	193	214
TALLAHASSEE	108	1	821	0	110
TAMPA	112	0	1159	-18	169
WEST PALM BEACH	104	-8	1663	306	291
GA. ATLANTA	84	6	499	103	-88
AUGUSTA	109	14	500	-62	-65
MACON	96	-9	660	-40	-47
SAVANNAH	99	-3	755	51	-33
IDAHO. BOISE	49	28	52	-5	39
LEWISTON	84	65	100	45	82
POCATELLO	7	-2	11	-17	6
ILL. CAIRO	61	-33	467	9	-16
CHICAGO	9	-26	114	-2	-17
MOLINE	7	-40	125	-53	-27
PEORIA	13	-36	190	-6	-7
ROCKFORD	7	-29	149	22	-22
SPRINGFIELD	23	-38	240	3	-50
IND. EVANSVILLE	28	-45	305	-24	-45
FORT WAYNE	13	-25	138	-2	-4
INDIANAPOLIS	13	-39	199	-4	-20
SOUTH BEND	9	-26	134	10	25
IOWA. BURLINGTON	9	-41	143	-57	-31
DES MOINES	13	-33	108	-62	-120
DUBUQUE	4	-26	88	-13	-18
SIOUX CITY	8	-38	71	-108	-115
KANS. CONCORDIA	33	-27	131	-110	-133
DODGE CITY	34	-35	159	-105	-195
GOODLAND	6	-38	44	-81	-85
TOPEKA	34	-31	135	-160	-175
WICHITA	42	-38	191	-164	-168
KY. LEXINGTON	11	-49	232	-46	-10
LOUISVILLE	17	-44	251	-31	-109
LA. BATON ROUGE	125	15	1094	274	271
LAKE CHARLES	111	-1	889	20	68
NEW ORLEANS	112	0	1100	228	136
SHREVEPORT	101	-9	770	62	118
MAINE. CARIBOU	0	0	15	15	5
PORTLAND	2	-4	8	2	-35
MD. BALTIMORE	50	-4	190	-9	-93
MASS. BOSTON	21	-7	42	-39	-149
MICH. ALPENA	0	-7	7	-14	-23
DETROIT	15	-18	80	-28	-21
FLINT	5	-16	105	-34	-41
GRAND RAPIDS	3	-25	112	-22	-12
HOUGHTON LAKE	0	-14	28	-11	-11
LANSING	5	-23	99	-10	-22
MARQUETTE	0	-5	8	-3	-4
MUSKEGON	0	-21	56	-7	-9
S. STE. MARIE	0	-1	6	-5	2
MINN. DULUTH	0	-3	0	-3	-4
INTERNATL FALLS	0	-7	3	-10	-7
MINNEAPOLIS	2	-28	50	-44	-20
ROCHESTER	1	-27	43	-38	-7
ST. CLOUD	1	-19	35	-21	-20
MISS. JACKSON	97	-7	831	143	86
MERIDIAN	97	-6	749	84	31
MO. COLUMBIA	21	-39	145	-135	-106
KANSAS CITY	29	-32	148	-115	-119
ST. LOUIS	41	-33	300	-51	-38
SPRINGFIELD	29	-37	242	-48	-63
MONT. BILLINGS	4	-9	10	-24	-15
GLASGOW	9	-5	16	-21	-13
GREAT FALLS	6	-2	6	-6	-3
HAVRE	7	-7	8	-25	-3
HELENA	2	-2	3	-1	-2
KALISPELL	1	-1	6	-6	-6
MILES CITY	15	-11	25	-50	-5
MISSOULA	18	13	21	16	21
NEBR. GRAND ISLAND	16	-35	62	-115	-127
LINCOLN	18	-39	104	-112	-141
NORFOLK	8	-37	55	-98	-134
NORTH PLATTE	3	-35	16	-110	-74
OMAHA	19	-39	87	-149	-110
VALENTINE	1	-30	17	-73	-65
NEV. ELY	1	-6	1	-7	-13
LAS VEGAS	134	10	649	-53	-286
RENO	31	22	34	-11	-27
WINNEMUCCA	29	18	33	-4	-21
N.H. CONCORD	10	-1	20	-12	-80
N.J. ATLANTIC CITY	57	16	140	24	-19
TRENTON	40	-8	123	-29	-66
N.MEX. ALBUQUERQUE	69	-4	210	-35	-76
ROSWELL	64	-25	384	-7	-86
N.Y. ALBANY	10	-18	36	-53	-87
BINGHAMTON	4	-12	27	-22	-54
BUFFALO	3	-17	35	-21	-29
NEW YORK	37	-13	88	-66	-128
ROCHESTER	4	-21	57	-22	-39
SYRACUSE	6	-19	34	-40	-109
N.C. ASHEVILLE	51	7	247	72	6
CHARLOTTE	73	-7	453	60	19
GREENSBORO	57	-12	313	-16	76
HATTERAS	59	-9	350	52	-73
RALEIGH	80	11	421	91	11
WILMINGTON	82	-8	467	-44	-60
N.DAK. BISMARCK	0	-21	3	-52	-3
FARGO	2	-19	16	-41	1
WILLISTON	13	-2	31	-7	-13
OHIO. AKRON-CANTON	6	-26	121	-8	-22
CINCINNATI	12	-42	177	-44	-46
CLEVELAND	3	-27	109	-2	-2
COLUMBUS	5	-37	142	-13	-50
DAYTON	9	-40	160	-23	-13
TOLEDO	13	-23	101	-23	-7
YOUNGSTOWN	2	-23	73	-14	-93
OKLA. OKLAHOMA CITY	47	-40	295	-110	-141
TULSA	75	-15	517	89	-10
OREG. ASTORIA	6	6	6	6	6
BURNS	5	-2	5	-12	5
MEDFORD	72	55	97	52	52
PENDLETON	73	53	83	25	71
PORTLAND	58	51	73	46	63
SALEM	53	46	67	43	66
PA. ALLENTOWN	31	-6	75	-50	-114
ERIE	3	-13	58	-8	-2
HARRISBURG	26	-27	92	-99	-116
PHILADELPHIA	46	-9	153	-41	-62
PITTSBURGH	4	-28	89	-35	-44
SCRANTON	17	-11	62	-30	-73
R.I. PROVIDENCE	19	1	33	-11	-108
S.C. CHARLESTON	94	1	588	-7	-135
COLUMBIA	86	-14	534	-48	-81
GREENVILLE	66	-14	389	-12	-100
S.DAK. ABERDEEN	6	-20	25	-47	-63
HURON	6	-26	25	-73	-74
RAPID CITY	0	-26	3	-69	-24
SIOUX FALLS	5	-29	30	-81	-111
TENN. CHATTANOOGA	65	-16	386	-30	-16
KNOXVILLE	54	-23	318	-84	-56
MEMPHIS	86	-13	608	-70	-130
NASHVILLE	48	-37	378	-39	-35
TEXAS. ABILENE	92	-18	664	-1	-19
AMARILLO	37	-36	188	-110	-200
AUSTIN	123	3	989	114	83
BEAUMONT	129	15	845	-6	-51
BROWNSVILLE	147	21	1716	271	248
CORPUS CHRISTI	131	7	1196	22	69
DEL RIO	126	-12	1079	-47	166
EL PASO	104	-7	557	-18	-153
FORT WORTH	97	-17	670	24	27
GALVESTON	132	15	910	5	37
HOUSTON	134	19	1052	151	20
LUBBOCK	46	-43	363	-48	-142
MIDLAND	93	-15	583	-23	61
SAN ANGELO	84	-36	540	-255	-16
SAN ANTONIO	121	-3	895	-47	-68
VICTORIA	136	15	1069	75	53
WACO	112	-10	834	50	69
WICHITA FALLS	67	-51	557	-98	-79
UTAH SALT LAKE CITY	37	8	67	-22	-13
VT. BURLINGTON	2	-14	33	-17	-67
VA. LYNCHBURG	45	-12	218	-19	-102
NORFOLK	68	-2	305	-2	-139
RICHMOND	70	2	327	21	-88
ROANOKE	42	-8	230	17	-38
WASH. QUILLAYUTE	10	10	10	10	10
SEATTLE-TACOMA	38	37	41	40	40
SPOKANE	60	52	71	45	71
WALLA WALLA	91	65	133	39	94
YAKIMA	64	45	82	23	63
W.VA. BECKLEY	7	-21	77	-10	-35
CHARLESTON	29	-24	227	-36	-38
HUNTINGTON	13	-43	182	-91	-103
PARKERSBURG	27	-27	272	46	33
WIS. GREEN BAY	0	-19	37	-17	-18
LACROSSE	9	-26	90	-30	-22
MADISON	0	-23	30	-43	-54
MILWAUKEE	4	-14	31	-22	-30
WYO. CASPER	0	-12	3	-28	-13
CHEYENNE	0	-10	0	-19	-20
LANDER	2	-6	5	-5	-12
SHERIDAN	0	-11	0	-31	-2

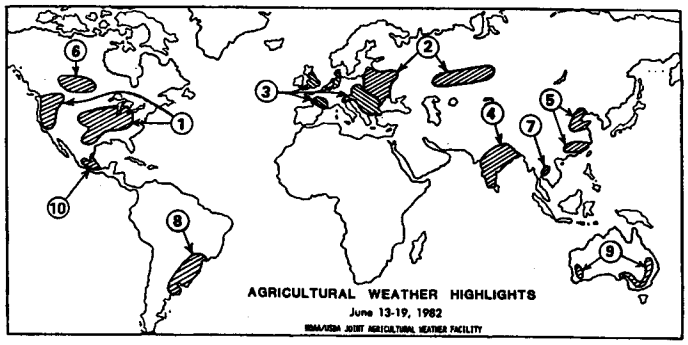






International Weather and Crop Summary

June 13-19



1. UNITED STATES: Wetness over central and southern Plains slows spring planting and delays winter wheat harvesting. Severe weather damages some crops in Texas High Plains. Continued cool temperatures cause slow crop growth in the Corn Belt, while a heat wave over the Northwest accelerates crop development but depletes moisture.

2. USSR: Wet weather benefits Western European crop areas; unseasonably hot, dry conditions continue to stress spring grains in the New Lands.

3. EUROPE: Showers improve growing conditions in some areas.

4. SOUTH ASIA: The summer monsoon continues to advance across India.

5. EASTERN ASIA: Beneficial rain in Hebei; heavy rain causes flooding in the southern hills.

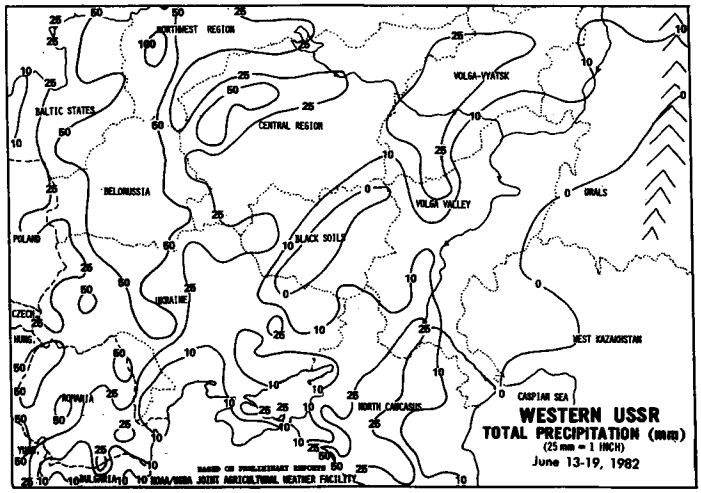
6. CANADA: Generally favorable weather for vegetative growth of wheat.

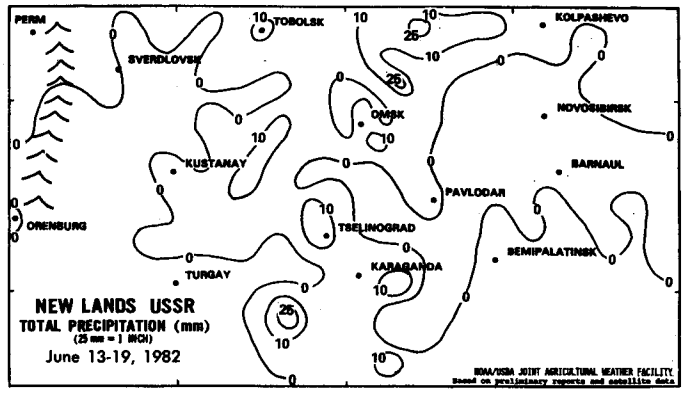
7. SOUTHEAST ASIA: Locally dry weather stresses corn.

8. SOUTH AMERICA: Cold weather slows wheat growth in Argentina; heavy rain in southern Brazil.

9. AUSTRALIA: Unfavorably dry weather persists in eastern crop areas; beneficial rains in South and West.

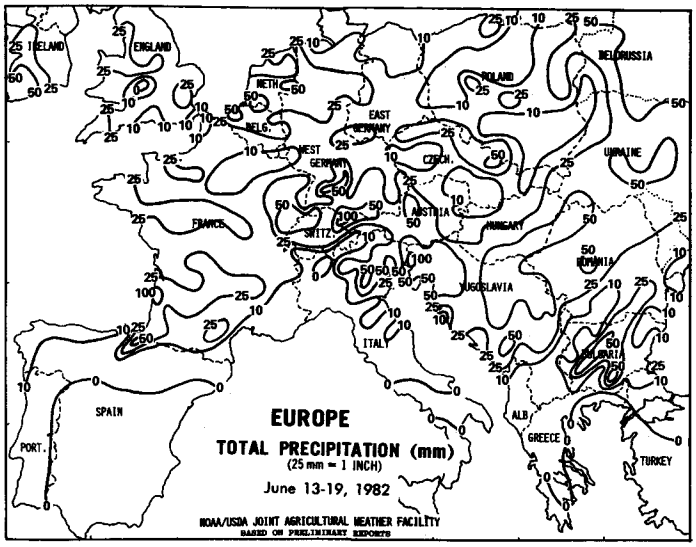
10. MEXICO: No significant rain fell over major production areas, keeping rainfed crops and pastures suffering from lack of moisture.



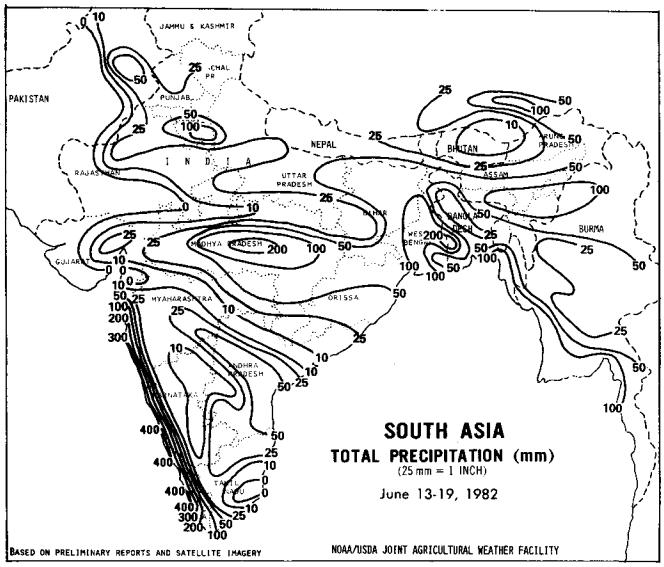


USSR: An eastward moving frontal system brought heavy rains to the Baltic States, Belorussia, parts of the Central Region, and western Ukraine early in the week. Cool weather behind the front dropped weekly temperatures to below normal which slowed crop development in more northern areas. In contrast, hot, dry weather ahead of the front placed increased stress on winter grains grown in the North Caucasus, eastern Ukraine, and southern Volga Valley. As the front moved through these areas, cooler weather returned along with showers in some areas late in the week. Winter grains are in the filling stage in the North Caucasus and southern Ukraine but are in the heading stage over the remainder of the Ukraine, southern Black Soils, and Volga Valley.

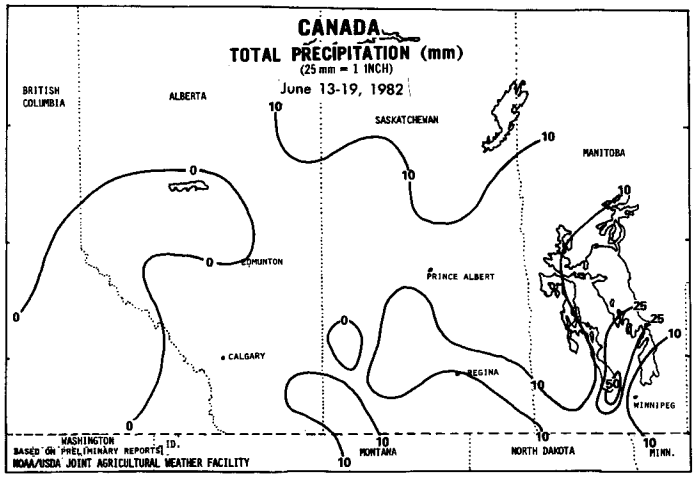
In the New Lands, a large high pressure system remained stationary over the region. Although light, spotty showers fell at some locations early in the week, unseasonably warm, dry air persisted over the region during most the week. The spring grain areas most affected by adverse weather are in a band stretching northeastward from Orenburg through Kustanay into Omsk and Pavlodar. As a result, early growth conditions are poor in those areas which have remained dry for several weeks. The unseasonably warm conditions will cause accelerated growth. Rain is needed soon in all areas.



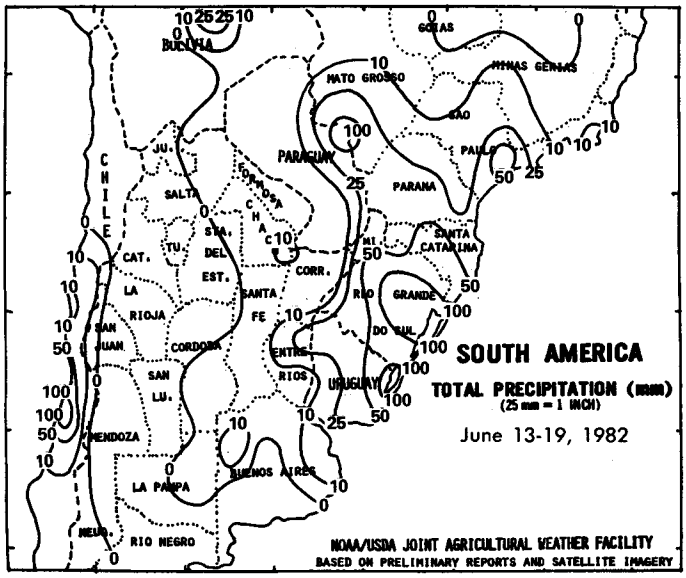
EUROPE: Showers spread eastward across many crop areas during the week. Wet weather in England and France benefited both winter and spring grain crops. Winter grains should be heading while spring grains are still in the vegetative growth stage. In northern Europe, showers favored crops in West Germany, East Germany, and Poland. Lighter amounts of rain fell on Poland. In the southeast, substantial rains (25-50 mm) improved soil moisture conditions in many areas. The Mediterranean region is entering the dry season, and consequently, most of the Iberian Peninsula, southern Italy, and Greece were dry. Weekly temperatures for the region were mostly below normal except the dry Mediterranean areas which had above-normal temperatures.



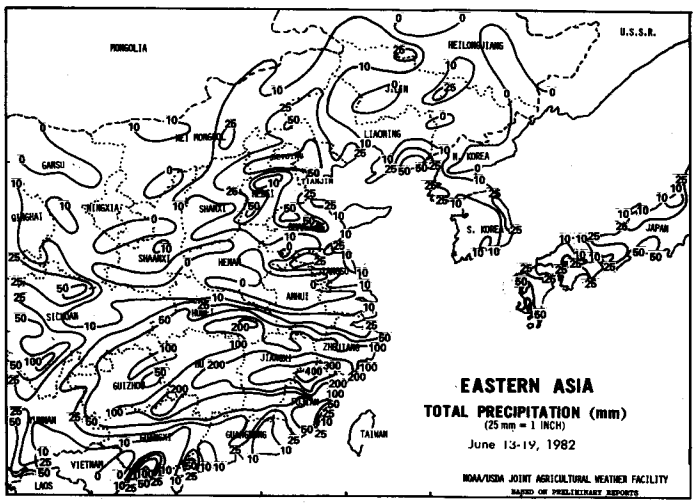
SOUTH ASIA: The monsoon continued its advance across India, reaching into Madhya Pradesh and eastern Uttar Pradesh by the week's end. Generous rains over the upland crop areas of Madhya Pradesh were particularly beneficial. Some localized areas in southern India remained somewhat dry and much of Gujarat has not seen the onset of rains. For the most part, however, the summer monsoon is off to a good start. A westerly system dropped an abnormal amount of rainfall in the Punjab of Pakistan and India. The wheat crops should be harvested by now, and the moisture improved preplanting conditions.



CANADA: Scattered, light showers fell throughout the spring grain area of the Prairie Provinces. Soil moisture is adequate for early crop development in nearly all areas, with crop conditions rated good to excellent. Mild weather during most of the week promoted growth, but crops still lag behind last year's progress. In Saskatchewan, a major portion of the wheat crop is still in the emerging to tillering stages compared with last year at this time when most of the crop was advancing from the tillering to jointing stages of vegetative development. Heavy weed growth has also been reported due to the cool, wet spring. Thus, warm, dry weather until the heading period would be highly beneficial not only for crop growth but also for weed control.

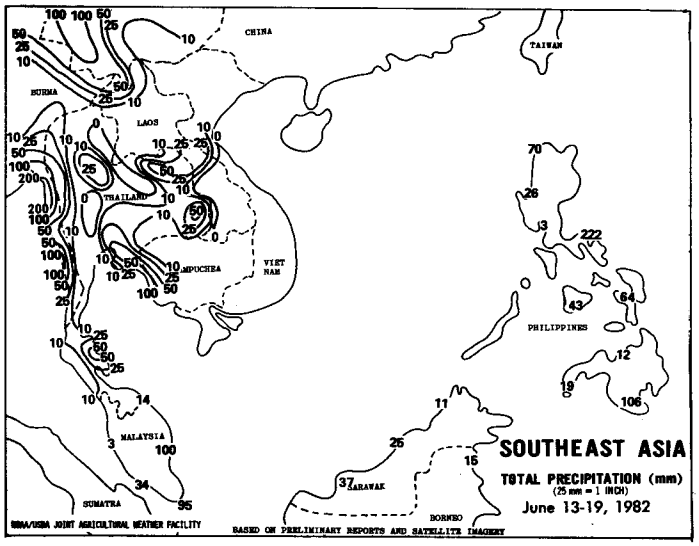


SOUTH AMERICA: Heavy rain fell over southern Brazil. Locally heavy showers produced over 100 mm in eastern Rio Grande do Sul which likely saturated fields following the previous week's beneficial rainfall. Some showers also fell over Argentina's wheat area, but the frontal system intensified rapidily over southern Brazil. Unseasonably cold air, which moved into Argentina's crop area behind the storm system, dropped minimum temperatures several degrees below freezing in La Pampa and Buenos Aires. The below-average temperatures in Argentina slowed wheat growth to a minimum. The cold weather remained south of Brazil's coffee area where harvesting is underway.

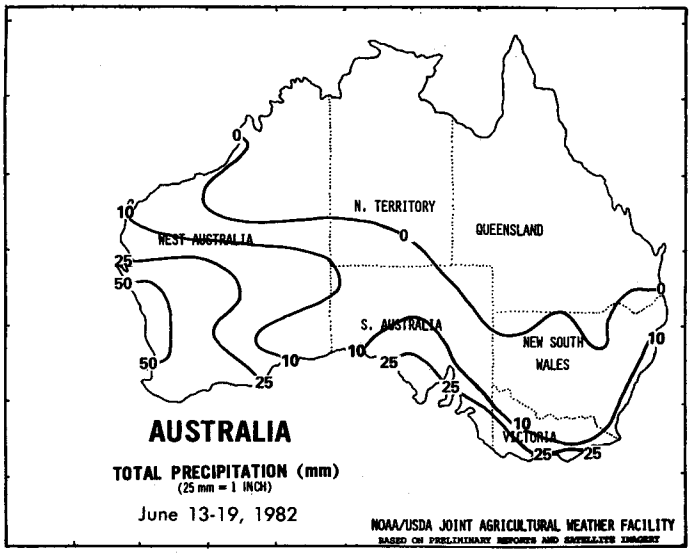


EASTERN ASIA: Beneficial, above-normal rainfall occurred over much of Hebei and Shandong as temperatures dipped below normal. Warm dry weather in Henan and Anhui was mostly beneficial to crop development, but similar weather in the Manchurian Valley stressed spring-sown crops. Heavy rains fell south of the Yangtze River. Maturing rice along the south coast benefited from relatively warm, dry weather, but hill areas just to the north had persistent heavy rainfall. The worst-hit areas were Hunan, Jiangxi, and Fujian. Flooding of rice fields occurred in central Hunan and Jiangsi, and some cotton areas just to the north may have been affected adversely., The heaviest rains fell in the hills of northern Fujian. Landslides reportedly cut major transportation links, but the area is not of major agricultural importance. Some localized flooding of downstream agricultural areas is likely. In South Korea, rainfall stayed very light over most rice areas, with 10-15 mm falling in southeastern fields. Temperatures stayed above normal, and conditions in some areas may be a little dry.

MEXICO: Little or no rainfall over the major agricultural areas kept rainfed crops and pastures suffering from the moisture shortage. Rains were limited generally to the southernmost mountains, except along the eastern Yucatan Peninsula where a tropical disturbance dumped heavy showers. Sunny, hot conditions throughout the north-central and northwestern regions benefited development of cotton, soybeans, and other irrigated summer crops.



SOUTHEAST ASIA: Rainfall slackened in many crop areas of Thailand, but some parts of the country had above-normal rains. Temperatures stayed near normal, so the need for irrigation water was not excessive. Most corn areas had adequate soil moisture. The previous week's more general rains should carry the crop through, but localized areas have again become somewhat unfavorably dry. Satellite imagery indicated that rainfall in Kampuchea and Vietnam was about the same as in Thailand.



AUSTRALIA: Mostly dry weather persisted in eastern wheat areas while widespread, significant rain fell over crop areas of both Western and South Australia. The abundant rains in Western Australia have greatly improved soil conditions for wheat planting and early growth. However, crop areas of New South Wales and Victoria remained unfavorably dry as a persistent ridge of high pressure continued to impede the development of any sustained rainfall over eastern areas. The dry topsoils have hampered wheat planting in the east. Optimum planting usually occurs by mid-June; thus, without substantial rains soon, yield prospects will decline in eastern crop areas.

NOAA/USDA Joint Agricultural
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National Weather Summary (cont. from first page)

THURSDAY...Showers and thunderstorms continued over the east coast but abated over the northern half during the late morning. A trough of low pressure extended northeastward from the Tropics to Florida. Heavy rain and severe weather covered Florida and the southeastern coast. Another cold front triggered showers through the Rockies and out over the High Plains to a line from north-central Texas to eastern Nebraska. Severe weather pounded the area from the Texas Panhandle to north-central Texas, through western Oklahoma to eastern Nebraska.

FRIDAY...A low-pressure center over the west-central Florida peninsula continued to pour tropical moisture northeastward. Moderate to heavy rain, severe weather, winds, and high tides plagued the east coast northward to Virginia. Severe weather continued over northern Texas and southwestern Oklahoma. Hail was widespread through the cotton area of the Texas Panhandle, and crop damage was evident. Hot weather west of the Rockies measured over 100° in southern California to 96° at Omak, in northern Washington.

SATURDAY...Thunderstorms covered the State of Texas and became severe in the area north of the Big Bend. Showers and thunderstorms also reached from eastern North Dakota, through the Great Lakes to the east coast, and through the Ohio Valley and Virginia to the coast. Showers were heavy in the northern Appalachians but generally light elsewhere. More showers and thunderstorms covered southern Florida. Hot weather continued west of the Rockies. Early-morning temperatures were cool over the Plateau, but daytime temperatures rose to the high eighties. The mercury climbed to near 100° just inland from the coast.

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