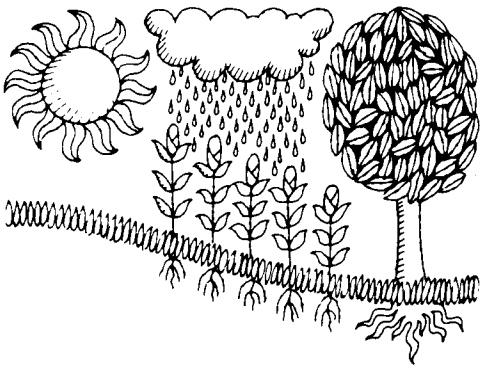


WEEKLY WEATHER AND CROP BULLETIN

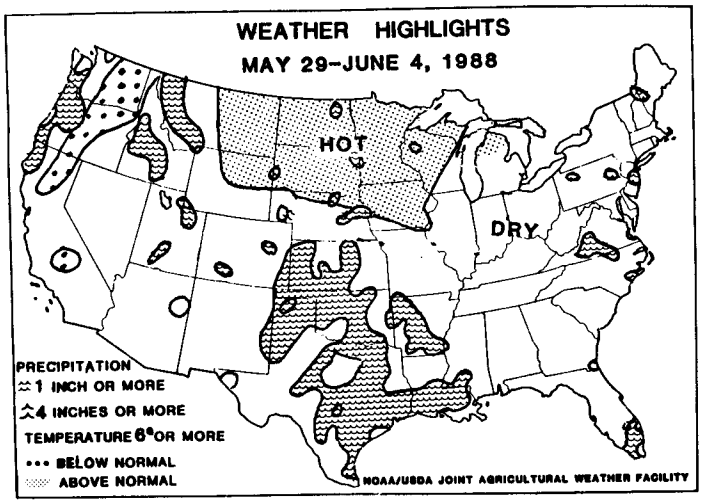
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

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

Volume 75, No. 23 | Washington, D.C. | June 7, 1988

National Weather Summary

May 29 - June 4, 1988



HIGHLIGHTS: Hot, dry conditions continued through much of the northern Plains and extended into the Corn Belt. Severe thunderstorms caused heavy rain in the southern Plains during the middle of the week. The Pacific Northwest was cool and wet throughout the week.

SUNDAY...A strong cold frontal system was responsible for gusty north winds ushering in cool wet weather into the Western States and for gusty south winds in the Great Plains in advance of the system. Thunderstorms were scattered from Texas to Kansas and over southern Florida.

MONDAY...The frontal system moved across the Rockies, bringing snow to the higher elevations. Warm humid air continued to flow northward through the Great Plains. Scattered showers and thunderstorms developed across the western Plains with locally heavy rainfall in eastern New Mexico. Showers and thunderstorms also developed over New England and again in southern Florida.

TUESDAY...Thunderstorms occurred through the Great Plains in advance of the frontal system. Rainfall was very heavy in the southern Plains causing flooding. Cool air extended over the Rockies while temperatures increased in the East. Rain was scattered across the Pacific Northwest and in southern Florida.

WEDNESDAY...Scattered showers and thunderstorms continued in the Great Plains and moved into the western Mississippi Valley. Rain was widespread over the Northwest and, by evening, over the Northeast. Hot, dry weather prevailed in most of the Ohio Valley and the Southeast. Showers continued in southern Florida.

THURSDAY...Thunderstorms were widespread over the central and southern Great Plains across to the middle and southern Atlantic coast. Cooler air settled into the Northeast. A vigorous storm system centered off the northern Pacific coast brought rain to western Washington and Oregon.

FRIDAY...Scattered thunderstorms lingered from southern Texas to the Atlantic coast. Showers and a few thunderstorms reached from the mid-Atlantic States to western England. Rain was scattered in the Pacific Northwest with snow in the high elevations. Evening thunderstorms occurred from Southwest Minnesota into central Oklahoma. High temperatures extended from the Intermountain West across to the northern Plains, while cooler air pushed southward into the Carolinas.

SATURDAY...The northern Great Plains experienced another hot, dry day while cool wet weather remained in the Northeast. Showers and thunderstorms were scattered along the western and central Gulf coast, over the northern Rockies, and the Northwest. Cool clear weather prevailed over the remaining of the Nation east of the Mississippi.

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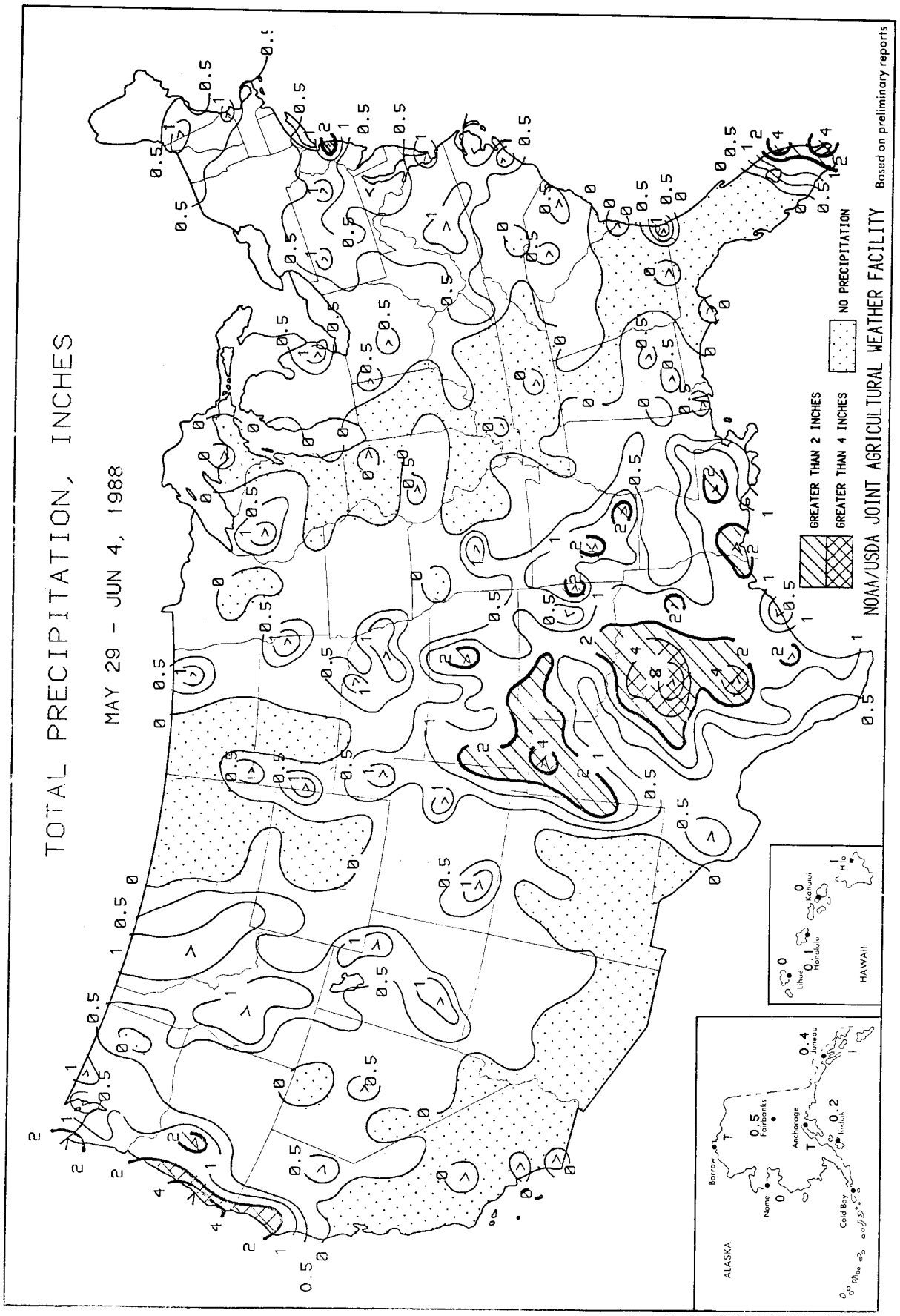
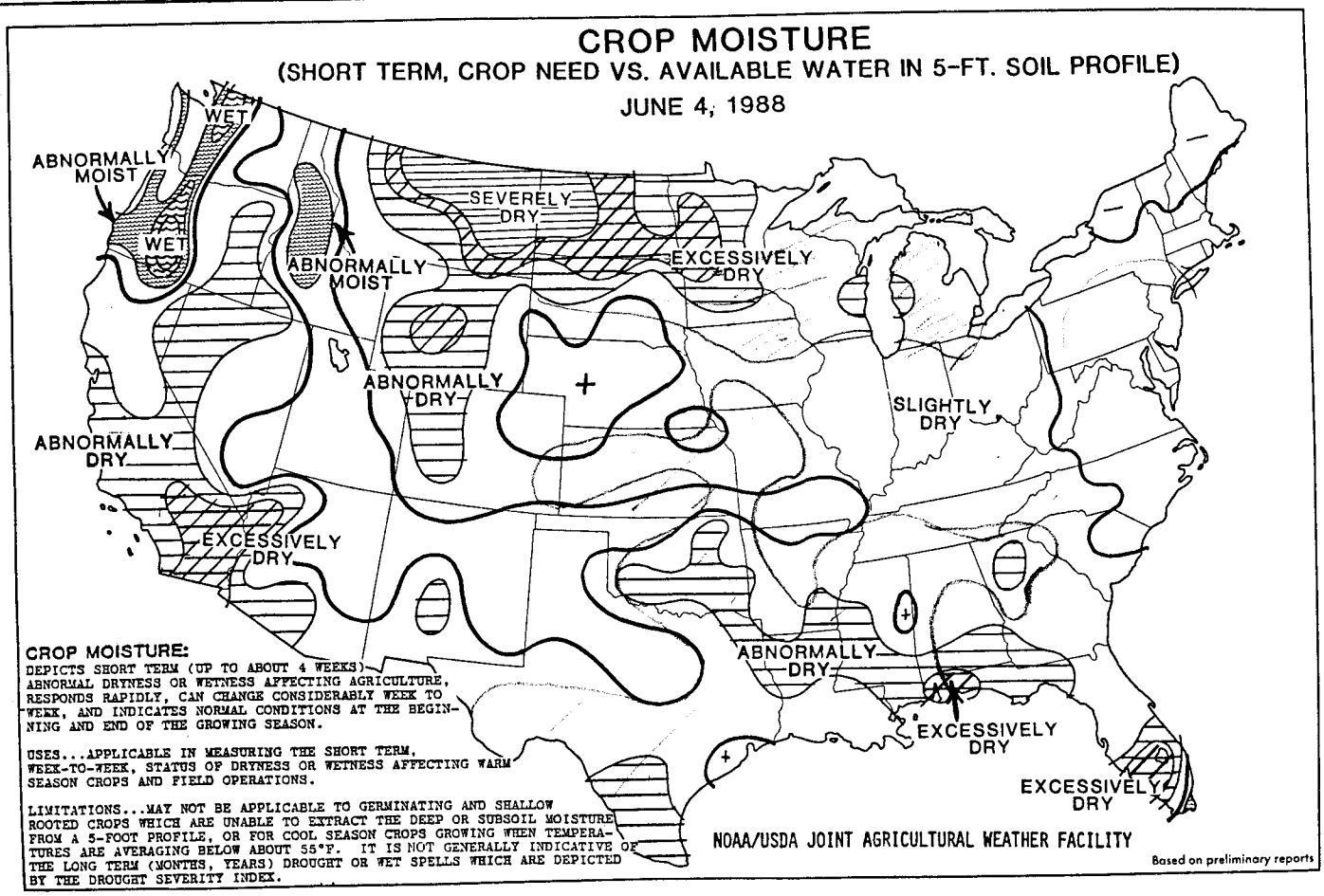
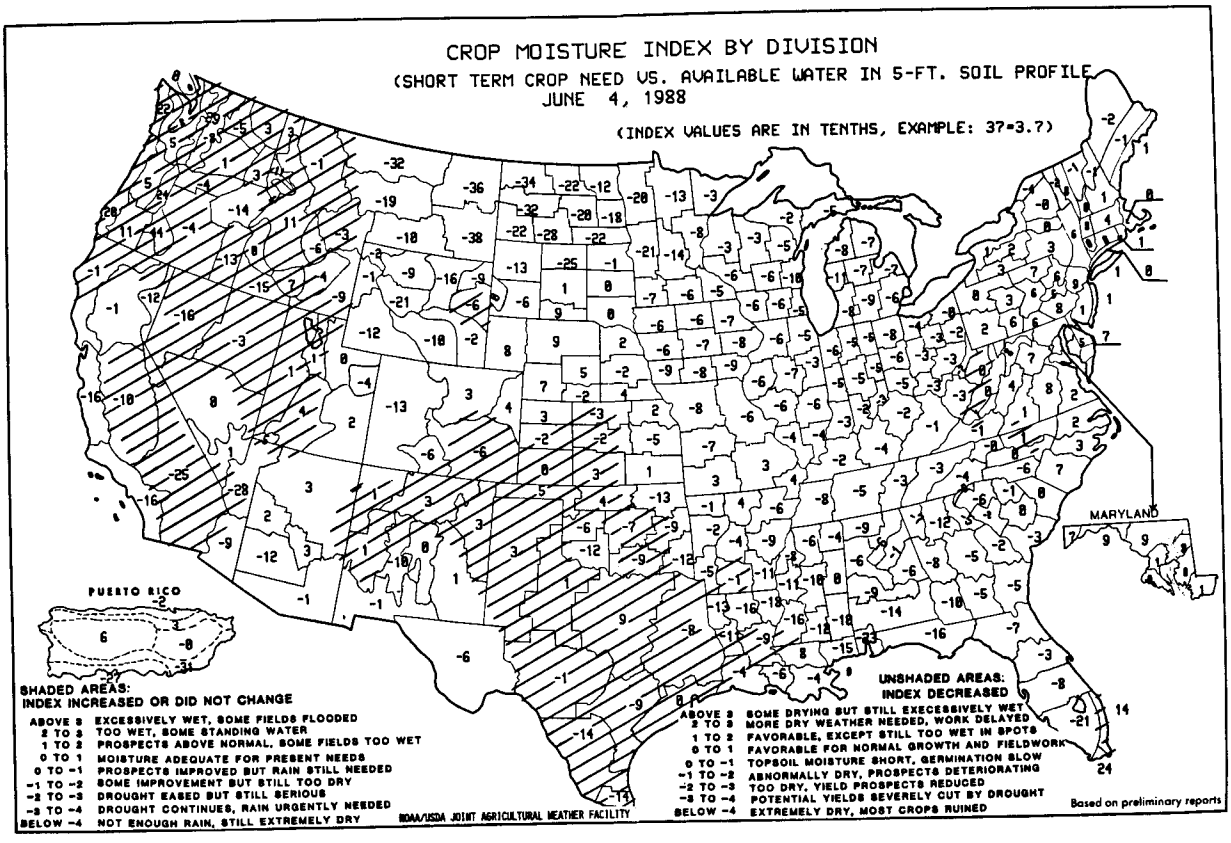
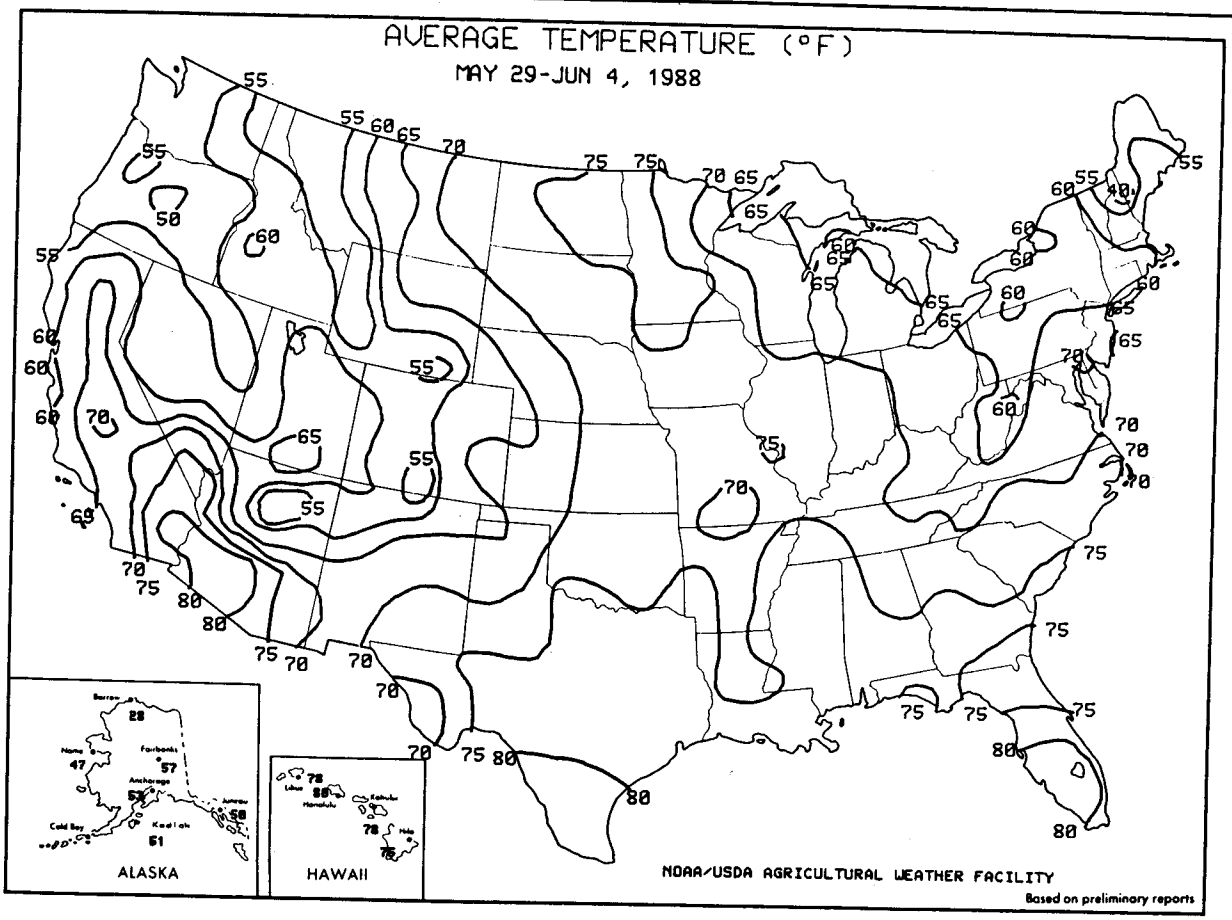
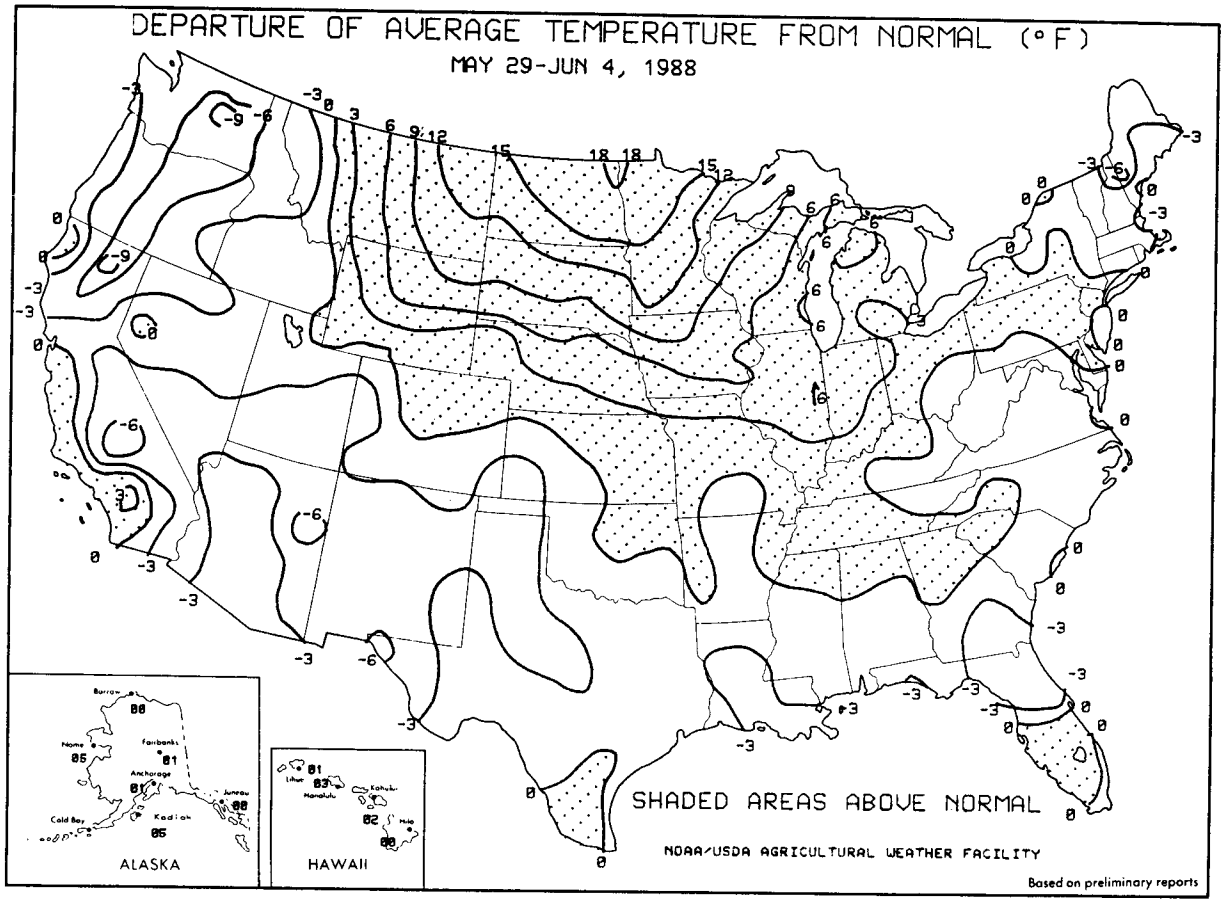
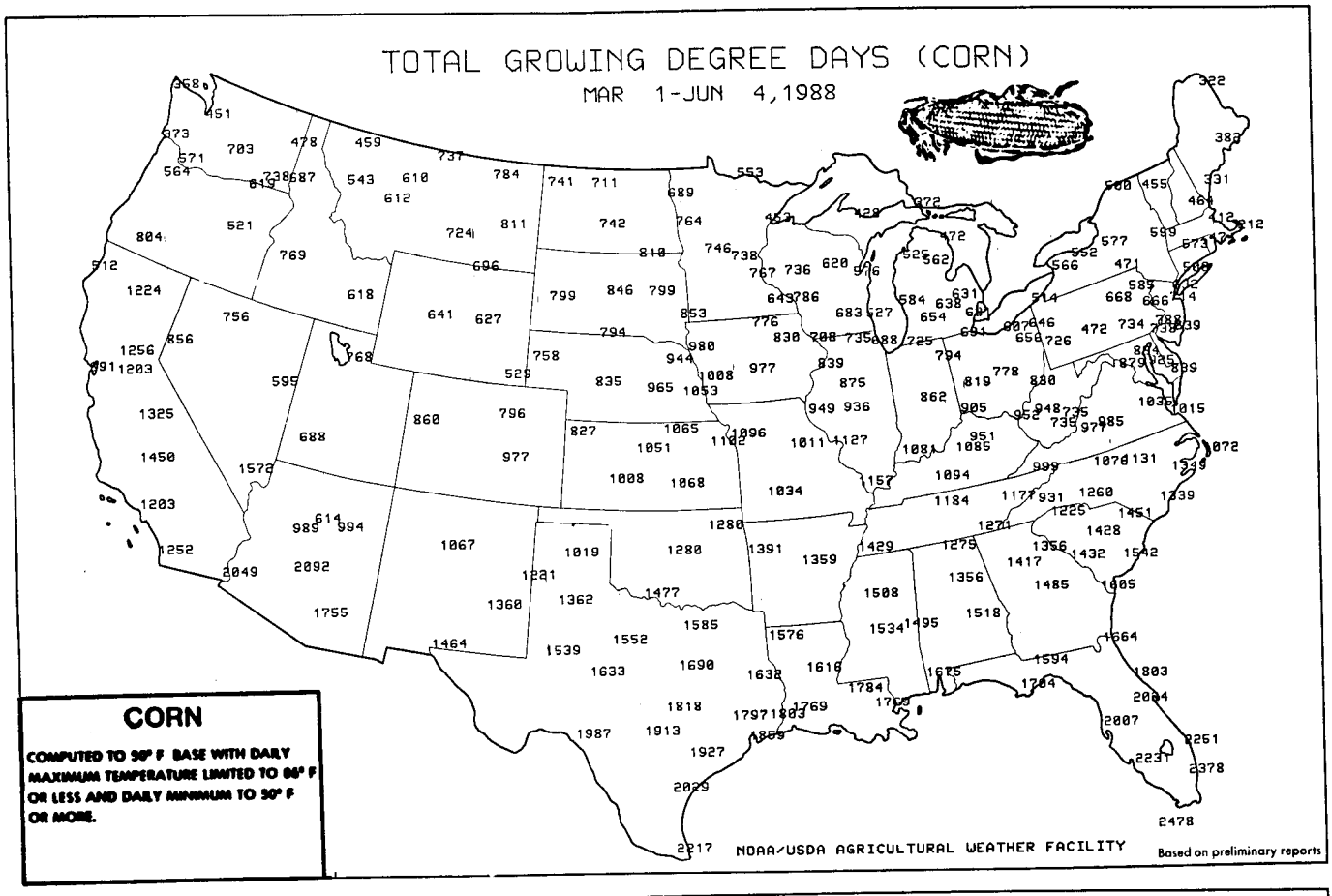

TOTAL PRECIPITATION, INCHES
MAY 29 - JUN 4, 1988
GREATER THAN 2 INCHES
GREATER THAN 4 INCHES
NO PRECIPITATION
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
HAWAII
Barrow
Fairbanks
Nome
Anchorage
Juneau
Cold Bay
Kotzebue
Lihue
Honolulu
Kahului
Hilo

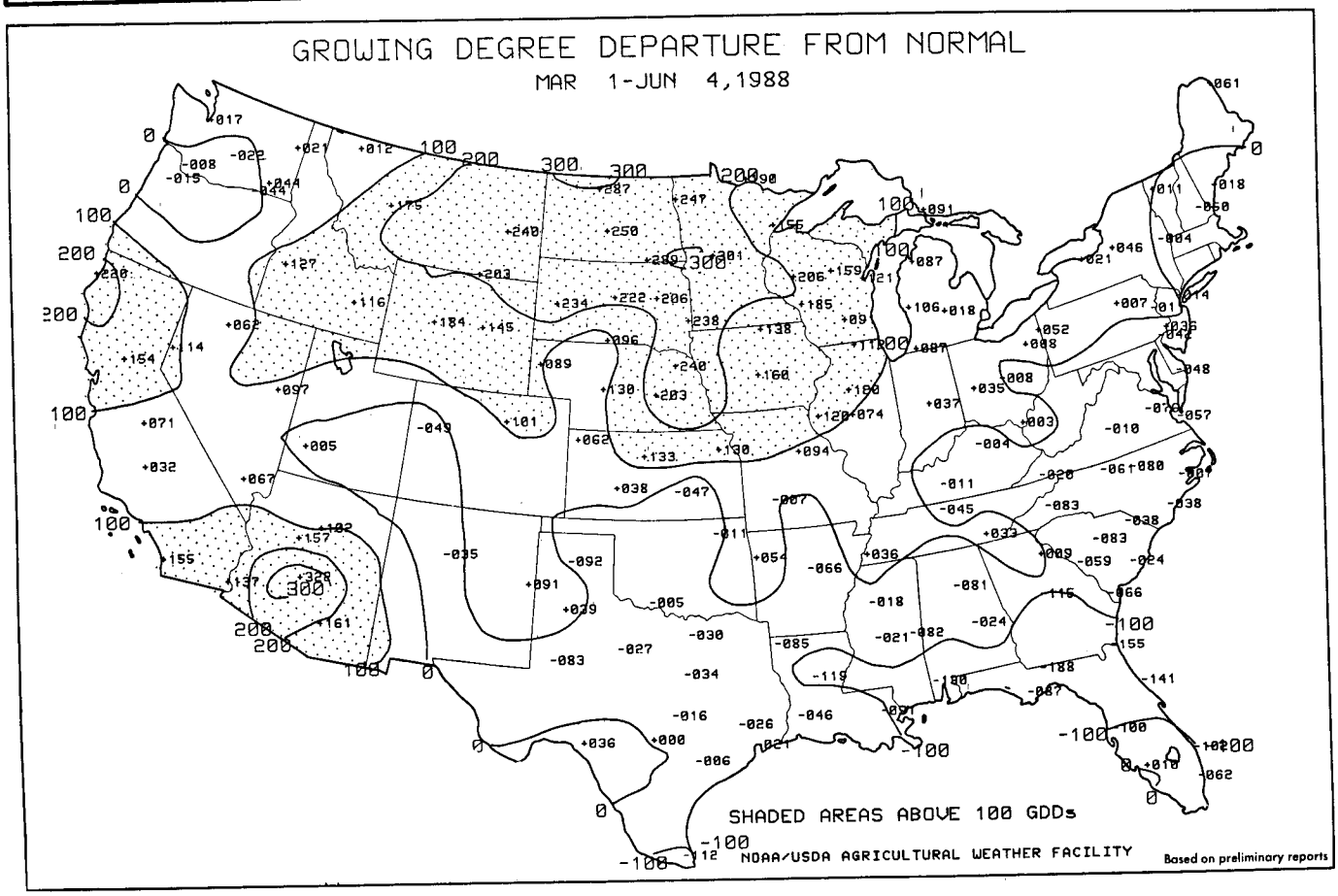

CROP MOISTURE
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
JUNE 4, 1988
WET
ABNORMALLY MOIST
WET
ABNORMALLY MOIST
SEVERELY DRY
EXCESSIVELY DRY
ABNORMALLY DRY
SLIGHTLY DRY
ABNORMALLY DRY
EXCESSIVELY DRY
ABNORMALLY DRY
EXCESSIVELY DRY
EXCESSIVELY DRY
CROP MOISTURE:
DEPICTS SHORT TERM (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 END 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.
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


CROP MOISTURE INDEX BY DIVISION
(SHORT TERM CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
JUNE 4, 1988
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
MARYLAND
PUERTO RICO
SHADED AREAS:
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
Based on preliminary reports


AVERAGE TEMPERATURE (°F)
MAY 29-JUN 4, 1988
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
MAY 29-JUN 4, 1988
SHADED AREAS ABOVE NORMAL
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


TOTAL GROWING DEGREE DAYS (CORN)
MAR 1-JUN 4,1988
CORN
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 AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


GROWING DEGREE DEPARTURE FROM NORMAL
MAR 1-JUN 4,1988
SHADED AREAS ABOVE 100 GDDs
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

National Weather Data for Selected Cities

Weather Data for the Week Ending June 4, 1988

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 June 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	89	60	92	54	74	0	0	-.8	0	0	0	15.6	59	87	31	4	0	0	0
MOBILE	91	64	93	57	78	-1	.5	-.6	.5	.5	87	24.0	87	94	34	5	0	2	1
MONTGOMERY	90	60	94	56	75	-1	T	-.8	T	T	5	25.8	110	95	33	5	0	1	0
AK ANCHORAGE	62	44	72	36	53	2	T	-.2	T	T	0	2.3	64	79	39	0	0	1	0
BARROW	31	26	34	23	28	0	T	0	T	T	100	.2	27	95	82	0	7	1	0
FAIRBANKS	66	47	73	43	57	1	.5	.3	.2	.1	100	2.4	102	93	41	0	0	4	0
JUNEAU	57	44	63	38	50	0	.4	-.3	.3	T	0	19.3	110	93	51	0	0	3	0
KODIAK	58	44	69	40	51	5	.2	-.9	.1	.1	16	34.8	143	83	53	0	0	3	0
NOME	56	38	69	30	47	5	0	-.2	0	0	0	3.9	127	79	45	0	3	0	0
AZ PHOENIX	96	69	109	58	83	0	0	0	0	0	0	2.4	97	32	11	4	0	0	0
PRESCOTT	78	44	92	34	61	-1	T	0	T	0	0	4.4	72	41	15	1	0	0	0
TUCSON	95	60	108	49	77	-2	0	0	0	0	0	2.5	97	30	9	5	0	0	0
YUMA	94	64	106	55	79	-4	0	0	0	0	0	1.0	112	50	16	4	0	0	0
AR FORT SMITH	88	63	93	59	75	1	1.6	.6	1.6	1.6	291	17.1	96	87	37	3	0	1	1
LITTLE ROCK	87	64	93	60	75	0	.9	-.1	.5	.9	160	16.2	68	74	46	2	0	3	0
CA BAKERSFIELD	83	53	95	44	68	-7	.1	0	.1	0	0	3.0	79	72	23	1	0	1	0
EUREKA	62	51	70	46	56	3	2.8	2.6	1.2	1.8		15.5	71	89	63	0	0	6	3
FRESNO	82	54	95	45	68	-4	T	0	T	0	0	5.5	79	74	24	1	0	0	0
LOS ANGELES	70	56	74	53	63	-1	T	0	T	0	0	4.6	56	87	45	0	0	0	0
REDDING	76	52	85	44	64	-9	.1	-.1	.1	.1	100	15.3	64	85	31	0	0	2	0
SACRAMENTO	80	53	87	48	67	-2	0	0	0	0	0	6.7	64	79	27	0	0	0	0
SAN DIEGO	71	59	76	56	65	0	T	0	T	0	0	6.7	104	89	50	0	0	1	0
SAN FRANCISCO	67	52	73	49	60	0	T	0	T	T	0	6.7	54	90	50	0	0	0	0
CO DENVER	79	52	88	42	65	2	.1	-.3	.1	0	0	7.2	104	74	25	0	0	1	0
GRAND JUNCTION	79	48	94	37	63	-4	.2	.1	.2	0	0	4.1	120	65	19	2	0	1	0
PUEBLO	82	49	90	37	65	-2	T	-.3	T	T	13	4.4	114	86	23	1	0	1	0
CT BRIDGEPORT	73	56	90	50	65	1	.5	-.2	.4	.5	128	13.4	76	82	45	1	0	2	0
HARTFORD	73	51	85	45	62	-3	.4	-.4	.2	.4	78	15.6	83	92	45	0	0	3	0
DC WASHINGTON	82	59	93	50	70	-1	.1	-.7	.1	.1	16	14.5	92	89	41	3	0	1	0
FL APALACHICOLA	86	66	92	60	76	-2	.3	-.6	.3	.3	50	21.4	119	92	48	2	0	1	0
DAYTONA BEACH	85	63	95	54	74	-4	T	-1.3	T	T	0	15.1	100	96	49	1	0	0	0
JACKSONVILLE	88	61	96	53	74	-4	1.1	-.1	1.1	1.1	155	20.9	116	94	38	2	0	1	1
KEY WEST	85	75	88	73	80	-2	1.0	-.1	.7	.1	18	15.8	150	95	71	0	0	4	1
MIAMI	87	74	93	71	80	0	2.2	.2	1.3	.4	36	10.4	61	94	60	2	0	6	1
ORLANDO	88	65	92	63	77	-3	0	-1.3	0	0	0	15.4	99	92	38	2	0	0	0
TALLAHASSEE	91	58	97	51	75	-3	0	-1.3	0	0	0	22.3	88	95	28	6	0	0	0
TAMPA	90	67	93	64	79	-1	0	-1.0	0	0	0	11.4	79	89	39	5	0	0	0
WEST PALM BEACH	85	72	92	70	79	-1	4.1	2.3	2.0	T	2	22.5	122	95	64	1	0	5	3
GA ATLANTA	88	64	91	57	76	3	T	-.8	T	T	7	18.3	76	70	28	3	0	1	0
AUGUSTA	91	58	95	53	74	-1	.2	-.6	.2	.2	46	17.6	86	96	28	6	0	1	0
MACON	90	60	93	56	75	-1	0	-.8	0	0	0	18.7	86	88	30	6	0	0	0
SAVANNAH	89	62	95	59	76	-1	.3	-.9	.3	.3	40	18.5	98	86	32	5	0	1	0
HI HILO	81	68	83	65	75	0	1.0	-.6	.4	.5	57	54.5	91	93	66	0	0	6	0
HONOLULU	87	73	89	71	80	2	.1	-.1	0	T	0	6.8	53	79	49	0	0	2	0
KAHULUI	85	71	86	68	78	2	0	-.1	0	0	0	11.1	98	81	55	0	0	0	0
LIHUE	83	73	84	69	78	1	T	-.5	T	T	0	19.5	93	86	65	0	0	0	0
ID BOISE	70	49	88	38	60	-2	1.0	.8	.8	.2	160	6.6	105	84	36	0	0	2	1
LEWISTON	65	48	75	43	57	-5	.7	.4	.4	.3	160	4.5	73	78	41	0	0	3	0
POCATELLO	71	44	95	36	58	-1	.2	-.1	.1	T	6	4.1	75	85	36	2	0	4	0
IL CHICAGO	83	55	93	45	69	5	0	-.9	0	0	0	8.6	65	82	31	3	0	0	0
MOLINE	87	55	92	43	71	4	0	-1.0	0	0	0	8.9	61	82	27	3	0	0	0
PEORIA	86	57	92	51	72	4	0	-.9	0	0	0	8.8	62	76	27	3	0	0	0
QUINCY	84	58	90	46	71	2	0	-1.0	0	0	0	6.2	42	80	34	1	0	0	0
ROCKFORD	85	53	93	43	69	4	0	-1.0	0	0	0	9.6	69	87	35	3	0	0	0
SPRINGFIELD	86	59	92	45	73	3	0	-.8	0	0	0	9.3	65	87	31	4	0	0	0
IN EVANSVILLE	89	57	93	48	73	2	T	-.9	T	T	0	13.2	67	84	24	5	0	0	0
FORT WAYNE	84	55	94	45	70	4	.5	-.3	.5	.5	102	11.8	81	77	30	4	0	1	1
INDIANAPOLIS	86	56	93	45	71	3	0	-.9	0	0	0	13.7	83	77	25	3	0	0	0
SOUTH BEND	83	55	91	42	69	4	T	-.8	T	T	0	11.5	78	79	32	3	0	0	0
IA DES MOINES	85	63	90	56	74	6	.1	-.9	.1	.1	24	4.0	33	78	35	1	0	2	0
SIOUX CITY	85	64	90	61	75	7	.5	-.5	.4	.1	17	6.8	71	88	45	1	0	2	0
WATERLOO	87	60	92	54	74	8	T	-.9	T	T	4	5.8	47	75	28	3	0	1	0
KS CONCORDIA	81	61	85	58	71	2	1.3	.3	1.0	.2	38	6.0	58	91	51	0	0	4	1
DODGE CITY	78	58	82	53	68	-2	.9	.2	.9	T	5	8.2	103	96	54	0	0	2	1
GOODLAND	75	53	82	49	64	-1	1.7	1.0	.6	.6	155	9.6	153	94	52	0	0	4	2
TOPEKA	82	61	87	56	72	1	.1	-1.1	.1	.1	10	9.3	78	89	46	0	0	2	0
WICHITA	82	62	86	59	72	0	1.0	0	.8	.1	11	10.5	100	95	49	0	0	3	1
KY BOWLING GREEN	86	55	93	48	70	-1	0	-1.0	0	0	0	14.3	62	96	33	2	0	0	0
LEXINGTON	84	55	90	48	70	1	0	-1.0	0	0	0	14.3	69	87	31	2	0	0	0
LOUISVILLE	86	58	92	49	72	2	.2	-.7	.2	.2	44	16.9	84	91	34	4	0	1	0
LA ALEXANDRIA	84	63	89	57	74	-5	.6	-.4	.3	.3	55	18.7	73	93	44	0	0	2	0
BATON ROUGE	88	65	92	57	77	-2	2.1	1.4	2.1	2.1	562	33.2	133	94	44	3	0	2	1
LAKE CHARLES	86	65	88	62	76	-3	2.7	1.6	1.7	2.7	462	23.5	110	99	54	0	0	2	2
NEW ORLEANS	86	65	90	59	76	-2	.1	-1.0	.1	.1	16	34.9	139	100	51	1	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending June 4, 1988

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 June 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	89	63	92	57	76	-1	.1	-.8	0	.1	16	13.5	63	91	36	3	0	2	0
ME CARIBOU	63	41	71	35	52	-4	.2	-.5	.1	.1	15	10.5	82	93	39	0	0	4	0
PORTLAND	68	48	80	41	58	0	.3	-.4	.3	T	2	15.1	80	92	48	0	0	3	0
MD BALTIMORE	80	57	91	48	69	0	T	-.8	T	T	4	15.7	92	89	38	3	0	1	0
SALISBURY	81	55	93	41	68	0	T	-.8	T	T	9	20.0	112	93	40	3	0	1	0
MA BOSTON	67	54	83	47	60	-4	T	-.7	T	T	2	14.3	73	87	56	0	0	1	0
CHATHAM	64	50	79	44	57	0	.6	-.1	.3	.4	98	15.7	76	88	60	0	0	5	0
MI ALPENA	80	47	92	40	64	6	.2	-.5	.2	.2	51	9.7	91	92	36	1	0	1	0
DETROIT	83	54	93	45	68	4	.4	-.4	.4	.4	84	7.2	58	80	28	4	0	1	0
FLINT	82	49	93	38	66	4	.5	-.2	.5	.5	121	7.8	68	89	30	4	0	2	0
GRAND RAPIDS	81	50	91	40	66	2	.1	-.7	.1	.1	19	9.9	76	89	27	2	0	1	0
HOUGHTON LAKE	81	49	91	37	65	6	T	-.7	T	T	5	8.0	77	82	30	2	0	1	0
LANSING	82	49	92	36	65	3	.1	-.7	.1	.1	18	8.8	79	92	27	3	0	1	0
MARQUETTE	80	46	89	31	63	7	.1	-.9	0	T	4	11.5	77	90	31	0	1	2	0
MUSKEGON	80	51	88	42	66	4	.1	-.5	.1	.1	27	10.9	86	85	33	0	0	1	0
SAULT ST. MARIE	78	46	88	37	62	7	T	-.7	T	T	5	10.6	91	90	36	0	0	1	0
MN ALEXANDRIA	88	64	90	60	76	15	.1	-.8	.1	.1	19	5.5	65	82	37	2	0	1	0
DULUTH	79	52	87	45	65	10	.5	-.4	.4	.5	92	8.3	86	89	45	0	0	2	0
INT'L FALLS	88	60	92	53	74	17	.1	-.6	.1	0	0	3.7	51	90	38	3	0	1	0
MINNEAPOLIS	87	65	91	58	76	12	.1	-.8	.1	.1	13	6.3	69	75	36	4	0	1	0
ROCHESTER	84	58	90	49	71	8	0	-.9	0	0	0	7.7	79	82	36	1	0	0	0
MS GREENWOOD	89	63	93	59	76	-1	.1	-.8	0	.1	13	12.9	48	77	32	4	0	2	0
JACKSON	90	61	94	53	76	-1	T	-.8	T	T	5	19.3	74	98	37	5	0	1	0
MERIDIAN	92	59	96	51	75	-1	.1	-.7	.1	.1	12	19.4	74	96	32	6	0	1	0
MO CAPE GIRARDEAU	87	61	91	56	74	—	T	-.9	T	T	6	14.4	69	86	32	4	0	1	0
COLUMBIA	84	59	89	52	71	1	T	-1.0	T	T	0	12.3	77	83	36	0	0	0	0
KANSAS CITY	84	63	89	58	74	2	T	-1.1	T	T	0	7.8	58	77	39	0	0	0	0
SAINT LOUIS	86	64	92	57	75	4	0	-.8	0	0	0	12.9	87	67	28	2	0	0	0
SPRINGFIELD	82	58	86	52	70	0	.1	-1.0	.1	.1	13	17.6	108	85	40	0	0	1	0
MT BILLINGS	84	52	101	44	68	8	T	-.6	T	0	0	5.5	74	67	19	2	0	0	0
GLASGOW	89	58	102	48	73	13	.4	-.1	.4	0	0	2.6	71	69	21	3	0	1	0
GREAT FALLS	75	48	95	42	62	4	.7	0	.6	T	7	4.1	57	80	34	2	0	2	1
HAVRE	82	51	99	40	66	7	0	-.5	0	0	0	1.1	24	72	25	2	0	0	0
HELENA	74	44	97	36	59	2	1.0	.5	.8	.2	61	4.6	93	90	38	2	0	2	1
KALISPELL	61	43	81	33	52	-3	1.4	.8	.9	.1	39	6.5	97	94	54	0	0	4	1
MILES CITY	88	60	101	51	74	12	T	-.7	T	0	0	1.3	22	52	21	4	0	0	0
MISSOULA	63	41	80	32	52	-4	1.6	1.2	1.1	.2	59	6.3	107	94	54	0	1	4	1
NE GRAND ISLAND	82	60	89	53	71	3	1.2	.3	.6	.6	121	6.4	65	91	50	0	0	4	1
LINCOLN	83	62	88	58	73	4	.3	-.7	.2	.1	15	6.5	59	89	51	0	0	3	0
NORFOLK	82	62	88	56	72	5	1.0	0	.7	.1	9	9.0	95	93	52	0	0	3	1
NORTH PLATTE	78	57	84	49	67	3	.1	-.8	.1	.1	20	6.8	88	92	48	0	0	2	0
OMAHA	82	64	86	60	73	4	1.9	.9	1.9	T	7	8.1	71	84	53	0	0	3	1
SCOTTSBLUFF	75	51	84	44	63	0	.7	-.1	.5	.1	29	9.6	150	87	44	0	0	2	1
VALENTINE	85	58	90	47	71	7	0	-.7	0	0	0	8.5	125	81	34	1	0	0	0
NV ELY	71	37	87	28	54	-1	.3	0	.2	0	0	3.8	86	80	30	0	3	2	0
LAS VEGAS	91	62	106	52	77	-3	T	0	T	0	0	1.7	98	33	12	4	0	0	0
RENO	71	47	85	35	59	0	.1	0	.1	T	0	1.6	39	63	22	0	0	1	0
WINNEMUCCA	71	41	87	30	56	-3	T	-.2	T	0	0	3.5	90	74	24	0	1	0	0
NH CONCORD	69	47	83	40	58	-3	.6	0	.6	T	3	11.7	80	97	42	0	0	2	1
NJ ATLANTIC CITY	78	50	93	40	64	-1	.2	-.5	.1	.2	51	14.2	81	94	42	2	0	2	0
NM ALBUQUERQUE	81	51	88	38	66	-5	T	-.1	T	T	20	3.1	145	60	16	0	0	2	0
CLOVIS	81	56	85	51	68	-2	3.3	2.7	3.3	0	0	6.9	145	79	30	0	0	1	1
ROSWELL	86	57	89	51	71	-3	0	-.2	0	0	0	5.4	223	68	20	0	0	0	0
NY ALBANY	74	50	86	40	62	-1	.2	-.6	.1	.1	32	11.9	83	93	40	0	0	3	0
BINGHAMTON	72	50	86	38	61	0	.4	-.4	.2	.4	93	14.0	96	87	43	0	0	2	0
BUFFALO	74	52	82	41	63	0	.4	-.2	.4	.4	111	14.7	100	84	40	0	0	1	0
NEW YORK	78	57	92	51	68	0	.7	0	.4	.6	150	15.2	85	94	43	1	0	4	0
ROCHESTER	75	51	88	43	63	0	.2	-.4	.2	.2	61	8.9	69	86	42	0	0	1	0
SYRACUSE	74	48	88	37	61	-1	.2	-.6	.1	.2	41	11.4	74	90	44	0	0	2	0
NC ASHEVILLE	83	50	87	44	67	-1	0	-.9	0	0	0	10.4	54	92	30	0	0	0	0
CHARLOTTE	86	60	94	50	73	1	0	-.8	0	0	0	12.3	62	84	32	4	0	0	0
GREENSBORO	83	57	92	47	70	-1	.4	-.4	.4	.4	88	12.4	70	92	38	3	0	2	0
HATTERAS	79	59	91	48	69	-2	.5	-.5	.3	.5	84	20.7	100	96	53	2	0	2	0
NEW BERN	84	61	95	53	73	0	T	-1.1	T	T	5	20.2	102	88	42	3	0	1	0
RALEIGH	83	55	93	46	69	-2	.5	-.4	.3	.5	96	14.2	80	96	41	3	0	2	0
WILMINGTON	87	60	95	51	74	-1	.5	-.7	.5	.5	68	23.0	120	92	40	4	0	1	0
ND BISMARCK	89	61	95	53	75	15	T	-.7	T	T	0	3.2	56	83	33	3	0	0	0
FARGO	91	66	93	62	79	17	T	-.6	T	T	0	4.7	75	81	34	6	0	1	0
GRAND FORKS	92	64	95	59	78	18	.1	-.5	.1	0	0	3.0	52	81	35	6	0	1	0
WILLISTON	89	59	99	47	74	14	0	-.6	0	0	0	3.2	63	65	23	4	0	0	0
OH AKRON-CANTON	78	54	89	43	66	1	.3	-.5	.3	.3	67	11.0	72	88	39	0	0	2	0
CINCINNATI	84	55	91	47	70	1	0	-.9	0	0	0	17.0	96	83	32	2	0	0	0
CLEVELAND	79	54	90	44	66	2	.4	-.4	.4	.4	83	11.3	76	86	36	1	0	1	0
COLUMBUS	82	52	93	41	67	0	.4	-.5	.4	.4	69	13.8	87	92	32	3	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending June 4, 1988

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 June 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	83	55	93	44	69	1	.1	-.8	.1	.1	24	12.1	78	77	30	3	0	1	0
TOLEDO	83	50	94	40	67	2	.2	-.6	.2	.2	41	7.2	56	92	28	4	0	1	0
YOUNGSTOWN	77	50	88	42	64	1	.2	-.5	.2	.2	52	11.3	73	89	38	0	0	2	0
OK OKLAHOMA CITY	84	64	87	61	74	1	.6	-.5	.5	.2	27	13.9	104	90	45	0	0	3	0
TULSA	84	65	89	60	75	1	.6	-.6	.5	.6	86	13.6	83	80	42	0	0	2	1
OR ASTORIA	60	45	61	40	52	-3	1.5	.9	.5	1.0	274	27.1	80	96	58	0	0	6	1
BURNS	64	41	78	34	53	-4	T	-.2	T	T	0	3.9	78	81	32	0	0	0	0
MEDFORD	66	45	78	37	56	-6	.5	.3	.2	.3	233	6.1	63	93	42	0	0	5	0
PENDLETON	63	46	75	42	55	-8	.2	0	.2	T	27	7.0	116	82	47	0	0	3	0
PORTLAND	63	49	67	46	56	-4	1.0	.5	.5	.8	346	17.2	94	92	56	0	0	5	0
SALEM	64	46	68	37	55	-3	1.2	.9	.6	1.1	500	17.9	87	96	56	0	0	4	1
PA ALLENTOWN	78	54	89	45	66	1	.8	0	.7	.8	173	18.1	100	90	36	0	0	3	1
ERIE	73	53	85	42	63	2	.3	-.5	.3	.3	62	12.9	89	80	42	0	0	1	0
HARRISBURG	79	56	91	49	68	0	.2	-.7	.1	.2	35	16.0	96	85	34	2	0	3	0
PHILADELPHIA	81	56	92	47	69	1	.3	-.6	.2	.3	55	15.9	94	89	38	2	0	3	0
PITTSBURGH	77	55	88	44	66	1	.2	-.6	.2	.2	48	12.5	77	92	41	0	0	2	0
SCRANTON	76	51	87	43	64	0	.4	-.4	.4	.4	93	13.0	96	86	37	0	0	2	0
RI PROVIDENCE	71	52	85	46	62	-2	.3	-.4	.3	.3	79	18.3	92	92	52	0	0	2	0
SC CHARLESTON	90	61	94	56	76	0	.1	-1.2	.1	.1	14	12.1	64	94	32	6	0	1	0
COLUMBIA	92	58	98	50	75	-1	.2	-.8	.2	.2	31	13.4	62	90	24	6	0	1	0
FLORENCE	90	60	96	52	75	0	.3	-.7	.3	.3	48	13.2	73	88	31	5	0	1	0
GREENVILLE	89	59	93	50	74	1	.1	-.9	.1	.1	9	14.8	63	82	29	4	0	1	0
SD ABERDEEN	87	62	92	57	75	13	.3	-.5	.2	.1	12	4.6	66	91	42	2	0	2	0
HURON	84	63	89	60	74	10	.4	-.4	.3	T	5	9.5	125	93	49	0	0	2	0
RAPID CITY	83	56	89	49	70	8	T	-.7	T	T	0	4.9	69	82	33	0	0	2	0
SIOUX FALLS	87	64	91	61	76	11	.3	-.5	.2	.1	18	7.1	77	90	43	1	0	5	0
TN CHATTANOOGA	88	59	91	53	74	2	0	-.8	0	0	0	16.3	64	94	33	4	0	0	0
KNOXVILLE	86	56	91	51	71	-1	0	-.9	0	0	0	14.4	64	92	28	4	0	0	0
MEMPHIS	89	66	92	61	78	2	T	-.9	T	T	0	17.2	67	73	32	4	0	0	0
NASHVILLE	87	60	93	53	74	1	0	-.9	0	0	0	11.9	50	87	30	4	0	0	0
TX ABILENE	84	63	91	59	73	-4	3.1	2.4	2.4	2.4	629	8.4	92	92	51	1	0	3	2
AMARILLO	77	55	83	47	66	-5	3.6	2.8	3.4	0	0	9.8	156	93	42	0	0	3	1
AUSTIN	85	68	88	65	76	-2	2.7	1.8	1.2	1.7	360	10.3	76	95	60	0	0	6	2
BEAUMONT	87	68	88	62	77	-1	3.9	2.8	2.5	3.9	619	21.0	99	97	58	0	0	2	2
BROWNSVILLE	89	73	92	68	81	0	.6	0	.6	.6	161	7.8	105	93	55	4	0	1	1
CORPUS CHRISTI	89	71	93	65	80	0	1.5	.6	1.1	1.4	251	5.7	59	96	56	3	0	6	1
DEL RIO	89	70	96	64	80	-2	T	-.4	T	T	13	2.0	32	79	39	3	0	1	0
EL PASO	88	56	96	46	72	-6	0	-.1	0	0	0	1.4	92	38	13	4	0	0	0
FORT WORTH	84	66	88	64	75	-3	3.5	2.8	1.6	2.4	605	10.8	73	92	53	0	0	5	3
GALVESTON	83	73	87	69	78	-1	1.5	.6	.9	1.5	309	15.7	112	89	61	0	0	2	2
HOUSTON	86	69	88	64	78	-1	1.4	.3	1.3	1.4	221	11.4	61	93	57	0	0	4	1
LUBBOCK	83	60	86	57	71	-3	.6	-.1	.3	T	0	5.1	87	97	38	0	0	2	0
MIDLAND	87	62	97	56	75	-2	.2	-.2	.2	0	0	3.5	77	88	32	2	0	1	0
SAN ANGELO	85	65	95	63	75	-3	.8	.2	.4	.4	120	6.2	90	91	47	2	0	2	0
SAN ANTONIO	88	69	94	66	79	-1	3.5	2.7	3.5	3.5	750	7.3	62	91	47	1	0	3	1
VICTORIA	88	71	93	65	79	0	1.3	.2	.9	1.3	192	5.6	42	95	57	1	0	3	1
WACO	86	68	90	62	77	-2	3.9	3.1	1.5	3.9	864	11.0	75	94	54	3	0	4	4
WICHITA FALLS	87	66	95	63	76	-1	.9	0	.7	.2	46	10.3	89	92	48	1	0	3	1
UT BLANDING	76	44	89	33	60	-3	.2	.1	.2	0	0	4.6	104	70	30	0	0	2	0
CEDAR CITY	74	42	88	32	58	-4	.6	.5	.4	0	0	7.3	166	80	27	0	1	2	0
SALT LAKE CITY	76	50	96	41	63	0	.9	.6	.7	0	0	6.1	75	82	30	2	0	3	1
VT BURLINGTON	71	49	82	45	60	-1	.4	-.3	.4	T	2	7.7	64	93	38	0	0	2	0
VA NORFOLK	80	62	93	54	71	0	1.0	.2	1.0	1.0	230	18.0	101	87	43	2	0	2	1
RICHMOND	81	54	93	44	68	-3	.9	.1	.5	.9	195	15.8	94	92	41	3	0	3	1
ROANOKE	81	53	90	42	67	-2	1.2	.4	.8	1.2	267	11.6	69	94	38	2	0	2	1
WA QUILLAYUTE	58	42	60	38	50	-3	2.0	1.2	.8	1.4	302	53.5	104	97	59	0	0	6	2
SEATTLE-TACOMA	62	46	66	42	54	-4	.9	.6	.4	.7	365	15.4	86	98	51	0	0	5	0
SPOKANE	60	44	66	40	52	-6	.3	-.1	.1	.1	68	7.4	92	90	50	0	0	4	0
YAKIMA	65	42	71	33	54	-7	.7	.6	.4	.7	888	3.2	85	86	38	0	0	4	0
WV BECKLEY	75	51	83	42	63	0	.2	-.6	.2	.2	47	12.3	68	92	36	0	0	1	0
CHARLESTON	82	53	90	43	67	-1	T	-.7	T	T	10	11.7	64	97	36	1	0	2	0
HUNTINGTON	84	53	91	47	68	-1	T	-.8	T	T	5	12.6	70	94	31	2	0	1	0
PARKERSBURG	80	50	91	40	65	-3	.3	-.6	.3	.3	57	10.5	64	98	39	3	0	1	0
WI GREEN BAY	82	51	93	39	67	6	T	-.7	T	T	0	6.2	60	89	32	2	0	0	0
LACROSSE	87	58	94	50	73	8	0	-.9	0	0	0	6.1	56	84	31	4	0	0	0
MADISON	83	50	90	40	66	3	0	-.9	0	0	0	7.1	63	90	33	1	0	0	0
MILWAUKEE	82	55	92	45	69	8	.1	-.6	.1	.1	27	10.6	88	82	35	2	0	1	0
WAUSAU	82	53	90	42	68	7	.5	-.4	.5	.5	88	5.9	53	88	34	1	0	1	0
WY CASPER	80	46	94	40	63	5	0	-.4	0	0	0	3.7	63	61	16	1	0	0	0
CHEYENNE	73	46	80	42	59	2	T	-.5	T	0	0	7.4	129	92	31	0	0	1	0
LANDER	78	48	95	37	63	5	T	-.5	T	0	0	4.7	63	50	17	1	0	0	0
SHERIDAN	84	49	99	44	66	9	.1	-.5	.1	0	0	6.6	89	79	26	3	0	1	0
PR SAN JUAN	91	78	93	76	84	4	T	-1.3	T	0	0	24.2	137	85	66	5	0	0	0

Based on 1951-80 normals

May Weather and Crop Summary

Weather Summary

HIGHLIGHTS: Dry and unseasonably warm weather prevailed over much of the northern Plains and Corn Belt. The dryness extended through the Mississippi Valley and much of the Southeast. The northern and central Pacific Coast, western Plains, and middle Atlantic Coast States received above-normal precipitation.

MAY 1-7...A storm moved eastward out of the Rockies and onto the Great Plains Sunday and Monday, bringing wintry weather to Wyoming and Colorado and widespread rains to croplands in the northern and central Plains. As the storm progressed eastward during the remainder of the week, it produced rain in much of the Mississippi Valley, the Ohio Valley, and the Middle Atlantic Region. On Thursday, a second major storm began to develop over the Great Basin.

MAY 8-14...Beneficial rains fell in many areas which have experienced prolonged dryness, most notably Texas, the upper Midwest, and the Southeast. Most of the Nation was warmer than normal, although Atlantic Coast States and Gulf Coast States had temperatures near normal.

MAY 15-21...A slow moving storm system brought rain to much of the Great Plains and Mississippi Valley. A low pressure system stalled over the east coast, causing local flooding in New York and the Middle Atlantic Coast States. Average temperatures ranged from near normal to somewhat above normal.

MAY 22-28...A storm system moved slowly from the southern Great Plains through the Mississippi Valley, the Ohio Valley, and finally to the Atlantic coast, producing needed rainfall through the central winter wheat belt and through much of the Corn Belt. Cool, dry air moved southward into the north-central States during the latter half of the week. A Pacific storm system brought scattered rain to the Northwest at the end of the week.

MAY 29-31...A powerful frontal system caused strong winds and cool and wet conditions in the Western States. Gusty winds, warm air, and scattered thunderstorms prevailed in the Great Plains in advance of the system.

Fieldwork

Dryness characterized most of the month of May. Precipitation at key periods during the month kept the dry conditions from becoming severe in most areas. Planting ceased momentary in some areas of the Corn Belt, Delta, Southeast, and central Great Plains until soil moisture improved. The dryness caused some reseeding in most areas of the Nation.

Corn began the month 36 percent seeded, 7 points behind 1987 but 12 points above normal. By midmonth planting equaled the fast pace set in 1987 at 88% completion. At this point seeding was 22 points ahead of normal. At the end of the third week of May, planting was finished or neared completion except in Pennsylvania and South Dakota. Corn reached the silking stage in some Southeast and Delta States and the dough stage in Texas by the end of May.

Cotton planting progressed normally to slightly ahead of normal during May. The month ended with 78 percent of the cotton acreage planted, 2 points above normal. Cotton planting was mostly finished except in Oklahoma and Texas. Poor germination caused above-normal replanting in the western States and Delta. By month's end cotton was squaring and seting bolls in Arizona and Texas.

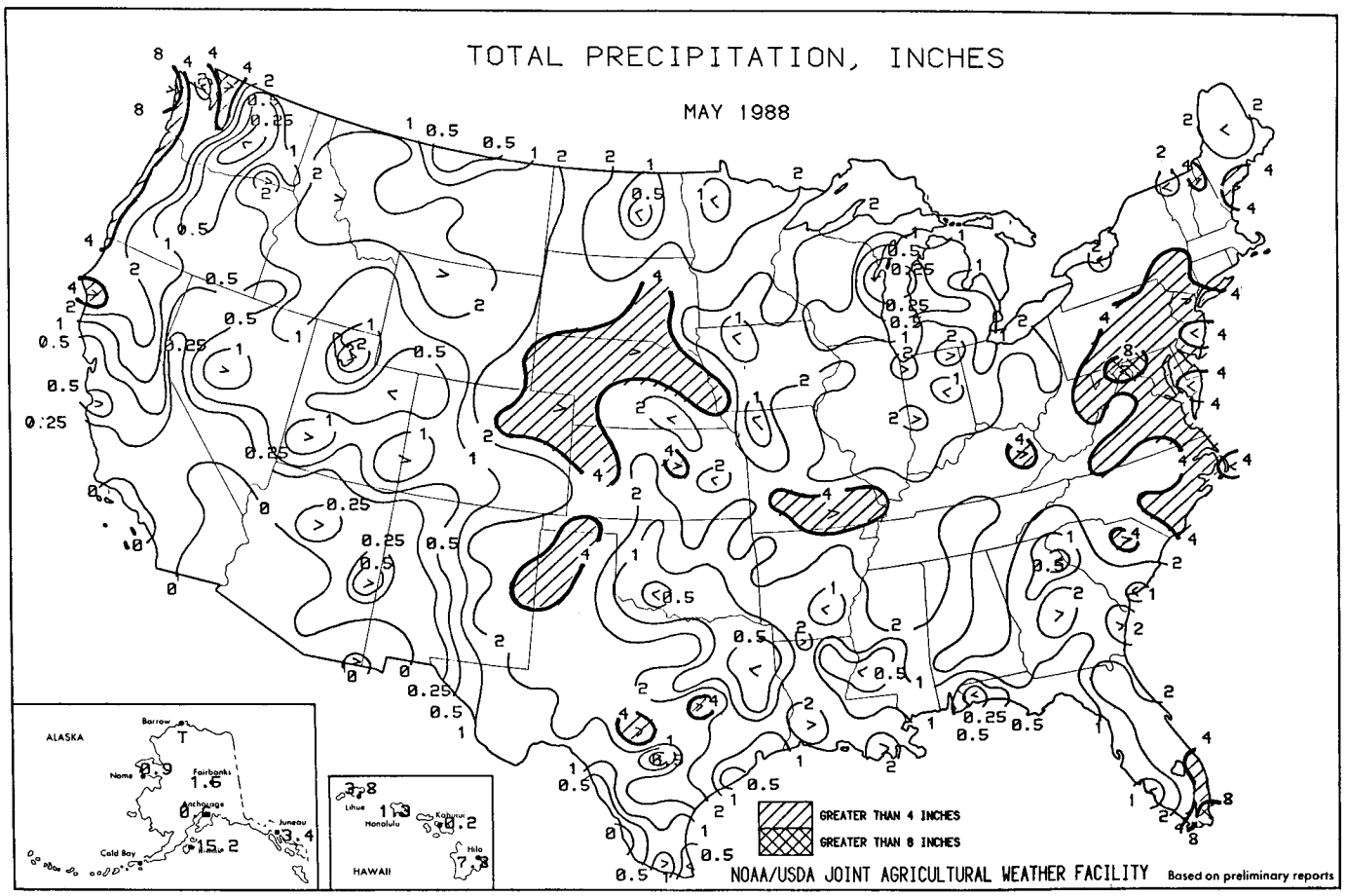
Soybeans were 74 percent seeded on May 29 surpassing the sizzling seeding pace accomplished in 1987. Planting was 21 points above the 5-year average. Seeding approached completion in the Corn Belt and was more than 50 finished in the central Great Plains. Dryness plagued seeding in the Southeast and Delta during most of the month.

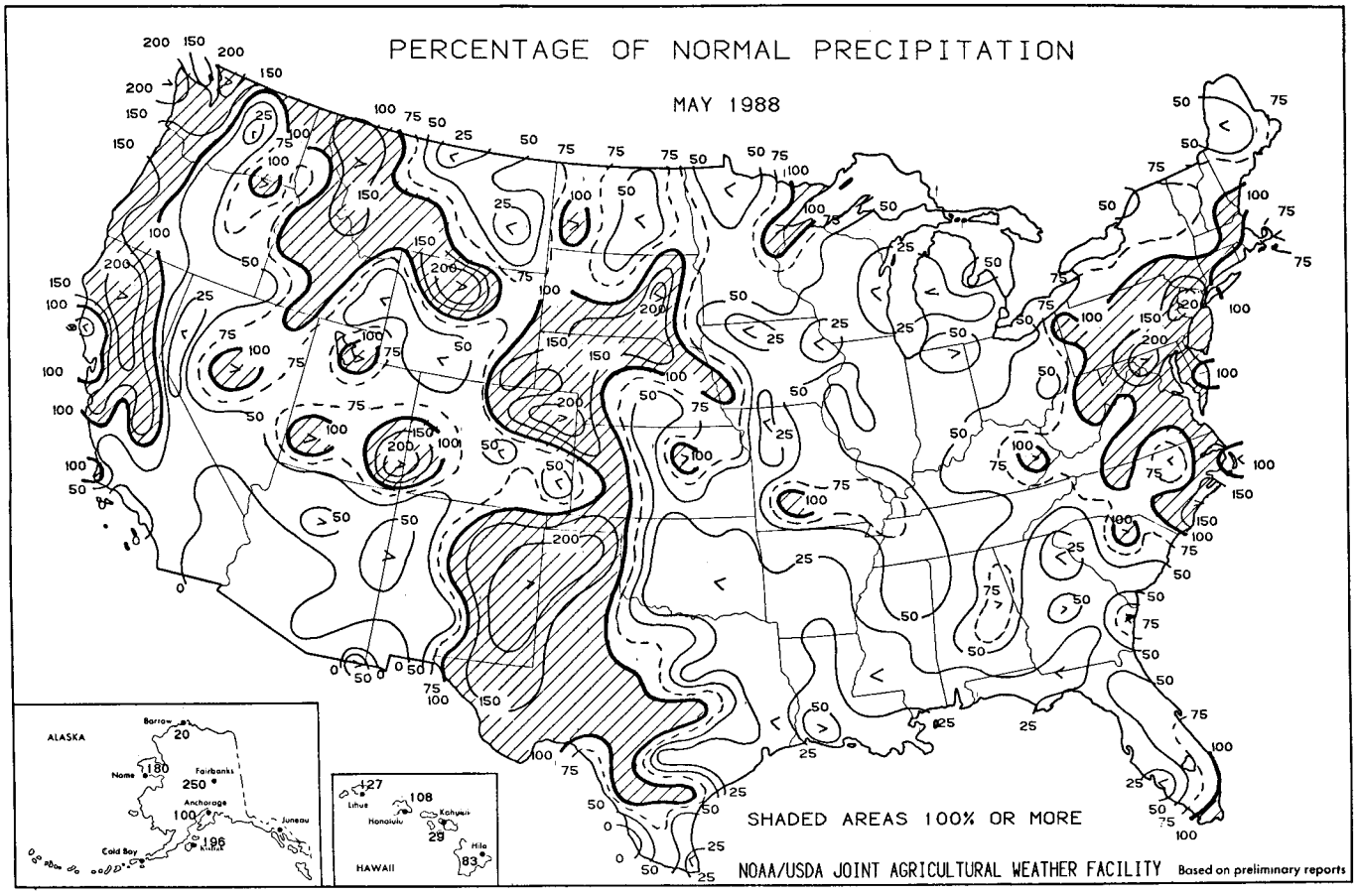
Sorghum was 58 percent seeded by the end of May. This compares with 54 percent seeded in 1987 and 47 percent normally. Dryness hampered seeding in Oklahoma until near the end of month when seeding jumped 40 points. Planting accelerated in the central Great Plains the last week of May. Sorghum was heading and turning color in Texas.

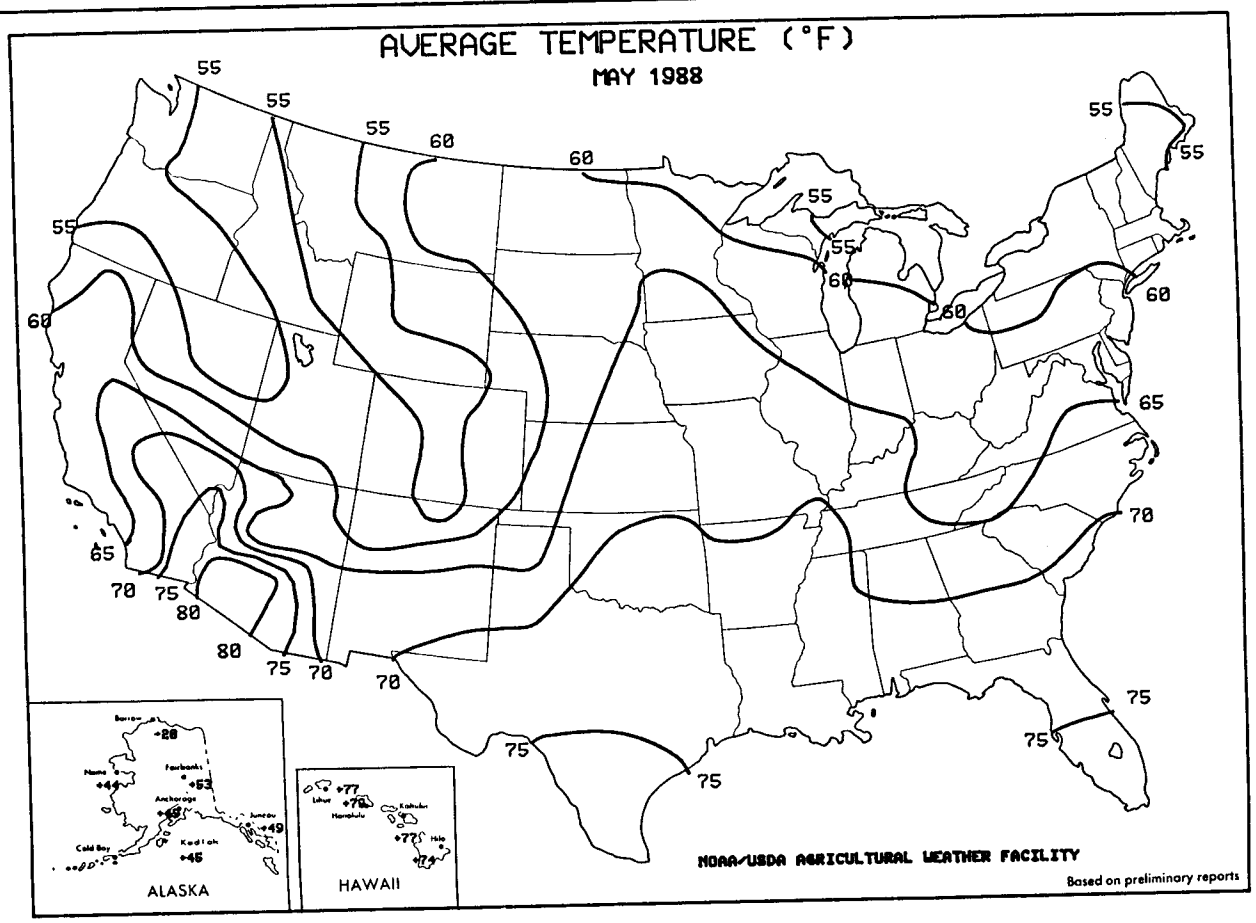
Rice was virtually seeded by the end of May. Only 5 percent remained to be planted in California and 2 percent each in Arkansas and Louisiana. Dry weather caused uneven emergence in Arkansas.

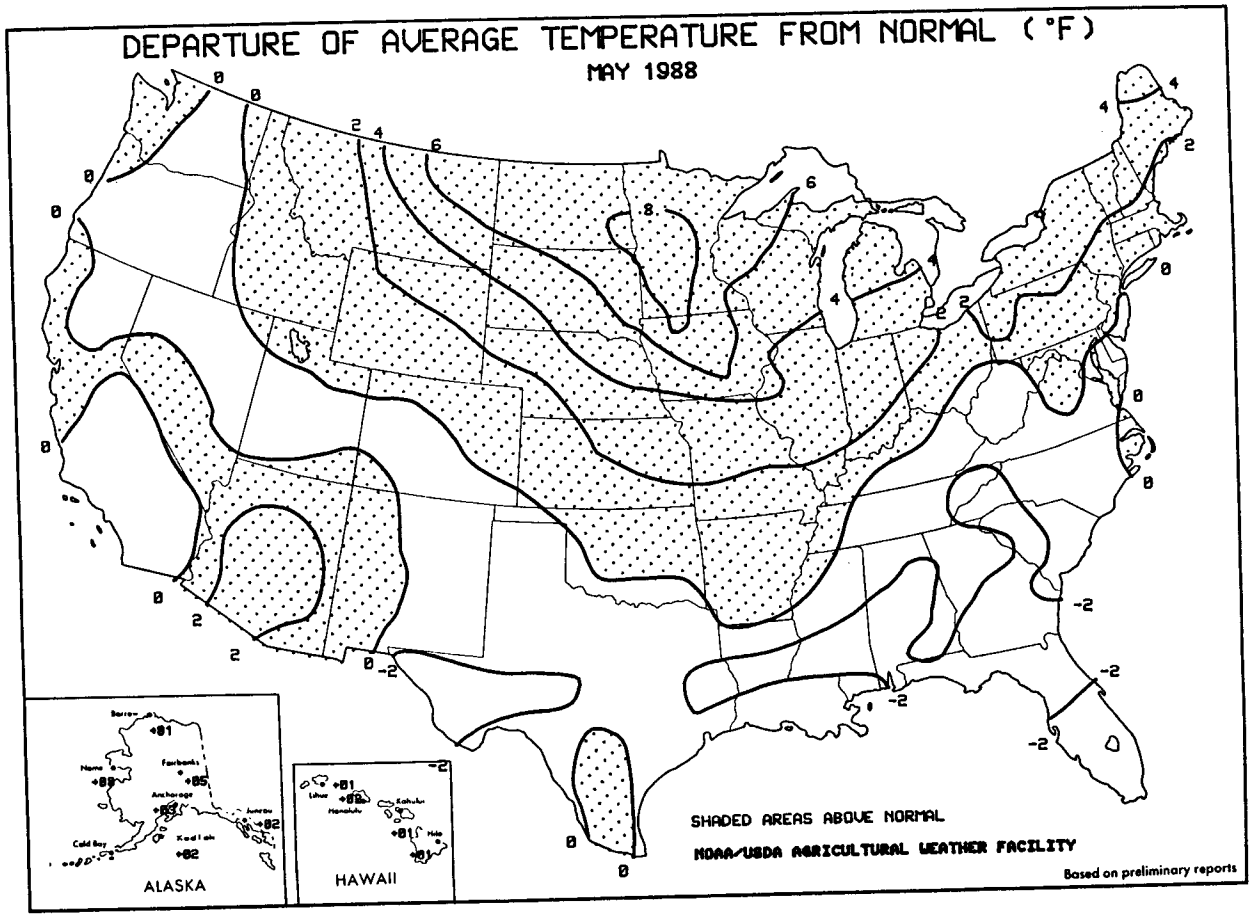
Spring wheat was virtually planted by midmonth with the exception of Idaho and North Dakota. Spring wheat was mostly fair to good as the month drew to a close. The lack of moisture began taking its toll at the end of May, especially in Montana. Jointing was underway in Idaho and Montana.

Inadequate moisture and disease plagued winter wheat in the central and northern Great Plains during May. Crop condition was mostly good to fair in the Corn Belt and Southeast. Despite significant precipitation at the end of May, wheat remained mostly fair in the central and northern Great Plains. The crop was 74 percent headed, 4 points ahead of normal. Wheat began turning color in the Corn Belt and central Great Plains. Harvest was underway in Oklahoma and Texas and gained momentum in the Delta and Southeast.


TOTAL PRECIPITATION, INCHES
MAY 1988
GREATER THAN 4 INCHES
GREATER THAN 8 INCHES
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
HAWAII


PERCENTAGE OF NORMAL PRECIPITATION
MAY 1988
SHADED AREAS 100% OR MORE
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
HAWAII


AVERAGE TEMPERATURE (°F)
MAY 1988
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
MAY 1988
ALASKA
HAWAII
SHADED AREAS ABOVE NORMAL
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

Temperature and Precipitation Data for May 1988

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
AL BIRMINGHAM	68	-2	1.8	-2.7
MOBILE	73	-2	0.6	-4.9
MONTGOMERY	70	-2	3.4	-0.6
AK ANCHORAGE	49	2	0.6	0.0
BARROW	20	1	T	-0.1
FAIRBANKS	53	5	1.5	1.0
JUNEAU	49	2	3.4	0.0
KODIAK	45	2	2.4	-2.8
NOME	43	8	0.9	0.4
AZ FLAGSTAFF	50	1	0.4	-0.4
PHOENIX	82	5	0.0	-0.1
PRESCOTT	60	3	0.0	-0.5
TUCSON	77	3	T	-0.1
WINSLOW	62	0	0.1	-0.2
YUMA	80	1	0.0	0.0
AR FORT SMITH	71	1	1.3	-3.5
LITTLE ROCK	71	1	1.1	-4.2
CA BAKERSFIELD	69	-2	0.1	-0.1
EUREKA	56	4	2.7	1.1
FRESNO	67	-1	0.5	0.2
LOS ANGELES	63	0	0.0	-0.1
REDDING	64	-5	4.0	2.7
SACRAMENTO	65	0	1.0	0.7
SAN DIEGO	64	0	0.1	-0.1
SAN FRANCISCO	60	2	0.3	0.0
STOCKTON	65	-1	0.5	0.2
CO DENVER	59	2	4.3	1.8
GRAND JUNCTION	61	-1	1.1	0.4
PUEBLO	61	0	1.3	-0.2
CT BRIDGEPORT	60	1	2.7	-0.8
HARTFORD	60	0	3.5	0.1
DC WASHINGTON	66	0	4.5	1.0
FL APALACHICOLA	72	-2	0.9	-2.0
DAYTONA BEACH	72	-3	1.8	-1.6
FT. MYERS	78	0	0.7	-3.4
JACKSONVILLE	71	-4	1.4	-2.9
KEY WEST	78	-3	8.1	4.8
MIAMI	78	-1	5.3	-1.2
ORLANDO	76	-2	2.8	-0.9
TALLAHASSEE	70	-4	0.5	-4.6
TAMPA	75	-2	1.3	-2.1
WEST PALM BEACH	77	-1	6.9	0.9
GA ATLANTA	70	1	1.7	-2.3
AUGUSTA	69	-2	1.6	-2.1
MACON	70	-3	2.4	-1.4
SAVANNAH	72	-1	3.5	-1.1
HI HILO	74	1	7.8	-1.6
HONOLULU	79	2	1.3	0.1
KAHULUI	77	1	0.2	-0.5
LIHUE	77	1	3.8	0.8
ID BOISE	58	1	1.3	0.1
LEWISTON	59	1	0.9	-0.5
POCATELLO	54	0	0.7	-0.5
IL CAIRO	--	-	4.5	-0.4
CHICAGO	61	2	1.2	-1.9
MOLINE	64	3	2.3	-1.9
PEORIA	65	4	1.7	-2.2
QUINCY	65	2	1.9	-2.4
ROCKFORD	63	3	1.3	-2.5
SPRINGFIELD	66	2	1.8	-1.7
IN EVANSVILLE	67	1	1.3	-3.0
FORT WAYNE	64	4	2.0	-1.5
INDIANAPOLIS	64	2	1.1	-2.6
SOUTH BEND	62	3	1.4	-1.4
IA DES MOINES	67	5	1.5	-2.5
DUBUQUE	63	5	1.0	-3.4
SIOUX CITY	68	6	2.5	-1.0
WATERLOO	65	6	1.6	-2.5
KS CONCORDIA	68	5	2.9	-1.1
DODGE CITY	66	1	3.6	0.3
GOODLAND	61	2	4.8	1.9
TOPEKA	69	4	3.1	-0.9
WICHITA	68	2	2.4	-1.4
KY BOWLING GREEN	64	-2	2.6	-1.6
JACKSON	65	3	4.5	1.0
LEXINGTON	64	0	3.0	-1.2
LOUISVILLE	67	1	2.7	-1.5
LA ALEXANDRIA	72	-3	1.6	-3.6
BATON ROUGE	74	-1	1.0	-3.9
LAKE CHARLES	74	-1	3.0	-2.7
NEW ORLEANS	73	-2	1.7	-3.4
SHREVEPORT	72	-1	0.4	-4.3
ME CARIBOU	55	5	1.9	-1.0
PORTLAND	55	2	4.3	1.0
MD BALTIMORE	64	1	4.4	1.0
SALISBURY	63	0	2.7	-0.7
MA BOSTON	58	-1	2.9	-0.6
CHATHAM	55	2	2.4	-1.3
MI ALPENA	56	4	1.0	-1.8
DETROIT	62	4	0.9	-1.9
FLINT	60	4	0.3	-2.4
GRAND RAPIDS	61	3	1.1	-1.8
HOUGHTON LAKE	59	5	0.6	-2.0
LANSING	60	3	0.6	-1.7
MARQUETTE	54	4	1.3	-2.7
MUSKEGON	60	4	0.4	-2.1
SAULT ST. MARIE	54	4	1.5	-1.4
MN ALEXANDRIA	65	9	1.5	-1.4
DULUTH	56	6	4.0	0.8
INT'L FALLS	58	7	1.2	-1.2
MINNEAPOLIS	66	7	1.7	-1.5
ROCHESTER	62	5	2.4	-1.0
ST. CLOUD	64	8	2.2	-1.1
MS GREENWOOD	71	-1	2.0	-2.8
JACKSON	71	-2	0.3	-4.6
MERIDIAN	69	-3	1.1	-3.1
MO COLUMBIA	66	1	2.5	-2.1
KANSAS CITY	69	3	2.1	-2.3
SAINT LOUIS	69	3	1.4	-2.1
SPRINGFIELD	66	1	4.4	0.1
MT BILLINGS	60	5	1.8	-0.5
GLASGOW	63	8	1.3	-0.2
GREAT FALLS	57	3	1.6	-0.9
HAVRE	60	5	0.2	-1.4
HELENA	56	4	1.8	0.1
KALISPELL	52	0	2.8	1.1
MILES CITY	62	5	0.5	-1.8
MISSOULA	52	0	3.1	1.5
NE GRAND ISLAND	66	4	1.8	-1.9
LINCOLN	68	5	3.2	-0.6
NORFOLK	66	6	5.2	1.5
NORTH PLATTE	61	2	3.6	0.3
OMAHA	68	5	5.5	1.2
SCOTTSBLUFF	58	1	5.2	2.5
VALENTINE	61	3	4.5	1.6
NV ELKO	52	0	0.9	-0.1
ELY	50	0	0.6	-0.4
LAS VEGAS	74	0	T	-0.2
RENO	57	2	0.1	-0.6
WINNEMUCCA	54	-1	0.5	-0.3
NH CONCORD	57	2	3.4	0.4
NJ ATLANTIC CITY	60	-1	3.2	0.2
NM ALBUQUERQUE	64	0	0.6	0.2
CLOVIS	67	1	5.3	3.2
ROSWELL	68	-1	3.4	2.7
NY ALBANY	59	2	3.0	-0.3
BINGHAMTON	58	2	3.9	0.7
BUFFALO	60	3	2.7	-0.1
NEW YORK	62	0	4.5	1.0
ROCHESTER	59	2	1.7	-0.9
SYRACUSE	60	3	3.1	-0.1
NC ASHEVILLE	61	-3	1.1	-3.0
CHARLOTTE	68	0	2.2	-1.4
GREENSBORO	65	-1	4.0	0.6
HATTERAS	67	0	3.6	-0.4
NEW BERN	70	0	5.9	1.5
RALEIGH	66	-1	2.9	-0.8
WILMINGTON	69	-2	7.5	3.3
ND BISMARCK	61	6	1.2	-1.1
FARGO	64	8	1.8	-0.4
GRAND FORKS	61	7	1.3	-0.7
WILLISTON	62	7	1.4	-0.4
OH AKRON-CANTON	60	2	1.9	-1.6
CINCINNATI	64	1	2.0	-1.8
CLEVELAND	60	1	1.3	-2.0
COLUMBUS	63	1	2.3	-1.5
DAYTON	63	1	1.6	-2.1
TOLEDO	61	2	1.4	-1.5
YOUNGSTOWN	59	2	3.4	0.1
OK OKLAHOMA CITY	70	2	1.1	-4.3
TULSA	71	2	1.2	-4.0
OR ASTORIA	53	1	4.1	1.2
BURNS	51	-1	0.6	-0.2
MEDFORD	57	-1	1.5	0.3
PENDLETON	57	-2	1.6	0.5
PORTLAND	57	0	2.5	0.5
SALEM	54	-1	2.4	0.5
PA ALLENTOWN	62	2	7.4	3.9
ERIE	58	2	3.2	-0.1
HARRISBURG	62	0	5.8	2.1
PHILADELPHIA	64	1	3.7	0.5
PITTSBURGH	61	1	2.8	-0.7
SCRANTON	60	1	4.2	1.1
RI PROVIDENCE	58	0	2.8	-0.6
SC CHARLESTON	72	0	1.9	-2.5
COLUMBIA	69	-2	2.1	-1.8
FLORENCE	70	-2	2.4	-0.9
GREENVILLE	67	-2	2.0	-1.9
SD ABERDEEN	64	7	3.4	0.8
HURON	64	6	5.6	2.9
RAPID CITY	60	5	3.3	0.6
SIOUX FALLS	65	7	1.5	-1.7
TN BRISTAL	62	-2	2.5	-1.1
CHATTANOOGA	67	-1	2.2	-1.8
KNOXVILLE	65	-3	2.4	-1.3
MEMPHIS	72	1	2.4	-2.7
NASHVILLE	67	-1	1.9	-2.7
TX ABILENE	71	-1	2.9	-0.3
AMARILLO	64	-2	6.0	3.3
AUSTIN	75	0	3.3	-0.9
BEAUMONT	74	-1	0.6	-4.4
BROWNSVILLE	78	-1	0.3	-1.9
CORPUS CHRISTI	77	-1	0.9	-2.5
DEL RIO	77	-1	1.4	-0.6
EL PASO	70	-2	0.2	-0.1
FORT WORTH	73	0	2.1	-2.2
GALVESTON	75	0	0.8	-2.5
HOUSTON	74	-2	1.3	-3.5
LUBBOCK	69	0	2.6	0.1
MIDLAND	71	-2	2.3	0.2
SAN ANGELO	71	-3	3.3	0.8
SAN ANTONIO	76	1	0.4	-3.2
VICTORIA	75	-1	1.0	-3.4
WACO	74	-1	0.7	-4.1
WICHITA FALLS	72	0	0.9	-3.4
UT BLANDING	57	0	1.3	0.7
CEDAR CITY	54	-2	1.1	0.3
MILFORD	54	-2	1.1	0.4
SALT LAKE CITY	60	1	2.2	0.7
VT BURLINGTON	58	2	1.8	-1.1
VA LYNCHBURG	64	-1	4.2	0.5
NORFOLK	66	-1	5.5	1.8
RICHMOND	66	0	4.8	1.3
ROANOKE	63	-2	2.8	-0.7
WA QUILLAYUTE	52	1	10.7	5.5
SEATTLE-TACOMA	55	0	3.0	1.5
SPOKANE	55	0	1.5	0.1
WALLA WALLA	60	0	2.0	0.6
YAKIMA	55	-2	0.2	-0.3
WV BECKLEY	60	0	3.0	-0.6
CHARLESTON	63	-1	2.6	-1.1
ELKINS	57	-1	4.8	1.0
HUNTINGTON	64	-1	2.0	-1.9
PARKERSBURG	62	-2	1.7	-1.8
WI GREEN BAY	60	5	0.1	-3.1
LACROSSE	65	6	0.9	-2.7
MADISON	61	3	0.9	-2.4
MILWAUKEE	59	4	0.5	-2.1
WAUSAU	61	5	1.5	-2.3
WY CASPER	54	2	1.2	-0.9
CHEYENNE	53	1	3.1	0.7
LANDER	56	3	2.0	-0.7
SHERIDAN	57	4	2.4	0.0
PR SAN JUAN	82	2	6.0	0.4

Based on 1951-80 normals.

Heating Degree Days (Base 65° F.)

MAY 1988

AL	Birmingham	13
	Mobile	0
	Montgomery	1
AK	Anchorage	505
	Barrow	1394
	Fairbanks	371
	Nome	670
AZ	Flagstaff	435
	Phoenix	2
	Tucson	12
	Winslow	154
	Yuma	3
AR	Fort Smith	4
	Little Rock	3
CA	Bakersfield	60
	Eureka	294
	Fresno	69
	Los Angeles	72
	Red Bluff	124
	Stockton	96
	San Diego	53
	San Francisco	184
CO	Denver	215
	Pueblo	167
CO	Bridgeport	195
	Hartford	186
DC	Washington	69
FL	Apalachicola	1
	Jacksonville	7
	Key West	0
	Miami	0
	Orlando	0
	W. Palm Beach	0
	Tallahassee	8
	Tampa	0
GA	Atlanta	6
	Augusta	12
	Macon	5
	Savannah	1
ID	Boise	261
	Lewiston	215
	Pocatello	340
IL	Chicago	176
	Moline	90
	Peoria	64
	Rockford	131
	Springgfield	59
	Fort Wayne	87
	Indianapolis	84
	South Bend	158
IA	Des Moines	33
	Dubuque	113
	Souix City	47
KS	Concordia	40
	Dodge City	88
	Goodland	180
	Topeka	16
	Wichita	33
KY	Lexington	90
	Louisville	38
LA	Baton Rouge	1
	Lake Charles	0
	New Orleans	0
	Shreveport	1
ME	Caribou	321
	Portland	323
MD	Baltimore	96
MA	Boston	253
	Chatham	384
MI	Alpena	290
	Detroit	138
	Flint	189
	Grand Rapids	169
	Houghton Lake	225
	Lansing	199
	Marquette	347
	S. Ste. Marie	358
MN	Duluth	300
	Internatl Falls	237
	Minneapolis	76
	Rochester	144
	St. Cloud	112
MS	Jackson	4
	Meridian	10
MO	Columbia	37
	Kansas City	19
	St. Louis	17
	Springfield	54
MT	Billings	200
	Glasgow	143
	Great Falls	279
	Havre	164
	Helena	297
	Kalispell	405
	Miles City	178
	Missoula	397
NE	Grand Island	87
	Lincoln	33
	Norfolk	61
	North Platte	170
	Omaha	33
	Valentine	204
NV	Ely	464
	Las Vegas	33
	Reno	267
	Winnemucca	343
NH	Concord	254
NJ	Atlantic City	200
NM	Albuquerque	103
NY	Albany	198
	Bimhamton	246
	Buffalo	186
	New York	134
	Rochester	220
	Syracuse	187
NC	Asheville	132
	Charlotte	23
	Greensboro	56
	Hatteras	52
	Raleigh	62
	Wilmington	38
ND	Bismark	184
	Fargo	131
	Williston	173
OH	Akron-Canton	175
	Cinncinnati	84
	Cleveland	208
	Columbus	119
	Dayton	106
	Toledo	159
	Youngstown	206
OK	Okla. City	14
	Tulsa	9
OR	Astoria	382
	Burns	440
	Medford	268
	Pendleton	264
	Portland	272
	Salem	586
PA	Allentown	145
	Erie	236
	Harrisisburg	131
	Philadelphia	105
	Pittsburg	149
	Scranton	176
RI	Providence	238
SC	Charleston	7
	Columbia	20
	Greenville	34
SD	Aberdeen	120
	Huron	117
	Rapid City	195
	Sioux Falls	83
TN	Chattanooga	26
	Knoxville	66
	Memphis	0
	Nashville	43
TX	Abilene	10
	Amarillo	102
	Austin	0
	Beamont	0
	Brownsville	0
	Corpus Christi	0
	Del Rio	0
	El Paso	16
	Fort Worth	0
	Galveston	0
	Houston	0
	Lubbock	32
	Midland	11
	San Angelo	9
	San Antonia	0
	Victoria	0
	Waco	0
	Wichita Falls	7
UT	Milford	339
	Salt Lake City	222
VT	Burlington	236
VA	Lynchburg	83
	Norfolk	86
	Richmond	79
	Roanoke	101
WA	Quillayute	417
	Seattle-Tacoma	316
	Spokane	338
	Walla Walla	181
	Yakima	311
WV	Beckley	182
	Charleston	112
	Huntington	104
WI	Green Bay	201
	Madison	176
	Milwaukee	245
WY	Casper	339
	Cheyenne	361
	Lander	296
	Sheridan	271

National Agricultural Summary

May 30 to June 5, 1988

HIGHLIGHTS: Rain provided much needed moisture in the central and southern Great Plains. Inadequate moisture continued plaguing crop growth and development in the northern Great Plains, Corn Belt, Delta, and Rocky Mountain States. The lack of topsoil moisture worsened in the eastern half of the Nation except for the central and southern Great Plains and the north Atlantic Coast States. Fieldwork averaged 5 to 6 days in most areas.

Corn was mostly good to fair. Silking was underway in the Southeast. Soybeans were 85 percent (%) seeded, 16 percentage points ahead of normal. Dryness hampered planting in the Delta and Southeast. Cotton was 87% seeded, just slightly ahead of normal. Nine percent of the acreage was squaring. Sorghum seeding reached 71% completion, climbing 13 points above average. Winter wheat was 86% headed, 5 points above average. Harvest was restricted to the southern half of the Nation. Wheat turned color rapidly in the central Plains and Corn Belt. Inadequate moisture hampered spring wheat development and growth. Livestock was mostly good.

SMALL GRAINS: Winter wheat was mostly fair to good. Heading reached 86% completion, 3 points behind 1987 but 5 points ahead of normal. Harvest was 3% finished but was restricted to the southern half of the Nation. Harvest was underway in Georgia, Arkansas, Missouri, Oklahoma, Texas, and California.

In Texas, precipitation slowed wheat harvest in the Blacklands and Low Plains. High winds and scattered hail caused lodging problems. Rain and cloudy weather benefited wheat development and minimized yield reductions from prolonged dryness in Oklahoma. Rain delayed harvest in southwestern areas. Kansas wheat turned color rapidly in southern counties but very little was mature. Rain relieved moisture stress but was too late for much dryland wheat in western counties. Wheat streak mosaic disease intensity increased in the Panhandle area of Nebraska. Russian wheat aphids were monitored in Panhandle and southwestern areas. Hot, dry weather further stressed small grains in North Dakota. Some winter wheat was reseeded to spring wheat or other small grains in South Dakota. The reseeding was most prevalent in critically dry areas of the State. Wind caused considerable lodging in California's irrigated wheat.

Spring wheat was mostly fair except in North Dakota where condition was fair to poor. Inadequate moisture continued plaguing growth and development in most areas.

CORN: Corn was mostly good to fair in the Corn Belt and Southeast. Additional moisture kept condition mostly good in the central Great Plains. Corn planting was almost finished in Kansas. Early corn grew well and moisture was adequate. Greenbugs increased as the migration from wheat occurred. High winds damaged corn in Nebraska. Corn growth lagged behind 1987 in Illinois but was ahead of normal. Persistent dry weather deteriorated growing conditions in Ohio. Corn began silking in the Southeast. Corn entered the dent stage at Coastal Bend and Rio Grande Valley areas of Texas.

SOYBEANS: In the 19 major producing States, soybeans were 85% planted, 16 points ahead of normal and 3 points ahead of 1987. Planting leaped 15 points ahead of the previous week. Planting was virtually finished in the Corn Belt except in Missouri. Dryness continued hampering planting in Louisiana, Mississippi, and Georgia. Inadequate moisture delayed emergence in Arkansas. Planting neared completion in northeastern Kansas. Moisture was good for germination and early growth in most areas. In Ohio, soybean emergence was slow and bean leaf beetles were becoming a problem.

COTTON: Cotton was 87% seeded, compared with 80% seeded in 1987 and 83% normally. Most of the acreage was seeded except in Oklahoma and Texas. Nine percent of the cotton acreage had reached the squaring stage, 4 points below 1987 and 1 point below average. Thrips and boll weevils were present in some Arkansas cotton fields. Georgia's cotton needs rain. Early planted cotton developed well in Texas. Rain slowed planting in the Plains. Some replanting was because of wind and blowing sand. Boll setting continued in the Rio Grande Valley, Coastal Bend, and southern Texas. Cool weather slowed development in California. Insect treatments were underway.

SORGHUM: In the 11 major producing States, sorghum was 71% seeded, 13 points above the previous week and average. Planting was virtually finished in the Delta and Corn Belt. Planting lagged 16 points behind normal in Texas. Wetness slowed planting in the Plains. Fields were heading in the Blacklands and central areas and turning color in the Rio Grande Valley and Coastal Bend.

OTHER CROPS: Peanut planting drew to a close in the Southeast. Planting was 70% finished in Oklahoma, 10 points ahead of normal. Texas peanut planting was delayed at Cross-Timbers.

Flue-cured tobacco was virtually transplanted. Burley tobacco transplanting was considerably ahead of normal in North Carolina, Kentucky, and Tennessee.

FRUITS AND NUTS: Florida citrus growers irrigated extensively in all areas. New crop fruit progressed well. Valencia orange harvest slowed, and grapefruit movement was restricted to lower east coast. Early variety peach harvest continued in Texas' Hill Country and eastern areas. Early variety stone fruits and table grapes were harvested in California. Lemons were picked, navel orange harvest neared completion, and valencia harvest increased. Rain caused walnut blight problems in the Sacramento Valley. Cherry harvest finished in the San Joaquin Valley and neared completion in coastal areas. Valencia orange, grapefruit, and grape harvests continued in central and western Arizona.

VEGETABLES: Weekend rain benefited Florida's vegetable crops. Harvest consisted mostly of watermelons, potatoes, tomatoes, sweet corn, peppers, and cucumbers. East Texas vegetables suffered from the dry conditions. Tomatoes, cucumbers, bell peppers, and melons were harvested in the Rio Grande Valley. Inadequate moisture forced vegetable growers to irrigate in California. Tomatoes were planted in the Delta and Merced-Atwater areas. Early plantings were blooming and setting fruit in most areas. Melon development lagged about a month behind normal because of replanting in the Sacramento Valley. Vegetable harvest consisted mostly of broccoli, cauliflower, carrots, celery, and lettuce.

PASTURES AND LIVESTOCK: Pastures were mostly poor in the Corn Belt and northern Great Plains. Condition was fair to poor in the Delta. Livestock was mostly good.

State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall totals mostly under 0.50 in.; 1.00 to 2.00 in. isolated areas. Rain deficits for year 10.00 to 12.00 in. north. Temperatures averaged about normal.

Days suitable for fieldwork 6.6. Soil moisture 96% short, 4% adequate. Drought conditions persisted most areas; supplemental feed provided south. Corn 32% silked, 22% 1987, 18% avg.; 8% very poor, 13% poor, 69% fair, 10% good. Sorghum 65% planted, 65% 1987, 62% avg.; 2% very poor, 19% poor, 65% fair, 14% good. Cotton 100% planted, 99% 1987, 98% avg.; 10% squaring, 10% 1987, 5% avg.; 5% very poor, 17% poor, 54% fair, 24% good. Peanuts 98% planted, 98% 1987, 97% avg.; 23% poor, 62% fair, 15% good. Soybeans 55% planted, 66% 1987, 56% avg.; 2% very poor, 18% poor, 68% fair, 12% good. Wheat 96% turning color, 93% 1987, 95% avg.; 48% harvested, 28% 1987, 29% avg.; 2% very poor, 7% poor, 46% fair, 43% good, 2% excellent. First hay crop 79% harvested, 65% 1987, 57% avg. Pastures mostly fair; livestock mostly good. Primary activities: Planting soybeans, sorghum; harvesting winter wheat, vegetables, fruits; controlling weeds, applying pesticides to row crops; cutting, baling hay; general care of livestock, poultry.

ALASKA: Rain dominated weather conditions for Tanana Valley while most other areas of Railbelt dry except for isolated localities. Temperature lows 2° below normal to 4° above normal. Highs 4° above normal to 5° below normal. Seasonal precipitation totals 0.57 in. drier than normal to 2.64 in. wetter than normal.

Days suitable for fieldwork 6.0. Topsoil moisture supplies 25% short, 69% adequate, 6% surplus. Subsoil moisture supplies 6% short, 92% adequate, 2% surplus. Progress of farm work on schedule. Barley for grain emergence virtually complete; oats over 85%. Commercial potato planting winding up; emergence just beginning. Vegetable, hay growers Matanuska Valley irrigating to alleviate stress from dryness. Livestock good.

ARIZONA: Upper level storm system 29th, colder air, strong gusty winds. Maximum temperatures 8 to 24° lower than previous day. Wind gusts 40 to 60 mph north, 30 to 45 mph south. Light rain, snow showers north. Snow north rim Grand Canyon 1 in. Moisture varied from trace to 0.02 in. Strong heating 4th. Afternoon temperatures 3rd, 4th reached mid 80s high country, 90s 5,000 ft., 105 to 113° lower deserts. Isolated thunderstorms White Mountains 4th. Average temperatures normal to 6° below normal.

Cotton progressed; 45% squaring. Some fields setting bolls west. Small grains 50% harvested. Stubble removal in preparation for planting other crops west. Alfalfa progressed, most growers actively harvesting. Blister beetles southeast. Weed, insect, disease infestations light to moderate statewide. Western watermelon, honeydew, cantaloup harvest continued. Honeydews harvested Parker area. Watermelon harvest underway central. Dry onions harvested Salt River Valley. Table, chipper potato harvest continued central. Dry onion, lettuce harvested east. Grapes, valencia oranges, grapefruit harvested west, central.

ARKANSAS: Warm, dry weather beginning of week. Scattered thundershowers midweek. Temperatures extremes 41°; 95°. Rainfall totals none to 1.88 in.

Days suitable for fieldwork 7.0. Soil moisture supplies 82% short, 18% adequate. Cotton 96% emerged, 99% 1987, 95% avg. Thrips, boll weevils some fields. Soybeans 35% emerged, 54% 1987, 39% avg.; 12% poor, 69% fair, 15% good, 4% excellent. Short soil moisture delayed emergence. Sorghum 86% emerged, 93% 1987; 3% very poor, 4% poor, 80% fair, 13% good. Wheat yields, test weights better than expected. Hay yields below normal. Livestock good.

CALIFORNIA: Low pressure early week allowed showers over northern two-thirds of State. Weak high pressure midweek; warmer, drier conditions except extreme north where showers continued.

Dry weather, normal progress fieldwork, except north. Rice seeding, reseeding nearly completed. Seedlings stressed, fluctuating temperatures. Herbicide treatment, retreatment active. Small grain harvest increased. Wind lodging considerable irrigated fields. Small grain hay harvest active. Alfalfa harvest active, rain interrupted north. Seed alfalfa treated lygus, mites; bees into fields, pollination. Harvest overwintered beets active. New fields weeded, thinned. Mildew, insect controls applied. Dry bean seeding active. Cotton treated insects. Cool weather slowed development. Nuts, stone fruits irrigated. Cherry harvest completed San Joaquin Valley; near complete coastal area. Early variety stone fruit, table grapes harvested. Lemons picked. Navel orange harvest neared completion. Valencia orange harvest increased. Rain caused walnut blight problems northeastern Sacramento Valley. Growers irrigated vegetable crops. Broccoli, cauliflower supplies fairly heavy, good quality; Salinas, Santa Maria. Carrots harvested Westside. Celery volume increased, good quality central coast. Lettuce supplies moderate, variable weights, variable to good quality Salinas, Santa Maria. Melons 1 month behind normal Sacramento Valley, due to replanting. Onions harvested Delta. Potatoes emerging Tulelake. Sweetpotatoes grew well, Merced-Atwater. Strawberry supplies light, variable quality Salinas, Santa Maria; harvest continued Sacramento Valley, south coast. Tomatoes planted Delta, Merced-Atwater; early plantings blooming, setting fruit most areas. Livestock good statewide. Rains improved feed conditions coastal, mountain areas. Range, pasture grasses poor Sacramento, San Joaquin Valley. Supplemental feeding light; livestock movement active. Water supplies improved slightly, still below normal most areas.

COLORADO: Showers eastern plains early part of week. Precipitation none to 2.83 in. Average temperature 2 to 4° below normal.

Days suitable for fieldwork 4.8. Soil moisture 2% very short, 23% short, 67% adequate, 8% surplus. Small grain seedings complete. Potato plantings complete. Corn plantings neared completion. Dry bean plantings slightly behind 1987, 8 points behind average. Livestock good, pastures fair to good.

FLORIDA: Mostly dry north, central 30th through 3rd. However, an old stationary front caused scattered showers, thunderstorms south throughout week with rainfall averaging up to 3.00 in. extreme south. New front triggered few thunderstorms north, 4th; statewide 5th with spotty rainfall amounts indicating start of summer rainy season. Temperatures averaged 2 to 4° below normal north to near normal central, south.

Soil moisture mostly short, except adequate few Peninsula areas. Late week rains began Panhandle 3rd, became general 5th, enabling growers to resume planting soybeans, peanuts delayed earlier by dry soils. All nonirrigated crops under moisture stress most areas. Wheat, oats harvest about complete. Haymaking active some localities. Sugarcane, tobacco good progress. Weekend rains brought some relief to parched pastures, forage plantings western Panhandle; more rain needed to restore forage supplies. Rapidly dwindling hay supplies fed some areas where available. Extreme drought conditions developed much of this area before rain. Elsewhere, condition varied from very poor to fair eastern Panhandle, Big Bend area, parts of west central Peninsula; eastern, lower southern Peninsula pastures fair to mostly good. Cattle mostly fair Panhandle, fair to generally good elsewhere. Citrus groves hot, dry; very little rain received, much more needed. Extensive irrigation all areas. New crop fruit good progress. Valencia orange harvest slowed. Grapefruit movement restricted to lower east coast with few supplies remaining. Warm days, mild nights continued vegetable producing areas. Scattered afternoon showers except west central coast, north. Weekend rains beneficial all areas. Volume leaders: Watermelons, potatoes, tomatoes, sweet corn, peppers, cucumbers. Lighter supplies more needed.

GEORGIA: No significant rain. Only isolated totals exceeded 0.50 in. Deficits for year approached 15.00 in. north. Temperatures near normal north, 2° below central, south. Maximum temperatures 90s, some upper 90s south. Coolest temperatures about 40° mountains, near 60° extreme south.

Days suitable for fieldwork 6.5. Soil moisture 43% very short, 55% short, 2% adequate; moisture critically needed for corn. Rain needed for cotton. Sorghum condition off sharply. Soybean planting delayed north, slowed elsewhere. Tobacco condition down. Wheat, other small grain harvest active. Peach yields good. Pastures, hay deteriorating rapidly. Cattle, hogs good.

HAWAII: NO DATA AVAILABLE.

IDAHO: Precipitation above normal. Temperatures below normal.

Days suitable for fieldwork 3.0. Soil moisture 4% very short, 46% short, 43% adequate, 7% surplus. Potato planting wrapping up, same 1987, 92% avg.; 53% emergence, 78% 1987, 41% avg. Winter wheat good; 15% headed, 16% avg. Spring wheat good; 52% joint. Barley 44% joint. First harvest alfalfa 18% cut; weather slowed harvesting operations. Dry beans 43% planted; very little emerged. Sugarbeets 72% thinned, 79% 1987, 65% avg. Corn 90% emerged. Livestock good, pasture improved with much needed rains.

ILLINOIS: Temperature averaged 1 to 2° above normal most of State, 2 to 5° above normal northeast. Precipitation averaged less than 0.10 to 1.00 in. extremely small area, none most of State.

Days suitable for fieldwork 7.0. Soil moisture 100% short. Corn height average 14 in., 17 in. 1987, 11 in. avg. Most advanced 21 in., 29 in. 1987, 19 in. avg. Soybeans 81% full stand, 81% 1987. Wheat 89% filled, 94% 1987, 66% avg.; 52% turning yellow, 70% 1987, 30% avg.; 1% ripe, 3% 1987, 2% avg. Oats 49% headed, 68% 1987, 39% avg.; 20% filled, 34% 1987, 15% avg.; 2% very poor, 7% poor, 56% fair, 35% good. Alfalfa cut 88%, 75% 1987, 57% avg.; 8% poor, 55% fair, 37% good. Red clover cut 76%, 68% 1987, 45% avg.; 9% poor, 56% fair, 33% good, 2% excellent. Sorghum 8% poor, 67% fair, 25% good. Pasture 3% very poor, 35% poor, 53% fair, 9% good.

INDIANA: Temperatures none to 5° above normal. Lows upper 30s to lower 40s, highs low to mid 90s. Precipitation minimal. Totals 0.25 to 0.50 northeast. Few scattered showers elsewhere.

Days suitable for fieldwork 6.9. Topsoil moisture 99% short, 1% adequate. Subsoil moisture 88% short, 12% adequate. Corn, soybeans, wheat mostly fair. Corn 97% emerged, 99% 1987, 87% avg. Corn height 10 in., 16 in. 1987, 8 in. avg. Soybeans 80% emerged, 90% 1987, 60% avg. Soybeans height 3 in., 4 in. 1987, 2 in. avg. Wheat 18% turning color, 27% 1987, 15% avg. Alfalfa hay 83% cut, 67% 1987, 50% avg. Pastures 18% very poor, 61% poor, 19% fair, 2% good. Hot, dry weather placed crops under increased stress.

IOWA: Temperatures averaged 3 to 11° above normal. Extremes 43°; 94°. Precipitation none to 1.20 in.; most areas none to 0.20 in.

Days suitable for fieldwork 6.5. Topsoil moisture 88% short, 12% adequate; subsoil moisture 74% short, 26% adequate. Oats 2% very poor, 24% poor, 45% fair, 25% good, 4% excellent. Oats 35% headed, 41% 1987, 16% avg. Winter wheat mostly fair to good. Hay 6% very poor, 29% poor, 41% fair, 21% good, 3% excellent. First crop alfalfa 50% harvested, 39% 1987, 30% avg. First crop clover 18% harvested, 14% 1987, 8% avg. Corn 60% cultivated 1st time, 38% 1987, 23% avg. Soybeans 92% emerged, 78% 1987, 57% avg. Livestock mostly good to excellent. Some heat stress on farrowing hogs. Feeder cattle movement slow. Pastures 28% very poor, 37% poor, 23% fair, 12% good.

KANSAS: Temperatures averaged 65° northwest to 72° south central, 2 to 3° above normal north, 3° below normal south. Good rains totaling 1.00 to 2.00 in. central, west; generally less than 0.50 in. east.

Days suitable for fieldwork 4.0. Topsoil moisture 35% short, 58% adequate, 7% surplus. Subsoil 42% short, 56% adequate, 2% surplus. More rain will relieve moisture stress, but for much dryland wheat western counties moisture came too late. Stands rapidly turning color southern counties, very little mature. Corn planting almost complete, early growth good, moisture generally adequate. Greenbugs increased as migration from wheat to alternate crops continued. Emerged corn stands good. Sorghum planting excellent progress, good emergence, early growth. Generally good to excellent, except west, north central. Soybean planting excellent progress, neared completion northeast. Good moisture available most areas for germination, early growth. Generally good to excellent. First cutting alfalfa complete, good regrowth. Range, pastures showed improvement following recent rain, still short western counties.

KENTUCKY: Seasonably warm temperatures very little precipitation. Lows mid 50s, highs averaged mid 80s. Scattered areas received 0.50 in. rain or less, most areas no precipitation. Deficits averaged less than 1.00 in.

Days suitable for fieldwork 5.9. Soil moisture 56% very short, 42% short, 2% adequate. State needs general rain. Corn height 12 in., 16 in. 1987, equal avg. Average height most advanced 19 in. Soybean planting some areas curtailed due dry soil conditions. Just started planting double crop following barley harvest. Soybeans 6% poor, 54% fair, 38% good, 2% excellent. Burley 84% transplanted, 87% 1987, 58% avg. Dark tobacco 84% set, 77% 1987. Earlier set well established fine, recently set suffering. Plants generally plentiful. All tobacco 1% very poor, 11% poor, 60% fair, 28% good. Barley nearly 20% harvested. Wheat 1% very poor, 4% poor, 45% fair, 43% good, 7% excellent. Continue to harvest hay, yields down. Strawberries neared completion. Pastures under stress, 16% very poor, 38% poor, 40% fair, 6% good.

LOUISIANA: Temperature 1 to 3° below normal. Temperature extremes 52°; 95°. Rainfall averaged 0.11 to 2.63 in.

Days suitable for fieldwork 6.7. Soil moisture 49% very short, 46% short, 5% adequate. Corn fair; 11% silked, 23% 1987, 38% avg.; 1% dough stage, 1% 1987, 5% avg. Emerged: Cotton 78%, sorghum 86%, soybeans 34%, all below average. Winter wheat 100% turning color, 100% 1987, 98% avg.; 87% harvested, 59% 1987, 62% avg. Hay 1st cutting 72%, 63% 1987, 66% avg. Sweetpotatoes poor to fair; 36% planted, 60% 1987, 69% avg. Peaches good; 12% harvested, 9% 1987, 12% avg. Sugarcane good. Livestock, pecans fair to good. Vegetables, pastures fair. Main activities: Fertilizing pastures, rice; harvesting hay, vegetables, peaches, wheat; planting cotton, rice, sorghum, soybeans, sweetpotatoes.

MARYLAND & DELAWARE: Maryland: Precipitation averaged 0.10 in. Average temperature 70°, normal 68°. Temperature extremes 41°; 95°.

Days suitable for fieldwork 6.4. Topsoil moisture 40% short, 60% adequate. Subsoil moisture adequate. Corn 95% planted, 95% avg. Soybeans 50% planted, 40% avg. Tobacco 55% transplanted, 50% avg. Watermelons, cantaloupes 95% planted, 90% avg. Wheat, oats, barley, rye good. Barley 75% turn color, 85% avg. Alfalfa hay 1st cut 75%, 70% avg.

Delaware: Precipitation averaged 0.03 in. Average temperature 70°, normal 68°.

Days suitable for fieldwork 6.7. Topsoil moisture 40% short, 60% adequate. Subsoil moisture adequate. Corn 97% planted, 97% avg. Soybeans 50% planted, 40% avg. Watermelons, cantaloupes 90% planted, 95% avg. Wheat 80% good, 20% fair. Wheat 100% headed, 98% avg. Barley 70% good, 30% fair. Barley 50% turn color, 75% avg.

MICHIGAN: Temperatures ranged 1 to 9° above normal. Temperature extremes 34°; 94°. Precipitation ranged none to 0.61 in. across State.

Days suitable for fieldwork 6.5. Soil moisture 99% short, 1% adequate. Corn 2% very poor, 13% poor, 35% fair, 40% good, 10% excellent; 90% emerged. Soybeans 90% planted, 95% 1987, 65% avg. Wheat 55% headed, 95% 1987, 45% avg.; 3% very poor, 12% poor, 40% fair, 40% good, 5% excellent. Dry beans 20% planted, 40% 1987, 20% avg. Major activities: Soybean, dry bean planting, harvesting hay, herbicide application. Dry conditions stressed fruit, vegetable. Rain needed for normal fruit sizing, development.

MINNESOTA: Temperatures averaged 9 to 20° above normal. Temperature extremes 42°; 97°. Precipitation averaged none to 0.42 in. Greatest weekly total 0.96 in.

Days suitable for fieldwork 6.3. Topsoil moisture 48% very short, 46% short, 6% adequate. Spring wheat 38% jointing, 58% 1987, 22% avg. Oats 62% jointing, 67% 1987, 26% avg. Barley 26% jointing, 48% 1987, 19% avg. Corn 98% emerged, 96% 1987, 81% avg.; 46% cultivated, 43% 1987, 20% avg. Soybeans 98% planted, 95% 1987, 87% avg.; 87% emerged, 79% 1987, 50% avg.; 16% cultivated once, 15% 1987, 5% avg. Sunflowers 100% planted, 96% 1987, 82% avg. Flax 100% planted, 97% 1987, 80% avg. Dry edible beans 97% planted, 96% 1987, 89% avg. Sweet corn 92% planted, 83% 1987, 77% avg. Soybeans 1% very poor, 8% poor, 46% fair, 45% good. Field corn 5% poor, 45% fair, 46% good, 4% excellent. Spring wheat 2% very poor, 31% poor, 47% fair, 20% good. Alfalfa hay 30% 1st cut, 30% 1987, 20% avg.

MISSISSIPPI: Dry, warm weather continued across State. Average temperature 75°. Extremes 49°; 96°. Greatest 24-hour total rainfall 1.36 in.; greatest weekly total rainfall 1.36 in.

Days suitable for fieldwork 6.3, 5.3 1987, 4.8 avg. Soil moisture 45% very short, 50% short, 5% adequate. Planting nearly complete for all crops but soybeans. Corn fair; 97% emerged, 94% avg. Wheat good; 22% harvested, 26% 1987, 22% avg. Sorghum fair; 90% emerged, 89% 1987. Cotton fair; 3% squaring, 20% 1987, 11% avg. Rice fair; 92% emerged, 100% 1987, 91% avg. Soybeans 50% planted, 59% 1987, 53% avg.; 32% emerged, 41% 1987, 34% avg. Peaches fair to good; 3% harvested. Pastures declined, fair to poor. Livestock good to fair. Truck crop planting ahead of normal. Hay 30% harvested, 32% 1987, 31% avg. Activities: Wheat harvest, soybean planting, hay harvest, spraying, cultivating, irrigating. More restrictions placed on irrigating from rivers, lakes, bayous in Delta counties. Pumping from wells still allowed.

MISSOURI: Temperatures 4° above normal except near normal southern fourth. Mostly dry except small area southwest 0.50 in.

Days suitable for fieldwork 6.3. Topsoil moisture 96% short, 4% adequate. Wheat 64% turning color, 85% 1987, 50% avg. Alfalfa hay 1st cutting 88%, 82% 1987, 64% avg. Other hay 51% harvested, 47% 1987, 30% avg. Pasture 24% very poor, 47% poor, 29% fair. Pasture condition worst on record in over 20 years.

MONTANA: Cool west, very hot east. Temperatures 2 to 5° below normal west, some freezing; 15° above normal extreme east with 2 days above 100°. Central areas 5 to 10° above normal. Southwest 2 to 5° above normal. Precipitation moderate to heavy southwest, west 0.75 to 2.00 in.; 0.50 to 1.00 in. along mountains north central to south central; 2 to 14 in. snow over portions of west, southwest 31st.

Days suitable for fieldwork 6.0. Topsoil moisture 73% short, 26% adequate, 1% surplus. Subsoil moisture 70% short, 29% adequate, 1% surplus. Barley 10% very poor, 20% poor, 33% fair, 34% good, 3% excellent. Oats 5% very poor, 22% poor, 38% fair, 33% good, 2% excellent. Corn 94% planted, 82% 1987, 91% avg. Potatoes 92% planted, 78% 1987, 83% avg. Dry beans 93% planted, 89% 1987, 89% avg. Sugarbeets 39% thinned. Cattle, calves moved to summer pastures 82%. Sheep, lambs moved 84%.

NEBRASKA: Warm with scattered thunderstorms. Precipitation varied from few 0.10 to 2.00 in. Average temperatures ranged near normal Panhandle to 4 to 8° above normal remainder. Extremes 44°; 90°.

Days suitable for fieldwork 4.2. Topsoil moisture 20% short, 76% adequate, 4% surplus. Subsoil moisture 34% short, 61% adequate, 5% surplus. Wheat 5% turning color, 15% 1987, 6% avg. Widely scattered wheat streak mosaic, increased intensity in Panhandle. Affect of Russian wheat aphids monitored in Panhandle, southwest. Corn 96% emerged, 96% 1987, 85% avg. Some damage to corn crop from high winds, Panhandle and herbicide carry over, east central. Soybeans 75% emerged, 63% 1987, 50% avg. Sorghum 65% emerged, 53% 1987, 48% avg. Greenbugs present in some central, east central, southeast, south central fields. Alfalfa hay 1% poor, 55% fair, 42% good, 2% excellent. Alfalfa 1st cutting 55%, 69% 1987, 43% avg. Alfalfa weevils prompted spraying, early cutting. Wild hay fair to good. Pasture, range feeds adequate. Pastures short east central, south east, south central; good elsewhere. Cattle arriving from drought stricken areas of South Dakota, Montana for pasturing.

NEVADA: Strong cold front beginning brought strong gusty winds, below normal temperatures. Snow showers common all areas except extreme south. Weak, high pressure ridge midweek brought warming, clearing skies. Series storm fronts remainder week resulted strong, gusty winds, low temperatures, virtually no precipitation.

Lower temperatures slowed vegetative growth. Ranges still dry most areas. Most haying operations delayed. Cattle, sheep on summer grazing areas.

NEW ENGLAND: Precipitation averaged 0.25 to 0.50 in. north, less than 0.25 in. south. Temperatures averaged from mid 50s near Canadian border to mid 60s southern coast. Temperatures slightly below normal south, near normal north.

Days suitable for fieldwork 6.0. Soil moisture 18% short, 75% adequate, 7% surplus. Grazing availability 92% adequate, 8% surplus. Fieldwork progress 1.5 days behind. Maine potatoes good; 99% planted, 95% 1987, 85% avg.; 20% emerged, 15% 1987, 10% avg. Rhode Island potatoes 100% planted, 95% 1987, 95% avg. Connecticut River Valley potatoes good; 100% planted, 95% 1987, 95% avg.; 95% emerged, 65% 1987, 85% avg. Maine oats excellent; 90% sown, 95% 1987, 80% avg. Field corn good; 85% planted, 85% 1987, 80% avg.; 60% emerged, 60% 1987, 50% avg. Sweet corn good; 80% planted, 75% 1987, 75% avg.; 70% emerged, 50% 1987, 55% avg. Shade tobacco good; 75% transplanted. Outdoor tobacco good. Apple set average; scab infection light. Strawberries average north, heavy south. Major farm activities: Haying, fertilizing, planting, spraying fruit trees.

NEW JERSEY: Temperatures averaged near normal. Extremes 40°; 94°. Rainfall averaged 0.57 in. north, 0.90 in. central, 0.27 in. south. Heaviest 24-hour total 1.17 in. on 1st, 2nd. Estimated soil moisture percent field capacity averaged 83% north, 81% central, 64% south. Four inch soil temperatures averaged 65° north, 66° central, south.

Temperatures extremely varied. Soil moisture about adequate most areas. Cabbage harvest began. Spring vegetable crop harvest active. Strawberry harvest slow to increase. Field corn planting complete. Early fields continued to make good growth. Soybean planting active. Barley ripening scattered, combining began south. Straw, hay cutting active. Pasture growth continued very good.

NEW MEXICO: Temperatures at or near normal. Heavy shower, thundershowers northeast; flash floods Clovis area.

Days suitable for fieldwork 5.8. Soil moisture 33% short, 45% adequate, 22% surplus. Barley 25% fair, 75% good. Wheat 35% poor, 45% fair, 20% good; 100% heading, none harvested. Cotton 98% planted; slightly behind 1987, 5 points above average; 22% poor, 33% fair, 45% good. Corn, sorghum all fair to good. Onions 20% fair, 80% good; lettuce harvest complete. Cattle 36% fair, 64% good. Sheep 22% fair, 78% good. Range 46% fair, 45% good, 9% excellent.

NEW YORK: Week started warm, but ended cool. Temperatures averaged over 9° above normal first half of week, 7° below normal second half. Precipitation light. Eastern half of State received 0.01 to 0.20 in., western half 0.30 to 0.40 in.

Days suitable for fieldwork 5.5. Soil moisture adequate. Corn 75% planted, 86% 1987, 73% avg. Oats 92% seeded. Hay, pastures, wheat good. Drying conditions allowed planting to resume, haying to become more widespread. Hudson Valley apples sizing well. Poor pollination on Lake Ontario apples becoming apparent. Pear set variable. Dry bean planting underway. Processing tomato planting finished. Early peas in full bloom. Onion planting neared completion.

NORTH CAROLINA: Temperatures averaged 1 to 2° below normal statewide. Temperature extremes 36°; 96°. Precipitation ranged none to 1.41 in. across State.

Days suitable for fieldwork 6.0. Soil moisture 14% very short, 39% short, 45% adequate, 2% surplus. Pasture 1% very poor, 10% poor, 34% fair, 55% good. Burley tobacco 75% transplanted, 70% 1987, 56% avg. Tobacco plantbeds 11% poor, 28% fair, 61% good. Tobacco plant supply 5% short, 82% adequate, 13% surplus. Tobacco in fields 1% very poor, 3% poor, 27% fair, 69% good. Peanuts 97% planted, 96% 1987, 96% avg. Peanuts 3% poor, 20% fair, 77% good. Sweetpotatoes 65% planted, 55% 1987, 55% avg.; 26% fair, 71% good, 3% excellent. Irish potatoes 10% fair, 85% good, 5% excellent. Peaches 10% fair, 79% good, 11% excellent. Truck crops 2% very poor, 2% poor, 27% fair, 66% good, 3% excellent. Sorghum 67% planted, 66% 1987, 61% avg. Hay 15% 2nd cutting; 4% poor, 31% fair, 63% good, 2% excellent. Apples 2% very poor, 2% poor, 21% fair, 71% good, 4% excellent. Major farm activities: Planting sorghum, cotton, soybeans, peanuts; transplanting tobacco, sweetpotatoes; cutting hay; picking strawberries, blueberries; fertilizing, spraying nursery crops; cultivating tobacco, truck crops, corn; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures averaged 13 to 18° above normal. Extremes 42° west central, southwest; 99° northwest, south central. Precipitation heaviest northeast 0.82 in., most stations none.

Days suitable for fieldwork 6.7. Soil moisture supplies further depleted, topsoil remained driest for last 30 years on record, specifically, 73% very short, 23% short, 4% adequate. Subsoil 49% very short, 40% short, 11% adequate. Hot, dry weather caused further stress to small grains. Spring wheat 7% very poor, 35% poor, 48% fair, 10% good; durum 10%, 28%, 51%, 11%; oats 9%, 47%, 42%, 2%, barley 9%, 30%, 47%, 14%; winter wheat 24%, 51%, 22%, 3%. Small grains progressed ahead of normal pace. Spring wheat 43% jointing and beyond; durum 24%; oats 42%; barley 46%; winter wheat 69%. Row crop planting virtually completed. Corn 96% planted, 96% 1987, 92% avg.; flax 88%, 94% 1987, 89% avg.; soybeans 97%, 93% 1987, 93% avg.; potatoes 100%, 100% 1987, 97% avg.; sunflower 85%, 85% 1987, 79% avg.; dry edible beans 95%, 91% 1987, 90% avg. Broadleaf spraying 55%, wild oats 74%. Pastures 34% very poor, 59% poor, 7% fair.

OHIO: Cold front midweek brought 0.30 in. rain or less, lower temperatures. Temperatures above normal early week, subnormal late week. Average temperatures normal with lows low 50s; highs 70s to 80s.

Days suitable for fieldwork 6.4. Soil moisture 77% short, 22% adequate, 1% surplus. Dry weather persisted; growing conditions deteriorated. Crops showed leaf curl or wilt. First cutting hay short, 2nd cutting uncertain until rainfall replenishes soil moisture. Corn mostly fair to good; overall development 4 to 6 leaves unfurled. Soybeans mostly fair; emergence slow, bean leaf beetle feeding heavily. Winter wheat fair to good; heads filling, critical time for adequate soil moisture. Wheat coloring pre-maturely; too dry. Grasslands mostly fair; some spring seedings lost to dry weather. Vegetable crops irrigated.

OKLAHOMA: Temperatures averaged 4° below normal Panhandle to 1° above normal northeast. Precipitation averaged 0.29 in. northeast to 2.04 in. Panhandle.

Days suitable for fieldwork 5.4. Topsoil moisture 55% short, 45% adequate. Subsoil moisture 30% short, 70% adequate. Wheat 7% fair, 93% good; 100% headed, 100% 1987, 100% avg.; 75% soft dough, 95% 1987, 80% avg.; 2% harvested, 10% 1987, 5% avg. Rain, cloudy weather benefited wheat development, minimized yield reduction from prolonged dryness. Rain delayed harvest southwest. Cotton 55% fair, 45% good; 70% planted, 25% 1987, 45% avg.; none squaring, none 1987, none avg. Sorghum 65% planted, 30% 1987, 50% avg. Peanuts 70% planted, 60% 1987, 60% avg. Soybeans 40% planted, 60% 1987, 50% avg. Corn none tasseling, 3% 1987, 1% avg.

Pastures, cattle good. Marketings stable, prices down from preceding week.

OREGON: Temperatures below normal. Greatest departures east of Cascades, southwest, 4 to 9° below normal. Willamette Valley 4 to 6° below normal; coast normal to 3° below. Precipitation covered entire State. Heaviest rainfall along coast 1.50 in. north to 2.50 in. south. Willamette Valley, southwest interior 0.47 to 1.22 in. East of Cascades 0.01 to 1.26 in.

Soil moisture 23% short, 70% adequate, 7% surplus. Crops continued to improve with additional precipitation, cool weather. Excellent hay fields, quality off due to rain on downed hay west. Haying started between rains eastern high country. Spring moisture so timely, some spring grain yields may out do late fall planted grains Columbia Basin. Crimson clover bloom neared finish Willamette Valley. Insecticide sprayed on mint fields central area. Thinning apples, pears, peaches all districts. Peaches good, slightly down from 1987 Willamette Valley; some brown rot due to rains. Pear crop excellent Hood River; apple crop more spotty. Apples excellent Gilliam County. Spraying for apple scab west, Milton-Freewater. Sweet cherries good, very heavy Wasco County, but some concern about continued rain as harvest nears. Tart cherries good west. Strawberry harvest began Willamette Valley, very good although below 1987's record crop. Season later than 1987 due to cool, wet weather; 1st rot increased somewhat. Boysenberries, marionberries continued to bloom. Cranberry growers hoping for warmer, drier conditions for best pollination coastal areas. Still planting snap beans, sweet corn, carrots, beets, broccoli Willamette Valley; way behind processor schedules particularly for snap beans, sweet corn. First cauliflower sown. Some leaf lettuce harvested Medford. Green peas excellent Umatilla County, prospects of a big crop, harvest to start soon; also continued planting lima beans, snap beans. Livestock good to excellent. Cool weather slowed pasture growth west, mostly good. Medford area ranges fair. Cool, rains prolonged range growth most areas east of Cascades. Ranges generally good except at lowest elevations of Columbia Basin.

PENNSYLVANIA: Week began summer like, ended fall like. Rainfall mostly spotty showers, thunderstorms. Average temperature 64°, 2° above normal. Temperature extremes 34°; 92°. Average precipitation 0.50 in., 0.33 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 9% short, 85% adequate, 6% surplus. Plowing 97%, 95% 1987, 92% avg. Corn 85% planted, 90% 1987, 84% avg. Soybeans 47% planted, 59% 1987, 55% avg. Potatoes 94% planted, 90% 1987, 88% avg. Barley 3% boot, 6% 1987, 5% avg.; 90% heading or headed, 72% 1987, 76% avg.; 7% turning yellow, 22% 1987, 19% avg. Wheat 7% pre-boot, 3% 1987, 5% avg.; 18% boot, 7% 1987, 21% avg.; 75% heading or headed, 90% 1987, 74% avg. Wheat 2% poor, 16% fair, 56% good, 26% excellent. Oats 2% poor, 19% fair, 57% good, 22% excellent. Hay stands mostly good. Feed from pastures mostly average. Activities: Planting corn, soybeans, potatoes, other vegetables; transplanting tobacco; harvesting hay, haylage, vegetables; weed control; machinery maintenance; caring for livestock; spreading fertilizer.

PUERTO RICO: Island average rainfall 0.67 in., 0.78 in. below normal. Highest weekly total rainfall 2.52 in. San Sebastian, 2.40 in. Borinquen Airport, 1.69 in. Pico Del Este-Luquillo. Highest 24-hour total 1.60 in. San Sebastian. Total rainfall since January 1 19.72 in., 2% above normal. San Juan WSFO mean temperature 84°, 3° above normal. Total rainfall none, 1.22 in. below normal. Divisional temperature averaged 81 to 82° on coasts, 74 to 80° interior divisions. Temperature 67° Pico Del Este-Luquillo to 83° San Juan WSFO. Lowest minimum temperature 63° Pico Del Este-Luquillo. Highest maximum temperature 96% several locations.

SOUTH CAROLINA: No rainfall northwest counties. Midlands, coastal plains 0.25 to 0.50 in. Temperatures averaged 2 to 4° above normal.

Days suitable for fieldwork 6.1. Soil moisture 23% very short, 71% short, 6% adequate. Cotton 99% planted, 100% 1987, 99% avg.; 2% very poor, 2% poor, 66% fair, 30% good. Soybeans 54% planted, 51% 1987, 51% avg.; 2% poor, 56% fair, 42% good. Tobacco fair to good; some premature flowering. Peanuts fair to good; 97% planted, 97% 1987, 97% avg. Sorghum fair; 48% planted, 61% 1987, 58% avg. Peaches fair to good; 4% harvested, 3% 1987, 6% avg. Wheat good; 65% ripe, 69% 1987, 71% avg.; 22% harvested, 18% 1987, 24% avg. Oats good; 67% ripe, 62% 1987, 67% avg.; 29% harvested, 28% 1987, 28% avg. Barley good; 62% ripe, 59% 1987, 66% avg.; 27% harvested, 33% 1987, 33% avg. Grain hay fair to good; 87% harvested, 86% 1987, 86% avg. Early vegetable harvest underway. Pasture fair.

SOUTH DAKOTA: Average temperatures 4 to 13° above normal. Extremes 45°; 95°. Scattered thunderstorms statewide, largest amount of rain east. Rainfall for growing season below normal over much of State but above normal over parts of central, southwest, south central.

Days suitable for fieldwork 5.0. Topsoil moisture mostly adequate to short; 10% critically short, 24% short, 65% adequate, 1% surplus. Subsoil moisture 25% critically short, 25% short, 47% adequate, 3% surplus. Many areas giving up on winter wheat crop, reseeded spring wheat or small grains. Not problem statewide but particularly acute in critically dry areas. Crop hit by wheat streak mosaic, brown wheat mites. Corn, soybean planting virtually complete; sorghum, sunflowers still underway.

TENNESSEE: High pressure dominated dry week. No precipitations most areas. Temperatures averaged 4° above normal west, 6° below normal plateau.

Days suitable for fieldwork 6.2. Soil moisture 40% very short, 52% short, 8% adequate. Tobacco 78% transplanted, 81% 1987, 69% avg. Wheat 84% turning color, 93% 1987, 84% avg.; 6% ripe, 53% 1987, 28% avg. Planting, harvesting, baling hay main activities. Pastures fair. Cattle good.

TEXAS: Good flow Gulf moisture plus big upper air low pressure system triggered thunderstorms much State. Very heavy rains north. Some areas missed rain, badly need moisture. Drying trend started west 3rd, spread slowly eastward weekend. Rainfall much above normal north central, below normal east area, Trans-Pecos, Lower Valley. Readings near to slightly above normal elsewhere. Temperatures below normal statewide.

Crops: Small grain harvest slowed Low Plains, Blacklands, central by varied amounts rain. High winds, scattered hail lodging problems. Yields varied Low Plains. Fields High Plains head minor hail damage. Corn condition should improve north, central with rain. Fields Blacklands stressed for moisture, rain should relieve situation. Prospects good Coastal Bend, Rio Grande Valley. Fields entering dent stage. Fields good progress Upper Coast. Corn 34% silked, 38% 1987, 46% avg.; 11% doughing, 3% 1987, 17% avg.; 1% dented, none 1987, 1% avg. Grain sorghum planting operations Plains slowed by wet weather. Planted fields emerging good stands. Fields responding to rain Blacklands, central. Fields heading these areas. Fields Coastal Bend, Rio Grande Valley rapidly turning

color. Fields east use additional moisture. Sorghum 27% headed, 19% 1987, 32% avg.; 7% turning color, 2% 1987, 9% avg. Cotton planting Plains slowed by rain. Early planted fields good development. Producers sand fighting many areas. Some replanting necessary because wind, blowing sand damage. Recent rains help relieve some problem. Moisture Low Plains allow planting increase. Fields squaring central, Blacklands. Boll setting continued southern areas Coastal Bend, Rio Grande Valley. Cotton setting bolls 5%, 4% 1987, 4% avg. Rice producers continued flooding operations. Fields good progress. Rice none headed, 3% 1987, 1% avg. Peanut planting delayed Cross-Timbers; moisture beneficial for operations increase fields dry. Much needed moisture central, planting increased as fields dry. Soybean planting some progress Plains. Rains benefited planted fields. Fields good progress Upper Coast. Many fields setting pods. Other Field Crops: Oats 40% harvested, 27% 1987, 35% avg. Peanuts 39% planted, 32% 1987, 38% avg. Soybeans 49% planted, 42% 1987, 50% avg. Sunflowers 20% planted, 19% 1987, 45% avg.

Commercial Vegetables: Rio Grande Valley onion harvest about over. Harvest melons increased good yields. Harvest tomatoes, cucumbers, bell peppers continued. San Antonio-Winter Garden beets, carrots harvested. Onion harvest past its peak, winding down. Watermelon harvest increase soon. East many vegetables, including sweetpotatoes, suffered from drying conditions. Watermelon planting continued. High Plains onions, potatoes good progress. Rain should improve conditions. Potato harvest underway Knox-Haskell area. Trans-Pecos onion harvest underway. Cantaloups, cabbage good progress. Picking early variety peaches continued Hill Country, east locations. Quality good. Pecan trees received much needed moisture central. Sets across State good. Spraying casebearers continued.

Range and Pasture: Ranges, pastures northern, central much needed boost from rain. Rain help increase hay yields, more producers began cutting. However, hay yields east low because dry conditions. Conditions south not improved, most good rains missed area. Livestock markets active. Stock tank levels increased wetter areas.

UTAH: Precipitation heavy north central, moderate northern mountains and central, light rest. Temperatures 1 to 5° below normal.

Days suitable for fieldwork 5.3. Soil moisture 39% short, 61% adequate. Winter wheat 85% booted, 76% 1987, 62% avg.; 42% headed, 56% 1987, 39% avg. Oats 60% jointed, 69% 1987, 26% avg.; 36% booted, 36% 1987, 14% avg. Corn 85% emerged, 90% 1987, 69% avg. Corn height 6 in., 9 in. 1987, 6 in. avg. Alfalfa 1st cutting 22%, 44% 1987, 22% avg. Winter wheat 27% fair, 71% good, 2% excellent; spring wheat 19% fair, 77% good, 4% excellent; barley 12% fair, 86% good, 2% excellent; oats 52% fair, 44% good, 4% excellent; alfalfa 33% fair, 51% good, 16 % excellent. Cattle moved to summer range 68%, 63% 1987, 52% avg. Sheep moved to summer range 70%, 47% 1987, 50% avg. Livestock good to excellent. Major farm activities: Haying, irrigation, spraying fruit and alfalfa, planting corn, sudan grass.

VIRGINIA: Warm, dry till late in period, then much cooler, wet. Precipitation averages generally 0.50 to 0.75 in. Temperatures 5 to 6° above normal most of period, 8 to 10° below normal end period.

Days suitable for fieldwork 5.1. Topsoil moisture 31% short, 60% adequate, 9% surplus. Excellent crop conditions except southwest mountains where dry weather persists. Corn 96% planted, 93% 1987, 96% avg. Soybeans 49% planted, 46% 1987, 51% avg. Peanuts mostly planted, although some acreage still being planted 1 area. Flue-cured tobacco 96% transplanted, 95% 1987, 92% avg. Burley tobacco 66% transplanted, 82% 1987, 64% avg. Hay harvest active. Short hay crop southwest, good elsewhere. Barley 6% harvested, 32% 1987, 24% avg. Small grains good to excellent some lodging. Potatoes good, some irrigation active. Fruit excellent, minor hail damage.

WASHINGTON: Pacific frontal systems moved across State, bringing moist conditions, below normal temperatures. Mean temperatures remained below normal over all area with Wenatchee, Colville, Ephrata 8 to 10° below average.

Days suitable for fieldwork 3.5. Soil moisture 75% short, 23% adequate, 2% surplus. Timely rains improved soil moisture outlook, however some areas by passed by showers, continued drought condition. Heavy rains created surplus soil moisture some areas. Cool temperatures delayed crop progress. Winter wheat 45% headed, 83% 1987, 56% avg. Winter wheat 5% poor, 55% fair, 30% good, 10% excellent. Spring wheat, barley heading also underway. Potatoes 100% planted, 97% emerged. Corn 100% seeded. First cutting alfalfa hay slowed by rain. Some hay growers got rain on cut hay. Rains also threatened cherry crop, no significant damage. Cherry harvest delayed Yakima County, underway Grant County. Grapes approaching full bloom Benton County. Fireblight continued widespread problem in pear orchards. Asparagus harvest slowed by cool temperatures. Lettuce fields in King, Pierce Counties showing above normal amounts of fungus diseases. Other vegetable crops showing normal progress. Range, pasture mostly short, adequate. Hay, other roughage feeds mostly adequate.

WEST VIRGINIA: Average temperature 63°, 1 to 5° below normal. Extremes 95° Creston, Ripley; 32° Greenbank. Average precipitation 0.51 in., 0.04 to 0.61 in. below normal.

Days suitable for fieldwork 4.6. Soil moisture 26% very short, 33% short, 41% adequate. Oats, wheat, barley good to fair. Oats 98% emerged. Wheat 99% jointed, 86% headed. Barley 99% jointed, 95% headed. Corn fair to good; 94% planted, 79% emerged. Tobacco 58% set. Apples fair to good; peaches good to fair. Cattle, sheep good to fair. Farm activities: Livestock care, general farm maintenance, haying, other fieldwork.

WISCONSIN: Temperatures averaged 68°, 5° above normal. Extremes 31°; 99°. Precipitation none to 0.40 in. Extremely dry.

Days suitable for fieldwork 6.8. Soil moisture 98% short, 2% adequate. Crops 1% very poor, 22% poor, 42% fair, 34% good, 1% excellent. Corn fairly good despite dryness. Corn 4% poor, 47% fair, 44% good, 5% excellent. Average height 6 in., 7 in. 1987, 3 in. avg. Soybeans 92% planted, 81% 1987, 71% avg. Germination slow. Oats, barley starting to head, short. First crop hay 43% cut, 17% 1987, 19% avg. Yields down. Peas blossoming, short. Potatoes good. Pastures poor.

WYOMING: Temperatures mostly above normal. Most areas below normal precipitation.

Days suitable for fieldwork 6.0. Topsoil moisture 40% short, 60% adequate. Spring wheat 95% emerged, 95% 1987, 90% avg. Oats 90% emerged, 90% 1987, 85% avg. Barley 95% emerged, 95% 1987, 90% avg. Sugarbeets most emerged, 95% 1987, 95% avg.; 35% thinned, 35% 1987. Corn 90% planted, 90% 1987, 95% avg.; 70% emerged, 80% 1987, 75% avg. Dry beans 55% planted, 60% 1987, 70% avg.; 15% emerged, 35% 1987. Potatoes 80% planted, 80% 1987; 65% emerged, 60% 1987, 65% avg. Winter wheat mostly fair to good. Livestock mostly good. Calf, lamb losses light to normal. Ranges, pastures mostly fair to good. Livestock moved to summer pasture; cattle 55%, sheep 60%.

Crop Progress 1/

FOR WEEK ENDING JUNE 5, 1988

WINTER WHEAT
% HEADED

	1988	1987	AVG.
ARK	100	100	NA
CALIF	100	100	100
COLO	76	72	57
GA	100	100	100
IDAHO	15	37	16
ILL	99	100	95
IND	98	97	87
KANS	100	100	95
MICH	55	95	45
MO	100	100	94
MONT	24	8	3
NEBR	90	97	74
N MEX	100	100	NA
N C	100	99	NA
OHIO	94	95	79
OKLA	100	100	100
OREG	67	90	74
S DAK	56	76	47
TEX	97	100	99
WASH	45	83	56
20 STATES	87	90	NA
EXCL. STATES WITH NA	86	89	81

THESE 20 STATES PRODUCED 91% OF THE 1987 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

WINTER WHEAT
% HARVESTED

	1988	1987	AVG.
ARK	5	18	15
CALIF	5	10	8
COLO	0	0	0
GA	44	48	52
IDAHO	0	0	0
ILL	0	NA	NA
IND	0	0	0
KANS	0	0	0
MICH	0	0	0
MO	1	10	2
MONT	0	0	0
NEBR	0	0	0
N MEX	0	0	NA
N C	0	0	2
OHIO	0	0	0
OKLA	2	10	5
OREG	0	0	0
S DAK	0	0	0
TEX	21	8	22
WASH	0	0	0
20 STATES	3	NA	NA
EXCL. STATES WITH NA	3	4	4

THESE 20 STATES PRODUCED 91% OF THE 1987 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

SPRING WHEAT
% EMERGED

	1988	1987	AVG.
IDAHO	99	100	93
MINN	100	99	92
MONT	94	94	91
N DAK	95	98	91
S DAK	100	100	98
5 STATES	97	98	92

THESE 5 STATES PRODUCED 95% OF THE 1987 SPRING WHEAT CROP.

GRAIN SORGHUM
% PLANTED

	1988	1987	AVG.
ARK	95	96	91
ILL	91	85	56
KANS	55	50	30
LA	96	95	94
MISS	96	97	84
MO	91	85	69
NEBR	85	76	75
OKLA	65	30	50
S DAK	51	68	51
TENN	82	86	77
TEX	76	73	80
11 STATES	71	65	58

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

SOYBEANS
% PLANTED

	1988	1987	AVG.
ALA	55	66	56
ARK	56	67	50
GA	58	63	61
ILL	99	94	81
IND	97	94	73
IOWA	100	93	85
KANS	70	55	35
KY	70	65	39
LA	54	66	68
MICH	90	95	65
MINN	98	95	87
MISS	50	59	53
MO	82	78	52
NEBR	93	83	80
N C	54	49	53
OHIO	95	92	72
S C	54	51	51
S DAK	97	93	68
TENN	58	59	42
19 STATES	85	82	69

THESE 19 STATES PRODUCED 96% OF THE 1987 SOYBEANS CROP.

RICE
% EMERGED

	1988	1987	AVG.
ARK	93	97	87
CALIF	75	90	75
LA	97	96	95
MISS	92	100	91
TEX	100	100	99
5 STATES	92	96	88

THESE 5 STATES PRODUCED 97% OF THE 1987 RICE CROP.

COTTON
% PLANTED

	1988	1987	AVG.
ALA	100	99	98
ARIZ	100	100	100
ARK	100	100	100
CALIF	100	100	100
GA	94	97	96
LA	95	98	97
MISS	100	100	100
MO	100	100	100
N MEX	98	100	93
N C	100	99	100
OKLA	70	25	45
S C	99	100	99
TENN	100	100	97
TEX	76	64	68
14 STATES	87	80	83

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

COTTON
% SQUARING

	1988	1987	AVG.
ALA	10	10	5
ARIZ	45	70	62
ARK	1	19	4
CALIF	1	7	6
GA	10	9	18
LA	11	18	11
MISS	3	20	11
MO	0	5	1
N MEX	0	0	5
N C	0	0	0
OKLA	0	0	0
S C	0	0	0
TENN	0	3	1
TEX	12	11	10
14 STATES	9	13	10

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

1/AVERAGES IN THESE SUMMARIES ARE FOR THE YEARS 1983 - 1987.

Crop Condition

FOR WEEK ENDING JUNE 5, 1988

COTTON

STATE	VP	P	F	G	EX
AL	5	17	54	24	0
ARIZ	0	0	0	100	0
ARK	0	19	74	7	0
CALIF	0	0	10	50	40
GA	0	10	43	47	0
LA	11	26	49	14	0
MISS	5	25	50	20	0
MO	0	18	55	27	0
N MEX	0	22	33	45	0
N C	0	5	42	50	3
OKLA	0	0	55	45	0
S C	2	2	66	30	0
TENN	0	7	49	44	0

RICE

STATE	VP	P	F	G	EX
ARK	0	12	57	31	0
CALIF	0	5	20	70	5
LA	0	3	34	63	0
MISS	0	15	70	15	0
TEX	0	0	0	77	23

SPRING WHEAT

STATE	VP	P	F	G	EX
IDAHO	0	3	27	59	11
MINN	2	31	47	20	0
MONT	10	25	38	25	2
N DAK	7	35	48	10	0
S DAK	0	17	35	43	5

CORN

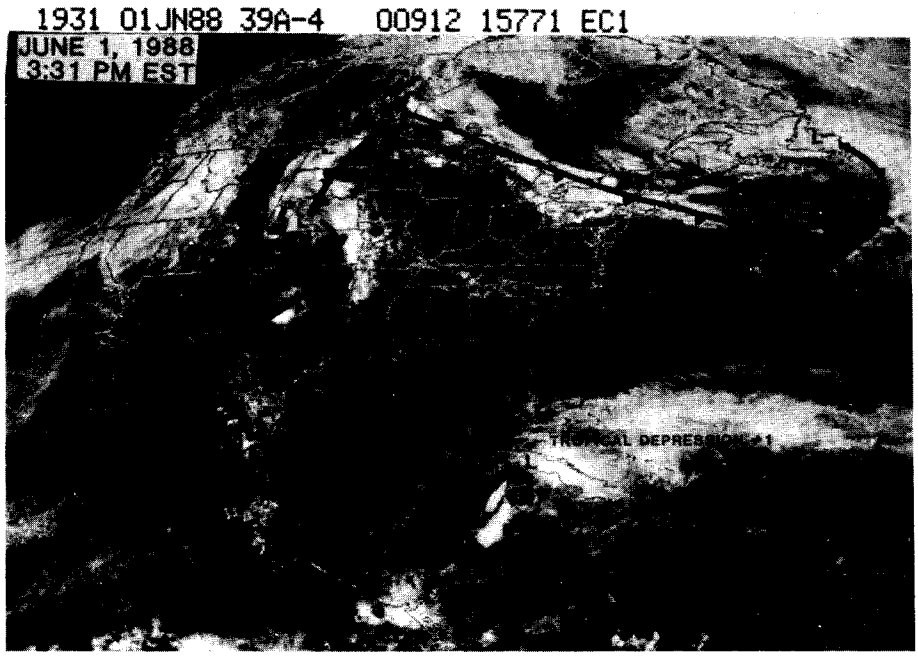
STATE	VP	P	F	G	EX
COLO	0	1	18	70	11
GA	0	11	56	33	0
ILL	0	3	38	57	2
IND	3	18	67	11	1
IOWA	0	1	36	55	8
KANS	8	1	14	51	26
KY	1	9	43	43	4
MICH	2	13	35	40	10
MINN	0	5	45	46	4
MO	0	23	64	13	0
NEBR	0	0	15	84	1
N C	1	4	34	59	2
OHIO	2	16	42	35	5
S DAK	0	3	10	65	22
TEX	1	7	32	50	10
WIS	0	4	47	44	5

WINTER WHEAT

STATE	VP	P	F	G	EX
ARK	0	6	43	36	15
CALIF	0	5	15	70	10
COLO	1	5	15	65	14
GA	0	0	7	64	29
IDAHO	0	3	32	48	17
ILL	0	9	33	52	6
IND	2	19	67	11	1
KANS	2	38	38	19	3
MICH	3	12	40	40	5
MO	0	14	55	31	0
MONT	17	21	33	24	5
NEBR	0	2	71	27	0
N MEX	0	35	45	20	0
N C	0	2	15	81	2
OHIO	2	16	39	37	6
OKLA	0	0	7	93	0
OREG	0	0	4	89	7
S DAK	7	21	50	19	3
TEX	3	19	42	30	6
WASH	0	5	55	30	10

VP - VERY POOR P - POOR F - FAIR
G - GOOD EX - EXCELLENT

FRIST TROPICAL DEPRESSION IN THE CARIBBEAN BRINGS HEAVY RAIN TO CUBA



THE FIRST TROPICAL DEPRESSION OF THE SEASON IN THE CARIBBEAN BRINGS TORRENTIAL RAIN TO CUBA. MUCH OF CUBA HAS BEEN RECEIVING ABUNDANT RAIN FOR THE LAST 4 WEEKS.

SHOWERS AND THUNDERSTORMS ARE SCATTERED ALONG A FRONTAL SYSTEM EXTENDING FROM NEW ENGLAND TO SOUTHERN MANITOBA AND THROUGH THE GREAT PLAINS.

RAIN IS WIDESPREAD IN THE PACIFIC NORTHWEST.

International Weather and Crop Summary

May 29 - June 4, 1988

HIGHLIGHTS:

UNITED STATES ... Rain provides much needed moisture in the central and southern Great Plains. Inadequate moisture continues plaguing crop growth and development in the northern Great Plains, Corn Belt, Delta, and Rocky Mountain States.

USSR ... In Western USSR, soaking rain benefits crops in the west, while unseasonable warm, dry weather covers eastern crop areas. In the New Lands, light showers moisten topsoils, favoring spring grains in the early vegetative stage.

EUROPE ... Moderate to heavy rain favors crops in the northwest and southeast. Light to moderate rain brings some relief to East German crops.

SOUTH ASIA ... Rainfall increases in southern and eastern crop areas, improving planting conditions but causing more flooding in parts of Bangladesh.

CANADA ... Much needed rain covers northwestern Prairie grain regions, but only light rain reaches chronically dry regions of the southwest.

EASTERN ASIA ... Typhoon Susan strikes Taiwan with high winds and heavy rain on the 2nd, spreading to South Korea and Japan by the 4th.

SOUTHEAST ASIA ... Beneficial rain in central Thailand maintains favorable conditions for corn establishment, but heavy rain in the north and northeast causes local flooding. Inundating rain causes flooding in the northern Philippines.

SOUTH AMERICA ... Dry, cold weather prevails over Argentina and extreme southern Brazil. More rain falls over Parana.

AUSTRALIA ... Heavy rain favors winter grains across crop areas in Western Australia but delays summer crop harvest in central New South Wales.

MEXICO ... Dry weather continues, except for scattered showers along the east coast.

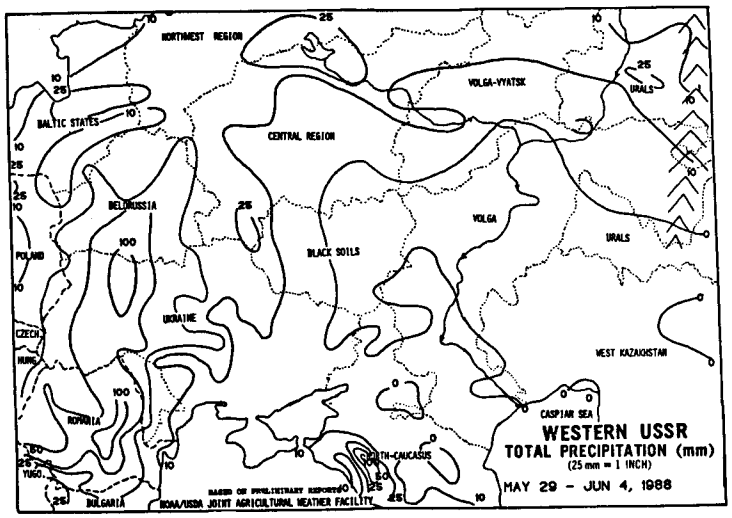
MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
*** = DATA NOT AVAILABLE

May 1988

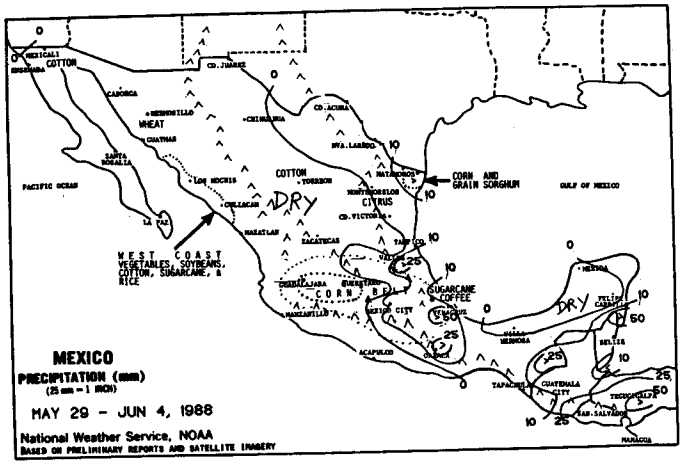
COUNTRY	CITY	TEMPERATURE (C) AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	PRECIPITATION (MM) TOTAL	DPART F/NRM
NORWAY	OSLO	16	4	26	-2	10	1.0	29.4	-32.2
SWEDEN	STOCKHOLM	18	5	26	1	12	1.4	49.5	18.9
FINLND	HELSINKI	18	5	27	0	12	2.4	6.8	-27.1
U KING	GLASGOW	16	6	23	-2	11	-0.5	59.6	-11.5
	EDINBURGH	14	6	20	0	10	0.1	50.6	-0.1
	BIRMINGHAM	16	7	21	2	12	0.9	46.6	-9.2
	LONDON	17	8	23	1	13	1.7	44.0	-12.0
IRELND	DUBLIN	15	8	19	3	11	0.8	75.6	17.9
ICELND	REYKJAVIK	10	5	19	0	8	1.0	93.4	53.5
DENMRK	COPENHAGEN	17	7	24	4	12	0.6	32.9	-9.0
LUXEMB	LUXEMBOURG	18	10	25	4	14	1.7	132.6	66.4
SWITZL	ZURICH	20	10	26	4	15	2.5	114.1	12.3
	GENEVA	20	9	27	4	14	0.9	96.5	27.6
FRANCE	PARIS	19	10	26	3	15	1.3	54.5	-0.4
	STRASBOURG	21	11	28	4	16	2.4	85.5	23.3
	BOURGES	19	10	26	5	15	1.2	74.7	3.0
	BORDEAUX	20	12	27	8	16	1.8	123.7	54.0
	TOULOUSE	20	12	25	7	16	1.3	111.9	39.4
	MARSEILLE	21	13	27	9	17	0.3	51.8	9.5
SPAIN	VALLADOLID	18	8	23	5	13	-0.6	61.3	17.3
	MADRID	21	9	28	4	15	-1.1	48.4	8.1
	SEVILLE	25	13	33	8	19	-0.9	122.4	86.9
E GRMY	LEIPZIG	21	9	28	1	15	2.0	17.4	-33.3
	DRESDEN	20	10	27	3	15	2.0	28.5	-34.5
W GRMY	HAMBURG	20	9	28	2	14	2.4	36.1	-18.4
	BERLIN	21	11	29	4	16	2.3	3.1	-50.4
	DUSSELDORF	21	11	30	1	16	2.2	26.8	-33.1
	STUTTGART	20	9	25	2	15	1.8	62.5	-16.7
	NURNBERG	21	10	26	0	16	2.7	14.1	-45.4
	MUNICH	20	9	25	2	14	2.0	71.4	-28.0
AUSTRI	VIENNA	21	10	25	5	16	0.4	22.6	-39.4
	INNSBRUCK	21	9	28	2	15	1.9	97.4	12.2
CZECH	PRAGUE	20	8	26	2	14	1.5	53.3	-13.7
POLAND	WARSAW	21	10	26	6	15	2.3	32.3	-19.9
	LODZ	20	10	27	5	15	2.0	29.1	-22.0
	KATOWICE	20	9	25	3	14	1.5	92.4	24.3
	PRZEMYSL	19	10	24	2	14	1.3	33.0	-37.4
HUNGAR	BUDAPEST	21	11	26	7	16	0.2	57.1	8.6
YUGOSL	SARAJEVO	21	9	26	5	15	1.5	72.1	-12.0
ROMANI	BUCHAREST	23	10	30	0	16	-0.2	70.8	-0.3
BULGAR	SOFIA	20	10	28	2	15	0.3	50.9	-31.5
ITALY	MILAN	22	14	28	11	18	1.5	91.2	3.7
	VERONA	22	14	27	9	18	1.3	132.8	51.6
	VENICE	22	14	25	10	18	1.4	69.7	-1.0
	GENOA	22	16	31	12	19	1.3	86.8	-21.2
	ROME	23	15	29	9	19	1.7	164.5	126.6
	NAPLES	25	14	35	10	20	2.9	20.4	-31.8
GREECE	THESSALONIKA	25	13	29	5	19	-0.9	37.7	-11.6
	LARISSA	27	11	36	2	19	-0.8	7.0	-33.3
	ATHENS	24	16	30	9	20	-0.6	10.2	-10.8
TURKEY	ISTANBUL	21	12	28	6	16	0.6	8.9	-21.1
	ANKARA	21	6	29	-1	14	-3.1	46.0	4.0
CYPRUS	LARNACA	26	16	35	11	21	0.5	46.1	35.2
USSR	TALLINN	17	6	27	1	11	2.3	4.7	-32.8
	LENINGRAD	18	8	27	2	13	3.0	15.6	-22.4
	KAUNAS	20	9	26	3	14	2.0	23.5	-29.5
	MINSK	21	9	27	2	15	2.4	18.7	-42.7
	KAZAN	19	7	27	0	13	-0.1	15.2	-22.9
	MOSCOW	19	8	28	3	14	1.3	41.8	-18.6
	SVERDLOVSK	16	3	26	-3	10	-1.8	40.1	-1.3
	OMSK	15	4	25	-4	10	-2.1	23.5	-3.0
	KUSTANAY	19	5	27	-2	12	-1.8	24.0	0.5
	KRASNOYARSK	14	4	29	-3	9	-0.2	35.7	-7.4
	NOVOSIBIRSK	14	4	27	-1	9	-0.5	24.6	-8.4
	BARNAUL	15	5	28	-3	10	-1.8	42.1	6.2
	KHABAROVSK	18	8	26	1	13	1.4	27.9	-33.9
	VLADIVOSTOK	12	6	22	3	9	-0.4	57.4	-16.2
	KIEV	20	11	27	4	15	0.7	76.6	24.8
	LVOV	19	9	24	4	14	1.5	61.9	-10.2
	KIROVOGRAD	20	9	27	-1	15	-0.4	49.7	1.8

COUNTRY CITY		TEMPERATURE (C)						PRECIPITATION (MM)	
May 1988		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
USSR	ODESSA	18	12	24	4	15	0.3	54.0	10.5
	YALTA	19	12	26	7	16	-0.5	12.2	-12.7
	VORONEZH	20	9	27	1	14	-0.2	55.6	4.5
	SARATOV	19	10	27	3	15	-0.2	27.1	-16.6
	KHARKOV	19	10	26	0	15	-0.5	82.9	35.9
	VOLGOGRAD	19	10	26	1	15	-2.2	75.5	43.7
	ROSTOV	21	11	27	3	16	-1.0	19.1	-30.7
	ASTRAKHAN	23	12	31	3	17	-1.4	18.3	-2.4
	KRASNODAR	21	10	26	1	16	-1.4	85.3	22.5
	ORENBURG	21	8	28	0	14	-1.8	34.1	5.8
	TSELINOGRAD	16	7	26	0	12	-1.0	46.3	19.6
	KARAGANDA	17	6	27	1	12	-1.6	59.7	29.0
	TBILISI	20	11	29	1	15	-2.4	89.2	10.6
	TASHKENT	25	13	35	5	19	-1.1	49.7	4.8
	ASHKHABAD	28	15	41	10	22	-1.4	35.8	7.8
SYRIA	DAMASCUS	30	12	37	4	21	0.0	0.1	-5.3
ISRAEL	JERUSALEM	27	14	36	6	21	0.7	0.1	-4.1
PAKIST	KARACHI	35	27	44	25	32	0.9	0.1	0.1
INDIA	AMRITSAR	41	22	46	16	32	1.7	0.1	-14.3
	NEW DELHI	42	29	46	25	35	2.6	7.3	-9.6
	AHMEDABAD	43	28	46	25	35	1.1	0.1	-6.1
	INDORE	42	25	45	22	34	1.2	0.1	-9.3
	CALCUTTA	35	26	37	22	31	-0.9	104.4	22.2
	VERAVAL	33	26	36	22	29	0.5	0.1	-1.6
	BOMBAY	34	27	35	21	31	0.8	0.1	-19.8
	POONA	36	23	42	19	30	-0.4	17.8	-28.2
	BEGAMPET	41	28	43	22	35	2.4	0.4	-37.8
	MADRAS	39	29	43	25	34	1.2	34.4	-10.8
	MANGALORE	34	26	36	20	30	1.0	26.3	-206.6
H KONG	HONG KONG	29	25	32	22	27	1.1	109.3	-194.2
N KREA	PYONGYANG	22	9	29	3	15	0.9	39.8	-37.2
S KREA	SEOUL	23	13	32	9	18	1.9	40.0	-46.1
JAPAN	SAPPORO	16	8	24	3	12	-0.1	93.5	34.4
	NAGOYA	23	14	30	8	19	0.7	156.5	-5.2
	TOKYO	22	15	29	10	18	0.0	148.0	0.1
	YOKOHAMA	22	15	28	9	18	0.2	127.1	-36.6
	KYOTO	24	14	30	8	19	1.2	210.0	67.2
	OSAKA	24	15	30	9	20	0.6	164.5	23.6
THAILN	PHETCHABUN	34	25	36	22	29	-0.3	193.9	33.6
	BANGKOK	33	26	36	24	30	-0.1	363.9	179.0
MALAYS	KUALA LUMPUR	33	25	35	23	29	1.6	209.8	13.1
VIETNM	HANOI	32	25	39	15	29	0.8	233.0	37.4
CHINA	HARBIN	19	8	27	1	13	-0.7	65.9	28.4
	HAMI	25	12	34	4	18	-2.1	16.4	14.7
	LANCHOW	23	11	32	4	17	0.4	56.8	20.6
	BEIJING	25	15	33	9	20	0.2	37.1	4.0
	TIENTSIN	25	16	36	11	20	0.2	41.0	10.4
	LHASA	21	6	26	2	14	1.3	7.7	-13.9
	KUNMING	25	16	29	13	21	1.7	53.0	-40.1
	CHENGCHOW	26	16	33	8	21	-0.4	34.3	-8.7
	YEHCHANG	26	18	37	11	22	0.8	118.8	-17.2
	HANKOW	26	19	35	11	22	0.7	292.2	130.2
	CHIHKIANG	26	18	33	11	22	0.6	140.6	-94.5
	SHANGHAI	24	16	32	13	20	1.1	118.6	-3.6
	NANCHANG	26	20	35	13	23	0.5	318.0	16.0
	TAIPEI	29	24	36	20	27	2.4	213.0	-5.9
	CANTON	30	24	34	16	27	1.5	328.9	53.0
	NANNING	31	24	38	19	27	1.1	179.1	-7.7
CNRY I	LAS PALMAS	24	17	26	11	20	0.4	0.1	-2.9
MOROCC	CASABLANCA	21	14	24	10	18	-0.2	27.1	8.2
	MARRAKECH	27	14	34	11	20	-0.1	0.6	-21.2
ALGERI	ALGER	25	13	29	9	19	1.1	22.4	-12.6
	BATNA	26	13	34	4	19	3.4	13.3	-25.8
TUNISI	TUNIS	28	16	39	11	22	2.9	3.7	-22.7
NIGER	NIAMEY	43	30	45	27	36	2.5	0.1	-34.1
MALI	TIMBUKTU	43	25	46	19	34	-0.2	0.1	-3.7
	BAMAKO	40	27	42	24	34	2.5	16.2	-40.0
MAURIT	NOUAKCHOTT	36	20	46	16	28	2.1	0.1	0.1
SENEGL	DAKAR	26	21	34	16	24	0.7	0.1	0.1
CHAG A	DIEGO GARCIA	31	26	33	22	28	0.9	231.1	41.2
LIBYA	TRIPOLI	34	19	43	11	26	4.4	0.1	-4.5
	BENGHAZI	32	19	41	11	26	2.9	0.1	-3.3
EGYPT	CAIRO	34	20	44	15	27	2.3	0.1	-1.7
	ASWAN	40	25	47	18	32	1.3	0.1	0.1
ETHIOP	ADDIS ABABA	25	12	29	8	18	-0.2	57.3	-19.2
KENYA	NAIROBI	24	15	25	13	20	0.3	35.2	-91.7

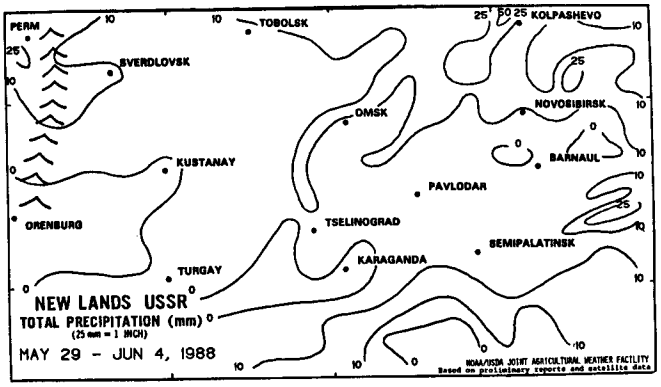
COUNTRY CITY		TEMPERATURE (C)						PRECIPITATION (MM)	
May 1988		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
TANZAN	DAR ES SALAAM	31	21	32	19	26	0.7	15.5	-149.3
GABON	LIBREVILLE	30	24	31	21	27	0.2	431.7	163.8
TOGO	LOME	32	26	33	23	29	1.8	69.9	-78.1
B FASO	OUAGADOUGOU	39	26	41	21	33	1.3	60.1	-27.6
IVRY C	ABIDJAN	32	26	35	22	29	1.5	98.2	-224.6
MOZAMB	MAPUTO	28	16	32	12	22	1.0	3.0	-25.6
ZAMBIA	KABWE	26	12	29	9	19	1.2	0.1	-4.9
ZIMBAB	HARARE	23	11	25	8	17	1.2	0.1	-11.8
S AFRI	PRETORIA	23	8	28	2	16	1.9	1.0	-20.0
	KROONSTAD	22	4	26	-3	13	1.2	16.0	-6.1
	JOHANNESBURG	20	9	24	2	14	1.9	1.2	-19.8
	BETHAL	19	4	23	-5	11	-0.1	0.1	-19.0
	DURBAN	25	15	34	10	20	1.3	49.7	-7.2
	CAPE TOWN	22	10	32	5	16	1.9	56.7	-19.3
CANADA	TORONTO	20	8	31	1	14	1.8	40.0	-26.0
	MONTREAL	21	9	27	2	15	1.9	50.3	-15.2
	WINNIPEG	22	7	35	-4	15	3.5	30.6	-35.1
	REGINA	23	7	34	-3	15	3.7	26.1	-20.4
	SASKATOON	23	7	34	-3	15	4.1	10.8	-28.7
	LETHBRIDGE	21	7	32	-1	14	3.0	15.3	-35.5
	CALGARY	20	6	30	-3	13	3.1	16.3	-32.3
	EDMONTON	20	7	31	-4	14	2.5	18.6	-23.9
	VANCOUVER	16	9	24	4	12	0.2	143.9	92.3
MEXICO	GUADALAJARA	32	12	37	8	22	-1.2	0.1	-26.5
	MEXICO CITY	28	13	32	10	20	2.1	60.4	8.8
	ACAPULCO	31	21	34	18	26	-2.6	0.1	-31.6
BERMUD	ST. GEORGES	27	22	30	18	24	2.6	96.3	-5.9
BAHAMA	NASSAU	29	21	32	17	25	-0.1	198.9	82.0
CUBA	HAVANA	30	22	34	20	26	0.4	160.4	45.5
JAMAIC	KINGSTON	33	26	34	18	29	1.4	19.6	-75.8
P RICO	SAN JUAN	32	24	34	22	28	1.1	31.0	-118.5
GUADEL	RAIZET	31	24	32	21	27	1.3	102.1	6.7
MARTNQ	LAMENTIN	31	24	33	22	28	2.1	54.2	-49.4
BARBAD	BRIDGETOWN	31	25	32	22	28	0.8	36.5	-18.1
TRINID	PORT OF SPAIN	33	24	35	23	29	2.0	122.5	11.9
COLOMB	BOGOTA	19	8	23	3	14	0.0	51.2	-25.3
VENEZU	CARACAS	32	25	35	20	28	1.6	0.6	-32.6
F GUIA	CAYENNE	30	24	32	22	27	1.1	367.0	-218.4
BRAZIL	FORTALEZA	30	24	31	22	27	0.1	302.6	19.3
	RECIFE	29	22	30	20	26	0.5	212.4	-99.1
	BELO HORIZONTE	27	17	30	13	22	2.7	30.0	4.6
	CAMPO GRANDE	26	17	31	5	22	1.2	70.1	-10.9
	FRANCA	25	15	29	11	20	1.5	43.2	3.3
	RIO DE JANEIRO	26	21	31	18	24	0.9	123.6	38.0
	LONDRINA	23	15	28	8	19	0.8	228.8	138.3
	SANTA MARIA	18	8	21	2	13	-3.1	51.8	-111.3
PERU	LIMA	23	17	27	11	20	1.3	0.7	0.4
BOLIVI	LA PAZ	14	0	16	-4	7	-1.6	35.6	21.9
CHILE	SANTIAGO	19	2	24	-2	10	-0.7	3.0	-41.3
ARGENT	IGUAZU	20	12	25	1	16	***	212.9	****
	FORMOSA	21	12	27	1	16	-2.7	91.3	-25.7
	CERES	19	7	24	-3	13	-2.9	2.1	-30.2
	CORDOBA	17	5	25	-6	11	-2.9	1.8	-21.7
	RIO CUARTO	16	5	22	-1	11	-2.4	5.0	-19.6
	ROSARIO	17	4	23	-4	11	-2.7	8.1	-36.9
	BUENOS AIRES	17	5	21	-2	11	-2.0	1.3	-75.7
	SANTA ROSA	16	3	24	-4	10	-1.5	10.4	-12.7
	TRES ARROYOS	16	4	22	-2	10	-0.8	17.9	-41.2
MIDW I	MIDWAY ISLAND	26	21	28	17	23	1.6	11.9	-97.9
N CALD	NOUMEA	26	21	30	18	23	1.3	137.2	43.0
FIJI	NAUSORI	28	23	30	21	25	1.1	339.3	80.2
SAMOA	PAGO PAGO	30	25	31	23	28	1.1	210.6	-70.1
TAHITI	PAPEETE	31	23	33	21	27	1.3	22.7	-83.2
N ZEAL	AUCKLAND	18	11	21	4	14	0.5	108.5	-9.1
	WELLINGTON	15	8	20	2	11	0.1	147.0	10.8
PA N G	PORT MORESBY	30	26	31	24	28	0.8	146.4	81.6
AUSTRL	DARWIN	32	26	34	22	29	1.7	76.0	52.1
	MOREE	21	12	26	7	17	1.7	6.6	-32.6
	BRISBANE	23	14	27	9	19	0.3	7.2	-74.2
	PERTH	21	13	27	11	17	0.9	149.7	40.1
	CEDUNA	21	13	29	6	17	2.2	31.2	-12.2
	ADELAIDE	19	13	26	8	16	2.0	61.7	-2.0
	MELBOURNE	17	11	24	5	14	2.0	47.8	-9.5
	WAGGA	18	11	27	5	15	3.2	150.7	95.9
	CANBERRA	16	7	24	-1	11	2.6	54.4	8.2
PHILIP	MANILA	35	26	37	24	30	1.0	126.9	2.3



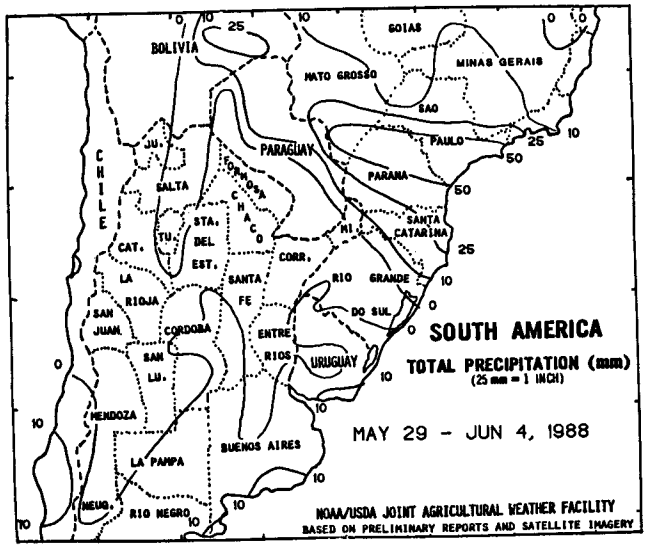
USSR ... In Western USSR, soaking rain covered the western half of the Ukraine, Belorussia, and parts of the Baltic States where precipitation amounts generally ranged from 25 to 60mm. Isolated locations received rainfall in excess of 80mm. Overall, the precipitation in these areas benefited winter grains entering reproduction, spring grains in the jointing stage, and corn and sugar beets in the early vegetative stage. Unseasonable warmth accompanied dry weather over the eastern two-thirds of the region. Highest temperatures occurred on June 4, when maximum temperatures in the eastern Black Soils and the Volga ranged from 30 to 33 degrees Celsius (C). Although soil moisture in these areas was sufficient to meet crop moisture demands, rain and cooler weather is needed to ensure proper crop development. Maximum temperatures in the Central Region, the western Black Soils, the eastern Ukraine, and the North Caucasus ranged from 26 to 30 degrees C.



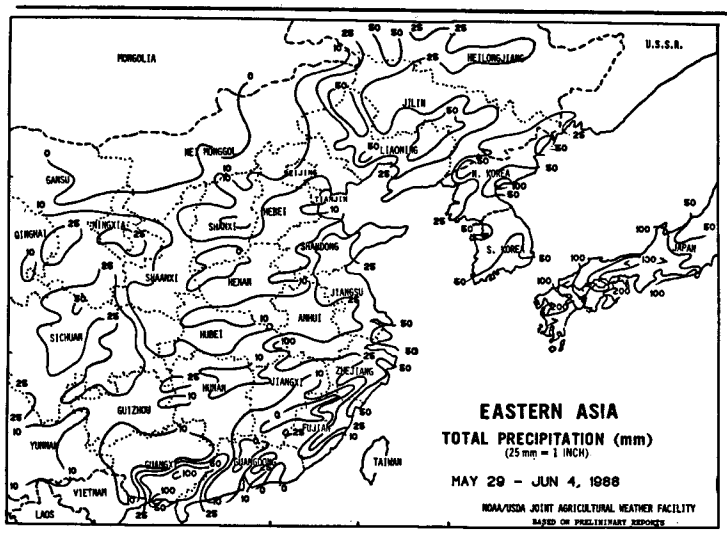
MEXICO ... The weather pattern remained unchanged over most of the country. Light rain fell in the northeast, but significant rainfall (7-16mm) was confined to coastal areas. Some rain also fell in the eastern third of the Southern Plateau corn belt, where weekly totals ranged from 2 to 25mm in the interior and 10-63mm along the coast. The heaviest showers were located near Tampico and Veracruz. Elsewhere, dry weather continued to prevail. Moisture is becoming extremely low throughout most crop areas.



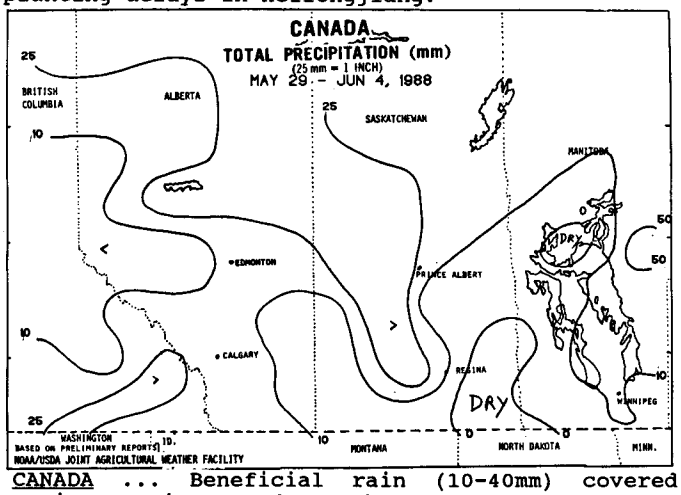
In the New Lands, light showers (6-18mm) covered the northern Urals, and eastern portions of the upper Volga, West Siberia, and central Kazakhstan, moistening topsoils for spring grains in the early vegetative stage. Dry weather and above-normal temperatures over the southern Urals increased evaporation rates. However, sufficient soil moisture supplies met the moisture demands of spring grains which ranged from tillering to jointing.



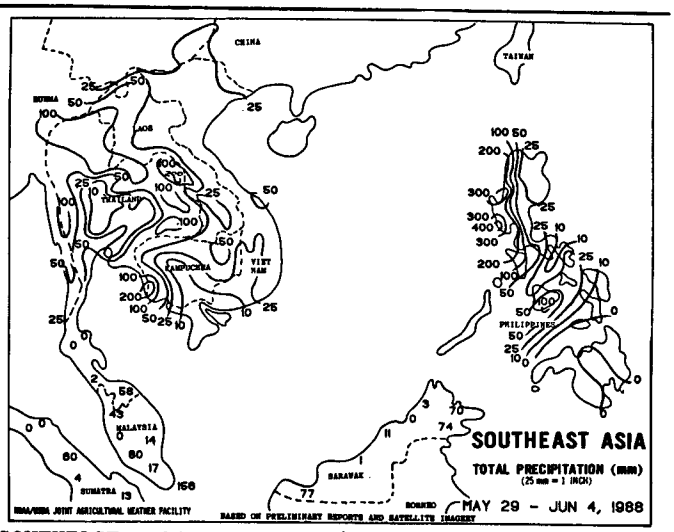
SOUTH AMERICA ... In Argentina, mostly dry weather continued over the major crop areas, promoting rapid soybean harvesting up to 65 percent complete. Some very light rain (less than 5mm) fell over Buenos Aires province, with locally heavy showers (6-15mm) benefiting southern wheat areas. Topsoils are dry, and moisture is needed throughout Argentina's wheat areas for crop establishment. Weekly temperatures averaged 3-7 degrees C below normal, producing frequent morning frost. The cold air pushed into south-central Brazil, where temperatures averaged 5-8 degrees C below normal from Parana southward. Light, scattered frost touched southernmost coffee areas in Parana. Dry weather favored fieldwork in Rio Grande do Sul, but more rain (25-88mm) soaked Parana, southern Mato Grosso do Sul, and southeastern Sao Paulo early in the week. Rainfall diminished further north.



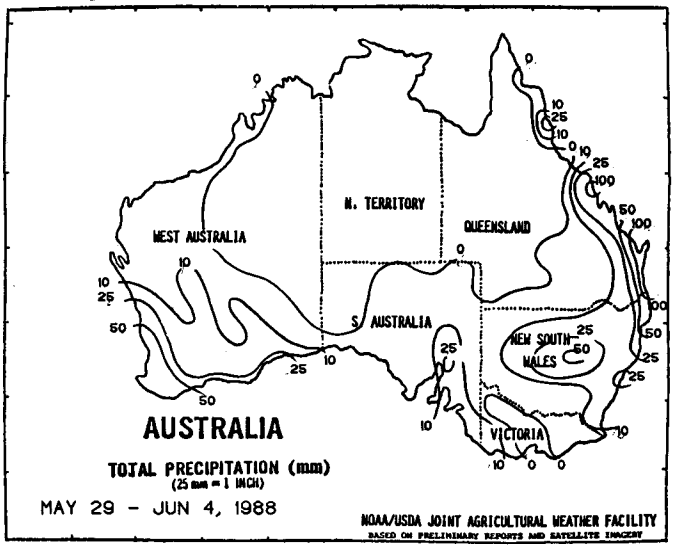
EASTERN ASIA ... Typhoon Susan moved through Taiwan, bringing high winds, very heavy rainfall in excess of 150mm, and flooding to southern and eastern sections of the island. Remnants of the storm continued to the northeast, spreading heavy rain (greater than 75mm) and possible flooding to sections of the southern Korean Peninsula and southern Japan. With the exception of coastal Zhejiang where heavy rain fell, much of southeastern China was missed by the storm and received only light to moderate rainfall (generally less than 15mm), allowing soils to dry after several weeks of heavy rainfall and flooding. Scattered rainfall caused delays in winter wheat harvest across southern growing areas in the Yangtze River Valley, while light to moderate rain favored the heading to filling crop across northern growing areas. Moderate to heavy rain (greater than 20mm) persisted in Manchuria, favoring summer crops in Liaoning and Jilin but continuing planting delays in Heilongjiang.



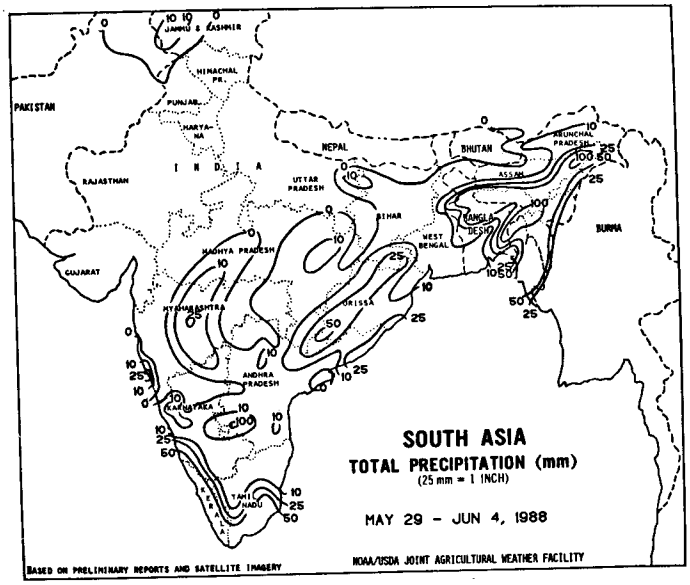
CANADA ... Beneficial rain (10-40mm) covered grain regions of northwestern Saskatchewan, northeastern Alberta, and Alberta's Peace River Valley, increasing moisture levels for spring wheat establishment and bringing some relief from early week hot weather. However, rainfall was light elsewhere in Alberta and Saskatchewan, ranging from 3-8mm in the chronically dry southwest. Variable rain (1-18mm) covered crop areas in Manitoba as dry weather persisted in the area around Winnipeg for the second week. Hot weather late in the week covered crop areas from southern Alberta eastward, increasing evaporation rates and drying topsoils. Temperatures reached 38 degrees C over much of western Saskatchewan, stressing vegetative spring wheat.



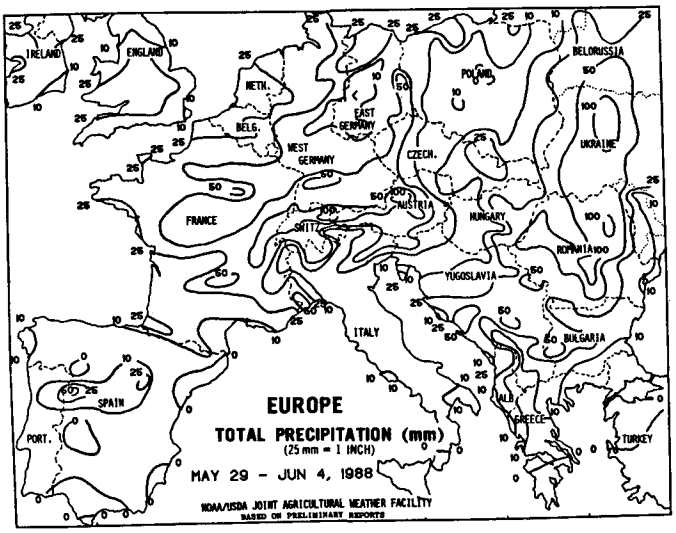
SOUTHEAST ASIA ... Light to moderate rain (2-32mm) covered corn areas of central Thailand, maintaining generally favorable conditions for planting and establishment. However, heavy showers (100-200mm or more) returned to northern and northeastern rainfed crop areas, likely causing local flooding. Moderate to heavy rain (25-50mm or more) fell elsewhere in Indochina except for south-central Kampuchea, southern Vietnam, and most of Peninsular Thailand. In the Philippines, inundating rain (100-400mm or more) from Typhoon Susan covered the western half of Luzon, causing flooding and possibly damaging grains and sugarcane. Heavy rain and wind from the storm failed to reach the Cagayan Valley. Mostly light to moderate showers (10-50mm or more) covered the central islands, but dry weather covered Mindanao.



AUSTRALIA ... A slow moving cool front brought heavy rain (greater than 25mm) to nearly all of Western Australia's winter grain areas, keeping soil moisture at near optimal levels for emerging crops. Scattered, lighter rain favored winter grains across South Australia, Victoria, and southern New South Wales. Heavy rain (up to 53mm) benefited newly planted winter grains across central New South Wales but caused delays in late fall planting and summer crop harvest. In northern New South Wales and southern Queensland, mostly light rain (less than 10mm) caused minor delays in cotton harvesting, which is nearing completion nearly 3 weeks later than normal due to persistent rains in late March, April, and May.



SOUTH ASIA ... Heavy rain (50-100mm or more) returned to coastal rice areas of southern India from Karnataka to central Tamil Nadu. Scattered, variable showers continued over interior crop areas as far north as central Maharashtra, improving planting conditions. Rainfall increased from the previous week from northern Andhra Pradesh and eastern Madhya Pradesh to southwestern West Bengal, improving irrigation conditions for summer crop planting. A pocket of drier weather developed over eastern West Bengal and southwestern Bangladesh, but heavy showers (50-100mm or more) persisted over eastern Bangladesh and portions of India's eastern states, likely causing further flooding and crop damage in parts of eastern Bangladesh. Dry, hotter-than-normal weather continued over central and northern India. Normally, summer crops are planted during June and July, coinciding with the onset of the southwest monsoon. Planting is likely well underway in coastal regions but just beginning in interior crop areas of southern India.



EUROPE ... A maritime frontal system brought moderate to heavy rain (15 to 30mm) to sections of the United Kingdom, France, Benelux, and West Germany, favoring vegetative to reproductive winter grains and vegetative summer crops. The front brought cooler-than-normal temperatures to much of western Europe by week's end. Light to moderate rain (5-20mm) brought some relief to crops in East Germany, western Poland, and northern Czechoslovakia, although evaporative loss rates were accelerated by above-normal weekly temperatures. The precipitation in East Germany ended 9 weeks of below-normal rainfall, which has been unfavorable for the development of winter and summer crops. In the south, scattered rain caused delays in winter grain harvest across the southwest, while widespread moderate to heavy rain favored crops in the Balkans.

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

Annual subscriptions: domestic $25, foreign $33 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

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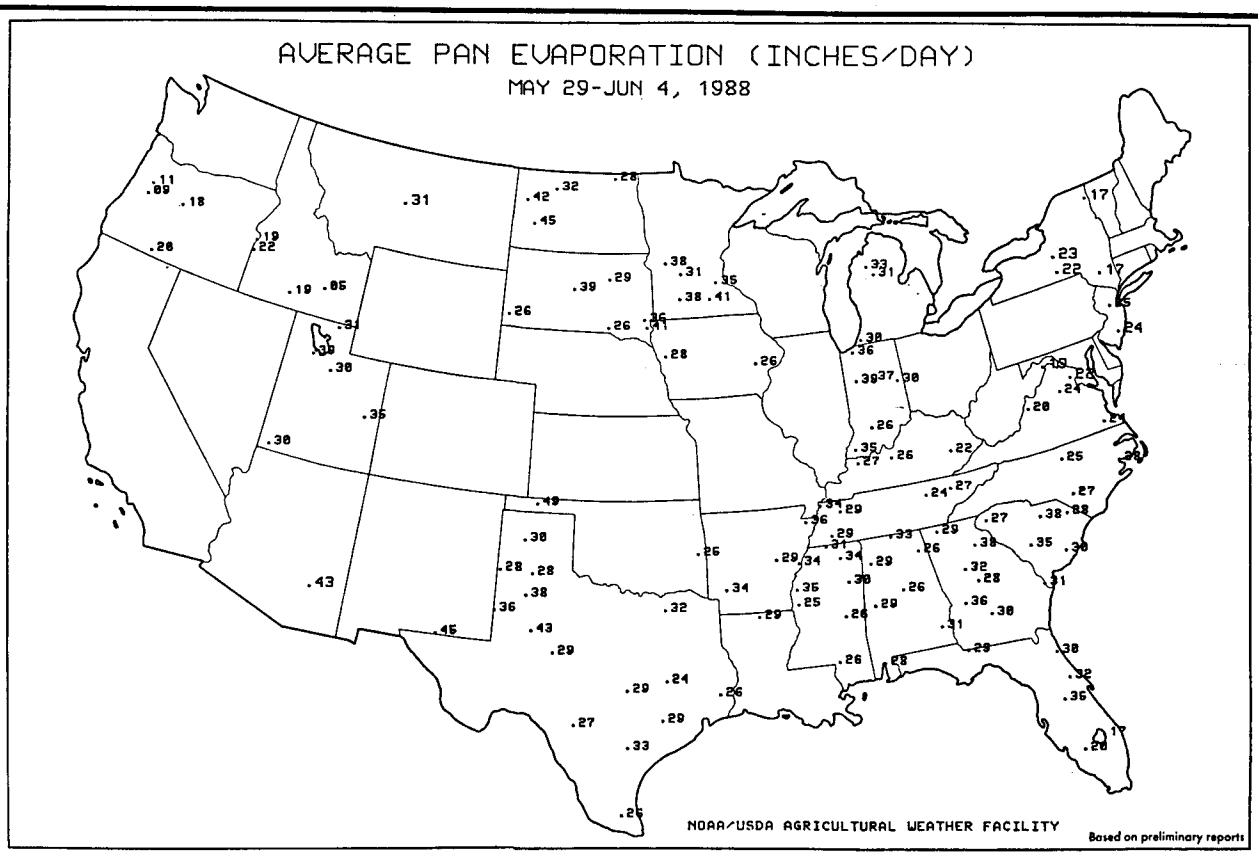

NOAA/USDA Joint Agricultural Weather Facility
Room 5844 USDA South Building
Washington, D.C. 20250

OFFICIAL BUSINESS
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WEEKLY NEWS BULLETIN
SECOND CLASS

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ISSN 0043 1974