

WEEKLY WEATHER AND CROP BULLETIN

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

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

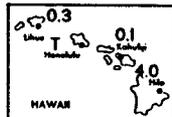
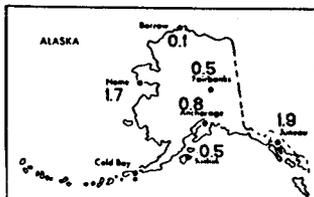
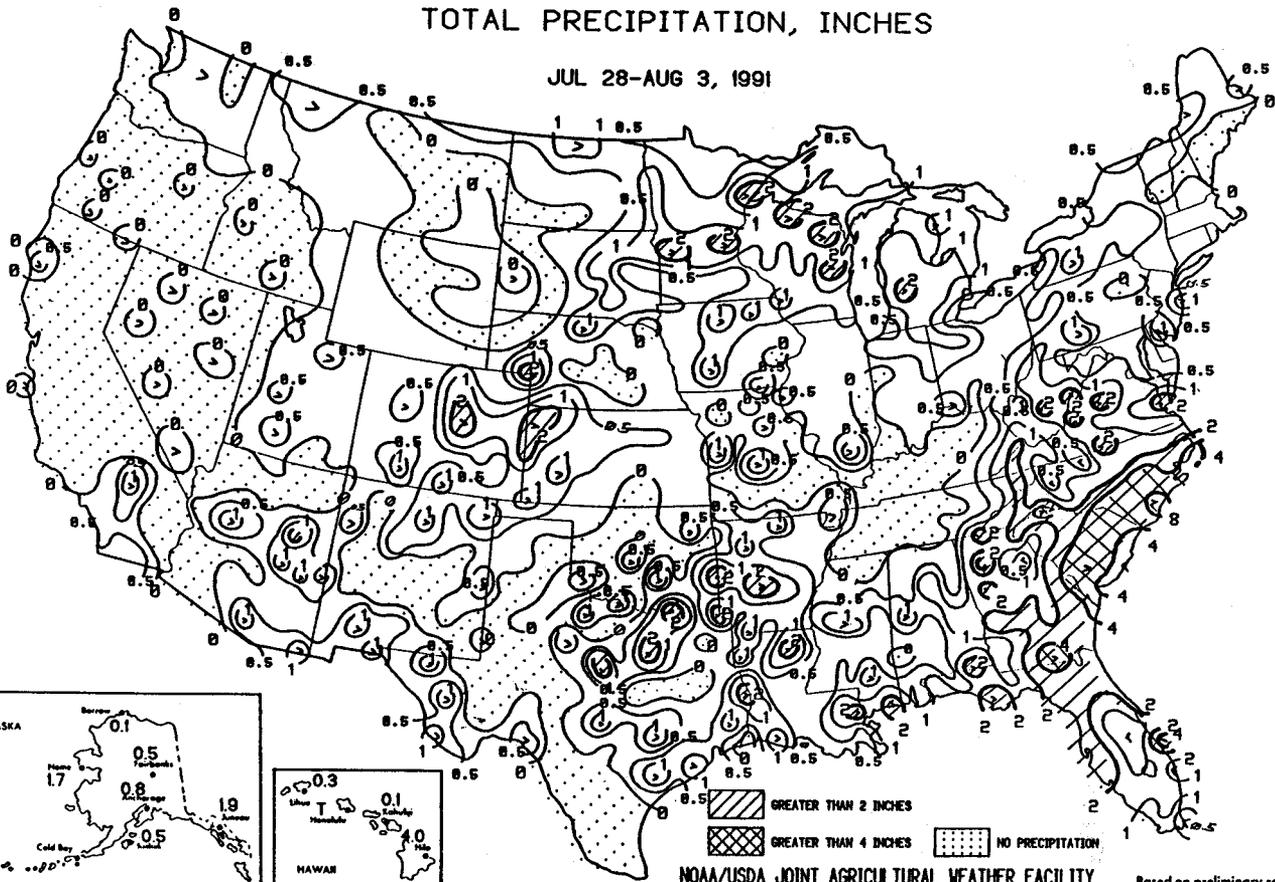
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August 6, 1991

TOTAL PRECIPITATION, INCHES

JUL 28-AUG 3, 1991



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

HIGHLIGHTS

July 28 - August 3, 1991

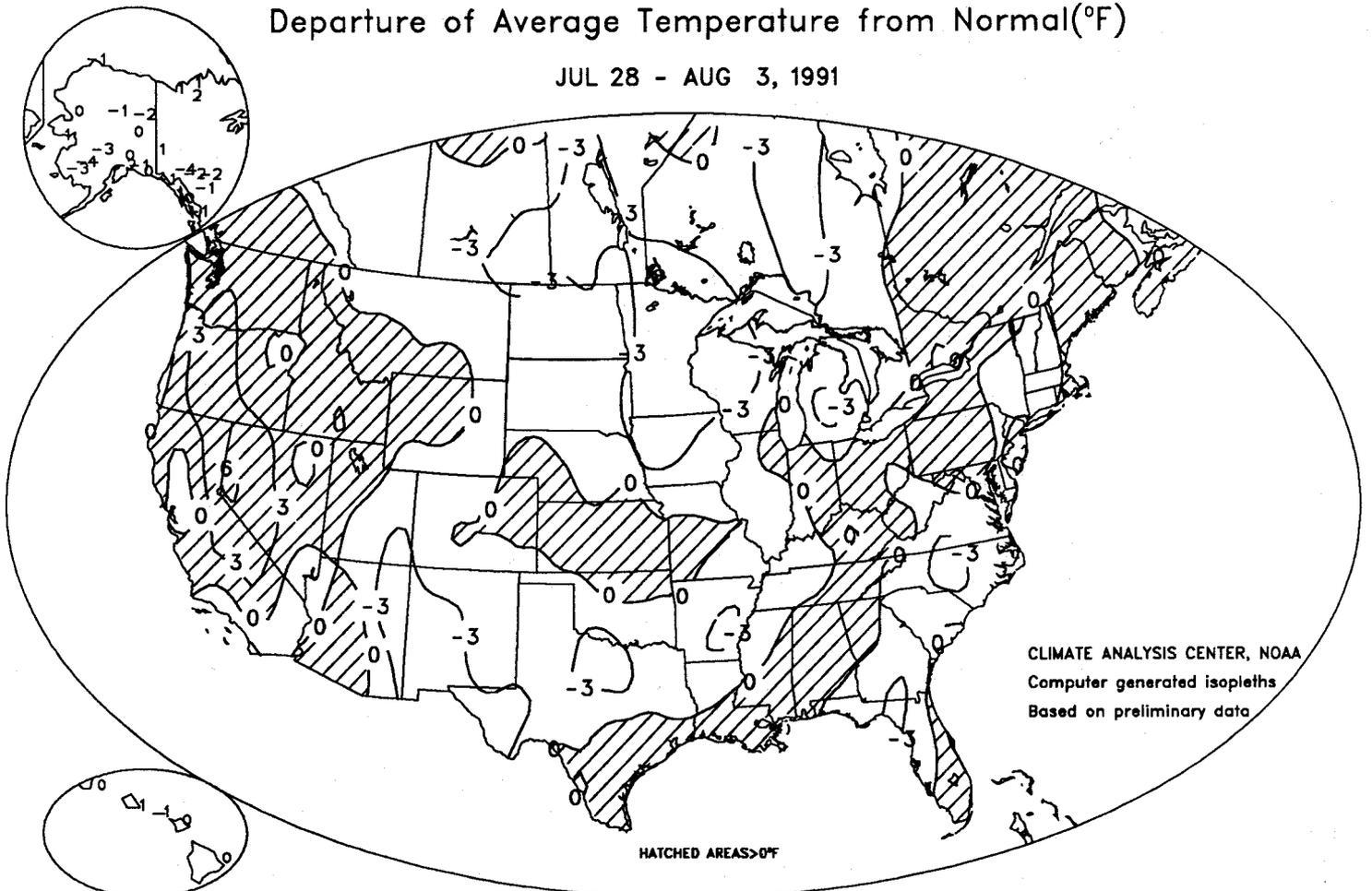
Thunderstorms regularly pounded the **Southeast** and the **Southwest** but largely bypassed the **Corn Belt**. Intermittent storms were also observed in the **Great Lakes region** and in portions of the **central and southern Plains**. A wave of heat slid across the **Nation**, reaching the **East coast** by midweek. Sharply cooler air spilled across the **Canadian border** by week's end. Early in the week, convection dotted the **South** and the **Great Lakes**. Rainfall was heaviest from **Virginia** southward to **Florida**, and across **northern Wisconsin** and **Upper Michigan**. In **central North Carolina**, up to 7 inches of rain fell in less than 4 hours. Temperatures started off below normal in the **East** but were above normal in the **West**. In **Youngstown, OH**, Sunday's minimum was 49° F. In contrast, Monday's temperature in **Lake Havasu City, AZ**, soared to 120° F after a morning low of 96° F. At midweek, locally
(Continued to back cover)

Contents

	Page
Highlights & Total Precipitation	1
Temperature Departure & Extreme Maximum Temperature Maps.....	2
Crop Moisture Maps	3
Total Growing Degree Days & Departure Maps ...	4
National Weather Data for Selected Cities	5
July Weather and Crop Summary	8
July Precipitation & Temperature Maps	9
July Weather Data for Selected Cities	11
July Weather in Historical Perspective	12
Midwest Drought Update	13
National Agricultural Summary	14
Crop Progress and Condition Tables	15
State Summaries of Weather and Agriculture ...	17
International Weather and Crop Summary & July Temperature/Precipitation Table	23
Subscription and Mailing Permit Information ..	28

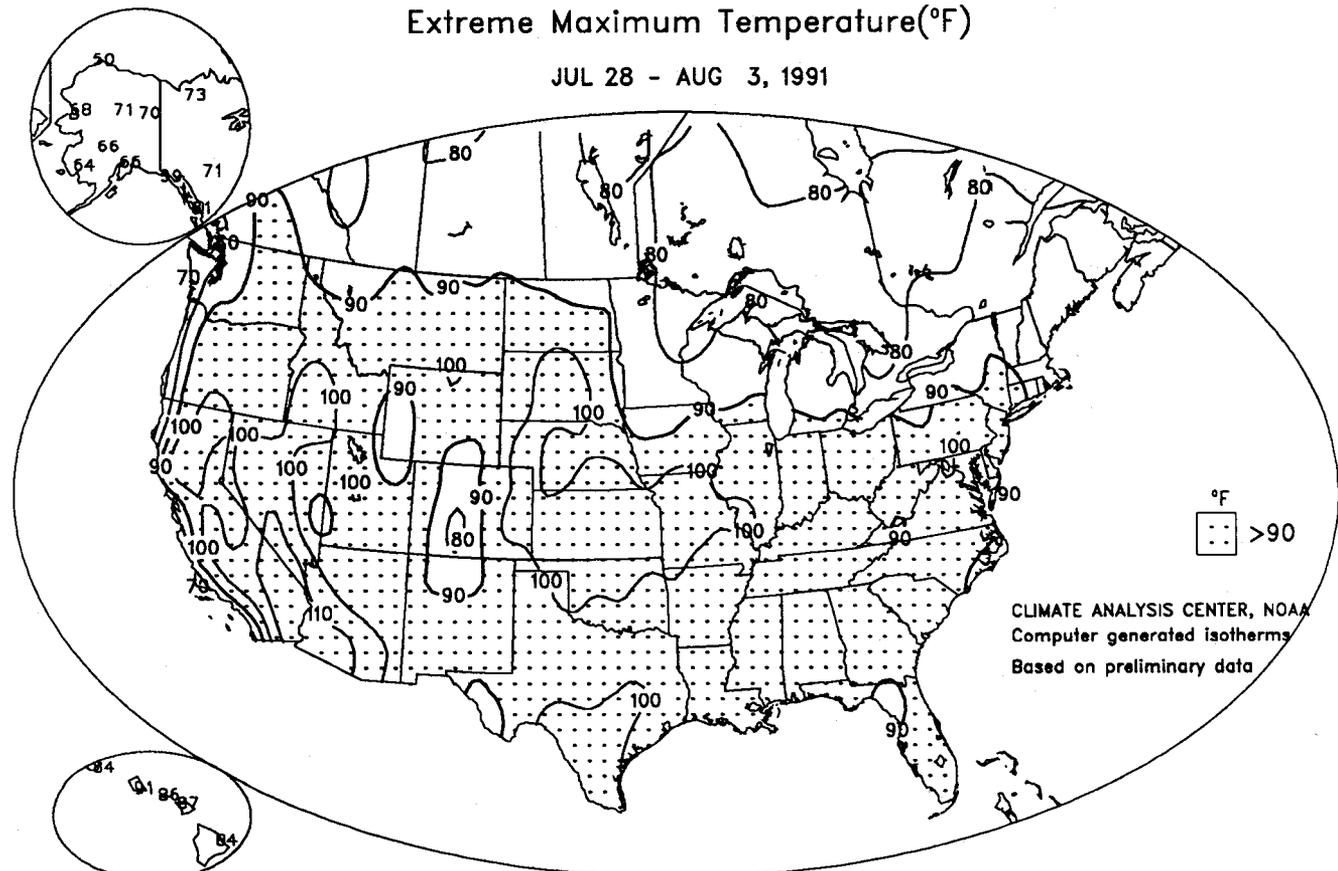
Departure of Average Temperature from Normal(°F)

JUL 28 - AUG 3, 1991



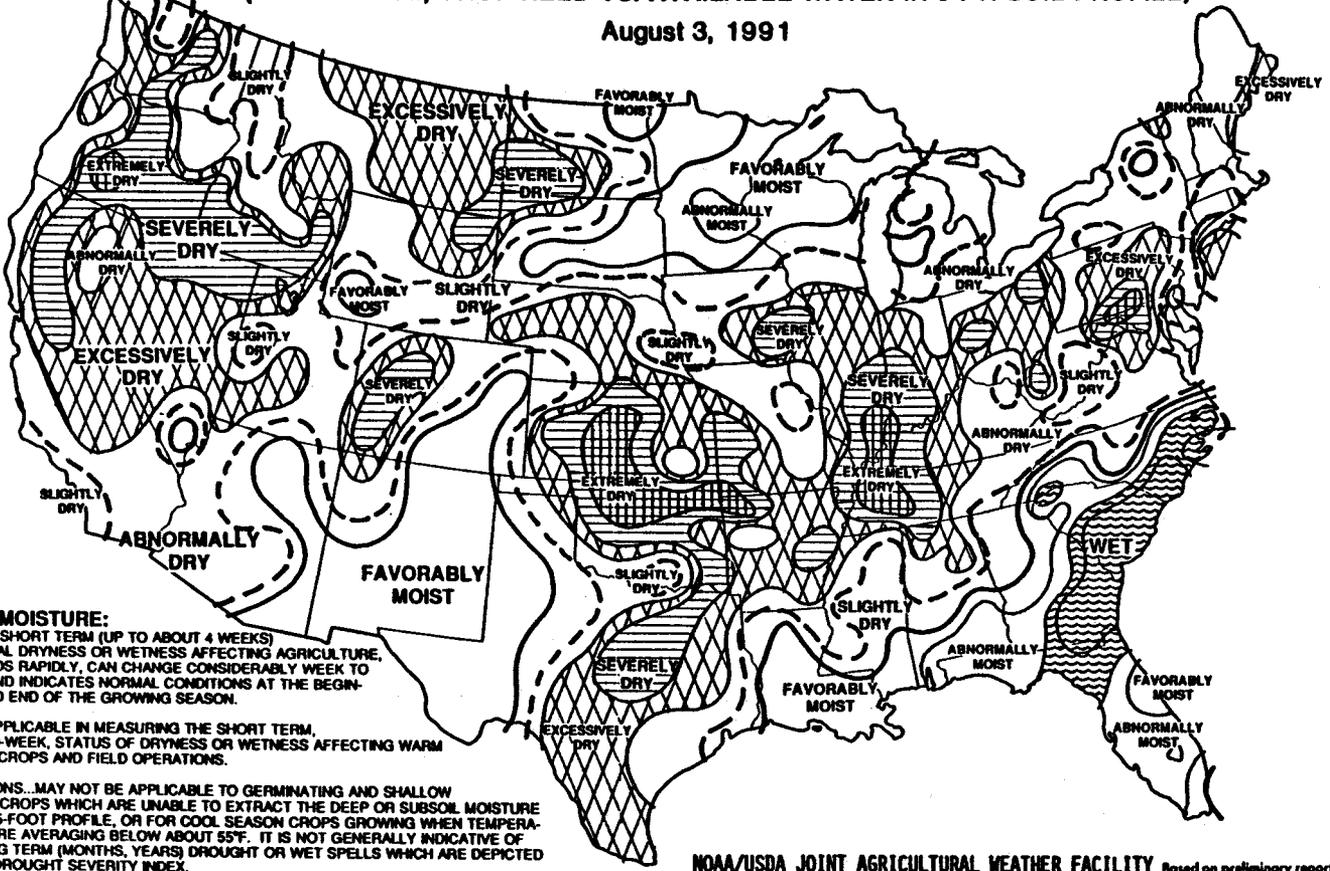
Extreme Maximum Temperature(°F)

JUL 28 - AUG 3, 1991



CROP MOISTURE (SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)

August 3, 1991



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.

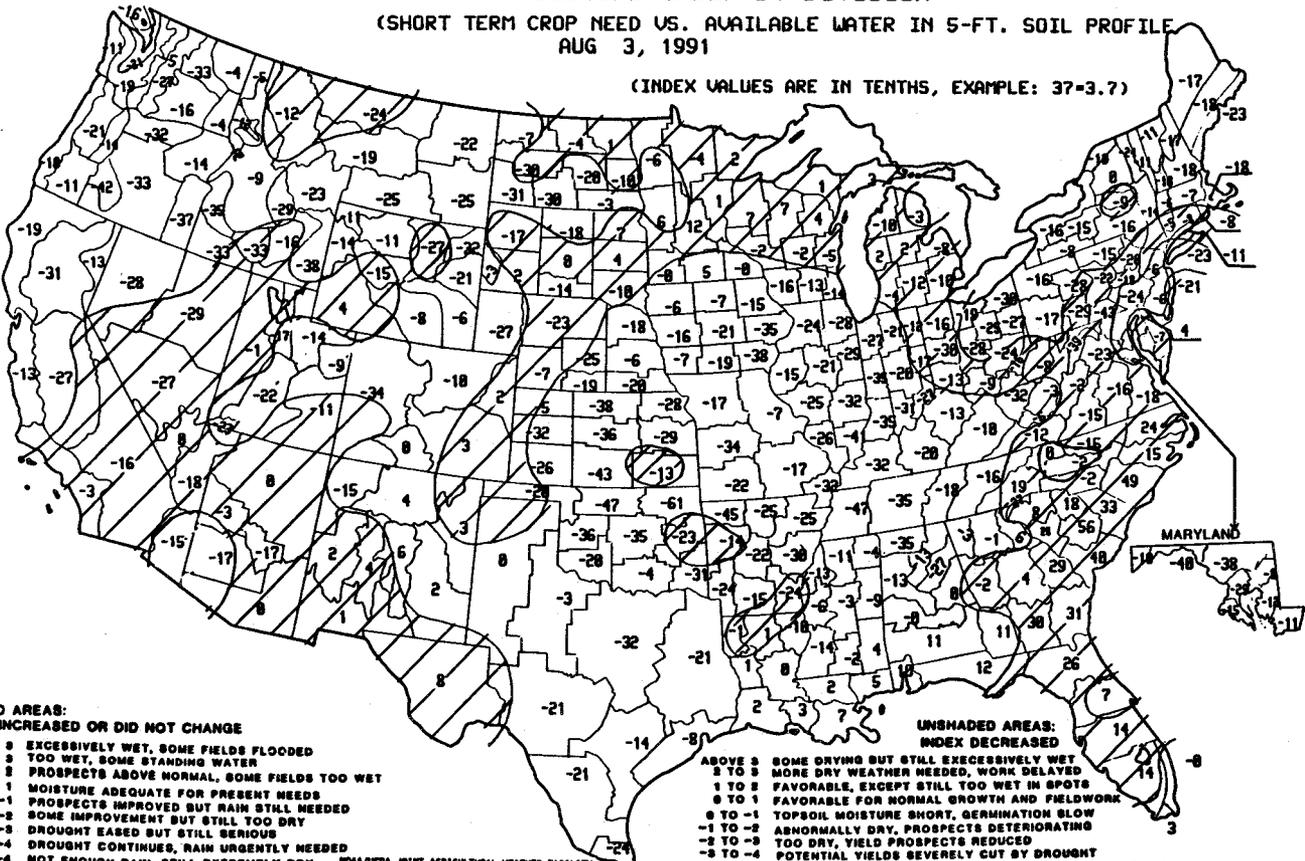
LIMITATIONS. MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) 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)
AUG 3, 1991

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



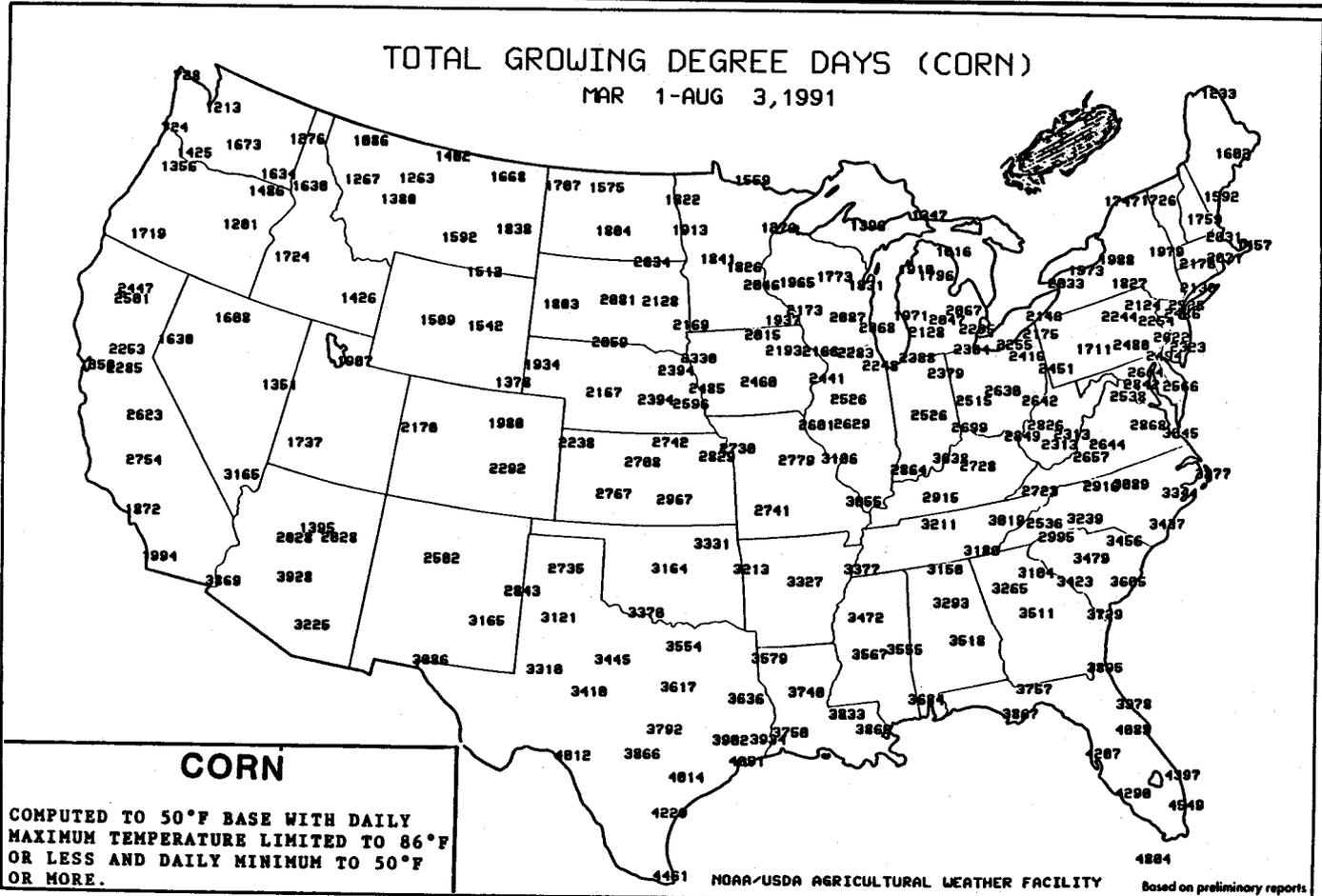
SHADED AREAS:
INDEX INCREASED OR DID NOT CHANGE
 ABOVE 9 EXCESSIVELY WET, SOME FIELDS FLOODED
 2 TO 8 TOO WET, SOME STANDING WATER
 1 TO 2 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET
 0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS
 0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
 -1 TO -2 SOME IMPROVEMENT 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

UNSHADED AREAS:
INDEX DECREASED
 ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
 3 TO 2 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 RUNNED

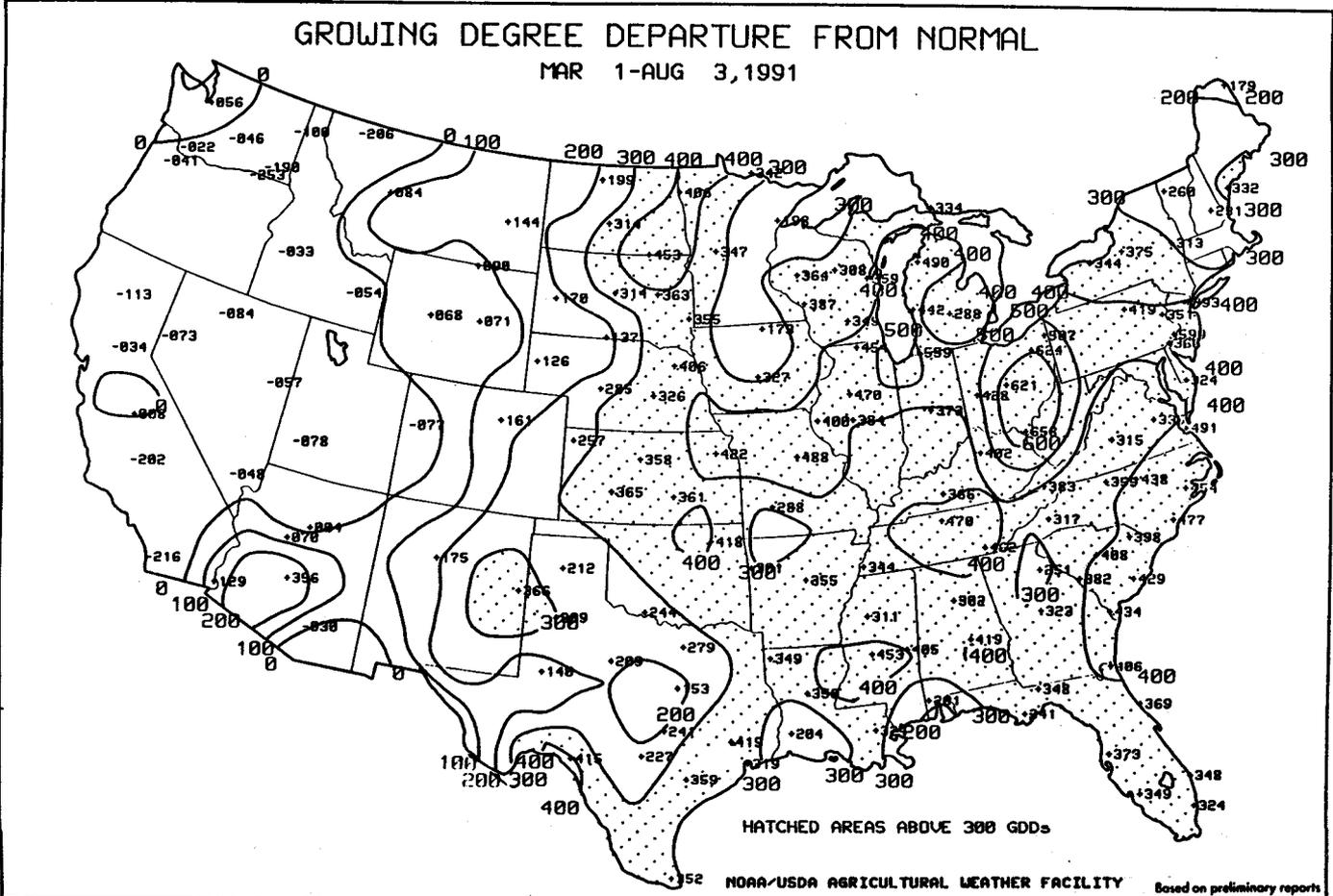
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

TOTAL GROWING DEGREE DAYS (CORN)
MAR 1-AUG 3, 1991



GROWING DEGREE DEPARTURE FROM NORMAL
MAR 1-AUG 3, 1991



National Weather Data for Selected Cities

Weather Data for the Week Ending August 3, 1991

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS							
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																			.01 INCH OR MORE	.50 INCH OR MORE		
AL BIRMINGHAM	93	71	93	69	82	1	1.9	.8	1.6	11.5	123	37.7	106	97	48	7	0	2	1	0	0	
MOBILE	93	74	93	73	83	1	.6	-1.1	.3	15.7	117	65.4	163	97	52	7	0	4	0	0	0	
MONTGOMERY	93	72	94	71	83	1	.4	.5	.4	11.9	140	49.6	158	97	52	7	0	2	0	0	0	
AK ANCHORAGE	61	50	67	41	56	-3	.8	.3	.2	3.4	105	5.4	82	93	63	0	0	5	0	0	0	
BARROW	45	32	50	30	39	-1	.1	.2	.1	3.3	25	.7	34	97	73	0	3	2	0	0	0	
FAIRBANKS	69	51	74	42	60	0	.5	.1	.3	1.6	48	5.3	96	94	45	0	0	5	0	0	0	
JUNEAU	57	50	62	49	53	-3	2.4	1.4	.9	9.5	126	33.7	137	99	82	0	0	6	2	0	0	
KODIAK	60	48	65	43	54	-1	.5	.5	.3	11.0	136	50.2	158	94	67	0	0	3	0	0	0	
NOME	59	46	69	38	53	1	1.7	1.0	1.2	4.8	132	7.9	120	95	62	0	0	6	1	0	0	
AZ PHOENIX	106	85	111	77	96	3	T	.2	T	.1	14	3.4	98	49	20	7	0	1	0	0	0	
PRESCOTT	89	61	99	58	75	2	.7	.1	.6	1.6	40	7.8	77	78	27	3	0	2	1	0	0	
TUCSON	100	73	107	70	87	1	.2	.4	.1	.6	22	4.1	75	58	22	7	0	0	0	0	0	
YUMA	106	84	113	81	95	1	T	.1	T	T	0	1.8	171	70	24	7	0	2	0	0	0	
AR FORT SMITH	94	69	99	62	82	-1	.1	.6	.1	4.7	66	22.4	93	84	37	6	0	1	1	1	1	
LITTLE ROCK	90	70	94	66	80	-2	.7	.0	.7	6.6	87	31.9	104	81	52	5	0	0	0	0	0	
CA BAKERSFIELD	100	71	108	63	85	1	.0	.0	.0	0	0	4.6	118	52	21	7	0	0	0	0	0	
EUREKA	62	53	66	51	58	1	.0	.0	.0	1.4	211	17.4	78	93	75	0	0	0	0	0	0	
FRESNO	99	69	107	61	84	3	.0	.0	.0	T	0	8.5	121	63	24	7	0	0	0	0	0	
LOS ANGELES	71	62	72	61	67	-3	.0	.0	.0	.2	>1000	8.0	97	90	69	0	0	0	0	0	0	
REDDING	100	67	110	59	83	0	.0	.0	.0	.1	13	17.3	70	66	18	7	0	1	0	0	0	
SACRAMENTO	92	60	104	54	76	0	1.9	1.9	1.9	2.4	>1000	12.6	118	89	35	4	0	0	0	0	0	
SAN DIEGO	72	63	74	62	68	-3	.2	.2	.2	.2	>1000	10.7	166	94	69	0	0	2	0	0	0	
SAN FRANCISCO	70	56	75	55	63	0	T	.0	T	.1	92	11.0	89	93	59	0	0	0	0	0	0	
CO DENVER	86	60	94	57	73	0	2.1	1.7	1.6	8.4	230	14.3	140	75	31	5	0	3	2	0	0	
GRAND JUNCTION	91	63	96	60	77	-2	.1	.0	.1	.8	87	3.7	86	58	21	6	0	0	0	0	0	
FURBLO	94	59	101	56	76	-1	.4	.1	.4	5.1	161	7.5	110	82	23	6	0	1	0	0	0	
CT BRIDGEPORT	82	67	89	63	74	0	T	.8	T	4.5	67	20.2	84	92	48	0	0	0	0	0	0	
HARTFORD	83	62	92	57	72	-1	.3	.5	.3	5.5	81	23.0	92	83	43	2	0	1	1	0	0	
DC WASHINGTON	87	70	96	65	79	0	.4	.6	.4	5.0	66	16.2	71	89	48	3	0	0	0	0	0	
FL APALACHICOLA	88	73	92	66	81	-1	2.1	.4	1.6	22.1	175	78.1	260	92	63	2	0	5	1	1	1	
DAYTONA BEACH	92	74	95	72	83	2	2.7	1.4	1.9	25.0	200	49.3	186	97	56	6	0	5	3	1	1	
JACKSONVILLE	92	75	95	73	83	1	2.7	1.1	2.3	27.6	215	62.4	208	94	56	5	0	3	1	0	0	
KEY WEST	92	79	94	76	86	1	.2	.6	.1	10.8	120	25.7	137	84	60	7	0	3	0	0	0	
MIAMI	91	77	93	74	84	1	1.3	.1	1.0	14.8	94	28.4	91	91	61	5	0	3	1	0	0	
ORLANDO	91	74	93	73	82	0	.9	.7	.3	17.3	110	44.5	147	98	59	5	0	6	0	0	0	
TALLAHASSEE	89	72	92	70	81	-1	.9	.0	.6	16.1	100	64.2	158	100	66	3	0	4	1	1	1	
TAMPA	88	75	92	73	81	-1	3.2	1.5	1.6	15.3	115	31.3	115	98	67	3	0	4	2	0	0	
WEST PALM BEACH	92	75	93	74	84	1	.8	.4	.5	14.8	102	52.0	164	96	59	6	0	3	0	0	0	
GA ATLANTA	88	73	93	73	81	2	.6	.4	.4	15.8	187	43.2	135	97	61	3	0	4	0	0	0	
AUGUSTA	88	73	95	71	81	0	4.8	3.9	2.4	18.4	214	45.3	159	100	71	3	0	5	3	0	0	
MACON	90	73	94	71	82	0	1.3	.3	.6	9.6	112	39.0	131	100	61	5	0	4	1	1	1	
SAVANNAH	89	75	93	74	82	0	6.0	4.3	3.1	22.8	166	55.2	174	97	66	3	0	5	3	0	0	
HI HILO	92	69	84	67	76	0	4.0	1.8	1.4	21.7	137	91.8	123	97	71	0	0	7	4	0	0	
HONOLULU	89	75	91	73	82	2	T	.1	T	.4	41	11.0	80	72	47	2	0	1	0	0	0	
KAHULUI	86	71	87	68	79	0	.1	.0	.1	.3	45	8.1	69	88	59	0	0	4	0	0	0	
LIHUE	83	73	84	71	78	-1	.3	.1	.2	5.6	146	21.1	86	84	64	0	0	1	0	0	0	
ID BOISE	96	59	102	53	78	3	T	.0	T	1.0	86	6.2	86	49	14	7	0	0	0	0	0	
LEWISTON	91	64	96	58	77	2	T	.1	T	2.4	122	8.5	109	66	25	6	0	1	0	0	0	
POCATELLO	93	52	97	43	73	1	T	.1	T	.7	46	9.5	142	65	15	5	0	0	0	0	0	
IL CHICAGO	87	61	101	56	74	1	.1	.7	.1	2.3	29	17.1	84	85	39	3	0	2	0	0	0	
MOLINE	86	60	99	52	73	-2	.3	.7	.2	2.0	20	17.4	75	98	46	2	0	3	0	0	0	
PRORIA	88	62	98	54	75	0	.1	.7	.1	1.9	23	16.2	75	92	43	3	0	2	0	0	0	
QUINCY	87	64	98	57	76	-1	T	.9	T	3.1	35	21.1	92	79	43	2	0	1	0	0	0	
ROCKFORD	89	60	99	52	74	1	T	.9	T	4.1	43	15.3	68	89	38	3	0	1	0	0	0	
SPRINGFIELD	86	63	96	53	75	-1	.1	.7	.1	4.5	61	18.5	87	94	49	2	0	1	0	0	0	
IN EVANSVILLE	92	63	98	57	78	0	.0	.8	.0	3.2	41	19.2	71	90	36	4	0	0	0	0	0	
FORT WAYNE	85	61	95	52	73	0	.7	.1	.4	5.8	78	25.6	120	88	38	2	0	2	0	0	0	
INDIANAPOLIS	89	63	96	56	76	1	T	.9	T	3.1	36	22.0	89	89	40	3	0	1	0	0	0	
SOUTH BEND	86	61	99	55	74	1	.4	.5	.3	2.0	26	16.9	76	86	38	3	0	3	0	0	0	
IA DES MOINES	85	63	93	57	74	-2	.5	.3	.5	4.0	52	24.5	128	92	48	2	0	2	0	0	0	
SIOUX CITY	85	61	90	53	73	-3	T	.7	T	6.1	79	16.3	98	96	50	2	0	1	0	0	0	
WATERLOO	83	60	93	50	71	-1	.3	.7	.3	3.8	40	25.1	120	93	46	2	0	1	0	0	0	
KS CONCORDIA	96	67	106	57	82	2	.3	.4	.2	5.0	63	12.9	74	79	30	6	0	2	0	0	0	
DODGE CITY	97	67	103	59	82	2	.3	.4	.1	1.4	21	5.9	42	68	25	6	0	0	0	0	0	
GOODLAND	91	62	99	58	77	0	3.5	3.0	2.5	12.1	229	18.5	167	80	32	6	0	2	2	0	0	
TOPKA	95	66	102	58	80	1	.3	.6	.2	3.2	33	17.6	85	89	32	6	0	3	0	0	0	
NICHITA	99	69	103	65	84	2	T	.7	T	4.0	51	11.7	66	76	24	6	0	0	0	0	0	
KY BOWLING GREEN	91	63	95	58	77	-2	.0	.9	.0	5.5	60	28.9	91	93	43	4	0	0	0	0	0	
LEXINGTON	88	62	97	56	75	-1	.0	.1	.0	6.5	68	25.4	86	93	40	3	0	0	0	0	0	
LOUISVILLE	92	67	100	62	80	2	.0	.9	.0	4.2	53	22.7	82	77	32	5	0	0	0	0	0	
LA ALEXANDRIA	94	71	95	66	82	-1	T	.0	T	6.6	74	53.6	160	93	44	6	0	1	1	1	1	
BATON ROUGE	95	74	98	71	84	2	.5	.0	.5	10.3	96	50.9	144	92	46	7	0	1	1	1	1	
LAKE CHARLES	93	73	96	69	83	0	1.3	.0	.6	10.3	104	51.0	168	96	51	6	0	3	1	1	1	
NEW ORLEANS	94	75	96	74	85	3	.3	.1	.1	24.1	202	84.6	233	96	54	7	0	3	0	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending August 3, 1991

STATES AND STATIONS	TEMPERATURE °F							PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
SEBEEPORT	93	70	95	67	82	-2	.2	-1.5	.2	6.0	82	54.3	194	96	48	6	0	1	0	0	0
ME CARIBOU	80	54	88	49	67	2	.2	-1.7	.2	3.2	42	17.2	87	91	40	0	0	2	0	0	0
PORTLAND	82	58	89	54	70	1	.0	-1.6	.0	3.8	62	25.3	103	92	40	0	0	1	0	0	0
MD BALTIMORE	88	67	99	60	77	0	.3	-1.7	.3	2.8	35	15.7	64	92	44	0	0	1	0	0	0
SALISBURY	83	68	92	64	76	-1	.4	-1.9	.3	8.7	102	26.3	102	99	61	2	2	2	2	2	2
MA BOSTON	81	66	91	63	74	0	.1	-1.6	.1	4.9	83	19.8	80	90	47	0	0	1	0	0	0
CHATHAM	77	65	85	62	71	2	.1	-1.7	.1	3.7	61	19.0	73	93	58	2	2	1	1	1	1
MI ALPENA	79	59	88	50	69	2	.6	-1.1	.4	5.4	84	18.8	112	94	47	0	0	1	0	0	0
DETROIT	84	62	93	58	73	1	.5	-2.2	.2	3.4	51	16.1	126	97	52	0	0	1	0	0	0
FLINT	78	59	85	53	68	-2	1.4	.7	.9	7.1	113	19.5	113	94	38	2	2	3	3	3	3
GRAND RAPIDS	78	59	87	53	69	-3	2.3	1.6	1.7	8.6	125	24.1	125	94	52	0	0	2	2	2	2
HOUGHTON LAKE	74	57	82	52	66	-1	1.5	.8	.7	4.9	78	19.5	125	95	53	0	0	3	3	3	3
LANING	78	58	88	51	68	-2	.9	.3	.5	5.4	80	17.4	100	94	56	0	0	4	4	4	4
MARQUETTE	71	53	81	47	62	-3	1.3	.6	.9	8.6	116	21.1	97	89	59	0	0	2	2	2	2
MUSKEGON	77	60	81	54	68	-2	1.0	.3	.6	7.5	145	21.1	122	96	58	0	0	3	3	3	3
SAULT ST. MARIE	73	50	78	47	62	-3	1.2	.5	1.0	5.0	76	15.8	90	94	58	0	0	3	3	3	3
MN ALEXANDRIA	76	59	84	55	68	-3	.6	-.2	.3	10.0	134	19.8	130	94	53	0	0	4	4	4	4
DULUTH	71	50	79	43	61	-5	2.9	1.9	2.7	11.1	134	23.3	135	93	54	0	0	3	3	3	3
INT'L FALLS	75	60	80	46	63	-4	.2	-.5	.2	8.7	112	18.1	126	95	43	0	0	2	2	2	2
MINNEAPOLIS	76	61	81	55	68	-5	1.0	.2	.9	6.5	82	20.2	123	95	56	0	0	3	3	3	3
ROCHESTER	76	57	85	50	67	-4	.8	-.1	.7	7.7	97	20.7	121	95	62	0	0	3	3	3	3
MS GREENWOOD	93	70	96	66	81	-1	.5	-.4	.5	8.0	97	47.2	137	98	47	6	6	2	2	2	2
JACKSON	95	71	99	66	83	0	T	-1.0	.6	6.7	82	47.5	142	99	47	7	7	1	1	1	1
MERIDIAN	93	72	95	71	82	1	.5	-.6	.5	7.4	80	47.9	137	95	47	6	6	2	2	2	2
MO CAPE GIRARDEAU	91	65	98	59	78	-1	.3	-.5	.2	4.0	53	23.4	84	90	38	4	4	0	0	0	0
COLUMBIA	93	65	104	56	79	0	T	-.7	.7	5.6	78	18.0	80	84	36	4	4	0	0	0	0
KANSAS CITY	93	67	103	61	80	-1	.2	-.7	.2	4.8	52	17.4	79	90	40	4	4	0	0	0	0
SAINT LOUIS	91	70	102	60	81	1	.1	-.6	.1	5.6	74	18.5	85	77	38	4	4	2	2	2	2
SPRINGFIELD	92	66	100	56	79	0	T	-.7	.7	4.4	52	20.3	84	85	36	5	5	0	0	0	0
MT BILLINGS	89	59	97	50	74	1	.1	-.1	.1	4.4	52	20.3	84	85	36	5	5	2	2	2	2
GLASGOW	82	56	96	45	69	-2	.1	-.1	.1	5.7	229	14.8	149	67	22	5	5	1	1	1	1
GREAT FALLS	85	52	94	47	69	-2	.2	-.2	.2	5.5	127	9.2	122	76	27	2	2	0	0	0	0
HAVRE	83	56	93	49	70	-1	T	-.3	.3	5.1	129	10.3	98	75	21	2	2	0	0	0	0
HELENA	88	54	96	49	71	2	.2	-.2	.2	1.6	44	7.9	99	71	26	3	3	0	0	0	0
KALISPELL	82	47	87	45	65	-1	.7	-.4	.7	4.2	133	7.9	102	66	19	4	4	1	1	1	1
MILES CITY	87	61	100	48	74	-2	.2	-.2	.2	4.7	144	10.8	113	96	30	0	0	1	1	1	1
MISSOULA	86	51	92	47	68	0	.3	-.2	.2	6.9	156	14.7	149	70	35	3	3	0	0	0	0
NE GRAND ISLAND	89	61	100	52	75	-2	.3	-.2	.2	3.4	123	8.0	96	80	23	3	3	0	0	0	0
LINCOLN	91	64	103	60	78	-1	T	-.6	.6	11.0	166	22.4	142	94	41	4	4	0	0	0	0
NORFOLK	88	62	97	53	75	0	T	-.7	.7	7.6	103	16.9	96	85	34	4	4	0	0	0	0
NORTH PLATTE	91	59	98	55	75	-1	.1	-.6	.0	7.8	99	21.4	130	93	40	3	3	0	0	0	0
OMAHA	83	64	91	57	74	0	T	-.5	.5	4.6	66	14.5	103	92	35	5	5	0	0	0	0
SCOTTSBLUFF	93	57	99	43	75	-4	.5	-.4	.4	10.4	129	25.2	134	92	56	1	1	0	0	0	0
VALENTINE	87	61	100	53	74	0	T	-.3	.3	4.6	91	11.4	105	77	23	5	5	0	0	0	0
NV ELY	85	51	93	45	68	-1	.3	-.2	.2	7.5	132	17.4	146	89	40	3	3	0	0	0	0
LAS VEGAS	102	77	111	72	90	-1	.7	.2	.2	.8	54	6.1	107	76	29	2	2	4	4	4	4
RENO	95	57	100	53	76	0	.5	-.3	.4	.8	150	2.6	116	49	18	7	7	0	0	0	0
WINNEMUCCA	97	58	100	51	77	5	T	-.1	.1	.4	75	3.1	66	59	14	7	7	0	0	0	0
NH CONCORD	84	54	92	49	69	0	.1	-.1	.1	.7	66	4.7	98	40	12	7	7	0	0	0	0
NJ ATLANTIC CITY	85	67	93	61	76	1	T	-.7	.7	3.6	58	15.0	74	97	36	1	1	0	0	0	0
NM ALBUQUERQUE	88	63	91	62	76	1	T	-.1	.1	6.7	93	22.5	93	99	53	2	2	0	0	0	0
CLOVIS	88	67	90	65	78	0	.6	-.2	.4	3.8	198	5.8	144	76	30	3	3	0	0	0	0
ROSWELL	92	70	95	67	81	1	1.0	-.5	.7	9.1	314	10.7	206	81	33	5	5	0	0	0	0
NY ALBANY	84	58	93	54	71	-1	.6	-.1	.6	4.0	60	17.2	85	95	37	1	1	0	0	0	0
BINGHAMTON	80	58	88	52	69	0	.3	-.5	.2	4.6	62	18.4	86	90	41	0	0	3	3	3	3
BUFFALO	80	62	83	52	71	0	.4	-.4	.3	4.6	76	23.6	116	92	47	0	0	0	0	0	0
NEW YORK	81	61	87	52	71	0	.8	-.2	.4	4.0	72	18.1	101	86	44	0	0	3	3	3	3
ROCHESTER	82	61	88	54	72	0	.5	-.3	.5	5.0	64	20.8	93	88	42	0	0	0	0	0	0
SYRACUSE	82	66	88	62	74	0	1.5	-.6	.7	12.0	151	30.9	116	100	61	0	0	4	4	4	4
NC ASHEVILLE	84	70	94	67	77	-2	.8	-.1	.7	6.8	87	29.7	110	95	67	1	1	0	0	0	0
CHARLOTTE	80	67	96	64	74	-4	.5	-.5	.3	6.0	70	30.0	116	95	69	1	1	0	0	0	0
GREENSBORO	84	74	86	72	79	0	4.3	3.0	1.6	16.1	157	38.6	128	98	76	0	0	7	7	7	7
HATTERAS	85	74	91	72	80	0	3.5	2.0	1.7	12.0	95	30.6	97	98	74	1	1	0	0	0	0
NEW BERN	84	70	93	67	77	-1	1.2	-.2	1.0	12.3	146	25.7	100	99	71	1	1	0	0	0	0
RALEIGH	86	74	90	72	80	-1	8.1	6.5	2.7	18.6	135	42.1	131	97	74	1	1	0	0	0	0
WILMINGTON	86	57	99	47	72	0	T	-.4	.4	3.3	63	9.3	88	83	29	3	3	0	0	0	0
ND BISMARCK	82	56	88	51	69	-3	1.3	-.6	1.3	9.5	142	17.5	140	89	40	0	0	3	3	3	3
FARGO	81	55	93	50	68	-1	.7	-.1	.6	6.1	100	14.4	127	89	41	1	1	0	0	0	0
GRAND FORKS	83	55	97	48	69	-2	.1	-.2	.1	7.3	159	12.5	136	86	30	2	2	0	0	0	0
WILLISTON	85	60	95	51	73	1	.1	-.8	.1	1.6	21	13.2	59	93	42	2	2	0	0	0	0
OH AKRON-CANTON	91	63	99	58	77	1	.7	-.1	.7	4.8	55	24.8	96	88	33	3	3	0	0	0	0
CLEVELAND	84	62	93	55	73	1	T	-.7	.7	3.1	43	18.7	88	86	41	2	2	0	0	0	0
COLUMBUS	88	62	99	56	75	1	.4	-.5	.3	5.3	63	20.2	85	89	39	2	2	0	0	0	0

Based on 1951-80 normals

Weather Data for the Week Ending August 3, 1991

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	87	62	97	56	75	0	.2	-.5	.1	5.2	70	24.6	111	85	36	2	0	2	0
TOLEDO	87	60	96	53	73	1	.2	-.5	.2	2.3	32	15.6	81	91	34	2	0	1	0
YOUNGSTOWN	85	58	95	49	72	1	.1	-.8	.1	5.5	70	16.3	72	92	41	2	0	1	0
OK OKLAHOMA CITY	96	70	99	66	83	0	T	-.6	T	5.8	82	16.8	85	80	29	7	0	1	0
TULSA	97	72	102	63	85	1	.0	-.7	.0	4.0	48	14.6	61	77	30	7	0	0	0
OR ASTORIA	67	52	69	47	59	-1	.0	-.2	.0	2.2	59	35.4	96	93	66	0	0	0	0
BURNS	91	50	95	45	71	0	T	-.1	T	.6	65	4.1	71	58	12	5	0	0	0
MEDFORD	95	56	99	51	75	2	.0	-.1	.0	1.8	189	10.4	99	82	21	7	0	0	0
PENDLETON	91	61	97	56	76	2	T	-.1	T	2.4	237	8.8	127	51	18	6	0	0	0
PORTLAND	86	59	91	56	72	4	T	-.1	T	2.4	121	20.7	104	85	37	1	0	0	0
SALEM	87	53	92	49	70	3	.0	-.1	.0	1.7	104	21.3	98	89	32	2	0	0	0
PA ALLENTOWN	85	62	96	56	73	-1	.1	-.9	.1	6.3	80	20.0	78	91	44	1	0	1	0
ERIE	83	64	90	56	73	3	.2	-.6	.2	4.3	56	16.1	74	82	46	1	0	2	0
HARRISBURG	90	64	100	58	77	1	.1	-.7	.0	3.5	49	16.7	72	85	33	3	0	2	0
PHILADELPHIA	87	69	95	65	78	1	.1	-.8	.1	8.2	100	21.8	89	92	47	3	0	2	0
PITTSBURGH	86	62	95	57	74	1	.5	-.3	.5	7.6	99	20.8	90	85	40	2	0	1	1
SCRANTON	84	61	91	54	72	0	.2	-.5	.2	4.4	61	15.7	78	83	37	1	0	1	0
RI PROVIDENCE	82	65	91	61	74	1	.2	-.6	.2	3.9	63	24.4	95	95	43	1	0	1	0
SC CHARLESTON	87	75	93	74	81	0	3.2	1.5	1.5	14.1	97	37.4	115	96	68	2	0	7	2
COLUMBIA	87	74	96	73	80	-1	4.1	2.8	2.0	22.8	220	49.4	158	100	70	2	0	6	3
FLORENCE	88	74	93	73	81	0	7.5	6.2	3.9	16.0	147	33.1	118	98	66	2	0	6	4
GREENVILLE	85	69	95	67	77	-2	1.9	1.0	1.3	8.0	87	32.9	102	97	65	1	1	5	2
SD ABERDEEN	84	59	94	52	72	-1	.9	-.4	.9	7.0	120	19.6	159	89	45	1	0	2	1
HURON	84	61	100	55	73	-2	.3	-.2	.2	7.7	134	18.7	146	91	45	1	0	2	1
RAPID CITY	87	60	98	52	74	0	.8	-.4	.7	5.2	95	14.4	119	86	32	4	0	2	0
SIoux FALLS	82	60	89	52	71	-3	.8	-.2	.7	9.4	142	19.3	127	97	52	0	0	3	1
TN CHATTANOOGA	92	71	95	69	82	2	.2	-.9	.7	7.7	94	36.5	111	94	45	0	0	0	0
KNOXVILLE	89	68	94	67	79	1	.5	-.4	.5	9.5	110	32.5	107	96	50	3	0	1	0
MEMPHIS	92	70	96	66	81	-1	T	-.9	T	3.3	42	40.6	123	81	40	0	0	0	0
NASHVILLE	92	67	96	63	79	0	.0	-.8	.0	4.1	52	25.0	81	85	35	5	0	0	0
TX ABILENE	94	69	96	65	82	-3	.2	-.3	.2	10.3	213	16.4	122	81	31	7	0	1	0
AMARILLO	93	63	96	59	78	0	.4	-.3	.4	5.0	78	9.4	77	72	25	7	0	1	0
AUSTIN	99	74	102	70	86	1	T	-.4	T	5.6	109	27.6	152	88	33	7	0	1	0
BEAUMONT	95	74	98	72	85	1	T	-.4	T	10.4	92	164	97	47	7	0	0	0	0
BROWNSVILLE	97	75	101	73	86	2	T	-.4	T	3.2	73	19.5	173	96	43	7	0	0	0
CORPUS CHRISTI	96	74	100	72	85	1	.0	-.6	.0	7.5	116	23.1	148	98	45	7	0	0	0
DEL RIO	101	76	104	75	88	2	.0	-.3	.0	4.0	112	9.6	102	55	23	7	0	0	0
EL PASO	91	67	95	65	79	-3	.5	-.2	.2	2.8	123	4.4	116	87	35	5	0	3	0
FORT WORTH	96	71	99	67	83	-3	2.0	1.6	2.0	8.3	176	25.5	134	90	38	6	0	1	1
GALVESTON	91	80	95	76	86	2	.6	-.3	.5	9.5	124	41.1	195	83	57	5	0	2	1
HOUSTON	95	74	98	71	85	1	T	-.8	T	9.0	108	38.4	146	95	44	7	0	1	0
LUBBOCK	96	65	99	63	80	1	T	-.5	T	7.3	137	11.0	103	82	27	7	0	0	0
MIDLAND	92	66	95	63	79	-3	T	-.4	T	12.0	368	14.6	193	90	38	6	0	0	0
SAN ANGELO	95	67	98	61	81	-3	T	-.3	T	6.0	189	10.6	110	90	30	7	0	0	0
SAN ANTONIO	100	74	103	70	87	2	.0	-.5	.0	4.5	88	23.2	144	87	34	7	0	0	0
VICTORIA	97	75	100	74	86	2	1.7	1.2	1.7	13.7	186	41.0	207	98	45	7	0	1	1
WACO	96	71	100	64	84	-3	T	-.4	T	6.8	152	20.9	112	93	38	6	0	0	0
WICHITA FALLS	96	69	99	65	83	-3	.1	-.4	.1	4.7	95	13.3	83	87	30	7	0	1	0
UT CEDAR CITY	89	61	93	56	75	1	2.8	2.5	2.7	3.5	210	7.4	124	71	27	1	0	4	1
SALT LAKE CITY	93	66	98	60	79	1	T	-.1	T	1.4	81	9.8	100	56	20	5	0	2	0
VT BURLINGTON	84	57	86	49	71	1	.2	-.6	.2	4.1	56	15.4	82	93	34	0	0	1	0
VA NORFOLK	84	73	93	71	79	0	1.4	-.2	1.0	11.0	120	28.2	107	96	70	1	0	2	1
RICHMOND	85	69	95	67	77	-1	.4	-.8	.4	9.7	106	22.1	87	96	63	2	0	2	0
ROANOKE	83	64	94	62	74	-3	1.2	-.3	.9	9.7	135	28.2	121	99	55	2	0	2	1
WA QUILLAYUTE	69	52	72	48	60	1	T	-.6	T	3.6	63	52.0	92	97	56	0	0	0	0
SEATTLE-TACOMA	80	55	83	52	68	2	.0	-.2	.0	1.6	72	23.3	117	82	38	0	0	0	0
SPOKANE	87	57	92	53	72	1	T	-.1	T	1.7	100	9.5	100	72	21	1	0	1	0
YAKIMA	91	53	95	51	72	2	T	.0	T	2.7	375	5.3	120	86	23	6	0	1	0
WV BECKLEY	82	61	90	57	71	1	.6	-.4	.5	4.8	53	22.8	86	97	51	1	0	2	0
CHARLESTON	89	62	98	57	76	1	.4	-.8	.1	5.4	59	22.1	82	97	39	3	0	4	0
HUNTINGTON	90	63	98	58	76	0	.6	-.5	.3	4.5	53	23.0	88	95	40	3	0	3	0
PARKERSBURG	85	62	94	56	74	-2	1.4	-.5	1.1	9.3	112	25.6	106	95	49	3	0	3	1
WI GREEN BAY	75	58	87	55	67	-3	1.7	.9	.8	5.7	85	14.7	89	94	59	0	0	4	1
LACROSSE	80	63	89	57	71	-2	.8	.0	.6	8.7	106	25.1	136	90	53	0	0	3	1
MADISON	79	58	88	49	68	-3	.7	-.2	.7	8.9	112	21.8	117	96	56	0	0	2	1
MILWAUKEE	80	64	91	58	72	0	.5	-.2	.3	6.6	88	20.5	108	88	52	2	0	3	0
WAUSAU	73	57	84	53	65	-4	1.7	-.8	1.3	10.6	128	24.2	130	96	61	0	0	4	1
WY CASPER	90	56	97	53	73	1	T	-.2	T	1.8	78	9.3	118	74	20	4	0	1	0
CHEYENNE	81	56	89	53	69	-1	.3	.0	.2	8.3	206	14.2	151	81	34	0	0	3	0
LANDER	87	59	93	52	73	2	T	-.1	T	1.7	79	10.6	114	68	29	4	0	1	0
SHERIDAN	88	58	99	49	73	2	.4	-.2	.3	1.6	49	10.6	103	76	24	4	0	2	0

Based on 1951-80 normals

July Weather and Crop Summary

Weather

The warm, dry summer wore on in parts of the Corn Belt, threatening crops from central Iowa to Pennsylvania. Drier-than-normal conditions prevailed in the Northeast, and from the Ohio Valley southward to the lower Mississippi Valley. The northern and central Plains turned dry in July. But most of the southern Plains and southern Rockies were unusually wet. Other wetter-than-normal areas included the Southeast, and portions of Missouri and the Great Lakes States.

The majority of the Nation was warmer than normal in July. Above-average cloudiness and rainfall held temperatures more than 2° F below normal in the central and southern Rockies, southern Plains, and southern California. Temperature departures exceeded +2° F in parts of the Great Basin, central Plains, eastern Corn Belt, and mid-Atlantic region.

Much of the Corn Belt found itself between rainy areas for a second month in a row. Frequent cold frontal incursions dropped abundant rain on the upper Great Lakes, and steady infusions of tropical moisture kept the Southeast, southern Plains, and southern Rockies damp. Even southern California saw a trio of rare July rainfall events. Showers in Los Angeles on July 8, 19, and 31 deposited enough rain to establish a new monthly rainfall record (0.17 inches). Roswell, NM, also set a July rainfall record (6.88 inches), most of which occurred during July 12-14, causing widespread flooding. A monsoonal flow of moist, tropical air into the Rockies ignited daily thunderstorms after mid-month. States from California eastward to Colorado and New Mexico reported sporadic flash flooding, especially in mountainous areas. In the Pacific Northwest, pockets of above-normal rainfall were due to a pair of frontal passages around the middle of July. Excessive rainfall deluged the southwestern Corn Belt on July 8-11. Cumulative rainfall reached 5 to 10 inches from south-central Nebraska to northeastern Missouri. The most frequent rain fell in the Southeast. New Orleans, LA, added another 13.15 inches to bring its year-to-date total to nearly 85 inches. Columbia, SC, received 17.46 inches for the month; Apalachicola, FL, netted 17.40 inches (yearly total: 78 inches). But conditions remained relatively dry from northern Virginia northward. It was the driest July on record in Caribou, ME (0.96 inches). A few locations in the Corn Belt and northern Plains received less than 10 percent of normal July precipitation.

A heat wave grew in the West early in the month and spread eastward after Independence Day. The second week of July proved to be cooler, with low-pressure troughs holding temperatures down in the West and the East. Only the Southwest and Kansas topped 100° F regularly. But a sweltering airmass took hold over the West at mid-month and expanded eastward. Many locations east of the Rockies endured 9 days of greater than 90° F heat before a cold front swept off the East coast on the 24th. No rain fell during the heat wave from the central Plains to the Northeast, heightening crop stress. After a few seasonably cool days nationwide, heat built again in the Southwest, poised to move eastward as August began. On a climatological note, Raleigh, NC, notched its 19th consecutive month of above-normal temperatures, dating to January 1990.

Crop Development

Pushed by higher-than-normal temperatures across most of the Nation during July, crops continued to develop and mature earlier than normal. Lack of rainfall, however, became a concern to producers in the Plains and Corn Belt regions, as only sporadic thundershowers were received during the month.

Corn was progressing ahead of schedule in the eastern half of the Nation entering July, and continued to develop ahead of schedule through the month. Harvest was underway in southern Texas and the Gulf States during the second half of the month, while much of the crop was in the dough stage in the eastern Corn Belt. Crop condition deteriorated steadily during the month as soil moisture deficiencies intensified from southeastern Iowa through Pennsylvania.

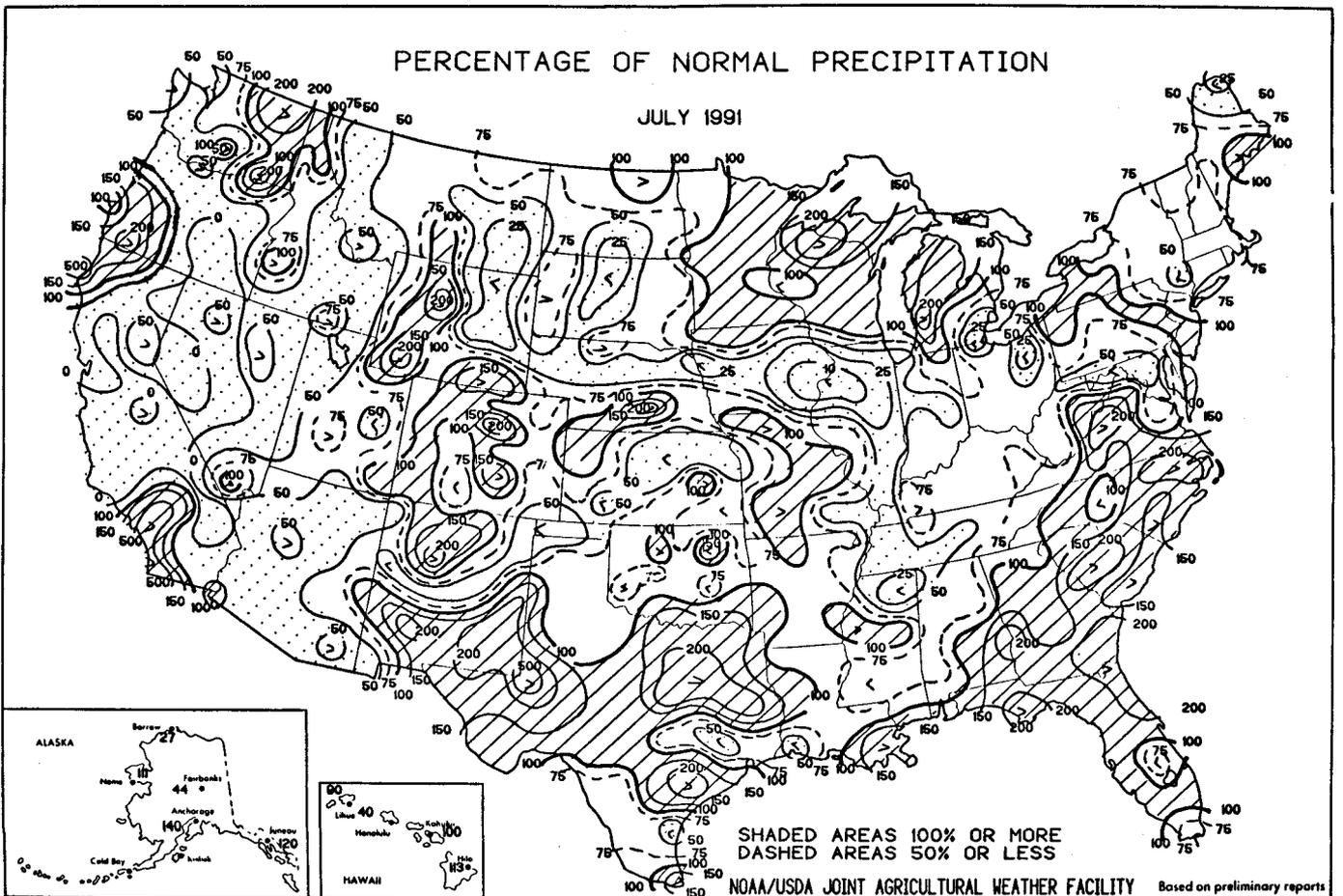
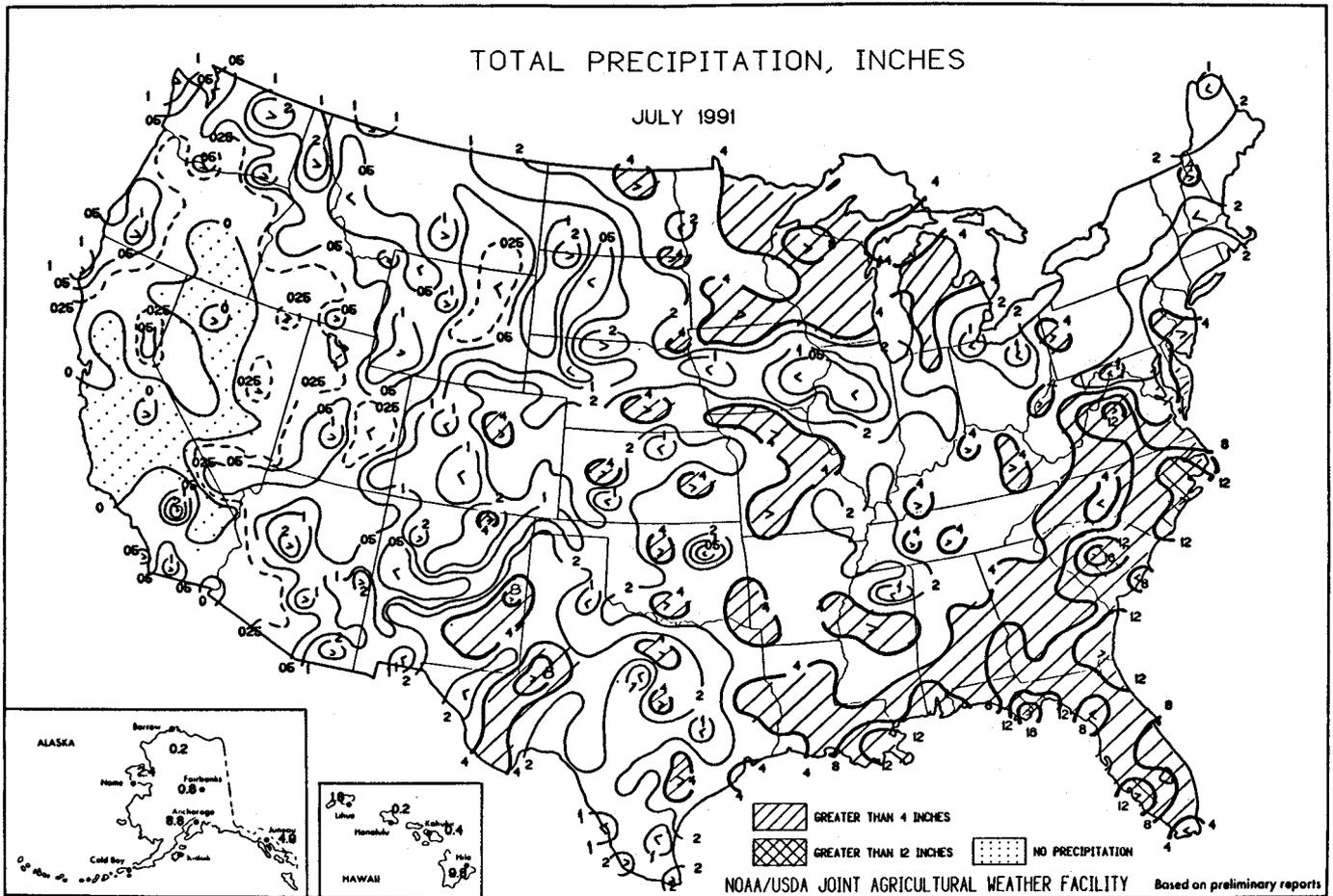
Soybean planting was virtually complete entering July, and bloom had advanced much earlier than usual in the Ohio Valley. By the end of the month, pods were setting on much of the Ohio Valley acreage and were beginning to set in the Delta. As with corn, soybean crop condition deteriorated during the month due to limited soil moisture. Improved conditions were evident where sufficient rains were received: the Great Lakes, Southeast, and Louisiana.

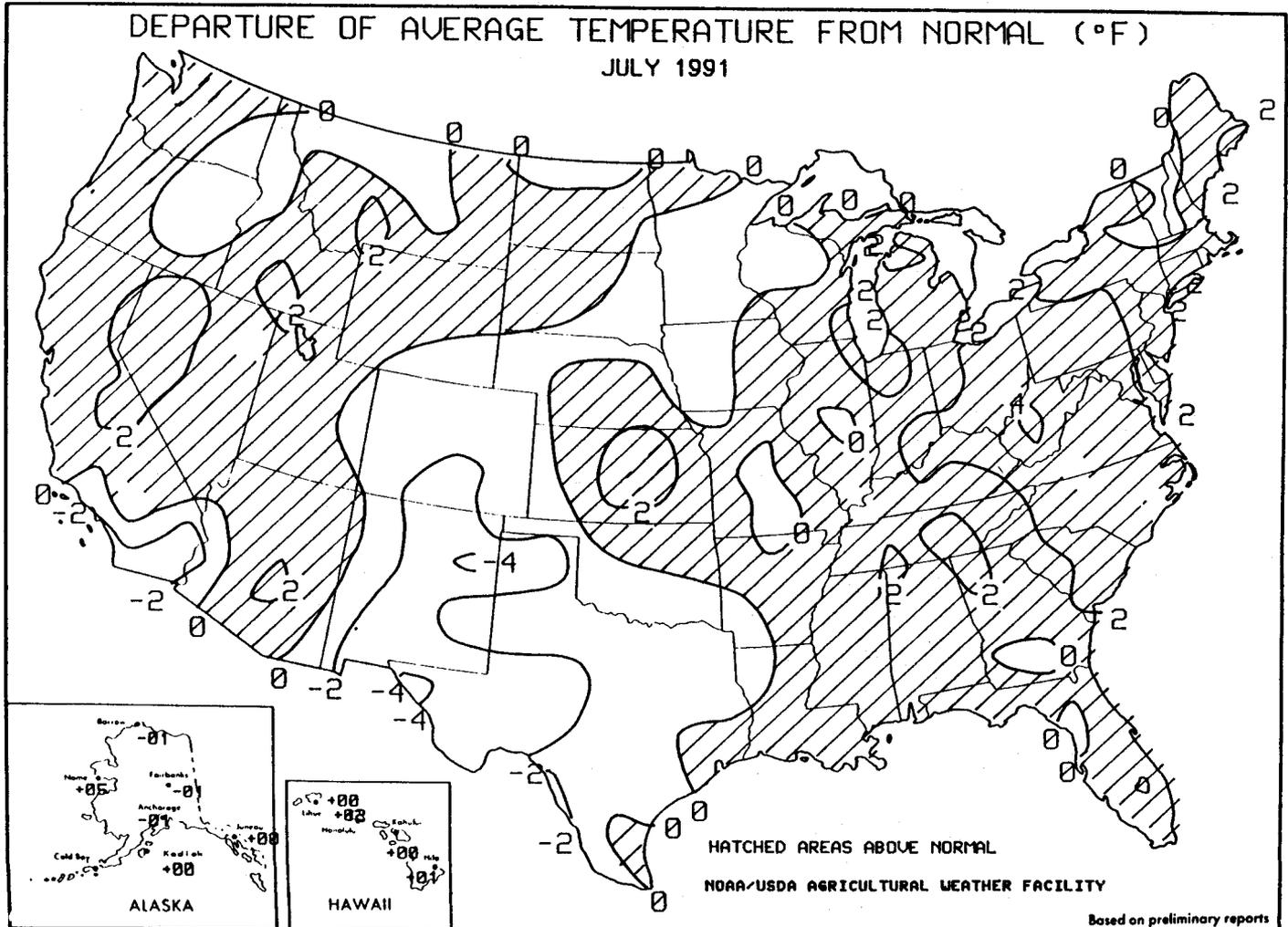
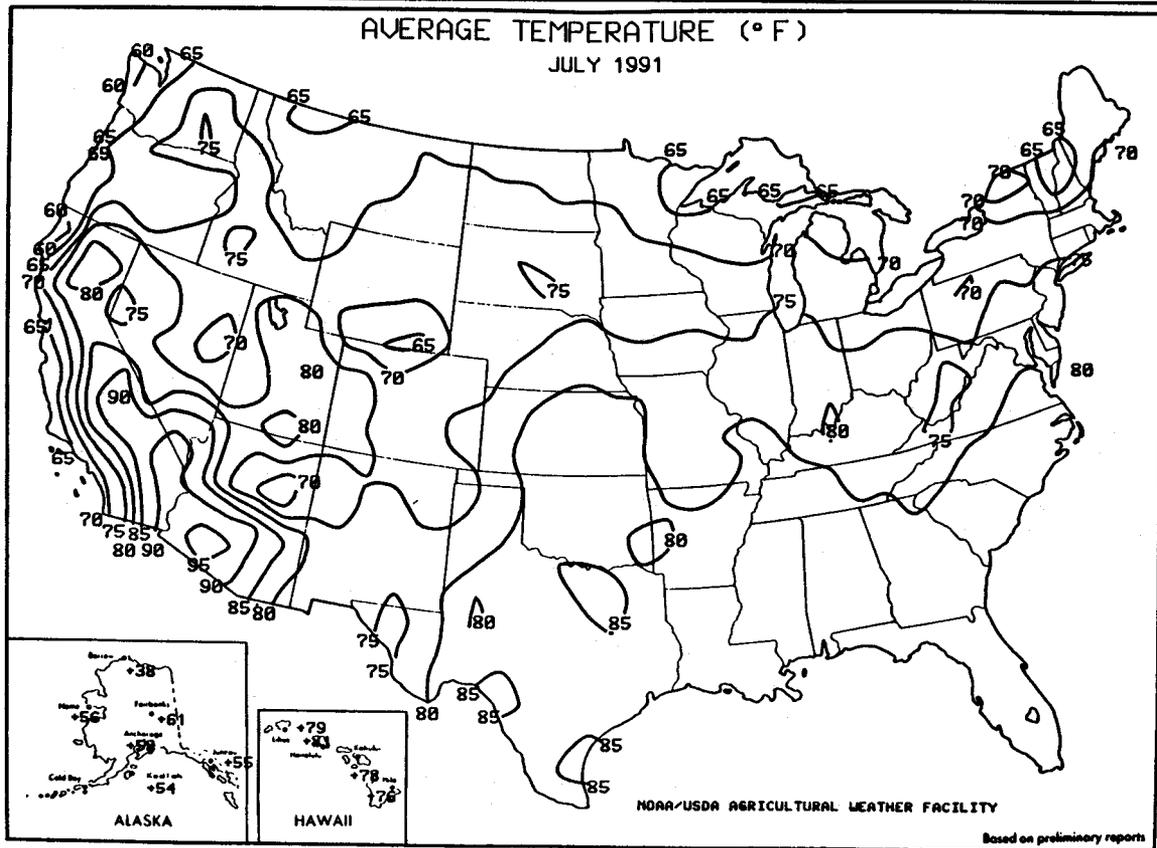
Development of the Nation's cotton crop was lagging somewhat behind normal entering July due to late planting in the Delta and Tennessee Valley and cool Spring weather in the West. Progress was near normal by the end of the month, as hotter weather during the month promoted rapid crop development. South Texas growers were picking cotton as weather permitted during the latter half of the month. Crop condition was good in the Southwest and Southeast but mostly fair in the Mississippi and Tennessee Valleys.

Rice progress was ahead of normal in Arkansas, Texas, and Louisiana entering July, but behind normal in California and Mississippi. Harvest got underway near mid-month in the southern regions of Texas and Louisiana. Crop condition rated fair in Louisiana and mostly good in the other major producing States.

Sorghum was heading slightly earlier than normal early in July and advanced at a good pace during the month. Crop condition was mostly good in the High Plains and fair in Kansas and the Mississippi Valley.

Winter wheat harvest, at 63 percent complete, was ahead of schedule entering July. Harvest advanced rapidly through the Ohio Valley and Great Plains as above-normal temperatures pushed wheat to early maturity. By the end of the month, harvest was complete in the South-Central and Eastern States, nearly complete in the Northern Plains and Rocky Mountains, and getting underway in the Pacific Northwest.





TEMPERATURE AND PRECIPITATION SUMMARY

July 1991

STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	81	1	4.0	-1.4	LA ALEXANDRIA	82	0	4.4	0.0	TOLEDO	75	2	0.5	-2.7
AL HUNTSVILLE	81	2	2.6	-2.5	LA BATON ROUGE	83	1	5.3	-1.8	TX YOUNGSTOWN	72	2	4.0	0.0
AL MOBILE	82	0	8.2	0.4	LA LAKE CHARLES	83	0	2.3	-3.0	OK OKLAHOMA CITY	82	0	2.0	-1.0
AL MONTGOMERY	82	0	5.9	1.2	LA NEW ORLEANS	83	1	13.2	6.5	OK TULSA	85	2	0.4	-3.1
AK ANCHORAGE	58	-1	2.8	0.9	LA SHREVEPORT	83	0	3.5	-0.1	OR ASTORIA	60	0	0.3	-0.8
AK BARROW	38	0	0.2	-0.6	ME CARIBOU	66	1	1.0	-3.1	OR BURNS	69	-1	T	-0.2
AK FAIRBANKS	61	-1	0.8	-1.0	ME PORTLAND	70	2	2.4	-0.5	OR MEDFORD	74	2	1.1	0.9
AK JUNEAU	55	-1	4.9	0.8	MD BALTIMORE	79	3	1.8	-2.1	OR PENDLETON	72	-2	0.2	0.0
AK KODIAK	54	0	2.3	-1.3	MD SALISBURY	78	1	4.6	0.2	OR PORTLAND	70	2	0.1	-0.4
AK NOME	56	5	2.4	0.0	MA BOSTON	74	1	2.0	-0.7	OR SALEM	68	2	0.1	-0.2
AZ FLAGSTAFF	67	1	1.0	-1.5	MA CHATHAM	70	2	1.7	-1.2	PA ALLENTOWN	75	1	5.3	1.2
AZ PHOENIX	95	3	0.1	-0.6	MI ALPENA	68	2	5.2	2.1	PA ERIE	73	4	3.5	0.2
AZ PRESCOTT	75	2	1.4	-1.8	MI DETROIT	75	2	1.2	-1.8	PA HARRISBURG	79	3	2.0	-1.4
AZ TUCSON	88	1	0.4	-2.0	MI FLINT	72	1	3.8	1.0	PA PHILADELPHIA	79	2	4.8	0.9
AZ WINSLOW	75	-4	0.1	-1.0	MI GRAND RAPIDS	72	1	6.2	3.3	PA PITTSBURGH	75	3	3.7	0.0
AR FORT SMITH	93	-1	T	-0.1	MI HOUGHTON LAKE	69	2	4.4	1.5	PA SCRANTON	73	1	2.4	-0.9
AR LITTLE ROCK	82	0	2.6	-0.5	MI LANSING	71	1	2.4	-0.4	PA WILLIAMSPORT	75	3	4.0	0.1
CA BAKERSFIELD	83	1	3.2	-0.4	MI MARQUETTE	65	0	5.4	2.2	RI PROVIDENCE	74	1	2.8	-0.2
CA BISHOP	85	0	0.0	0.0	MI MURKIN	71	1	3.3	0.9	SC CHARLESTON	84	3	7.4	0.1
CA BISHOP	--	--	0.0	-0.2	MI SAULT ST. MARIE	64	1	3.9	0.9	SC COLUMBIA	83	2	17.5	12.1
CA EUREKA	57	1	1.1	1.0	MN ALEXANDRIA	70	0	3.2	0.2	SC FLORENCE	83	2	9.6	4.0
CA FRESNO	84	3	0.0	0.0	MN DULUTH	64	-1	5.3	1.4	SC GREENVILLE	81	2	5.7	1.2
CA LOS ANGELES	67	-2	0.2	0.2	MN INT'L FALLS	66	0	4.1	0.3	SD ABERDEEN	72	0	1.3	-1.1
CA REDDING	85	1	T	-0.2	MN MINNEAPOLIS	72	-1	3.0	-0.5	SD HURON	74	0	1.8	-0.5
CA SACRAMENTO	77	1	0.0	-0.1	MN ROCHESTER	70	-1	5.3	1.5	SD RAPID CITY	73	0	2.0	-0.1
CA SAN DIEGO	67	-2	0.2	0.2	MN ST. CLOUD	70	0	3.7	0.3	SD SIOUX FALLS	73	-1	2.3	-0.4
CA SAN FRANCISCO	64	1	T	-0.1	MS GREENWOOD	83	1	5.2	0.6	TN BRISTOL	77	2	3.8	-0.4
CA STOCKTON	78	0	T	-0.1	MS JACKSON	83	1	3.3	-1.3	TN CHATTANOOGA	81	3	3.6	-1.0
CO ALAMOSA	65	0	0.6	-0.6	MS MERIDIAN	82	1	3.8	-1.5	TN KNOXVILLE	79	2	3.4	-0.9
CO CO. SPRINGS	69	-2	2.9	0.0	MS TUPELO	83	2	0.8	3.8	TN MEMPHIS	83	1	1.9	-2.1
CO DENVER	73	0	4.1	2.2	MO CAPE GIRARDEAU	--	--	2.9	-0.8	TN NASHVILLE	81	2	2.8	-1.0
CO GRAND JUNCTION	78	-1	0.4	0.0	MO COLUMBIA	78	0	3.2	0.1	TX ABILENE	82	-2	2.2	0.1
CO PUEBLO	75	-2	2.8	1.0	MO KANSAS CITY	81	1	1.7	-2.7	TX AMARILLO	77	-2	2.2	-0.5
CT BRIDGEPORT	76	2	2.2	-1.2	MO SAINT LOUIS	81	2	5.2	1.6	TX AUSTIN	84	-1	1.2	-0.7
CT HARTFORD	74	0	2.9	-0.2	MO SPRINGFIELD	79	0	4.2	0.6	TX BROWNSVILLE	84	1	3.1	-2.3
DC WASHINGTON	81	3	3.8	-0.1	MT BILLINGS	73	0	1.0	0.2	TX CORPUS CHRISTI	84	0	0.6	-1.8
FL APALACHICOLA	82	0	17.4	10.3	MT GLASGOW	71	1	1.3	-0.4	TX DEL RIO	84	-2	1.2	-0.5
FL DAYTONA BEACH	83	1	12.0	6.5	MT GREAT FALLS	68	-1	0.8	-0.3	TX EL PASO	79	-4	2.7	1.1
FL FT. MYERS	83	0	12.7	4.1	MT HAVRE	69	-1	0.6	-0.7	TX FORT WORTH	85	-1	4.0	1.8
FL JACKSONVILLE	84	2	15.9	9.4	MT HELENA	71	3	0.7	-0.3	TX GALVESTON	84	1	4.6	0.8
FL KEY WEST	86	1	2.2	-1.4	MT KALISPELL	64	-1	0.4	-0.5	TX HOUSTON	84	0	1.3	-2.3
FL MIAMI	84	1	7.3	1.4	MT MILES CITY	75	0	0.3	-1.3	TX LARDO	88	0	0.7	-0.4
FL ORLANDO	83	0	10.8	2.8	MT MISSOULA	69	1	0.3	-0.6	TX LUBBOCK	80	0	2.1	-0.2
FL TALLAHASSEE	82	1	9.6	0.9	NE GRAND ISLAND	76	-1	5.7	3.0	TX MIDLAND	79	-3	8.5	6.8
FL TAMPA	82	0	9.9	2.5	NE LINCOLN	78	1	2.6	-0.6	TX SAN ANGELO	81	-2	1.8	0.6
FL WEST PALM BEACH	83	1	7.2	1.1	NE NORFOLK	76	0	1.2	-2.0	TX SAN ANTONIO	85	0	2.2	0.3
GA ATHENS	80	1	6.2	1.0	NE NORTH PLATTE	75	1	1.8	-1.2	TX VICTORIA	84	0	7.9	5.3
GA ATLANTA	81	2	5.8	1.1	NE OMAHA	76	-2	3.5	-0.1	TX WACO	85	0	3.7	2.0
GA AUGUSTA	82	2	11.1	6.7	NE SCOTTSDUFF	74	0	0.6	-1.4	TX WICHITA FALLS	85	0	1.9	-0.1
GA MACON	82	1	4.8	0.3	NV VALENTINE	74	-1	2.3	-0.1	UT BLANDING	--	--	1.2	0.2
GA SAVANNAH	83	2	15.4	8.0	NV ELKO	70	0	0.2	-0.1	UT CEDAR CITY	74	0	3.1	2.0
HI HILO	76	0	9.8	1.1	NV ELY	68	1	0.3	-0.3	UT SALT LAKE CITY	79	2	0.3	-0.4
HI HONOLULU	81	1	0.2	-0.3	NV LAS VEGAS	91	0	0.5	0.0	VT BURLINGTON	70	1	2.8	-0.6
HI KAHULUI	78	0	0.3	-0.1	NV RENO	74	5	T	-0.2	VA LYNCHBURG	79	3	4.5	0.6
HI LIHUE	79	0	1.8	-0.2	NH WINNEMUCA	75	3	0.1	-0.1	VA NORFOLK	82	3	6.5	1.3
ID BOISE	76	1	0.4	0.1	NH CONCORD	69	0	1.8	-1.2	VA RICHMOND	81	3	3.5	-1.6
ID LEWISTON	73	-2	0.5	0.0	NJ ATLANTIC CITY	77	2	5.3	1.3	VA ROANOKE	78	2	7.2	3.7
ID POWAYTELLO	71	0	0.1	-0.3	NM ALBUQUERQUE	77	-2	2.6	1.4	VA COLVILLE	65	-3	2.6	1.8
IL CAIRO	--	--	1.4	-2.6	NM CLOVIS	76	-2	9.0	6.1	VA QUILLAYUTE	59	0	1.3	-1.4
IL CHICAGO	76	3	1.3	-2.0	NM ROSWELL	79	-2	6.9	5.5	VA SEATTLE-TACOMA	67	2	0.3	-0.4
IL MOLINE	75	0	0.4	-4.4	NY ALBANY	72	0	1.7	-1.3	VA SPOKANE	69	-1	0.6	0.1
IL PEORIA	75	0	0.4	-3.6	NY BINGHAMTON	70	1	2.0	-1.5	VA WALLA WALLA	71	-5	1.1	0.7
IL QUINCY	76	-1	2.8	-1.5	NY BUFFALO	72	1	3.3	0.4	VA YAKIMA	71	0	0.2	0.0
IL ROCKFORD	74	1	0.8	-3.7	NY NEW YORK	79	2	3.4	-0.3	WV BECKLEY	73	4	3.2	-1.5
IL SPRINGFIELD	75	-1	3.2	-0.3	NY ROCHESTER	72	1	2.4	-0.1	WV CHARLESTON	78	3	2.8	-2.5
IN EVANSVILLE	79	1	2.6	-1.4	NY SYRACUSE	72	1	2.9	-0.9	WV ELKINS	72	3	8.3	3.6
IN FORT WAYNE	75	1	3.4	0.0	NC ASHVILLE	75	2	6.1	2.3	WV HUNTINGTON	79	3	2.8	-2.0
IN INDIANAPOLIS	77	2	2.2	-2.1	NC CHARLOTTE	82	3	3.7	-0.2	WV PARKERSBURG	77	2	4.2	0.2
IN SOUTH BEND	76	3	1.3	-2.4	NC HATTERASBORO	79	2	4.0	-0.3	WI GREEN BAY	70	0	4.2	0.9
IA DES MOINES	76	0	1.1	-2.1	NC GRAYSON	82	3	8.6	3.2	WI LACROSSE	73	0	7.7	3.9
IA DUBUQUE	73	1	0.9	-3.4	NC NEW BERN	83	4	7.6	0.8	WI MADISON	72	1	5.2	1.4
IA SIOUX CITY	75	-1	0.8	-2.6	NC RALEIGH	81	3	10.3	5.9	WI MILWAUKEE	74	4	4.3	0.8
IA WATERLOO	74	1	1.6	-3.1	ND WILMINGTON	83	3	13.3	5.9	WI WAUSAU	68	-1	4.4	0.4
KS CONCORDIA	82	3	0.9	-2.5	ND BISMARCK	71	1	0.6	-1.4	WI CASPER	72	1	0.1	-1.0
KS DODGE CITY	82	2	0.8	-2.3	ND FARGO	70	-1	1.9	-1.5	WI CHEYENNE	68	-1	3.4	1.5
KS GOODLAND	76	0	3.3	0.9	ND GRAND FORKS	70	1	2.2	-0.7	WI LANDER	73	2	0.9	0.2
KS TOPEKA	80	2	1.5	-2.6	ND WILLISTON	71	0	1.0	-0.8	WI SHERIDAN	72	2	0.3	-0.6
KS WICHITA	84	3	2.6	-1.0	OH AKRON-CANTON	75	4	0.7	-3.3	FR SAN JUAN	83	1	3.3	-1.6
KY BOWLING GREEN	79	1	2.8	-1.6	OH CINCINNATI	78	2	2.7	-1.6					
KY JACKSON	77	4	4.5	-0.5	OH CLEVELAND	75	2	1.7	-1.7					
KY LEXINGTON	77	2	3.6	-1.4	OH COLUMBUS	78	4	2.1	-1.9					
KY LOUISVILLE	81	3	3.0	-1.1	OH DAYTON	76	2	2.6	-0.8					
KY PADUCAH	81	2	3.2	-0.5	OH MANSFIELD	74	2	2.0	-1.8					

Based on 1951-80 normals

July Weather in Historical Perspective

July 1991 was dry and slightly warmer than normal nationwide (table 1). It followed June as a dry month (fig. 1), ranking as the 27th driest July (for both areally averaged and areally weighted data). July was the sixth consecutive month of above-normal temperatures, and the 37th warmest July on record (fig. 2).

Below-normal rainfall in the Northeast, Central, and West North Central regions swung the balance toward dryness (fig. 3). But it was the ninth wettest July in the West, where arid summers are customary. Moist conditions prevailed in the Southeast (13th wettest July). Elsewhere, July rainfall was near the middle of the historical distribution.

Temperatures did not depart greatly from normal in July. The Southeast (15th hottest) and Northeast (23rd hottest) led in anomalous warmth rank. The Southwest and the East North Central regions were coolest (35th and 43rd coldest).

In May and June, areas of excessive wetness and dryness virtually balanced for the first time since 1987 (fig. 4). But the Nation lapsed into worsening drought conditions in July. However, one region that has not lacked precipitation is the Southeast; January to July 1991 has been the wettest on record (fig. 5).

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR JULY 1991, BASED ON THE PERIOD 1895-1991. 1 = DRIEST/COLDEST, 97 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	15	75
EAST NORTH CENTRAL	54	43
CENTRAL	10	73
SOUTHEAST	85	83
WEST NORTH CENTRAL	16	51
SOUTH	45	53
SOUTHWEST	55	35
NORTHWEST	41	47
WEST	89	70
NATIONAL	29	61

FIGURE 1

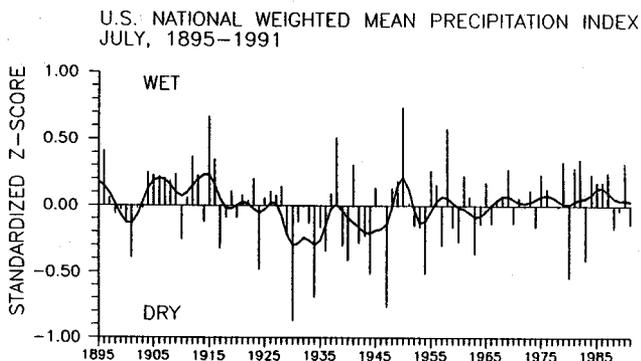


FIGURE 2

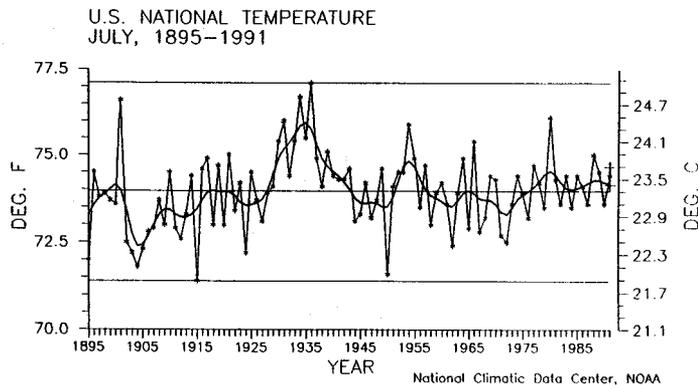


FIGURE 3

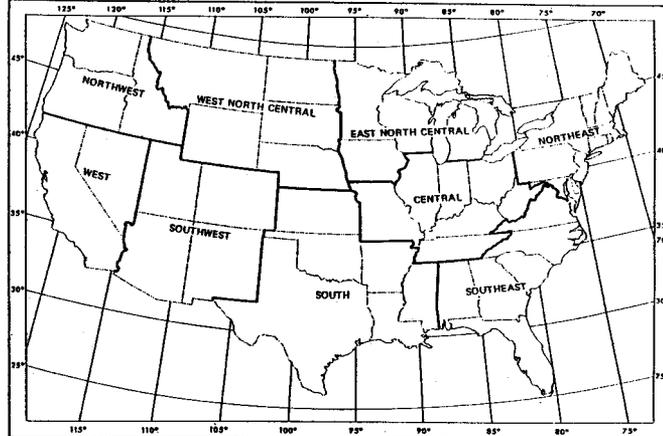


FIGURE 4

U.S. PERCENT AREA DRY AND WET
JANUARY 1985 THROUGH JULY 1991

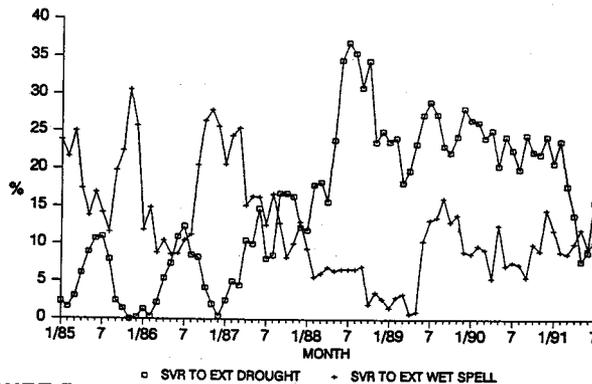
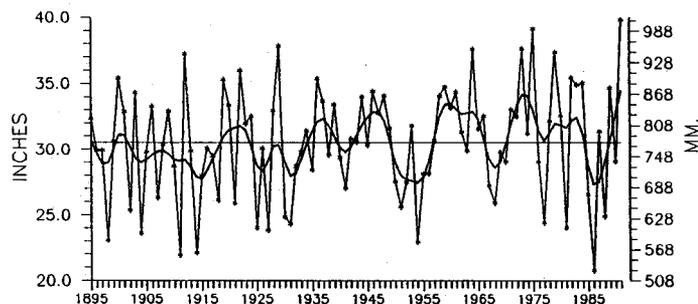
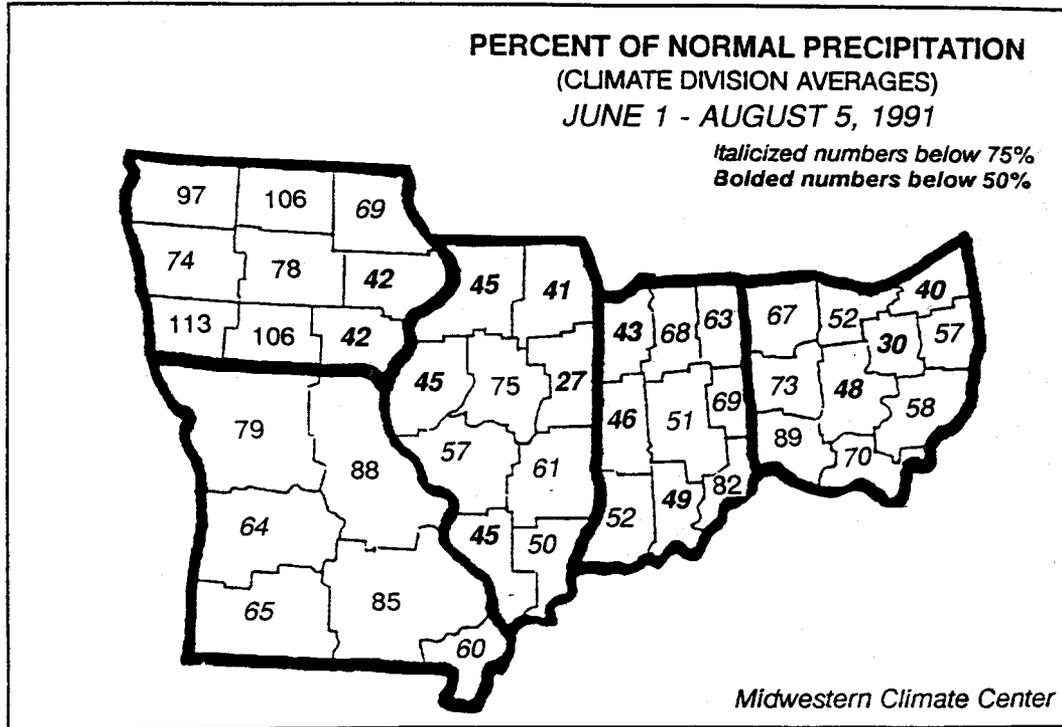


FIGURE 5

SOUTHEAST REGION PRECIPITATION
JANUARY-JULY, 1895-1991





MIDWEST DROUGHT UPDATE

Drought in the Corn Belt has caused crop conditions to plummet, with national soybean and corn now in significantly worse condition than a year ago. Though widespread rains brought needed moisture to Iowa, Illinois, and Missouri during August 3-6, cumulative rainfall totals since early June remained well below normal in many key crop areas. Since June 1, rainfall has been less than 50 percent of normal in southeastern Iowa, northern and southwestern Illinois, western Indiana, and central and northeastern Ohio. Preliminary statewide data indicate that June-July cumulative rainfall in Illinois and Ohio was the fourth lowest of record. In Illinois, only the droughts of 1936, 1988, and 1933 produced lighter rainfall, while in Ohio, dryness was exceeded in 1930, 1933, and 1895. Indiana had the seventh driest June-July of record.

National Agricultural Summary

July 29 - August 4, 1991

HIGHLIGHTS: Crop stress intensified as drought conditions persisted in the eastern Corn Belt. Abundant rainfall along the southern Atlantic Coast limited fieldwork, while the West remained dry.

SMALL GRAINS: Winter wheat harvest was 87 percent (%) complete in the 19 major producing States, 3 percentage points behind both last year and the 5-year average. Harvest gained momentum, though remained behind schedule, in the Pacific Northwest and Rocky Mountains. Harvest was 32 percentage points behind the average in Montana and 25 points behind in Washington. Spring wheat was 24% harvested in the five major producing States, compared with 17% last year and 27% average. Spring wheat condition worsened in Minnesota, with poor or very poor condition reported for 37% of the State's acreage. Condition ratings improved significantly in Idaho and remained largely unchanged in the other major producing States. Harvest of oats was past the midpoint in the north-central States, virtually complete in the Ohio Valley, and gaining momentum in the Pacific Northwest. Barley harvest was well along in the Northern Plains, progressing in the Rocky Mountains, and getting underway in Idaho.

CORN: The corn crop continued to develop well ahead of schedule with 92% of the crop silking in the 17 major producing States, 17 percentage points ahead of last year and 4 points ahead of the average. Forty-three percent of the crop was in the dough stage, compared with 14% last year and 32% average. Condition ratings continued to plummet in the eastern Corn Belt as only limited rain fell in the region. Very poor or poor conditions were reported for 59% of the Indiana crop, 35% of Illinois', and 34% of Ohio's. Drought stricken Pennsylvania growers reported 43% of the corn acreage in very poor to poor condition. Corn harvest continued in the South.

SOYBEANS: Soybean bloom advanced to 81% in the 19 major producing States, 16 percentage points ahead of last year and 3 points ahead of the average. Pods were setting on 53% of the acreage, compared with 30% last year and 48% average. The crop continued to develop much earlier than normal in South Dakota and the Ohio Valley, but remained behind normal in the Gulf Coast States and Tennessee. Crop condition dropped sharply in Illinois, Indiana, and Ohio and, to a lesser degree, through the Mississippi Valley and Delta. Conditions continued to improve in the Southeast.

COTTON: Bolls were setting on 76% of the acreage in the 14 major producing States, 8 points behind last year but equal to the average. Bolls were opening on 7% of the acreage, principally in Texas. Crop condition remained good in the Southwest and Southeast and mostly fair in the Mississippi and Tennessee Valleys.

GRAIN SORGHUM: Fifty-four percent of the acreage in the 12 major producing States was heading, 13 points ahead of last year and 2 points ahead of the historic average. Grain heads were coloring on 24% of the acreage,

4 points ahead of last year and 2 points ahead of the average. Crop condition dropped to mostly fair in the High Plains, while remaining fair in the Delta and good in the Southwest and Colorado. Harvest was past the midpoint in Texas.

RICE: Rice heading advanced to 47% of the crop acreage, compared with 40% last year and 51% average. Harvest progressed to 30% complete in Texas and 26% complete in Louisiana, both well ahead of normal. Crop condition rated fair in Louisiana and Mississippi and mostly good in the other major producing States.

OTHER FIELD CROPS: Haying was interrupted by heavy rains in the Southeast, while second and third cutting advanced elsewhere. Potato harvest was underway in Colorado, Maryland, North Carolina, Ohio, and Washington. Idaho and Maine potatoes remained in mostly good condition. Safflower was blooming in northern California while drying for harvest further south. North Dakota sunflower bloom was past the midpoint and flax was ripening earlier than usual. Georgia peanuts rated mostly good and digging began in the earliest fields. Dry pea harvest was underway in Idaho and Washington. Overwintered sugarbeet harvest continued in California. Cutting and housing of burley tobacco was underway earlier than usual in Kentucky.

FRUIT AND NUTS: Table grape harvest increased in California, while plum, peach, and pear harvests continued. California orange and lemon growers treated groves for red scale, while packing of coastal lemons and southern Valencia oranges continued. Georgia peach harvest neared completion. Pecans rated good in Georgia and New Mexico but mostly poor in Louisiana. Hot, dry weather in Texas was causing pecan nuts to drop. Cherry picking was nearly complete in Idaho, while tart cherry picking was in full swing in Oregon and Utah. Fruit picking increased in New England.

VEGETABLES: Broccoli, cauliflower, melons, celery, and iceberg lettuce remained in heavy supply in California. Harvest of tomatoes for both the fresh and processing markets was active in the State. Maryland and Delaware summer vegetable harvests continued. Early onion harvest gained momentum in New York, while sweet corn harvest peaked. Lettuce, broccoli, cauliflower, and green bean picking continued in Oregon. Preparations for fall planting were in full swing in Texas. Virginia vegetable growers were planting fall vegetables and harvesting cantaloupes and watermelons.

PASTURES AND LIVESTOCK: Pasture conditions, boosted by plentiful rains, were good to excellent in the Southeast. Midwest and Mountain region ranges, however, were diminishing due to limited rainfall. Grasshopper damage to Arkansas hay and pastures was reported to be moderate to heavy.

CROP PROGRESS

For Week Ending August 4, 1991

Soybeans
% Setting Pods

	1991	1990	Avg.
AL	16	32	28
AR	21	0	15
GA	36	35	33
IL	85	31	67
IN	77	23	42
IA	56	52	70
KS	50	25	40
KY	28	10	21
LA	17	45	39
MI	40	15	25
MN	48	43	61
MS	24	30	25
MO	38	16	45
NE	43	19	50
NC	25	16	12
OH	82	45	52
SC	23	11	13
SD	70	36	39
TN	12	14	21

19 States 53 30 48

These 19 states produced 95% of the 1990 soybeans crop.

Soybeans
% Bloom

	1991	1990	Avg.
AL	45	59	56
AR	48	24	38
GA	73	70	71
IL	100	65	90
IN	99	73	86
IA	87	86	95
KS	80	55	70
KY	75	42	62
LA	43	70	66
MI	85	70	75
MN	88	91	95
MS	46	57	52
MO	69	42	74
NE	94	85	93
NC	50	36	35
OH	100	66	80
SC	48	38	38
SD	89	77	77
TN	32	40	50

19 States 81 65 78

These 19 states produced 95% of the 1990 soybeans crop.

Rice
% Headed

	1991	1990	Avg.
AR	33	14	36
CA	5	15	14
LA	79	72	76
MS	44	68	63
TX	92	91	95

5 States 47 40 51

These 5 states produced 98% of the 1990 rice crop.

Rice
% Harvested

	1991	1990	Avg.
AR	0	0	0
CA	0	0	0
LA	26	17	13
MS	0	0	0
TX	30	9	14

5 STATES 9 5 4

These 5 states produced 98% of the 1990 rice crop.

Cotton
% Bolls Opening

	1991	1990	Avg.
AL	1	0	1
AZ	0	20	13
AR	0	0	1
CA	0	0	1
GA	2	3	3
LA	0	5	6
MS	0	0	0
MO	0	0	0
NM	0	0	0
NC	2	0	0
OK	0	1	0
SC	0	0	0
TN	0	3	0
TX	16	9	9

14 States 7 5 5

These 14 states produced 99% of the 1990 cotton crop.

Cotton
% Setting Bolls

	1991	1990	Avg.
AL	88	97	93
AZ	95	100	97
AR	93	98	96
CA	90	90	91
GA	93	99	97
LA	90	92	90
MS	84	93	91
MO	88	96	97
NM	78	70	69
NC	88	89	81
OK	58	62	54
SC	92	88	80
TN	72	84	88
TX	64	76	61

14 States 76 84 76

These 14 states produced 99% of the 1990 cotton crop.

Spring Wheat
% Harvested

	1991	1990	Avg.
ID	6	12	11
MN	23	18	31
MT	2	7	13
ND	20	12	24
SD	66	44	49

5 States 24 17 27

These 5 states produced 97% of the 1990 spring wheat crop.

Winter Wheat
% Harvested

	1991	1990	Avg.
AR	100	100	100
CA	98	99	99
CO	91	93	95
GA	100	100	100
ID	9	24	25
IL	100	100	100
IN	100	100	100
KS	100	100	100
MI	99	95	95
MO	100	100	100
MT	8	28	40
NE	100	99	100
NC	100	100	100
OH	100	99	99
OK	100	100	100
OR	28	39	40
SD	100	95	89
TX	100	100	100
WA	20	48	45

19 States 87 90 90

These 19 states produced 91% of the 1990 winter wheat crop.

Corn
% Silking

	1991	1990	Avg.
CO	75	71	76
GA	100	100	100
IL	100	77	95
IN	100	74	88
IA	88	83	95
KS	99	95	95
KY	95	75	90
MI	92	70	80
MN	72	52	81
MO	94	68	93
NE	99	87	94
NC	100	100	98
OH	100	72	82
PA	78	50	50
SD	86	63	63
TX	96	98	98
WI	85	53	78

17 States 92 75 88

These 17 states produced 95% of the 1990 corn crop.

Corn
% Dough

	1991	1990	Avg.
CO	22	12	17
GA	99	99	99
IL	77	19	56
IN	75	16	39
IA	20	2	20
KS	70	40	50
KY	47	18	35
MI	5	0	10
MN	6	2	11
MO	69	30	65
NE	37	9	25
NC	89	78	76
OH	67	12	34
PA	20	3	9
SD	22	5	11
TX	84	85	85
WI	28	3	14

17 States 43 14 32

These 17 states produced 95% of the 1990 corn crop.

Grain Sorghum
% Headed

	1991	1990	Avg.
AR	65	50	73
CO	16	27	24
IL	84	10	61
KS	35	20	30
LA	80	89	88
MS	72	86	85
MO	62	34	66
NE	62	28	58
NM	25	56	NA
OK	34	28	55
SD	32	20	31
TX	81	81	76

12 States 56 43 NA

Excl. States with NA 56 43 54

These 12 states produced 98% of the 1990 grain sorghum crop.

NA - not available.

Grain Sorghum
% Coloring

	1991	1990	Avg.
AR	24	0	26
CO	0	0	0
IL	15	0	0
KS	3	2	2
LA	51	57	48
MS	48	41	43
MO	16	0	20
NE	0	0	0
NM	0	0	NA
OK	16	6	18
SD	0	0	0
TX	68	62	60

12 States 24 20 NA

Excl. States with NA 24 20 22

These 12 states produced 98% of the 1990 grain sorghum crop.

NA - not available.

CROP CONDITION

PERCENT

For Week Ending August 4, 1991

Spring Wheat

State	VP	P	F	G	EX
ID	0	5	14	55	26
MN	10	27	50	11	2
MT	1	6	19	47	27
ND	0	0	16	78	6
SD	0	7	24	57	12
5 State	2	7	23	58	10
Prev Week	2	7	22	58	11
Prev Year	3	7	30	53	7

Rice

State	VP	P	F	G	EX
AR	0	0	39	61	0
CA	0	0	15	75	10
LA	0	7	43	43	7
MS	13	3	78	6	0
TX	0	0	18	75	7
5 State	1	2	37	56	4
Prev Week	1	0	35	55	9
Prev Year	0	1	33	61	5

Sorghum

State	VP	P	F	G	EX
AR	8	2	70	20	0
CO	5	10	23	40	22
IL	0	14	51	35	0
KS	5	17	56	22	0
LA	0	21	49	30	0
MS	1	10	69	20	0
MO	4	30	55	11	0
NE	0	21	47	30	2
NM	0	0	24	76	0
OK	2	5	58	35	0
SD	0	10	42	41	7
TX	0	1	10	73	16
12 State	2	12	40	40	6
Prev Week	2	12	35	43	8
Prev Year	1	9	41	41	8

Soybeans

State	VP	P	F	G	EX
AL	0	1	24	74	1
AR	5	9	71	15	0
GA	0	0	5	82	13
IL	4	21	52	22	1
IN	8	33	53	6	0
IA	0	4	48	43	5
KS	3	15	52	20	10
KY	1	11	57	30	1
LA	4	42	46	8	0
MI	1	5	26	45	23
MN	2	4	23	52	19
MS	4	25	55	13	3
MO	1	25	56	18	0
NE	0	13	44	41	2
NC	0	0	24	74	2
OH	5	23	37	30	5
SC	0	0	11	83	6
SD	0	6	20	57	17
TN	2	15	59	24	0
19 State	3	15	45	32	5
Prev Week	2	9	43	42	4
Prev Year	1	6	37	49	7

Corn

State	VP	P	F	G	EX
CO	0	1	22	55	22
GA	0	0	7	62	31
IL	10	25	38	25	2
IN	18	41	35	6	0
IA	1	15	40	39	5
KS	9	10	26	46	9
KY	1	13	51	33	2
MI	2	7	27	43	21
MN	0	4	21	56	19
MO	4	23	55	18	0
NE	0	8	27	56	9
NC	0	0	34	65	1
OH	10	24	36	27	3
PA	17	26	31	20	6
SD	0	16	24	45	15
TX	0	1	15	62	22
WI	1	2	18	60	19
17 State	5	16	32	39	8
Prev Week	3	10	34	43	10
Prev Year	1	3	20	60	16

Cotton

State	VP	P	F	G	EX
AL	0	0	56	44	0
AZ	0	0	0	90	10
AR	0	0	61	39	0
CA	0	0	10	85	5
GA	0	3	8	70	19
LA	0	2	33	65	0
MS	4	2	63	27	4
MO	0	33	50	17	0
NM	0	0	9	91	0
NC	0	0	18	78	4
OK	0	0	66	34	0
SC	0	1	42	57	0
TN	4	12	62	22	0
TX	3	1	33	51	12
14 State	2	2	37	52	7
Prev Week	2	2	33	58	5
Prev Year	0	6	40	49	5

VP - Very Poor P - Poor F - Fair G - Good EX - Excellent

State Summaries of Weather and Agriculture

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

ALABAMA: Rain less than 0.25 in.; 1.00 to 2.00 in. local areas. Temperatures 2° above normal. Days suitable for fieldwork 5.7. Soil moisture 24% short, 76% adequate. Corn 77% dented, 89% 1990, 83% avg.; 47% mature, 58% 1990, 59% avg.; 14% harvested, 23% 1990, 23% avg.; 1% poor, 16% fair, 55% good, 28% excellent. Sorghum 2% harvested, 6% 1990, 3% avg.; 8% fair, 92% good. Peanuts 97% pegging, 100% 1990, 97% avg.; 11% fair, 72% good, 17% excellent. Cotton 88% setting bolls, 97% 1990, 93% avg.; 1% bolls open, 0% 1990, 1% avg.; 56% fair, 44% good. Soybeans 45% blooming, 59% 1990, 56% avg.; 16% setting pods, 32% 1990, 28% avg.; 1% poor, 24% fair, 74% good, 1% excellent. Pastures 2% poor, 18% fair, 62% good, 18% excellent. Livestock 8% fair, 78% good, 14% excellent.

ALASKA: Shower activity common in majority of Railbelt almost daily basis. Highs 1 to 6° below normal. Lows 2° below normal to 2° above normal. Seasonal precipitation 2.40 in. drier than normal at Fairbanks to 1.23 in. wetter than normal at Homer.

Days suitable for haying 2.0. Topsoil 5% short, 89% adequate, 6% surplus. Subsoil 4% short, 95% adequate, 1% surplus. Barley 100% in dough or beyond, 35% turning color. Oats, 100%, less than 10% turning color. Barley 20% fair, 55% good, 25% excellent. First crop hay harvest 80% complete. Rate of crop growth: 30% fair, 69% moderate, 1% rapid. Potatoes blooming 20% fair, 55% good, 25% excellent.

ARIZONA: Warm, windy with spotted showers on 28th. Increased thunderstorms 29th to 3rd heavy rains southeast, northwest, northeast, east, scattered showers over central, southwest. Precipitation trace southwest to 2.13 in. far southeast; temperatures 5° below to 3° above normal. Extremes 46°; 99° higher elevations, 63°; 116° desert.

Cotton setting bolls 95%, 100% 1990, 97% avg.; 90% good, 10% excellent. Alfalfa harvest moderate to active; good to excellent. Corn silage harvest active central, south central; good to excellent. Sudan hay harvest active west. Fruit, vegetables being harvested. Cattle, calves mostly good; stockwater supplies short to adequate, soil moisture short, feed supplies below average to average statewide; stockwater short, soil moisture short, feed supplies below average north; stockwater short to adequate, soil moisture mostly short, feed supplies below average central; stockwater adequate, soil moisture short, feed average south. Range, pasture 77% of normal, 79% last month, 63% 1990.

ARKANSAS: Temperatures seasonally hot with scattered showers. Temperature 55°; 102°. Rainfall none to 1.77 in.

Days suitable for fieldwork 6. Soil moisture 65% short, 35% adequate. Corn 12% poor, 14% fair, 74% good. Pasture 21% poor, 46% fair, 21% good, 2% excellent. Livestock good. First fields of rice harvested. Corn maturing fast, in the dough or dent stages. Grasshopper damage to hay, pastures has been moderate to heavy.

CALIFORNIA: Strong high pressure, hot temperatures early, gave way to weak upper level disturbances moving through the north end of the State bringing welcome cooling. Measurable rainfall mid late week in the south as subtropical moisture pumped showers, thunderstorms over the area.

Field activities progressed, open weather. Rice growth improved, warmer temperatures. Progress one week behind. Cotton boll set nearly complete. Small grain harvest virtually complete, except north. Dry bean growth behind normal. Over wintered sugarbeet harvest continued. New crop fields irrigated. Field corn treated mites, worms. Alfalfa, sudan harvests seasonally normal. Safflower blooming north; drying for harvest central, south. Packing Gravenstein, Gala apples began; long bloom period caused wide range size, maturity. Dusting, bagging dates continued. Table grape harvest continued increase: Thompson, Flame, Fantasy Seedless, Perlette, Black Beauty packed. Vineyards treated for pests, mildew. Plum harvest progressed; 67% Freestone peaches, 53% nectarines harvested to date. Cling peach harvest in full swing. Harvesting Asian, Bartlett pears continued. Orange, lemon growers treated groves, red scale. Packing Coastal lemons, Valencia oranges, Southern areas continued. Almond orchards received final irrigation before shaking, continued treatment for pests. Walnuts sizing well, treated for codling moth, scale; some sunburn damaged noted. Generally cooler than normal temperatures have slowed maturity of many vegetables. Broccoli fairly heavy supply, generally good quality. Cauliflower heavy supply, variable quality. Celery heavy supply, generally good quality. Iceberg lettuce supply heavy, variable quality. Processing, fresh market tomato harvest active. Fall crop cauliflower transplanting began. Conditions poor to good northern State. Southern areas fair to good higher elevations poor lower.

COLORADO: Dry note as high pressure dominated the weather across the State. On 2nd, moisture returned to the areas, showing measurable rainfall. Temperatures across the State 1° above normal.

Days suitable for fieldwork 5.6. Soil moisture 11% very short, 37% short, 50% adequate, 2% surplus. Second cutting alfalfa 47% complete, 51% 1990, 63% avg.; third cutting just underway. Barley 28% harvested, 50% 1990, 53% avg.; oats 50% harvested, 45% 1990, 42% avg. Corn 75% silked, 71% 1990, 76% avg.; 1% poor, 22% fair, 55% good, 22% excellent; dry beans 4% poor, 18% fair, 63% good, 15% excellent; sorghum 5% very poor, 10% poor, 23% fair, 40% good, 22% excellent. Summer potato, onion harvest less than 10% complete. Livestock mostly good. Pasture, range feed mostly good.

FLORIDA: Temperature 1 to 2° above normal except northeast with 1 to 3° below normal. Highs mid 90s, lows upper 60s northeast, mid 70s, southeast coast. Rain, 1.00 to 3.00 in. across State, few areas 5.00 in., Panhandle, southeast coast less than 1.00 in.

Soil moisture increasingly surplus. Corn, hay harvesting. Hay harvest delayed by rain.

Tobacco crop light. Peanuts looking good. States pastures mostly good to excellent. Pasture 60% good, 40% excellent. States herds mostly good to excellent. Citrus growing conditions almost ideal, moisture adequate to surplus, abundant new growth. New crop fruit making good progress, good fruit sizes. Hot, mostly wet weather continued over vegetable producing areas. Ground preparation active northern, central areas. First Ruskin tomatoes planted.

GEORGIA: Scattered thunderstorms. Heaviest rains east, south 2.00 to 5.00 in. common, 0.50 in. to 2.00 in. Heaviest 6.82 in. Hunter Field near Savannah, 6.73 in. Toccoa, 6.64 in. near Homerville. Temperatures 2° above normal extreme northwest, 2° below normal south. Hottest upper 80s northeast Mountains, mid 90s elsewhere. Coolest 60° Mountains upper 60s to low 70s elsewhere.

Days suitable for fieldwork 3.1. Soil moisture 2% short, 40% adequate, 58% surplus. Corn 92% dent, 95% 1990, 94% avg.; 83% mature, 78% 1990, 71% avg.; 12% harvested for grain, 19% 1990, 15% avg.; frequent showers, wet fields slowing harvest. Sorghum 1% fair, 95% good, 4% excellent. Peanuts 8% fair, 79% good, 13% excellent; 100% pegging, 100% 1990, 99% avg.; digging begun earliest fields, mostly Spanish varieties. Tobacco 8% poor, 50% fair, 42% good; 80% harvested, 63% 1990, 63% avg. Watermelons 95% harvested, 93% 1990, 95% avg. Apples 2% fair, 98% good; 12% harvested, 26% 1990, 18% avg. Peaches 95% harvested, 99% 1990, 98% avg. Pecans 2% poor, 15% fair, 76% good, 7% excellent. Hay, pasture good. Cattle, hogs good.

HAWAII: High temperatures, some rainfall, cloudy periods prevailed in the State. Major crops on most islands received irrigation due to dry weather conditions. Winds 5 to 25 mph. Temperatures high 60s to low 90s. Rainfall none to 14.80 in.

Days suitable for fieldwork 7.0. Most crops made good progress with favorable weather. Watermelon harvesting continued heavy. Papaya production remained at low level. Sugar planting, harvesting normal.

IDAHO: No weather data available.

Days suitable for fieldwork 7. Soil moisture 12% very short, 27% short, 60% adequate, 1% surplus. Winter wheat good; 78% turning color, 9% harvested. Spring wheat good; 53% turning color, 6% harvested. Spring barley 55% turning color, 4% harvested. Potato good; 87% closing middles, 3% turning. Oats 16% harvested, 21% 1990, 17% avg. Second cutting alfalfa 49% complete, 63% 1990, 57% avg. Dry peas 10% harvested, 34% 1990, 31% 5yr avg. Mint 28% harvested, 49% 1990, 51% avg. Cherries 98% harvested, 100% 1990, 100% avg. Livestock good to excellent. Pasture, range 78% of normal.

ILLINOIS: Temperatures normal to 2° above normal. Precipitation generally none to 0.41 in. across the State.

Days suitable for fieldwork 7.00. Soil moisture 98% short, 2% adequate. Corn dented 34%, 0 1990, 16% avg. Soybeans turning yellow 3%, 0% 1990, 0% avg. Pasture condition as a % of normal, where 100% = normal, was 64%. Alfalfa third cutting 35%, 13% 1990, 30% avg. Alfalfa 2% very poor, 38% poor, 51% fair, 9% good.

INDIANA: Temperatures 0 to 3° above normal. Upper 50s to low 60s. Highs lows 80s to low 90s. Precipitation none to 0.75 in. Some isolated amounts 0.75 to 1.00 in. north central, eastern areas.

Days suitable for fieldwork 6.9. Topsoil 100% short. Subsoil 98% short, 2% adequate. Corn 18% dented, 1% 1990, 9% avg. Oats 100% harvested, 80% 1990, 89% avg. Tobacco 7% harvested. Peach 68% harvested. Alfalfa hay 2nd cutting 100%, 74% 1990, 79% avg. Other hay 2nd cutting 84%, 63% 1990, 61% avg. Pasture 38% of normal. Crop conditions dropped dramatically. Conditions similar to the drought of 1983.

IOWA: Temperatures 0 to 3° below normal. Extremes 47°; 101°. Precipitation none to 1.50 in.; average 0.15 in.

Days suitable for fieldwork 6.2. Topsoil 77% short, 23% adequate. Subsoil 50% short, 49% adequate, 1% surplus. Hay 8% very poor, 30% poor, 33% fair, 27% good, 2% excellent. Corn 96% tasseled, 94% 1990, 99% avg.; 53% in milk stage, 17% 1990, 55% avg. Second cutting clover hay 77% harvested, 62% 1990, 76% avg. Livestock good.

KANSAS: Temperatures above normal in north, normal south. Rainfall all areas 0.50 in. southeast to 0.06 in. southwest.

Days suitable for fieldwork 6.5. Surface moisture 86% short, 13% adequate, 1% surplus. Subsurface moisture 90% short, 10% adequate. Range, pastures declined; poor statewide. Pastures in northwest, west central, north central fair while remainder poor. Supplies of hay, roughage adequate all locations. Forage short except in the northwest, where it is adequate. Stockwater short except in western, northeastern parts of State. Third cutting of alfalfa 50% complete; virtually no fourth cutting due to dry conditions.

KENTUCKY: High temperatures lower 90s, 2 to 5° above normal; low temperatures mid 50s, 2 to 4° below normal. Extremes 51°; 101°. Rainfall 0.25 in. far west, little to no rain elsewhere except isolated heavy amounts. Rain on 3rd.

Days suitable for fieldwork 6. Soil moisture 53% very short, 46% short, 1% adequate. Crops suffering from drought most areas, especially in western, Ohio River counties. Crop showing significant declines. Tobacco 1% very poor, 5% poor, 64% fair, 30% good. Burley 38% topped or beyond, 25% 1990, 35% avg. Cutting, housing burley underway earlier than usual. Burley very irregular in height. Dark tobacco 65% topped. Hay crops, pasture conditions declined. Pastures poor to good, mostly poor to fair in western counties. Some hay is being fed.

LOUISIANA: Temperatures 4° below normal to 3° above normal. Extremes 68°; 95°. Rainfall none to 3.55 in. southeast.

Days suitable for fieldwork 5.3. Soil moisture 3% very short, 29% short, 61% adequate, 7% surplus. Corn 32% poor, 67% fair, 1% good; 97% mature, 90% 1990, 67% avg.; 35% harvested, 13% 1990, 13% avg. Cotton 99% squaring, 100% 1990, 100% avg. Sporadic irrigation, north. Hay 96% first cutting; 2% final cutting, 17% 1990, 12% avg. Peaches 95% harvested, 92% 1990, 97% avg. Rice 41% ripe, 29% 1990, 23% avg. Sorghum 32% ripe, 20% 1990, 15% avg.; 8% harvested, 1% 1990, 3% avg. Sweet potatoes 4% poor, 75% fair, 21% good; 15% harvested, 6% 1990, 5% avg. Sugarcane 22% fair, 66% good, 12% excellent. Vegetables 3% very poor, 18% poor, 46% fair, 33% good. Pastures 1% poor, 7% fair, 21% good, 71% excellent. Livestock 16% fair, 80% good, 4% excellent.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.85 in. Temperature 75.6°, normal 75.9°. Extremes 49°; 101°.

Days suitable for fieldwork 5.9. Topsoil 11% very short, 56% short, 33% adequate. Subsoil 17% very short, 44% short, 39% adequate. Oats poor to

fair; 78% harvested, 70% 1990, 72% avg. Field corn 88% silked, 89% 1990, 84% avg.; 51% dough, 37% 1990, 41% avg.; 19% dent, 14% 1990, 18% avg. Soybeans 60% bloomed, 56% 1990, 51% avg.; 24% set pods, 31% 1990, 24% avg. Sorghum 66% headed; 10% turned. Tobacco 47% bloomed, 63% 1990, 52% avg.; 23% topped, 45% 1990, 31% avg. Sweet corn 70% harvested, 55% 1990, 58% avg. Potatoes 57% harvested, 58% 1990, 50% avg. Fruit, vegetables being harvested. Other hay second cut 48% complete, 63% 1990, 70% avg. Alfalfa hay second cut 99% complete, 99% 1990, 96% avg., third cut 66% complete, 30% 1990, 37% avg. Hay supplies adequate. Pasture severe drought condition. Peaches, apples good.

DELAWARE: Precipitation 1.40 in. Temperature 73.7°, normal 76.6°. Extremes 62°; 93°.

Days suitable for fieldwork 5.8. Topsoil 17% short, 83% adequate. Subsoil 17% short, 83% adequate. Oats fair. Field corn 46% dough, 29% 1990, 33% avg. Soybeans 55% bloomed, 48% 1990, 46% avg.; 10% set pods, 6% 1990, 14% avg. Sorghum 69% headed. Sweet corn 51% harvested, 51% 1990, 57% avg. Potatoes 26% harvested, 51% 1990, 43% avg. Fruit, vegetable being harvested. Other hay second cut 90% complete, 91% 1990, 80% avg.; third cut 13% complete, 25% 1990, 31% avg. Alfalfa hay third cut 60% complete, 24% 1990, 59% avg. Hay supplies adequate. Pasture good. Peaches, apples good.

MICHIGAN: Temperatures -2 to 1° below normal. Extremes 46°; 99°. Precipitation 0.38 to 5.51 in. across the State.

Days suitable for fieldwork 6. Soil moisture 45% short, 55% adequate. Corn 92% silked, 70% 1990, 80% avg.; 5% dough, 0% 1990, 10% avg.; 2% very poor, 7% poor, 27% fair, 43% good, 23% excellent. Soybeans 85% blooming, 70% 1990, 75% avg.; 40% setting pods, 15% 1990, 25% avg.; 1% very poor, 5% poor, 26% fair, 45% good, 23% excellent. Pasture 72% of normal.

MINNESOTA: Temperatures 2 to 5° below normal. Extremes 41°; 90°. Precipitation 0.18 to 1.85 in.

Days suitable for fieldwork 4.7. Topsoil 2% very short, 17% short, 61% adequate, 20% surplus. Spring wheat 95% turning ripe, 98% 1990, 92% avg.; 54% swathed, 39% 1990, 52% avg.; 23% combined, 18% 1990, 31% avg. Oats 98% turning ripe, 99% 1990, 97% avg.; 94% swathed, 70% 1990, 81% avg.; 76% combined, 42% 1990, 61% avg. Barley 98% turning ripe, 99% 1990, 96% avg.; 96% swathed, 85% 1990, 76% avg.; 80% combined, 63% 1990, 56% avg. Field corn 93% tasseling, 75% 1990, 93% avg.; 46% in milk, 22% 1990, 49% avg.; 6% dough, 2% 1990, 11% avg. Soybeans 88% blooming, 91% 1990, 95% avg.; 48% setting pods, 43% 1990, 61% avg. Winter wheat 89% harvested, 70% 1990, 80% avg. Rye 82% harvested, 52% 1990, 75% avg. Sweet corn 25% harvested, 6% 1990, 18% avg. Spring wheat 10% very poor, 27% poor, 50% fair, 11% good, 2% excellent. Field corn 4% poor, 21% fair, 56% good, 19% excellent. Soybeans 2% very poor, 4% poor, 23% fair, 52% good, 19% excellent. Alfalfa 3% poor, 21% fair, 61% good, 15% excellent.

MISSISSIPPI: Temperatures 81°, .8 below normal. Extremes 59°; 99°. Mostly dry statewide. Rainfall 0.28 in., 0.70 below normal. Soil temperature 87°.

Days suitable for fieldwork 6, 5.1 1990, 5.3 5 yr avg. Soil moisture 13% very short, 38% short, 49% adequate. Corn 97% silking, 97% 1990, 98% avg.; 82% dough, 77% 1990, 84% avg.; 70% denting, 62% 1990, 66% avg.; 43% mature, 29% 1990, 21% avg.; silage harvest 61%, 34% 1990, 35% avg.; 6% very poor, 27% poor, 33% fair, 29% good, 5% excellent. Cotton 95% squaring, 100% 1990, 99% avg.; 84% setting bolls, 93% 1990, 91%

avg.; 4% very poor, 2% poor, 63% fair, 27% good, 4% excellent. Rice 44% heading, 68% 1990, 63% avg.; 13% very poor, 3% poor, 78% fair, 6% good. Sorghum 72% heading, 86% 1990, 85% avg.; 48% coloring, 41% 1990, 43% avg.; 38% mature, 10% 1990, 7% avg.; 19% silage harvested, 24% 1990, 19% avg.; 1% very poor, 10% poor, 69% fair, 20% good. Soybeans 46% blooming, 57% 1990, 52% avg.; 24% podding, 30% 1990, 25% avg.; 4% very poor, 25% poor, 55% fair, 13% good, 3% excellent. Watermelons 77% harvested, 76% 1990, 70% avg. Hay 73% harvested, 66% 1990, 63% avg. Peaches 95% harvested, 93% 1990, 92% avg.; 15% very poor 25% poor, 15% fair, 43% good, 1% excellent. Pecans 14% very poor, 53% poor, 12% fair, 21% good. Livestock 13% fair, 54% good, 33% excellent. Pasture 92% of normal.

MISSOURI: Temperatures reached some extreme highs, averaged near normal. Rainfall light to none.

Days suitable for fieldwork 6.7. Topsoil 87% short, 13% adequate. Subsoil 66% short, 34% adequate. Corn dough stage 48% north central to over 85% west central, southeast; dent stages 19% northeast to 61% southeast. Soybeans podding 24% southwest to 51% northeast. Sorghum heading most advanced east central, southeast, least advanced northeast. Alfalfa hay third cutting 42%, 22% 1990, 50% avg. Other hay cut 95%, 89% 1990, 95% avg. Pasture 21% very poor, 40% poor, 27% fair, 12% good. Livestock water supplies 6% critically short, 43% short, 51% adequate.

MONTANA: Temperatures near normal, 100° highs south central, east. Precipitation scattered, mostly under 0.50 in.

Days suitable for fieldwork 6.3. Topsoil 51% short, 49% adequate. Subsoil 30% short, 69% adequate, 1% surplus. Winter wheat ripe 41%, 46% 1990, 38% avg.; 1% very poor, 3% poor, 22% fair, 49% good, 25% excellent. Spring wheat ripe 11%, 31% 1990, 22% avg. Barley ripe 21%, 26% 1990, 22% avg.; harvested 2%, 8% 1990, 13% avg.; 1% very poor, 4% poor, 19% fair, 45% good, 31% excellent. Oats ripe 16%, 25% 1990, 22% avg.; harvested 3%, 7% 1990, 14% avg.; 4% poor, 17% fair, 57% good, 22% excellent. Sugarbeets 1% poor, 2% fair, 69% good, 28% excellent. Second cutting alfalfa harvested 23%, 31% 1990, 38% avg. Other hay harvested 89%, 82% 1990, 78% avg. Pasture, range feed 96% of normal.

NEBRASKA: Temperatures normal to 2° below normal. Precipitation varied less than 0.10 to 0.50 in.

Days suitable for fieldwork 6.7. Topsoil 87% short, 13% adequate. Subsoil 69% short, 31% adequate. Corn 8% poor, 27% fair, 56% good, 9% excellent; 99% silked, 87% 1990, 94% avg.; 37% dough, 9% 1990, 25% avg. Sorghum 21% poor, 47% fair, 30% good, 2% excellent; 62% headed, 28% 1990, 58% avg. Soybeans 13% poor, 44% fair, 41% good, 2% excellent; 94% blooming, 85% 1990, 93% avg.; 43% setting pods, 19% 1990, 50% avg. Alfalfa 22% poor, 40% fair, 37% good, 1% excellent; 98% second cutting, 95% 1990, 95% avg.; 14% third cutting, 28% 1990, 23% avg. Pasture, range 77% of normal.

NEVADA: High pressure pattern brought widely scattered thunderstorms to most of State. Some hail also fell during heavier thunderstorms. Heavy rain 2.00 in. extreme south, including Las Vegas, caused local flash flooding. Temperatures slightly above normal. Extremes 35°; 115°.

Irrigation water 30% very short, 60% short, 10% adequate. Development, progress most crops 10 to 14 days late. Alfalfa hay first cutting completed, second cutting 25%, 70% 1990, 60% avg. Winter wheat harvested 5%, 65% 1990, 50% avg.

Oats harvested 20%, 50% 1990, 35% avg. Barley harvested 5%, 55% 1990, 40% avg. Garlic harvest just getting started. Livestock good. Stockwater becoming a problem some areas.

NEW ENGLAND: Precipitation none to 0.40 in. northern 4 states; 0.25 to 1.50 in. Connecticut, Rhode Island. Temperatures mid 60s to low 70s north, mid 60s to mid 70s south; 2° below to 3° above normal. Maximum temperatures low 80s to mid 90s; minimum temperatures mid 40s to mid 60s.

Days suitable for fieldwork 5.9. Soil moisture 15% very short, 62% short, 23% adequate. Grazing availability 26% very short, 59% short, 15% adequate. Fieldwork 5.5 days ahead of schedule. Maine, Connecticut Valley potatoes good. Rhode Island potatoes fair to good. Maine oats fair to good. Field corn fair. Sweet corn fair to good. Second cut hay 54% complete, 43% 1990, 43% avg.; fair. Connecticut Valley shade, outdoor tobacco good. Fruits being harvested.

NEW JERSEY: Temperatures near normal. Extremes 52°; 95°. Rainfall 0.19 in. north, 0.29 central, 0.20 south. Heaviest 24 hour total 0.75 in. on 3rd, 4th. Estimated soil moisture percent field capacity, averaged 68% north, 66% central, 63% south. Four inch soil temperature 70° north, 73° central, 75° south.

Soil moisture ranged adequate to short around the State. Fall vegetable planting well advanced. Summer vegetable harvest active. Irish potato digging continued light. Blueberry picking in clean up stage. Peach harvest very active. Summer variety apple harvest increased. Field corn in the silk stage. Soybean prospects generally good. Oat combining active. Second cutting of hay well advanced. Pasture growth improved.

NEW MEXICO: Clouds, precipitation kept temperatures a couple of degrees below normal for State. Extremes 41°; 96°. Rainfall across the State with several stations over 2.00 in.

Days suitable for fieldwork 5.6. Soil moisture 15% short, 81% adequate, 4% surplus. Crop conditions: Alfalfa 36% fair, 60% good, 4% excellent. Corn 100% good; harvest for silage active. Onions 14% fair, 86% good; harvest in southern part of State close to finish. Chile 50% fair, 42% good, 8% excellent; small amount of harvest starting. Pecans 17% fair, 83% good; majority of reports show average nut set. Cattle, sheep fair to excellent, improving. Range 79% of normal, low of 35%, high of 120%.

NEW YORK: Another dry week. Only widespread rain fell on 3rd with the most accumulation occurring in the center of the State. Rainfall none to 0.71 in. Temperatures near normal. Highs 80s, lows 50s to 60s. Extremes 41°; 94°.

Days suitable for fieldwork 6.7. Soil moisture very short to short. Rain fell weekend. More is needed to relieve dryness. Pasture condition 45% of normal. Corn fair to good. Second cutting of alfalfa 77% finished, 53% 1990, 47% avg. Oats 61% harvested, 13% 1990, 15% avg. Grape progress 3 weeks ahead of usual. Tree fruits good. Vegetable harvest active. Early onion harvest gained momentum. Sweet corn harvest peaked. Irrigation active.

NORTH CAROLINA: Temperatures 1 to 3° below normal across the State. Precipitation 0.20 to 9.67 in.

Days suitable for fieldwork 3.3. Soil moisture 4% short, 45% adequate, 51% surplus. Crop condition: Tobacco 19% fair, 78% good, 3% excellent; corn 34% fair, 65% good, 1%

excellent; cotton 18% fair, 78% good, 4% excellent; peanuts 23% fair, 77% good; soybeans 24% fair, 74% good, 2% excellent; hay 4% poor, 20% fair, 73% good, 3% excellent; sweet potatoes 3% poor, 20% fair, 74% good, 3% excellent; apples 25% fair, 70% good, 5% excellent; peaches 29% fair, 64% good, 7% excellent; sorghum 33% fair, 67% good; truck crops 2% poor, 29% fair, 67% good, 2% excellent; pasture 4% poor, 26% fair, 66% good, 4% excellent. Harvested: Peaches 82%; flue cured tobacco 30%; corn silage 16%; hay second cutting 65%, third cutting 30%. Cotton setting bolls 88%; corn soft dough 89%; corn dent 70%; corn mature 32%; soybeans blooming 50%; soybeans setting pods 25%; tobacco topped 90%.

NORTH DAKOTA: Temperatures 3° below normal east central, southeast to normal northwest, west central, southwest, south central. Extremes 44° north central, west central; 100° south central. Precipitation 0.13 in. south central to 0.91 in. north central.

Days suitable for fieldwork 6.2. Topsoil 16% very short, 55% short, 29% adequate. Subsoil 19% very short, 44% short, 37% adequate. Spring wheat 48% swathed to combined, 31% 1990, 42% avg.; durum 22% swathed to combined, 14% 1990, 23% avg.; oats 60% swathed to combined, 48% 1990, 52% avg.; barley 80% swathed to combined, 64% 1990, 62% avg.; winter wheat 92% swathed to combined, 79% 1990, 87% avg. Corn 49% milk to dough, 7% 1990, 26% avg.; sunflower 58% bloom and beyond, 50% 1990, 57% avg.; flax 48% turning to ripe and beyond, 22% 1990, 27% avg.; potatoes 90% rows filled and beyond, 62% 1990, 67% avg.; soybeans 39% fully podded and beyond, 9% 1990, 21% avg.; dry edible beans 53% fully podded and beyond, 10% 1990, 32% avg. Pasture 84% of normal. Alfalfa hay second cutting 61% complete, other hay first cutting 88% complete. Stockwater 4% very short, 48% short, 48% adequate.

OHIO: Heat wave conditions late, replaced by cooler Canadian air carrying with scattered thundershowers. Temperatures 1 to 5° above normal with northern areas warmer. Rainfall 0.25 to 0.80 in. with some areas receiving more than 1.50 in.

Days suitable for fieldwork 6.9. Soil moisture 90% short, 9% adequate, 1% surplus. Pastures 38% very poor, 35% poor, 19% fair, 7% good, 1% excellent. Tomato harvest started with 7%, 0% 1990, 5% avg. Potato harvest 10%, 10% 1990, 12% avg. Third cut alfalfa 43%, 12% 1990, 15% avg. Second cut other hay 72%, 50% 1990, 57% avg.; third cut 13%, 1% 1990, 5% avg.

OKLAHOMA: Temperatures 2° below normal southeast to 2° above normal northeast. Precipitation none several districts to 0.55 in. Panhandle.

Days suitable for fieldwork 5.9. Topsoil 66% short, 32% adequate, 2% surplus. Subsoil 70% short, 30% adequate. Wheat 98% ground plowed, 95% 1990, 94% avg.; 20% seedbed prepared, 7% 1990, 14% avg. Cotton 86% squaring, 95% 1990, 87% avg.; 58% setting bolls, 62% 1990, 54% avg. Sorghum 34% headed, 28% 1990, 55% avg.; 16% milk to soft dough, 6% 1990, 18% avg. Soybeans 54% flowering, 47% 1990, 52% avg.; 24% setting pods, 13% 1990, 23% avg. Peanuts 85% pegging, 83% 1990, 85% avg.; 58% setting pods, 43% 1990, 45% avg.; 3% mature. Corn 86% milk to soft dough, 66% 1990, 75% avg.; 11% mature, 18% 1990, 14% avg. Pasture 88%. Cattle good; marketings average, prices mixed.

OREGON: Temperatures seasonably warm Cascades, west; 3 to 5° above average, interior; 3° above normal, east; 9° above normal, Madras. Thunderstorms, frequent lightening, scattered

over State for several days; thunderstorms to severe limits, Portland on 31st, 1.00 in. hail, Scappoose.

Soil moisture 55% short, 45% adequate. Winter grain harvest well underway; spring grains beginning to turn, higher elevations; yield, quality variable. Grass seed harvest continued, Willamette Valley; yields average lower. Mint harvest started, Lane County. Second crop alfalfa harvest underway, statewide; yields, quality quite variable. Tart cherry harvest full swing, mid Willamette Valley; sweet cherry harvest wrapping up, Union County; orchardists pruning, The Dalles; earliest peaches harvested, blueberry, marion berry harvest proceeding, red raspberry nearly complete, west. Transparent apples ripe, hazelnut growers finished first cover spray, Lane County; third cover spray applied, completion scheduled for the 5th, Bartlett pear harvest expected 22nd, Medford district. Psylla spraying continued, fruit development good, Hood River Valley. Bartlett pear harvest expected 20th, south coast; cranberry crop fair to good. Fresh pack potato harvest full swing, Morrow, Umatilla County; processors processing potatoes direct from field; potatoes blooming, Baker, Wallowa County. Sweet corn, processing carrots harvest started; watermelon harvest full swing, Hermiston area. Lettuce, broccoli, cauliflower, green beans being picked; green pea harvest about finished; squash harvest starting; fall cole crops being planted, Willamette Valley. Livestock good to excellent; some calves contracted, Baker, Wallowa County; major lamb marketing, Umatilla County, last two weeks. Some calves weaned early due to short moisture, Jefferson County; limited shipment year lings to feedlots, Klamath County. Statewide range, pasture 9% poor, 21% fair, 52% good, 18% excellent.

PENNSYLVANIA: Warm, dry across the Commonwealth. Temperature 73°, 2° above normal. Extremes 47°; 100°. Precipitation 0.35 in., 0.51 in. below normal.

Days suitable for fieldwork 6. Soil moisture 93% short, 7% adequate. Corn 78% silk, 50% 1990, 50% avg.; 20% dough, 3% 1990, 9% avg.; 1% dent. Ensilage corn harvested 1% complete. Corn 17% very poor, 26% poor, 31% fair, 20% good, 6% excellent. Soybean 9% very poor, 23% poor, 35% fair, 29% good, 4% excellent. Wheat harvest 97% complete, 78% 1990. Oats harvest 75% complete, 46% 1990. Barley harvest 97% complete, 86% 1990. Tobacco harvest 15% complete. Potato harvest 5% complete, 5% 1990. Second cutting alfalfa 82% complete, 66% 1990. Third cutting alfalfa 23% complete, 10% 1990. Second cutting clover timothy 50% complete, 30% 1990. Feed from pastures 71% very poor, 19% poor, 9% fair, 1% good. Quality of hay made mostly fair.

PUERTO RICO: Island rainfall of 1.06 in. was 0.30 in. below normal. Highest rainfall 3.59 in. at Adjuntas Aes, 3.44 in. at San Sebastian, 2.88 in. at Trujillo Alto. Divisional temperatures 81 to 82° coasts, 74 to 78° Interior, mean station temperature 67.5° at Pico Del Este Luquillo to 84.2° at Roosevelt Roads N.S. Extremes 58°; 93°.

SOUTH CAROLINA: Temperatures 1 to 2° below normal. Rainfall 2.00 in. northwest to 6.30 in. central.

Days suitable for fieldwork 3.3. Soil moisture 9% short, 58% adequate, 33% surplus. Cotton; 1% poor, 42% fair, 57% good; 92% setting bolls, 88% 1990, 80% avg. Fruit, vegetables being harvested. Sorghum fair to good; 95%

planted, 100% 1990, 98% avg.; 10% harvested, 8% 1990, 8% avg. Soybeans 11% fair, 83% good, 6% excellent; 48% blooming, 38% 1990, 38% avg.; 23% setting pods, 11% 1990, 13% avg. Tobacco fair to good; 57% harvested, 49% 1990, 40% avg.; 2% stalks destroyed, 1% 1990. Corn fair to good; 97% dough stage, 97% 1990, 90% avg.; 65% matured, 77% 1990, 51% avg.; 6% harvested, 13% 1990, 7% avg. Fall hay fair to good; 34% harvested, 22% 1990, 27% avg. Pastures fair to good.

SOUTH DAKOTA: Hot, turned cool mid week. Temperatures slightly below normal. Extremes 37°; 104°. Rainfall variable. Maximum 1.88 in. Several areas in northeast over 1.50 in.

Days suitable for fieldwork 5.2. Topsoil 15% critical, 54% short, 24% adequate, 7% surplus. Subsoil 14% critical, 46% short, 35% adequate, 5% surplus. Flax 2% poor, 25% fair, 59% good, 14% excellent. Sunflowers 1% poor, 23% fair, 62% good, 14% excellent. Livestock 1% poor, 6% fair, 73% good, 20% excellent. Pasture 90% of normal.

TENNESSEE: High pressure dominated Statewide. Weak cold fronts passed through State 30th, 4th. Temperatures below normal Plateau, slightly above normal elsewhere. Precipitation below normal statewide. Most areas no rain.

Days suitable for fieldwork 6.0. Soil moisture 13% very short, 54% short, 31% adequate, 2% surplus. Corn 85% tasseling, 84% 1990, 95% avg.; 52% dough, 36% 1990, 62% avg.; 28% dent, 14% 1990, 30% avg.; 2% very poor, 15% poor, 34% fair, 45% good, 4% excellent. Cotton 72% setting bolls, 84% 1990, 88% avg.; 4% very poor, 12% poor, 62% fair, 22% good. Sorghum 52% headed, 50% 1990, 74% avg.; 2% very poor, 10% poor, 55% fair, 33% good. Soybeans 32% blooming, 40% 1990, 50% avg.; 12% setting pods, 14% 1990, 21% avg.; 2% very poor, 15% poor, 59% fair, 24% good. Tobacco 52% topped, 38% 1990, 38% avg.; 2% very poor, 33% fair, 63% good, 2% excellent. Hay 3% poor, 17% fair, 74% good, 6% excellent. Pastures 4% poor, 33% fair, 55% good, 8% excellent. Cattle 1% poor, 11% fair, 83% good, 5% excellent. Some tobacco damaged east by floods, wind, hail. West, middle sections still very dry.

TEXAS: Upper level high pressure capped region, keeping temperatures mostly near normal, rainfall below normal. Weak front moved into much of North, East Texas early in week allowing morning temperatures to dip down little lower than usual. However, dryness of air favored hotter afternoon temperatures so average daily readings did not change much. Temperatures in parts of West Texas, Rolling Plains cooler than normal due several factors, including cooler than usual morning temperatures. Rainfall below normal in all areas except South central Texas, Coastal Bend. Most significant rains limited to eastern third of State, Panhandle.

Crops: Corn harvest progress. Scattered showers slowed harvest operations, hot, dry temperatures quickly offset delays. Irrigation on High Plains remained heavy. Corn 64% dented, 72% 1990, 68% avg. Corn 50% mature, 60% 1990, 56% avg.; 22% harvested, 36% 1990, 28% avg. Sorghum harvest South Texas, coastal areas basically complete, yields mixed. Midge problems along Upper Coast caused more damage than first anticipated. Harvest in Blacklands slowed by showers, yields varied. Irrigation continued on High Plains. Sorghum 58% mature, 50% 1990, 49% avg.; 54% harvested for grain, 39% 1990, 38% avg. Cotton harvest continued full swing for South Texas producers. Threat of rain helped speed operations. Harvest off to slow start along Upper Coast, defoliating practices continued. Rust infestations concerned Trans Pecos producers due potentially lower yields. Cotton 7%

harvested, 3% 1990, 4% avg. Rice harvest made good progress. Soybean harvest underway in Blacklands. Fields along Upper Coast continued excellent progress, plants need some additional moisture to completely fill out pods. Harvest expected to start soon. States peanut crop remained good. Dryland fields in South Texas badly in need of some moisture. Peanut 81% of normal; 40% fair, 46% good, 14% excellent.

Commercial Vegetables: Rio Grande Valley, producers waiting for more moisture to continue operations. San Antonio Winter Garden, tomato harvest slow. East Texas, harvest of most vegetables about complete. Watermelon harvest also winding down. Preparations for fall planting continued full swing. High Plains, potato, onion harvest had another week good progress. Cucumber harvest underway. Broccoli stands progressing well. Trans Pecos, garlic harvest in full swing. Fields remained too wet for melon harvest to continue. Pecan trees continued dropping nuts due hot, dry weather. Water demand remained high most trees, especially South Texas.

Range and Pasture: Livestock continued in good shape, heat stress a problem. Generally, ranges, pastures fair, good shape with adequate forage available. Haying operations continued full swing. Most areas have surplus hay. Range, pasture 6% poor, 34% fair, 48% good, 12% excellent.

UTAH: Maximum temperatures 2° above normal throughout State, minimums 3° above normal. Precipitation in all areas of the State, with heaviest amounts in the northern half of the State.

Days suitable for fieldwork 6.5. Soil moisture 85% short, 15% adequate. Winter wheat 95% ripe; 55% harvested, 66% 1990, 73% avg. Spring wheat 63% ripe, 76% avg; 30% harvested, 47% 1990, 46% avg. Barley 66% ripe; 39% harvested, 53% 1990, 54% avg. Oats 66% turning; 31% ripe, 54% 1990, 58% avg.; 7% harvested for grain, 25% 1990, 19% avg. Corn 63.5 in. high, 63.8 in. 1990, 68.8 in. avg.; 42% tasseling, 54% 1990, 67% avg. Alfalfa second cutting 67% complete, 76% 1990, 79% avg.; third cutting 2% completed. Other hay harvest continued at normal pace. Pasture, range fair to good. Stockwater 1% very short, 50% short, 49% adequate. Hay, roughage 17% short, 75% adequate, 8% surplus.

VIRGINIA: Temperatures slightly below normal. Extremes 54°; 96°. Precipitation above normal 0.44 to 4.14 in.

Days suitable for fieldwork 3.5. Topsoil 11% short, 76% adequate, 13% surplus. Corn silked 80%, 73% 1990, 72% avg.; dough stage 50%, 43% 1990, 40% avg.; dented 25%, 22% 1990, 17% avg.; 12% very poor, 14% poor, 39% fair, 33% good, 2% excellent. Soybeans bloomed 46%, 43% 1990, 36% avg.; setting pods 22%, 21% 1990, 15% avg.; 15% poor, 56% fair, 29% good. Peaches 60% harvested. Potatoes 95% harvested. Flue tobacco 16% harvested, 18% 1990, 8% avg. All tobacco 27% fair, 73% good. Peanut 20% poor, 20% fair, 40% good, 20% excellent. Planting fall vegetables, harvesting cantaloupes, watermelons. Pasture 7% very poor, 6% poor, 36% fair, 41% good, 10% excellent. Alfalfa 13% poor, 30% fair, 35% good, 22% excellent. Other hay 3% very poor, 9% poor, 37% fair, 38% good, 13% excellent. Livestock mostly good.

WASHINGTON: Temperatures 3° above normal to 1° below normal west; 2° above normal to 4° below normal east. Precipitation none to 0.30 in. east; none west.

Days suitable for fieldwork 6.9. Soil moisture 64% short, 36% adequate. Hay, other roughage 9% short, 82% adequate, 9% surplus. Range, pasture 38% poor, 39% fair, 9% good, 14% excellent. Winter wheat 1% very poor, 10% poor, 30% fair, 59% good. Spring barley 6% poor, 40% fair, 50% good, 4% excellent. Potato 100% good. Dry bean 100% good. Corn 100% good. Alfalfa hay second cutting 72%. Winter wheat harvested 20%. Spring barley harvested 16%. Potatoes harvested 7%. Dry peas harvested 10%. Grain harvest continued in eastern areas, although harvest has not begun in the far eastern areas. Spring barley yields look good to excellent, with yields as high as 2 tons per acre in some areas. Harvest of early potatoes continued in the south central part of the State.

WEST VIRGINIA: Temperature 73°. Extremes 50°; 103°. Precipitation 0.56 in.

Days suitable for fieldwork 5.14. Soil moisture 30% very short, 52% short, 18% adequate. Wheat good; 98% harvested. Corn, 8% poor, 51% fair, 41% good; 81% silked, 55% dough stage. Oats fair; 98% ripe, 92% headed. Tobacco, fair; 16% topped. Hay, 27% poor, 58% fair, 15% good; 96% first cutting, 34% second cutting. Pastures, 34% very poor, 23% poor, 37% fair, 6% good; 58% of normal. Cattle, good. Sheep, good.

WISCONSIN: Temperature 66°, 4° below normal. Extremes 40°; 98°. Precipitation trace to 0.80 in.

Days suitable for fieldwork 6.0. Soil moisture 27% short, 64% adequate, 9% surplus. Pasture condition 76% of normal, 87% 1990, 68% avg. General condition of crops 1% poor, 18% fair, 75% good, 6% excellent. Corn 1% very poor, 2% poor, 18% fair, 60% good, 19% excellent; silked 85%, 53% 1990, 78% avg.; in dough 28%, 3% 1990, 14% avg.; dent 4%, 0% 1990, 1% avg. Soybean 6% poor, 18% fair, 52% good, 24% excellent. Second crop hay 75% harvested, 68% 1990, 70% avg. Third crop hay harvested 8%, 4% 1990, 5% avg. Winter wheat harvested for grain 90%, 53% 1990, 75% avg. Oats harvested for grain 58%, 23% 1990, 45% avg.

WYOMING: Temperatures above normal. Precipitation above normal extreme west, below normal elsewhere.

Days suitable for fieldwork 6.4. Topsoil 23% short, 75% adequate, 2% surplus. Subsoil 21% short, 79% adequate. Winter wheat 20% turning color, 10% 1990, 5% avg.; 35% mature, 40% 1990, 30% avg.; 45% harvested, 50% 1990, 65% avg. Barley 20% headed, 10% 1990, 10% avg.; 30% turning color, 20% 1990, 20% avg.; 35% mature, 45% 1990, 45% avg.; 15% harvested, 25% 1990, 25% avg. Spring wheat 25% headed, 10% 1990, 5% avg.; 40% turning color, 50% 1990, 35% avg.; 30% mature, 30% 1990, 40% avg.; 5% harvested, 10% 1990, 20% avg. Oats 30% headed, 35% 1990, 15% avg.; 35% turning color, 35% 1990, 35% avg.; 30% mature, 25% 1990, 35% avg.; 5% harvested, 5% 1990, 15% avg. Alfalfa second cutting 25% complete, 25% 1990, 35% avg. Other hay 75% harvested, 70% 1990, 70% avg. Potatoes 75% in bloom, 95% 1990, 90% avg. Dry beans 70% in bloom, 65% 1990, 75% avg.; 50% setting pods, 45% 1990, 50% avg. Corn 70% tasseled, 80% 1990, 75% avg.; 30% silked, 30% 1990, 35% avg. Range, pasture good to excellent. Stockwater 5% short, 95% adequate.

**International Weather and Crop
Summary
HIGHLIGHTS**

July 29 - August 4, 1991

WESTERN USSR ... In Western USSR, moderate to heavy rains delay small grain harvests in Moldova and the Ukraine, while dry weather helps harvest over the remainder of the region. In the New Lands, cooler weather and widespread light precipitation stabilize conditions for drought-stressed crops.

EUROPE ... Widespread heavy rain inundates a broad area from Czechoslovakia to Romania.

EASTERN ASIA ... Rains bring drought relief to interior southern China, but produce more flooding in the lower Yangtze Valley. Typhoon Caitlan brushes western Japan and southern Korea.

SOUTHEAST ASIA ... Scattered showers improve local conditions for Thai rice and corn.

SOUTH ASIA ... Generally favorable showers across the region benefit vegetative to filling summer crops but cause additional flooding.

SOUTH AMERICA ... Adequate moisture exists for germinating winter wheat in Argentina and southern Brazil.

MEXICO ... Soil moisture levels for summer crops remain adequate.

AUSTRALIA ... Favorable growing conditions exist in most areas.

CANADA ... Showers benefit reproductive to filling grains and oilseeds in Saskatchewan and southern Alberta.

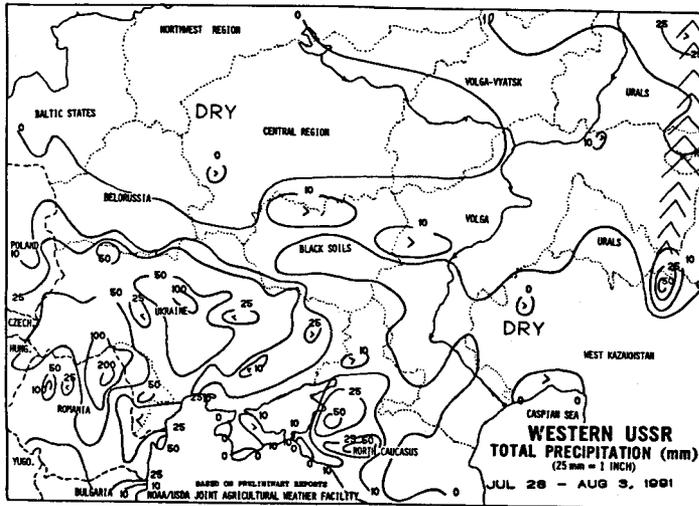
**July 1991
MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
*** = DATA NOT AVAILABLE**

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI	LO	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	24	11	32	7	17	2.3	43	-50
SWEDEN	STOCKHOLM	23	13	30	9	18	1.1	32	-38
FINLAND	HELSINKI	23	12	28	10	18	0.8	21	-51
U KING	GLASGOW	21	13	25	7	17	1.1	102	19
	EDINBURGH	19	12	24	10	16	1.4	99	34
	BIRMINGHAM	22	13	29	9	18	1.8	109	56
	LONDON	22	13	28	8	18	1.6	105	56
IRELAND	DUBLIN	19	13	23	10	16	1.2	28	-32
ICELND	REYKJAVIK	16	11	23	8	13	2.5	50	2
DENMRK	COPENHAGEN	23	14	31	8	18	0.3	45	-26
LUXEMB	LUXEMBOURG	25	15	34	10	20	2.6	62	-4
SWITZL	ZURICH	25	15	31	11	20	2.7	46	-84
	GENEVA	28	15	34	9	21	2.3	49	-20
FRANCE	PARIS	25	14	35	8	19	1.2	42	-9
	STRASBOURG	27	15	34	11	21	2.6	97	36
	BOURGES	26	14	37	10	20	1.3	66	15
	BORDEAUX	27	16	34	13	21	2.0	78	24
	TOULOUSE	28	16	35	12	22	1.7	20	-27
	MARSEILLE	31	19	35	13	25	1.8	3	-11
SPAIN	VALLADOLID	31	15	37	10	23	1.8	2	-16
	MADRID	34	17	40	10	26	1.1	11	4
	SEVILLE	36	20	44	15	28	1.4	5	4
GERMNY	LEIPZIG	26	14	36	11	20	2.3	24	-39
	DRESDEN	26	15	35	10	21	2.4	30	-79
	HAMBURG	24	14	31	9	19	2.5	52	-35
	BERLIN	26	16	35	11	21	2.0	32	-29
	DUSSELDORF	25	16	35	11	21	2.4	65	-10
	STUTTGART	26	14	33	10	20	2.1	33	-45
	NURNBERG	26	15	35	10	21	2.6	33	-37
	MUNICH	25	14	33	8	19	2.0	83	-43
AUSTRI	VIENNA	27	16	33	7	21	1.1	67	-2
	INNSBRUCK	26	14	33	8	20	2.2	158	23
CZECH	PRAGUE	24	13	33	8	19	1.4	54	-18
POLAND	WARSAW	25	14	32	6	19	1.0	61	-15
	LODZ	24	13	32	7	19	0.9	49	-42
	KATOWICE	24	13	31	5	19	1.0	44	-50
	PRZEMYSL	24	14	30	6	19	1.1	61	-39
HUNGAR	BUDAPEST	28	18	35	13	23	2.2	98	31
YUGOSL	SARAJEVO	26	14	34	10	20	1.3	133	58
ROMANI	BUCHAREST	29	16	32	15	23	0.0	225	160
BULGAR	SOPIA	26	15	33	9	21	1.1	94	32
ITALY	MILAN	31	19	35	10	25	1.8	33	-29
	VERONA	30	19	35	13	25	1.6	76	16
	VENICE	29	20	33	14	25	1.5	58	-9
	GENOA	28	22	33	16	25	0.5	72	44
	ROME	29	19	32	14	24	0.6	9	-4
	NAPLES	30	21	33	14	25	2.0	39	18
GREECE	THESSALONIKA	31	20	34	14	25	-1.8	30	5
	LARISSA	32	17	37	11	24	-3.1	41	23
	ATHENS	31	23	35	19	27	-1.2	3	1
TURKEY	ISTANBUL	28	20	30	17	24	0.8	105	84
	ANKARA	30	14	34	8	22	-1.9	1	-19
CYPRUS	LARNACA	31	21	34	18	26	-0.9	0	-1
USSR	TALLINN	21	12	26	9	17	0.3	121	44
	LENINGRAD	22	15	28	12	19	0.9	58	-19
	KAUNAS	23	13	30	7	18	1.0	46	-26
	MINSK	24	14	29	7	19	1.2	43	-37
	KAZAN	24	14	34	8	19	-0.2	48	-18
	MOSCOW	23	14	28	9	18	0.0	40	-45
	SVERDLOVSK	22	13	31	7	18	-0.5	195	111
	OMSK	26	15	33	5	20	0.9	44	-22
	KUSTANAY	27	15	34	8	21	0.7	15	-32
	KRASNOYARSK	25	15	34	11	20	1.5	94	18
	NOVOSIBIRSK	26	16	32	9	21	2.2	7	-51
	BARNAUL	27	16	33	9	21	1.3	37	-24
	KHABAROVSK	23	16	30	10	19	-1.7	164	47
	VLADIVOSTOK	20	15	27	5	18	0.2	299	175
	KIEV	26	17	33	14	22	1.8	62	-17
	LVOV	23	14	29	8	19	1.1	84	-13
	KIROVOGRAD	28	17	32	11	22	1.0	99	38

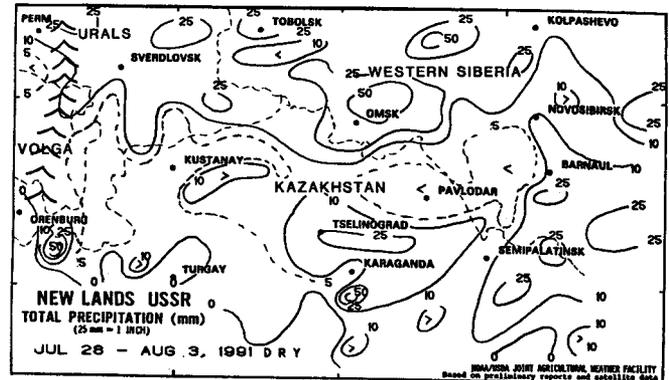
Based on Preliminary Reports

July 1991

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI	LO	DPART	AVG	F/NRM	TOTAL			DPART	F/NRM	AVG MAX	AVG MIN	HI	LO	DPART	AVG
USSR	ODESSA	28	20	33	16	24	2.2	17	-30	TANZAN	DAR ES SALAAM	29	19	30	13	24	0.1	30	-1
	YALTA	29	21	33	17	25	1.1	38	-10	TOGO	LOME	29	24	30	22	26	1.4	213	112
	VORONEZH	27	15	37	11	21	1.1	29	-39	B FASO	OUAGADOUGOU	32	24	35	21	28	1.0	156	-32
	SARATOV	28	18	34	13	23	1.8	23	-24	IVRY C	ABIDJAN	29	24	30	23	27	1.7	111	-201
	KHARKOV	27	17	33	13	22	1.2	80	21	MOZAMB	MAPUTO	26	13	31	9	20	1.1	9	-10
	VOLGOGRAD	31	19	40	12	25	1.0	14	-13	ZAMBIA	KAENGE	22	9	28	5	15	-0.3	0	0
	ROSTOV	31	20	38	15	26	2.4	1	-53	ZIMBAB	HARARE	21	8	24	4	15	1.5	0	-1
	ASTRAKHAN	34	21	44	17	28	2.5	20	-2	S AFRI	PRETORIA	20	5	26	0	12	1.3	0	-6
	KRASNODAR	32	19	38	11	25	1.7	18	-28		KROONSTAD	19	-1	25	-6	9	0.2	1	-7
	ORENBURG	29	16	37	7	22	0.6	25	-15		JOHANNESBURG	18	3	23	-4	10	0.7	0	-7
	TSELINOGRAD	27	16	35	8	22	1.6	70	20		BETHAL	18	-2	23	-7	8	-0.3	1	-7
	KARAGANDA	28	15	34	9	22	1.3	24	-19		DURBAN	23	12	28	7	17	1.1	36	2
	TBILISI	33	20	38	13	26	1.9	20	-25		CAPE TOWN	17	8	26	1	13	0.7	239	166
	TASHKENT	36	20	40	15	28	0.8	3	-1	CANADA	TORONTO	28	16	35	11	22	1.2	91	20
	ASHKHABAD	39	23	45	19	31	0.2	0	-1		MONTREAL	27	16	33	9	21	0.3	86	-4
SYRIA	DAMASCUS	35	17	40	12	26	-0.5	0	0		WINNIPEG	25	14	32	9	20	0.1	52	-24
ISRAEL	JERUSALEM	28	17	32	14	22	-0.9	0	0		REGINA	26	13	32	8	19	0.4	83	30
PAKIST	KARACHI	34	28	37	27	31	0.4	0	-100		SASKATOON	25	12	30	6	19	0.2	50	-4
INDIA	AMRITSAR	36	27	42	22	32	0.9	110	-75		LEATHERIDGE	26	11	31	7	18	-0.2	20	-24
	NEW DELHI	38	29	42	26	34	2.5	98	-137		CALGARY	24	9	29	5	17	0.2	31	-35
	AHMEDABAD	34	26	40	23	30	0.2	413	146		EDMONTON	24	12	31	8	18	0.9	15	-74
	INDORE	31	23	36	21	27	0.5	366	81		VANCOUVER	22	14	29	12	18	0.5	34	2
	CALCUTTA	33	27	37	24	30	0.8	383	61	MEXICO	GUADALAJARA	24	17	29	14	21	-0.6	561	304
	VERAVAL	30	25	32	22	27	-1.0	381	80		MEXICO CITY	22	14	25	11	18	0.9	244	118
	BOMBAY	30	25	32	24	27	0.2	994	49		ACAPULCO	34	27	36	21	30	1.7	74	-161
	POONA	27	22	29	22	25	-0.5	179	-14	BERMUD	ST. GEORGES	31	26	32	22	28	1.6	105	-4
	BEGAMPET	30	23	33	21	26	-0.2	127	-36	BAHAMA	NASSAU	33	24	34	22	29	0.8	80	-77
	MADRAS	35	27	38	23	31	0.3	88	-32	CUBA	HAVANA	31	25	32	23	28	0.9	61	-45
	MANGALORE	28	23	36	20	26	-0.4	1419	360	JAMAIC	KINGSTON	34	26	35	25	30	1.6	11	-31
H KONG	HONG KONG	31	27	35	25	29	0.6	316	-1	P RICO	SAN JUAN	32	25	34	24	29	0.9	82	-45
N KREA	PYONGYANG	26	19	29	16	22	-1.1	468	71	GUATEL	RAIZET	32	25	33	22	28	1.5	19	-86
S KREA	SEOUL	28	22	32	18	25	0.3	489	131	MARTINQ	LAMENTIN	29	25	31	24	27	1.5	41	-180
JAPAN	SAPPORO	24	17	31	15	21	0.6	79	-2	BARBAD	BRIDGETOWN	31	25	32	23	28	0.9	70	-60
	NAGOYA	31	24	36	21	27	1.7	267	49	TRINID	PORT OF SPAIN	31	23	33	22	27	1.2	102	-158
	TOKYO	30	24	35	20	27	1.9	75	-50	COLOMB	BOGOTA	18	9	20	7	13	0.4	36	-5
	YOKOHAMA	30	23	36	20	27	2.0	98	-43	VENEZU	CARACAS	31	24	33	20	27	0.9	9	-41
	KYOTO	32	24	37	20	28	1.6	312	96	F GUIA	CAYENNE	30	23	31	21	27	1.1	233	-28
	OSAKA	32	25	36	22	29	1.7	158	-35	BRAZIL	FORTALEZA	29	22	30	21	26	-0.4	9	-98
THAILN	PHETCHABUN	33	25	36	23	29	1.0	161	-11		RECIFE	26	22	28	21	24	-0.2	322	18
	BANGKOK	33	26	36	23	30	0.9	184	11		BELO HORIZONTE	24	15	28	13	19	1.0	0	-52
MALAYS	KUALA LUMPUR	33	24	34	22	28	1.7	126	-4		CAMPO GRANDE	28	15	30	8	22	2.4	37	1
VIETNM	HANOI	32	27	36	24	30	0.6	242	-80		FRANCA	24	14	27	9	19	1.4	32	16
CHINA	HARBIN	26	17	30	12	22	-1.7	212	51		RIO DE JANEIRO	23	19	28	17	21	-0.2	74	27
	HAMI	35	19	41	10	27	0.4	1	-6		LONDRINA	24	11	28	4	17	0.5	21	-56
	LANCHOW	31	18	36	14	25	2.5	80	17		SANTA MARIA	20	8	29	1	14	0.2	77	-66
	BEIJING	30	22	35	17	26	0.0	196	3		PORTO ALEGRE	19	7	30	-3	13	-1.3	93	-35
	TIENTSIN	30	23	35	19	27	0.0	179	-11	PERU	LIMA	20	16	22	12	18	1.3	1	-5
	LHASA	22	11	26	7	17	0.4	156	18	BOLIVI	LA PAZ	14	-3	16	-7	5	-1.7	1	-8
	KUNMING	24	18	28	16	21	1.1	146	-66	CHILE	SANTIAGO	14	4	19	-3	9	0.6	46	-21
	CHENGCHOW	33	24	37	21	29	1.1	75	-79	ARGENT	IGUAZU	23	11	29	1	17	***	17	***
	YEHCHANG	32	24	39	20	28	-0.2	134	-86		FORMOSA	22	12	31	3	17	0.1	23	-25
	HANKOW	32	26	38	20	29	-0.1	688	532		CERES	18	6	28	-4	12	-0.6	5	-13
	CHIHKIANG	31	24	36	21	27	-0.1	291	143		CORDOBA	17	5	31	-3	11	0.3	2	-6
	SHANGHAI	28	27	35	23	25	-3.3	28	-106		RIO CUARTO	14	4	22	-2	9	-0.3	19	9
	NANCHANG	36	27	39	25	31	1.5	77	-49		ROSARIO	15	5	25	-4	10	-0.1	54	15
	TAIPEI	35	28	37	26	31	2.9	136	-98		BUENOS AIRES	15	4	26	-4	9	-0.4	65	0
	CANTON	33	26	37	25	30	1.2	219	6		SANTA ROSA	13	2	21	-5	8	0.1	20	3
	NANNING	33	26	37	23	29	0.9	395	200		TRES ARROYOS	11	3	20	-3	7	-0.6	8	-44
CNRY I	LAS PALMAS	27	20	31	10	23	0.2	0	0	MIDW I	MIDWAY ISLAND	30	25	31	24	27	1.9	61	-72
MOROCC	CASABLANCA	28	20	37	16	24	1.8	2	2	N CALD	NOUMEA	24	18	28	15	21	0.8	27	-56
	MARRAKECH	37	21	44	16	29	1.4	3	2	FIJI	NAUSORI	26	20	30	16	23	0.4	155	31
ALGERI	ALGER	32	19	40	12	26	1.4	0	-2	SAMOA	PAGO PAGO	29	25	30	23	27	1.2	278	113
	BATNA	33	15	39	11	24	-1.0	4	-4	TAHITI	PAPEETE	30	21	32	19	26	1.2	12	-44
TUNISI	TUNIS	33	19	39	14	26	0.4	0	-4	N ZEAL	AUCKLAND	14	7	17	2	11	-0.3	149	17
NIGER	NIAMEY	34	25	39	17	29	0.9	41	-125	PA N G	PORT MORESBY	29	23	30	22	26	0.2	2	-21
MALI	TIMBUKTU	35	25	40	20	30	-1.4	47	-12	AUSTRL	DARWIN	30	20	32	15	25	0.3	0	-1
	BAMAKO	32	24	38	20	28	1.0	226	-14		MOREE	16	4	21	-1	10	-0.9	32	-5
MAURIT	NOUAKCHOTT	32	22	45	14	27	-0.3	0	-16		BRISBANE	20	8	25	4	14	-1.0	41	-20
SENEGL	DAKAR	29	24	38	23	27	-0.2	23	-60		PERTH	17	9	23	3	13	-0.1	113	-55
CHAG A	DIEGO GARCIA	29	26	30	23	27	1.2	217	76		CEDUNA	18	6	24	1	12	0.3	27	-13
LIBYA	TRIPOLI	35	20	45	16	28	0.9	0	0		ADELAIDE	14	8	18	3	11	0.0	67	3
	BENHAZI	30	21	35	17	25	-0.5	0	0		MELBOURNE	1							

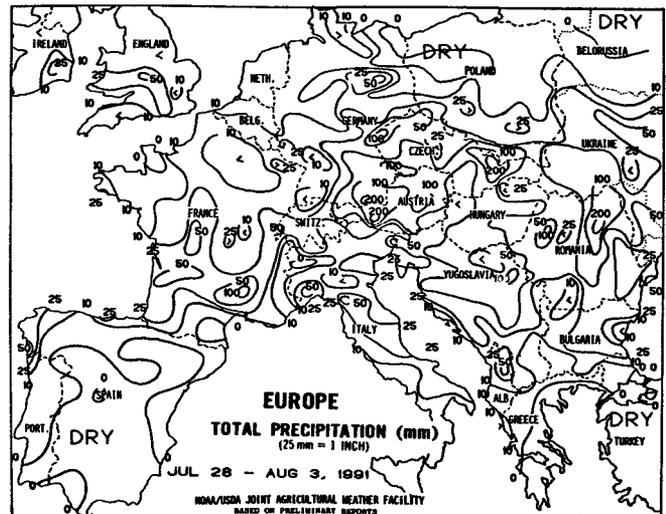


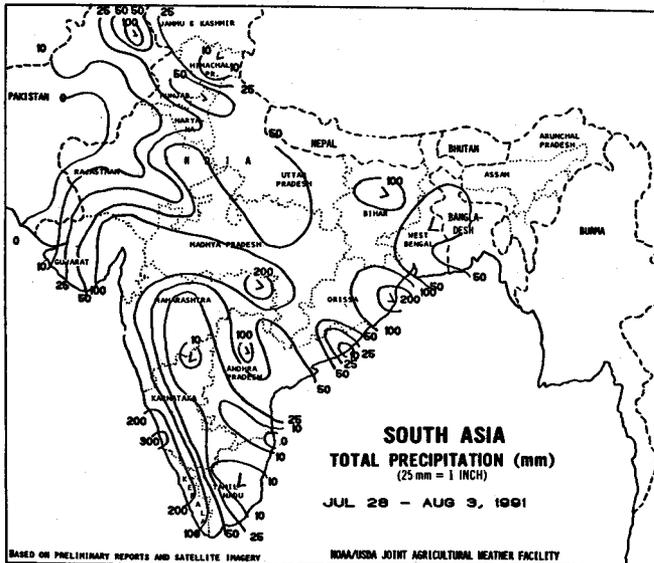
USSR ... In Western USSR, frequent showers and thunderstorms over the western two-thirds of the Ukraine, Moldova, and the western North Caucasus produced widespread moderate to heavy rain. Weekly precipitation totals in these areas ranged from 25 to 75mm, with local amounts in excess of 75mm. The rain, accompanied by gusty winds, delayed winter and spring grain harvests and lodged crops. In contrast, dry weather covered the Baltic States, Belorussia, the Central Region, northern North Caucasus, Black Soils Region, and the Volga, favoring grain maturation and harvesting. Hot, dry weather over the southern Black Soils Region, the lower Volga, eastern Ukraine, and the northern tip of the North Caucasus continued to stress summer crops such as corn, sunflowers, and sugarbeets. Highest weekly temperatures in these areas ranged from 35 to 40 degrees Celsius (C).



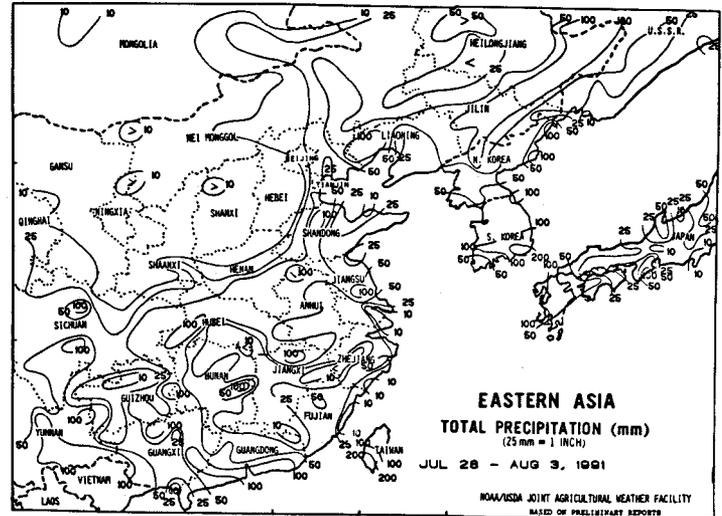
In the New Lands, cooler weather pushed southward over most spring grain areas, accompanied by widespread, light precipitation. Rainfall generally ranged from 10 to 25mm, with localized areas receiving precipitation in excess of 30mm. Although the rain came too late to help drought-stressed spring grains in Kazakhstan, which were approaching maturity, it helped to stabilize conditions for grain-filling crops in Western Siberia. Weekly average temperatures were 2-4 degrees C below normal in the west and 1-3 degrees C above normal in the east.

EUROPE ... Widespread rain fell across much of Europe, providing generally beneficial moisture in France, but inundating numerous central and eastern areas. Weekly rainfall averaged 30-78mm in southern France, favoring immature crops and irrigation supplies. Seasonably dry weather prevailed over all but extreme northwestern Spain. Variable showers benefited summer crops across northern Europe, while causing only brief interruptions in early winter grain harvest. Locally heavy rain (75-200mm or more) soaked Czechoslovakia, Austria, extreme southeastern Germany, northeastern Yugoslavia, and Romania, resulting in extensive flooding and some crop damage. Beneficial showers (10-47mm) fell in Italy, while dry weather prevailed in Greece.

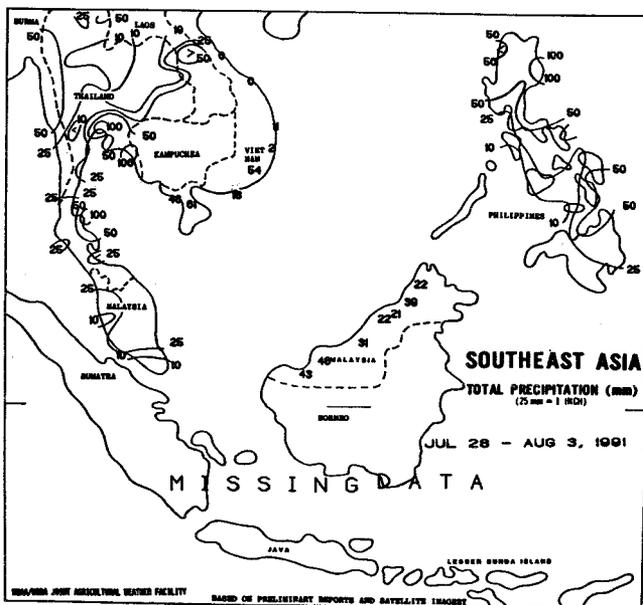




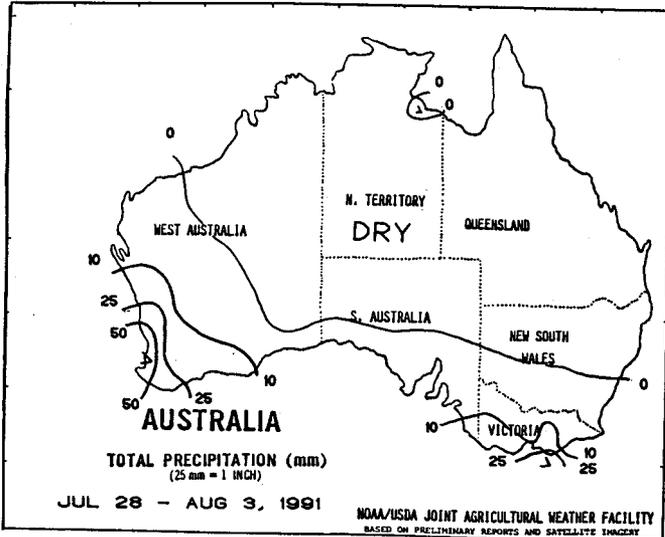
SOUTH ASIA ... Moderate to heavy rain (50-200mm or more) continued over western and central India from Gujarat to Orissa, soaking late-planted grains, oilseeds, and cotton but causing more flooding. Light to moderate showers (10-70mm) covered most northern crop regions of Pakistan and India, with local heavy amounts (118-121mm) reported in Pakistan and northern Bihar. Although the moisture was welcome across the north, rainfall totals were well below normal in most areas, including rice regions of Uttar Pradesh that have yet to receive normal rainfall totals this season. Elsewhere, mostly moderate showers (25-75mm) covered primary rice areas of eastern India and Bangladesh, while further south, mostly light to moderate rain (10-32mm) benefited summer crops of the southern interior advancing through reproduction.



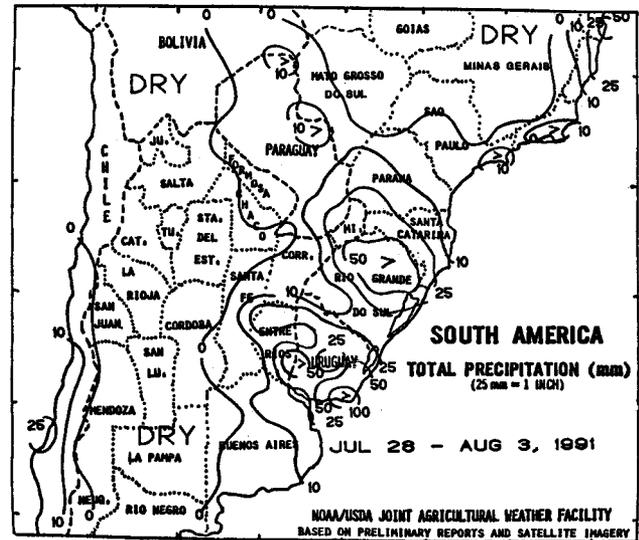
EASTERN ASIA ... Scattered rains (10-100mm) prevailed across southern China, bringing drought relief to Jiangxi and Fujian and improving reservoir levels for main- and late-season rice. Moderate to heavy rains (40-116mm) fell across the southern half of the North China Plain (Hubei to Shandong), aiding corn and soybeans, but probably causing additional flooding in Anhui and Jiangsu. Portions of Hebei experienced beneficially drier weather after several weeks of moderate to heavy showers. Southern and eastern Manchuria received moderate to heavy rains (53-130mm), producing local flooding. Typhoon Caitlan, with sustained winds of 60-70 knots (70-80 mph), brushed extreme western Japan and southeastern Korea, bringing heavy rains (150-300mm) to those regions.



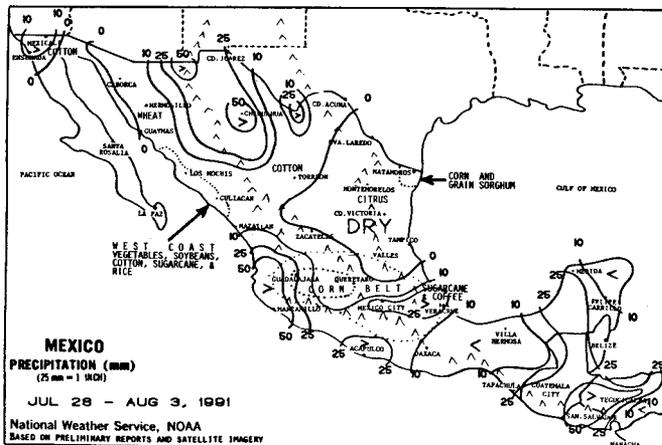
SOUTHEAST ASIA ... Moderate to heavy showers (25-50mm or more) benefited local grain regions of Thailand, with heaviest rain concentrated over the northern hills, the eastern Khorat Plateau, and crop areas from Bangkok southeastward. However, drier weather (rainfall totaling 15mm or less) returned to central and northeastern rice and corn areas, providing little relief to vegetative to filling crops. In the Philippines, a tropical low brought moderate to heavy showers (25-50mm or more) to most grain regions from western Luzon southward to northern Mindanao. Much needed, mostly dry weather brought some relief to flooded regions of the Cagayan Valley.



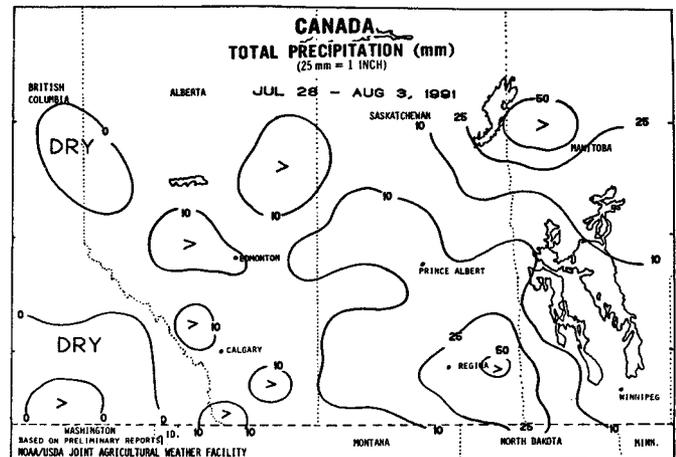
AUSTRALIA ... Little or no rain fell across Queensland and northern New South Wales, decreasing soil moisture levels for winter wheat growth. Elsewhere in the wheat belt, light to moderate rains (9-30mm) fell, as favorable moisture conditions continue.



SOUTH AMERICA ... In southern Brazil, a high pressure system brought freezing temperatures to the region, but the cold temperatures missed the main coffee areas of northern Parana. Meanwhile, moderate to heavy rains (25-75mm) fell in Rio Grande do Sul, Santa Catarina, and southern Parana, aiding germinating winter wheat. In Argentina, light rains (2-12mm) slightly delayed winter wheat planting.



MEXICO ... Light to moderate rains (5-49mm) fell across the Southern Plateau Corn Belt favoring corn, while rains returned to the southern coastal areas. Moderate rains continued across north-central regions (Chihuahua), aiding reservoir levels but also contributing to additional flooding. The northern grain regions received little or no rainfall.



CANADA ... Light to moderate rain (10-25mm or more) returned to most spring crop regions of Saskatchewan, with much of the southeast receiving 30-50mm, possibly causing some lodging. Light rain (9-13mm) brought some relief to reproductive to filling crops in southern Alberta, but more is needed to recharge soil moisture following recent periods of warm weather. Rainfall totaled 5mm or less over much of Manitoba for the third week and over central and northern Alberta for the fourth week. Initially, the drying trend in these areas was beneficial following weeks of unseasonable wetness. However, a return to a more seasonable rainfall pattern is needed to ensure current crop prospects.

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(Continued from front cover)
heavy rain continued in the **Southeast**, causing some flooding. Isolated heavy rainfall filled normally dry washes and arroyos throughout the **Southwest**. Up to an inch of rain fell in the mountains east of **San Diego, CA**. Sweltering heat returned to the **Plains** and the **East** as August began. The mercury climbed to 100° F in **Harrisburg, PA**, 101° F in **Chicago, IL**, and 105° F in **Kansas City, MO**. The approach of a vigorous Canadian cold front touched off thunderstorms from the **Great Lakes** to the **central Rockies**. But the storms weakened as they pushed southward through the **Corn Belt**. At week's end, thunderstorms lit up the **Northeast, central Plains, and Great Basin**. Convection diminished in the **Southeast**. Temperatures dipped noticeably north of the front. Saturday's high temperature was 102° F in **St. Louis, MO**, but only 79° F in **Des Moines, IA**.

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