

# WEEKLY WEATHER AND CROP BULLETIN

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

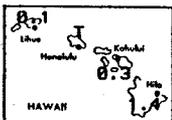
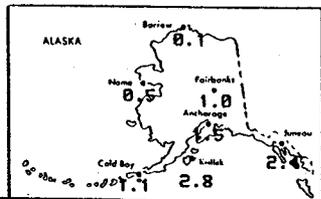
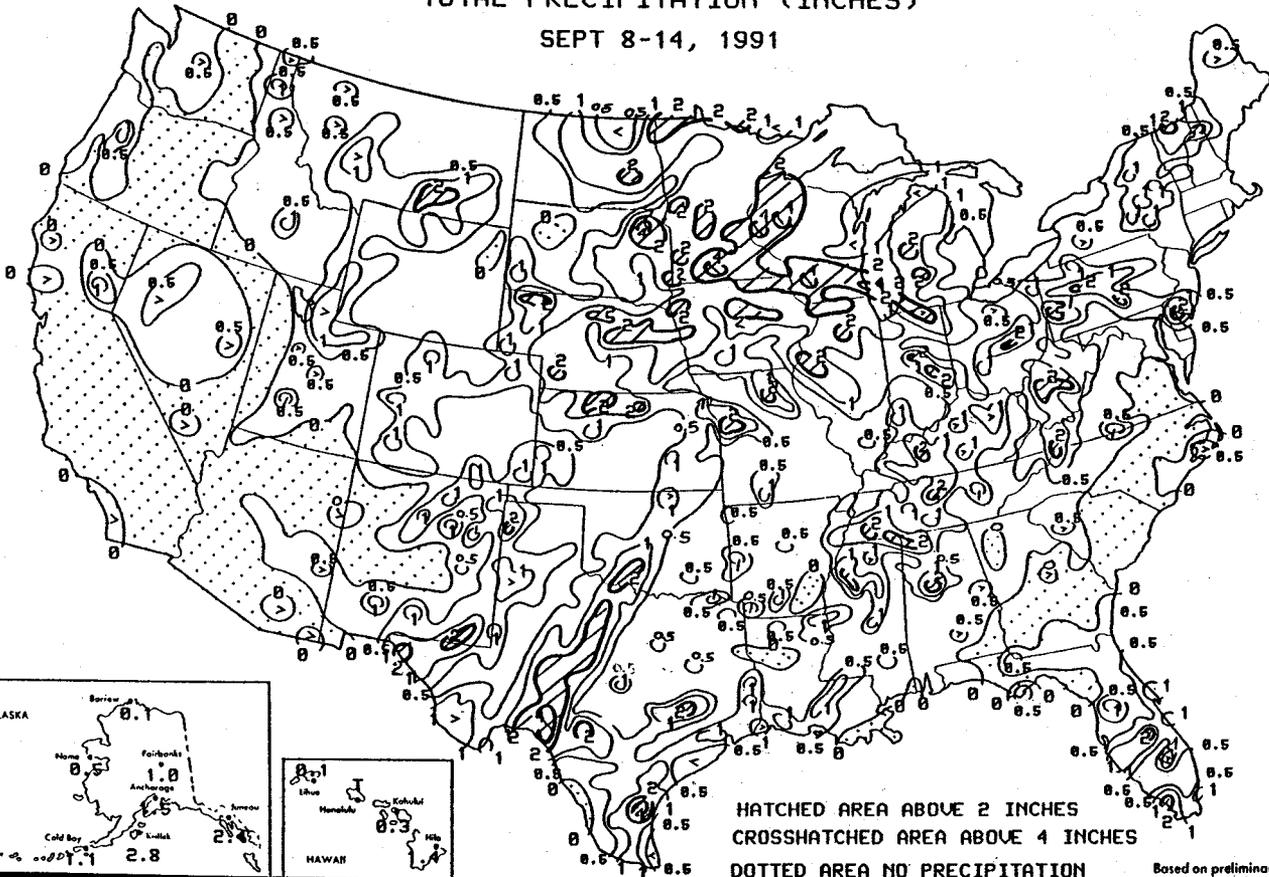
U.S. DEPARTMENT OF AGRICULTURE  
National Agricultural Statistics Service and World Agricultural Outlook Board

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TOTAL PRECIPITATION (INCHES)  
SEPT 8-14, 1991



HATCHED AREA ABOVE 2 INCHES  
CROSSHATCHED AREA ABOVE 4 INCHES  
DOTTED AREA NO PRECIPITATION

Based on preliminary reports

## HIGHLIGHTS

September 8 - 14, 1991

Three primary weather systems affected the Nation. A cold front swept across the **northern tier States** early in the week, dropping scattered heavy rain on the **upper Mississippi Valley** and providing briefly cool air for the **Great Lakes and Northeast**. On Sunday, rainfall in **Duluth, MN**, topped 2 inches for the second day in a row. Cool air blanketed the **Northeast** by midweek. The lowest reported temperature was 29° F at **Newcomb, NY**, in the **upper Hudson River Valley**. In the **West**, a volatile upper air disturbance produced isolated cloud bursts and suppressed temperatures. Thunderstorms threatened flash flooding on already saturated soils in **northern Utah**. **Southeastern New Mexico** was also pounded by torrential rains. Southerly winds on the east side of the disturbance returned summer heat to the **eastern two-thirds of the Nation**. Weekly temperature departures reached +12° F in the **central Plains**. From Thursday onward, nearly 50 daily high temperature records were toppled in the **Southeast**. Records included highs of 99° F in **Tallahassee, FL**, and 96° F in **Atlanta, GA**. However, by week's end, harbingers of autumn appeared from the **Pacific Northwest** to the **Rockies**

as a strong storm crashed ashore. Winds gusted to 40 mph in portions of **interior Washington and Oregon**. Snow fell in the **northern Rockies**, with the accumulation reaching 3 inches at **Indian Creek** in **Yellowstone National Park, WY**. **Alamosa, CO**, reported its first subfreezing minimum (30° F) of the season. The approaching Pacific storm pushed heavy rain out of the **Rockies** and into the **Plains and Great Lakes**. Late-week flash flooding was reported in **southwestern Texas**.

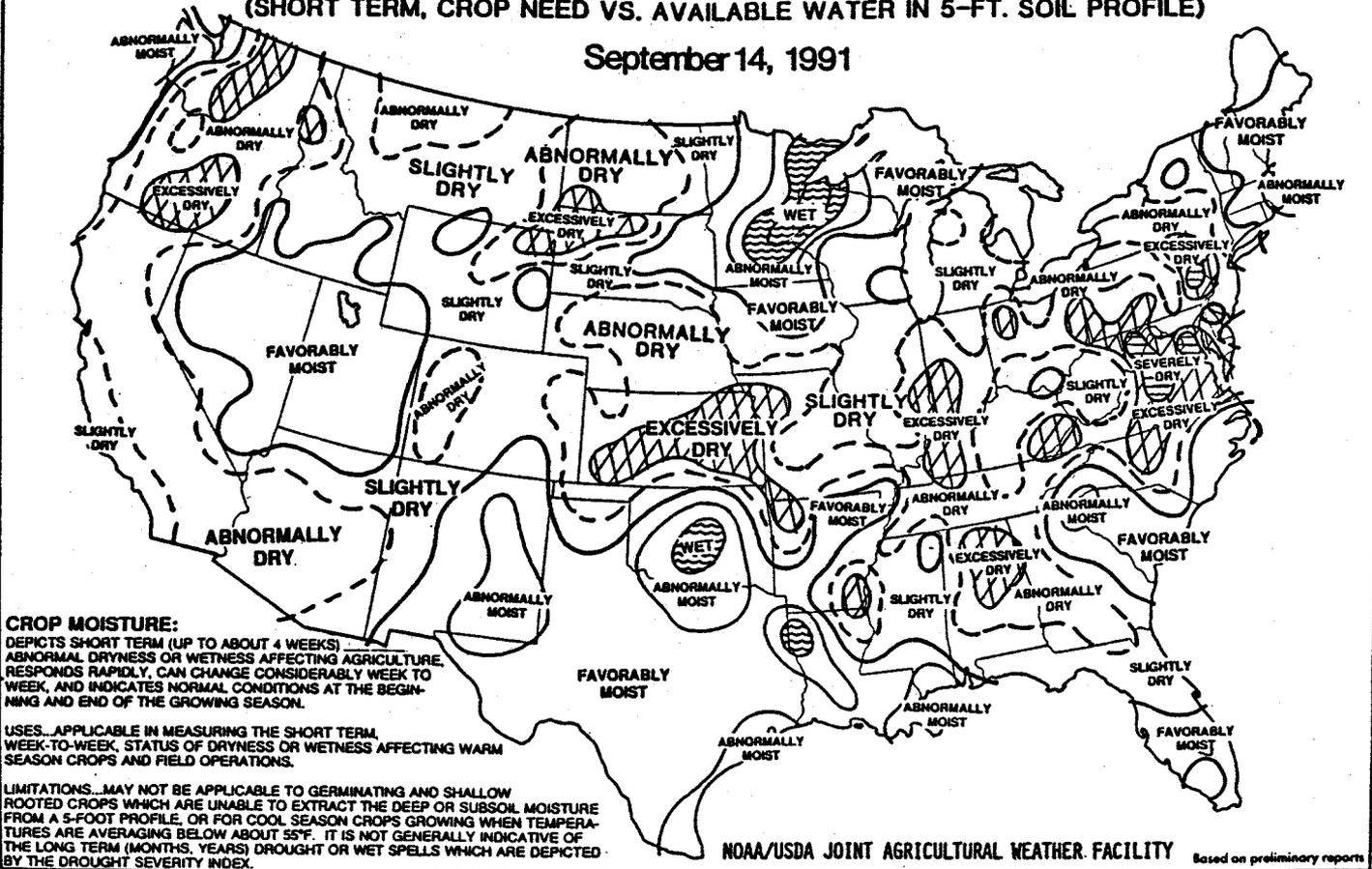
## Contents

	Page
Highlights & Total Precipitation Map	1
Crop Moisture Maps	2
National Weather Data for Selected Cities	3
Summer Weather Review	6
Summer Precipitation & Temperature Maps	7
Summer 1991 in Historical Perspective	9
National Agricultural Summary	10
Crop Progress and Condition Tables	11
State Summaries of Weather and Agriculture	13
International Weather and Crop Summary & August Precipitation and Temperature Maps	20
Subscription and Mailing Permit Information & Temperature Departure Map	32

### CROP MOISTURE

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

September 14, 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°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

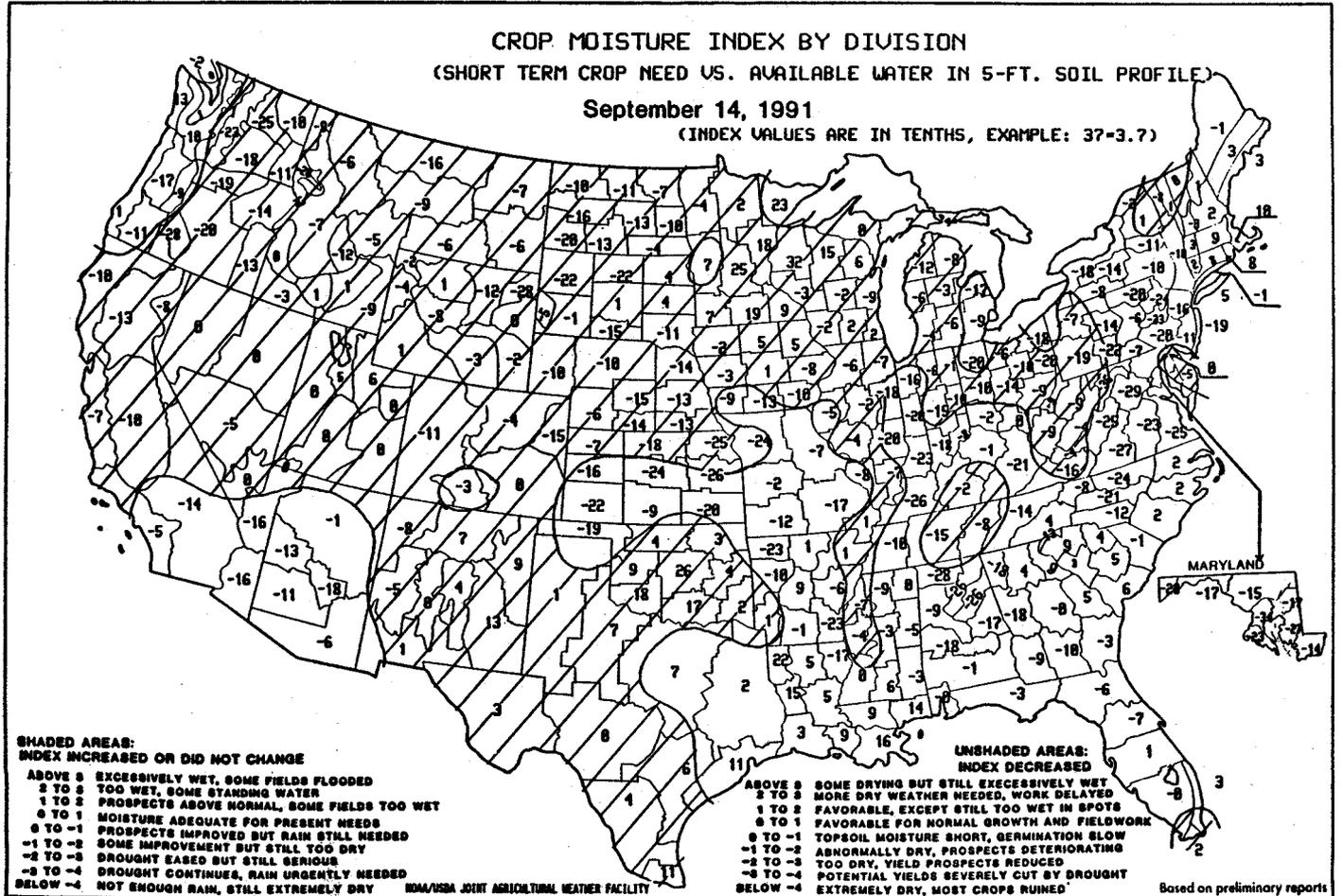
Based on preliminary reports

### CROP MOISTURE INDEX BY DIVISION

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

September 14, 1991

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



#### SHADED AREAS:

INDEX INCREASED OR DID NOT CHANGE

- ABOVE 8 EXCESSIVELY WET, SOME FIELDS FLOODED
- 5 TO 8 TOO WET, SOME STANDING WATER
- 1 TO 5 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 8 SOME DRYING BUT STILL EXCESSIVELY WET
- 5 TO 8 MORE DRY WEATHER NEEDED, WORK DELAYED
- 1 TO 5 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS
- 0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
- 0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW
- 1 TO -2 ABNORMALLY DRY, PROSPECTS DETERIORATING
- 2 TO -3 TOO DRY, YIELD PROSPECTS REDUCED
- 3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT
- BELOW -4 EXTREMELY DRY, MOST CROPS RUINED

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

# National Weather Data for Selected Cities

## Weather Data for the Week Ending September 14, 1991

STATES AND CITIES	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 Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	90 AND ABOVE	92 AND BELOW	TEMP. °F		PRECIP.
													.01 INCH OR MORE							.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	93	70	97	66	81	6	T	-1.1	T	.3	14	42.6	104	92	45	6	6	0	0	0	0	
MOBILE	92	71	94	65	81	2	T	-1.7	T	1.1	33	71.2	144	97	48	5	0	0	0	0	0	
MONTGOMERY	93	68	98	61	81	3	T	-1.0	T	1.8	79	53.4	147	97	43	5	0	0	1	0	0	
AK ANCHORAGE	97	45	59	38	51	1	T	1.5	.9	2.3	200	10.9	112	97	66	0	0	0	6	2	0	
BARROW	30	25	32	24	28	1	T	.1	-1	.1	17	1.0	30	98	83	0	7	3	3	0	0	
FAIRBANKS	60	40	68	37	50	2	T	1.0	.7	1.1	183	7.1	92	94	52	0	0	0	4	1	1	
JUNEAU	54	49	58	47	52	2	T	2.5	1.0	1.1	5.8	47.3	149	99	82	0	0	0	3	3	3	
KODIAK	57	47	60	40	52	1	T	2.8	1.4	1.5	3.8	58.7	151	99	72	0	0	0	6	3	3	
NOME	53	40	56	34	46	2	T	.5	-1	.4	.8	62	9.3	88	89	65	0	0	3	0	0	
AZ PHOENIX	99	75	103	70	87	7	T	-1.2	T	.8	234	4.3	91	45	17	7	0	0	0	0	0	
PRESOTT	79	51	83	46	65	-1	T	-1	T	1.3	147	11.0	78	63	21	0	0	0	0	0	0	
TUCSON	92	66	101	62	79	-3	T	-3	T	T	1	6.3	78	67	22	6	0	1	0	0	0	
YUMA	100	75	103	69	87	-2	T	.0	-1	.2	133	2.0	128	58	17	7	0	0	0	0	0	
AR FORT SMITH	93	71	95	69	82	6	T	-1.7	T	1.0	66	25.2	89	96	43	7	0	0	0	0	0	
LITTLE ROCK	91	74	93	73	82	7	T	-1.0	T	1.4	72	41.8	118	89	60	6	0	1	0	0	0	
CA BAKERSFIELD	89	61	94	53	75	-4	T	.0	.0	.0	0	4.6	117	60	24	4	0	0	0	0	0	
BUREKA	60	52	64	50	56	-1	T	.0	-2	.0	11	17.8	77	96	78	0	0	0	0	0	0	
FRESNO	89	60	94	52	74	-1	T	.0	.0	.0	0	8.5	120	72	23	4	0	0	0	0	0	
LOS ANGELES	69	61	71	59	65	-5	T	.0	.0	T	0	8.0	95	83	61	0	0	0	0	0	0	
REDDING	91	56	96	52	74	-4	T	.0	-2	.0	0	17.3	67	71	21	5	0	0	0	0	0	
SACRAMENTO	86	54	92	53	70	-2	T	.0	-1	.0	0	12.7	118	87	27	2	0	0	0	0	0	
SAN DIEGO	71	63	73	58	67	-5	T	.0	.0	T	67	10.8	172	83	61	0	0	0	0	0	0	
SAN FRANCISCO	68	54	73	52	61	-3	T	.0	.0	T	0	11.3	91	92	60	0	0	0	0	0	0	
CO DENVER	79	53	83	48	66	2	T	.2	-1	-1	.3	42	16.2	133	86	31	0	0	3	0	0	
GRAND JUNCTION	77	55	86	48	66	-3	T	1.2	1.0	.5	2.1	627	6.2	114	85	35	0	0	4	1	0	
PUEBLO	83	54	90	50	69	1	T	.2	.0	.2	1.2	254	10.5	117	82	30	1	0	1	0	0	
CT BRIDGEPORT	77	61	82	53	69	2	T	-1	-1	.3	16	28.3	98	82	49	0	0	1	0	0	0	
HARTFORD	76	54	84	45	65	0	T	-4	-5	.4	.7	36	32.1	105	95	48	0	0	1	0	0	
DC WASHINGTON	85	67	87	62	76	3	T	-1	-1	1.4	87	19.6	69	89	48	0	0	1	0	0	0	
FL APALACHICOLA	90	74	94	71	82	2	T	.9	-1.3	.9	1.0	23	86.8	211	96	56	3	0	1	1	1	
DAYTONA BEACH	90	72	94	70	81	1	T	.6	-1.0	.6	1.2	36	57.8	162	93	56	3	0	1	1	1	
JACKSONVILLE	92	72	97	68	82	2	T	-1.6	T	1.0	29	66.8	165	95	51	4	0	0	0	0	0	
KEY WEST	89	77	92	72	83	-1	T	2.5	1.0	1.8	3.9	135	31.7	122	90	62	2	0	4	2	2	
MIAMI	89	76	90	75	82	0	T	1.5	-4	.7	2.9	79	40.2	97	93	59	3	0	5	1	1	
ORLANDO	91	73	94	73	82	0	T	.2	-1.4	-1	.6	18	51.7	131	100	48	4	0	2	0	0	
TALLAHASSEE	95	69	99	66	82	3	T	.0	-1.6	.0	T	1	68.0	135	95	39	6	0	4	0	0	
TAMPA	92	73	94	72	82	1	T	.6	-1.0	.3	2.4	72	39.4	106	100	56	6	0	0	0	0	
WEST PALM BEACH	89	75	90	74	82	0	T	.5	-1.7	.4	2.3	55	61.4	150	95	58	1	0	3	0	0	
GA ATLANTA	90	70	96	66	80	6	T	-8	T	.1	7	47.7	130	90	48	3	0	0	0	0	0	
AUGUSTA	92	64	98	59	78	2	T	-9	T	.2	13	50.8	150	100	41	5	0	0	0	0	0	
MACON	92	67	96	62	80	2	T	.0	-8	.0	.1	3	47.0	135	97	42	5	0	0	0	0	
SAVANNAH	91	71	96	65	81	3	T	.0	-1.3	.0	.3	9	63.7	158	94	46	4	0	0	0	0	
HI HILO	84	70	84	68	77	1	T	1.4	-1	.6	2.8	88	119.2	137	95	67	0	5	1	1	1	
HONOLULU	88	75	90	73	82	1	T	.1	-1	T	0	11.1	77	76	46	1	0	0	0	0	0	
KAHULUI	86	73	88	72	80	1	T	.3	-2	.3	.4	327	9.6	78	86	55	0	0	2	0	0	
LIHUE	84	74	85	69	79	0	T	.1	-3	.1	.4	46	24.5	91	85	62	0	0	2	0	0	
ID BOISE	75	53	82	47	64	-1	T	.1	.0	.1	.1	48	6.4	81	76	30	0	0	4	0	0	
LEWISTON	75	41	84	46	63	-2	T	.2	.1	.2	.2	73	8.8	98	62	26	0	0	1	0	0	
POCATELLO	70	46	77	39	58	-3	T	.4	-3	.3	.4	154	10.8	144	94	44	0	0	4	0	0	
IL CHICAGO	83	66	94	62	75	9	T	1.3	.2	.7	2.0	96	22.3	87	88	53	2	0	5	1	1	
MOLINE	88	66	95	61	77	11	T	1.2	.3	.7	2.3	126	21.5	76	97	53	4	0	4	1	1	
PEORIA	88	67	93	64	77	10	T	.6	-3	.4	2.2	124	21.8	82	93	52	4	0	3	0	0	
QUINCY	87	70	92	66	79	10	T	-1.0	T	2.0	103	24.6	87	85	53	3	0	2	0	0	0	
ROCKFORD	85	64	95	60	75	10	T	3.6	2.7	2.8	4.4	250	21.4	78	94	50	1	0	4	1	1	
SPRINGFIELD	88	69	91	63	79	9	T	1.7	.9	1.3	3.9	253	26.4	102	99	58	4	0	2	1	1	
IN EVANSVILLE	93	69	96	60	81	10	T	.3	-3	.3	1.7	131	21.4	69	98	50	6	0	1	0	0	
FORT WAYNE	86	62	91	58	74	8	T	1.1	-5	1.1	2.0	162	30.4	119	94	50	2	0	1	1	1	
INDIANAPOLIS	91	66	96	60	79	10	T	.1	-5	.1	.3	19	25.8	89	91	43	5	0	2	0	0	
SOUTH BEND	84	63	93	58	74	8	T	1.4	.6	1.2	2.0	131	22.5	82	94	53	2	0	4	1	1	
IA DES MOINES	86	69	91	63	77	11	T	.7	.0	.4	.8	48	28.9	118	91	56	2	0	5	0	0	
STOUX CITY	84	66	88	59	75	10	T	1.6	1.0	.7	2.0	160	20.4	99	98	62	0	0	5	2	2	
WATERLOO	80	65	86	58	73	9	T	1.8	1.0	.8	2.7	160	32.7	126	97	68	0	0	5	2	2	
KS CONCORDIA	92	71	97	64	82	12	T	.7	T	.2	14	15.3	70	82	39	6	0	0	0	0	0	
DODGE CITY	94	68	101	63	81	10	T	.5	T	.2	21	7.3	43	82	32	7	0	0	0	0	0	
GOODLAND	86	59	94	54	72	6	T	.8	.4	.4	.8	104	19.9	147	92	37	2	0	2	0	0	
TOPEKA	93	72	96	70	83	12	T	.3	-5	.2	1.8	107	21.0	82	93	47	6	0	3	0	0	
WICHITA	90	71	93	70	81	8	T	.1	-7	.1	1.8	115	21.1	96	90	49	6	0	2	0	0	
KY BOWLING GREEN	90	69	94	63	80	8	T	1.4	.7	.8	1.9	124	33.2	92	100	63	6	0	3	2	2	
LEXINGTON	86	67	91	57	77	6	T	.5	-3	.2	.8	50	29.3	85	97	60	1	0	5	0	0	
LOUISVILLE	90	71	95	62	80	9	T	.3	-5	.3	1.9	119	28.0	87	90	54	4	0	2	0	0	
LA ALEXANDRIA	91	72	92	71	82	3	T	.1	-6	.1	1.2	79	60.2	155	96	51	7	0	1	0	0	
BATON ROUGE	93	72	94	68	82	3	T	.1	-1.0	.1	1.8	78	58.9	140	96	49	7	0	1	0	0	
LAKE CHARLES	90	73	91	72	82	2	T	.1	-1.3	.1	1.4	51	59.4	156	99	57	6	0	1	0	0	
NEW ORLEANS	92	71	95	69	81	2	T	.5	-1.5	.5	1.9	64	94.1	211	100	51	6	0	0	0	0	

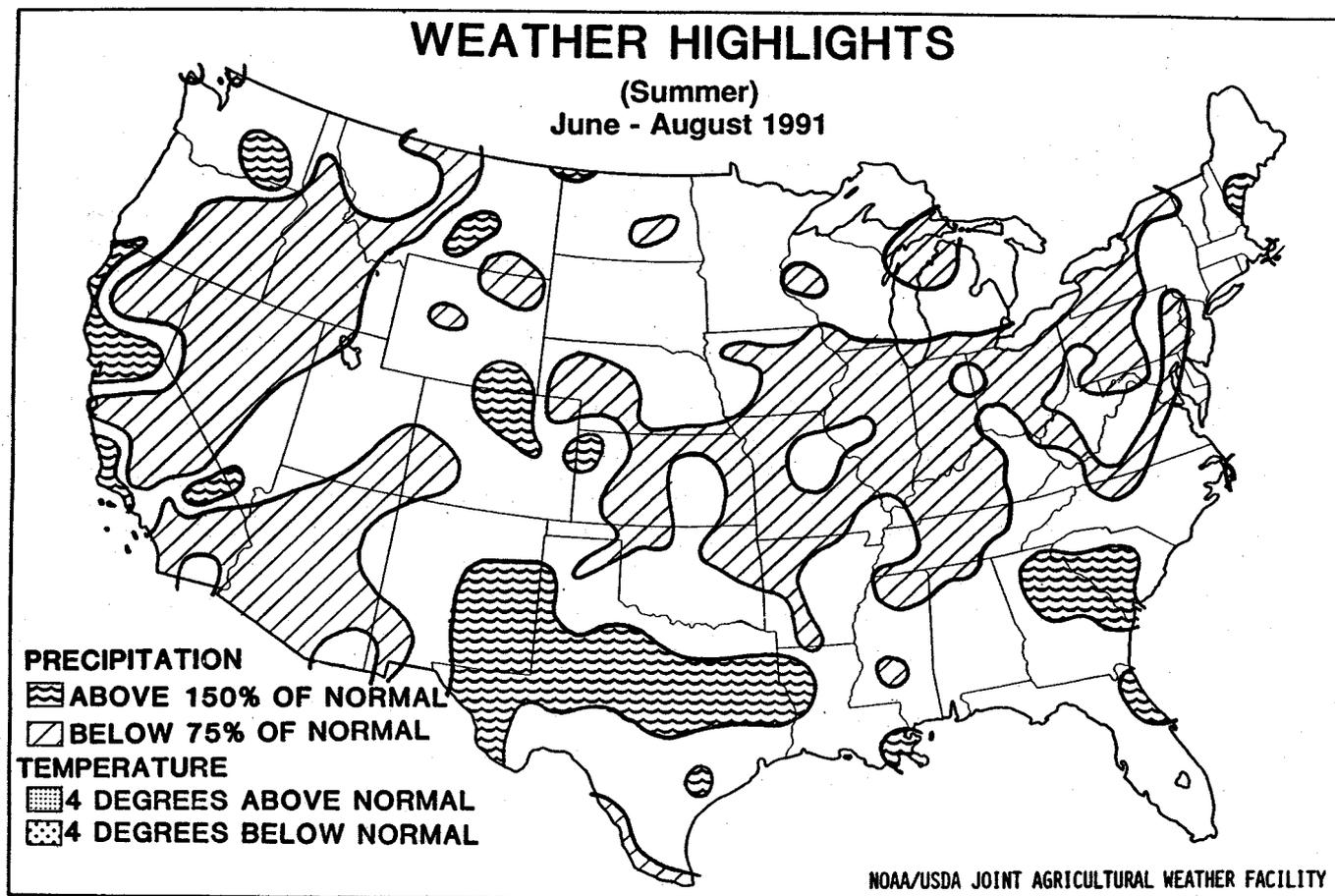
Based on 1951-80 normals

Weather Data for the Week Ending September 14, 1991

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS										
	AVERAGE	MAXIMUM	AVERAGE	MINIMUM	EXTREME	EXTREME	AVERAGE	DEPARTURE	WEEKLY	DEPARTURE	GREATEST IN	TOTAL, IN.,	PCT. NORMAL	TOTAL, IN.,	PCT. NORMAL	AVERAGE	MAXIMUM	AVERAGE	MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																						FROM NORMAL	TOTAL, IN.	FROM NORMAL	24-HOUR, IN.
SHREVEPORT	92	72	94	70	82	3	.1	-.7	.1	2.0	134	65.5	207	100	56	7	0	0	0	0	2	0			
ME CARIBOU	64	43	72	38	54	2	.1	-.8	.1	.1	4	23.8	95	88	51	0	0	0	0	0	1	0			
PORTLAND	72	49	85	42	61	1	.1	-.8	.1	.4	28	40.9	143	92	44	0	0	0	0	0	3	0			
MD BALTIMORE	86	62	89	53	74	3	.2	-.8	.1	.5	30	18.8	62	87	41	0	0	0	0	0	0	0			
SALISBURY	84	57	89	50	70	0	.2	-.8	.1	.5	24	32.9	100	98	46	0	0	0	0	1	0	0			
MA BOSTON	72	58	83	52	65	1	.1	-.8	.1	.9	58	25.9	87	83	49	0	0	0	0	1	0	0			
CHATHAM	69	56	75	51	63	1	.1	-.8	.1	.2	9	22.5	71	88	66	0	0	0	0	1	0	0			
MI ALPENA	72	52	85	43	62	1	1.1	-.4	.7	1.4	89	23.4	111	97	64	0	0	0	0	3	3	1			
DETROIT	79	63	90	54	71	3	.4	-.1	.4	.7	58	20.8	92	87	56	1	0	0	0	2	0	0			
FLINT	78	58	89	52	68	3	.2	-.4	.1	.2	20	22.6	106	93	56	0	0	0	0	2	0	0			
GRAND RAPIDS	79	59	91	51	69	3	2.1	1.4	1.6	2.2	143	29.6	124	96	59	1	0	0	0	4	4	1			
HOUGHTON LAKE	74	54	84	45	64	3	1.3	-.6	1.2	1.7	127	22.7	113	94	60	0	0	0	0	3	3	1			
LANSING	77	57	90	49	67	4	.6	-.1	.5	.7	46	21.5	100	97	61	1	0	0	0	3	3	1			
MARQUETTE	69	50	76	41	60	4	1.2	-.2	.5	1.8	98	23.7	89	97	75	0	0	0	0	5	1	1			
MUSKEGON	79	60	87	52	70	7	2.4	-.7	1.6	1.4	101	26.0	121	91	57	0	0	0	0	4	1	1			
SAULT ST. MARIE	69	51	73	41	60	4	2.4	1.4	1.7	2.9	156	20.3	90	96	71	0	0	0	0	4	1	1			
MN ALEXANDRIA	72	59	79	54	66	6	2.2	1.6	1.9	3.9	327	25.8	131	98	68	0	0	0	0	4	1	1			
DULUTH	69	54	76	46	62	6	2.9	2.1	2.3	7.0	425	32.7	144	99	73	0	0	0	0	6	1	1			
INT'L FALLS	68	50	75	43	59	5	2.2	1.4	1.3	2.8	182	21.5	116	97	64	0	0	0	0	3	2	2			
MINNEAPOLIS	73	61	80	55	67	5	3.3	2.7	.9	5.0	384	27.3	130	99	75	0	0	0	0	5	4	2			
ROCHESTER	74	62	83	54	68	7	1.6	-.8	.6	1.6	99	26.9	122	99	76	0	0	0	0	4	2	2			
MS GREENWOOD	92	71	94	69	82	5	.4	-.4	.2	.5	34	50.0	130	99	54	6	0	0	0	3	0	0			
JACKSON	93	69	95	66	81	3	.0	-.9	.8	.47	49.8	130	100	50	7	0	0	0	0	0	0	0			
MERIDIAN	93	69	96	65	81	4	T	-.9	.0	.2	12	54.7	138	94	43	6	0	0	0	0	0	0			
MO CAPE GIRARDEAU	92	72	95	70	82	1	.1	-.8	.1	1.5	82	29.6	90	96	48	6	0	0	0	1	0	0			
COLUMBIA	90	71	93	70	80	10	.2	-.7	.2	1.2	69	23.1	85	91	55	6	0	0	0	1	0	0			
KANSAS CITY	91	72	96	70	82	10	.8	-.2	.3	1.1	53	19.9	72	96	53	5	0	0	0	4	0	0			
SAINT LOUIS	93	76	97	73	85	13	T	-.6	T	.8	60	20.2	80	81	45	6	0	0	0	0	0	0			
SPRINGFIELD	89	70	91	68	80	9	.5	-.5	.5	1.4	73	24.4	85	92	52	3	0	0	0	1	1	1			
MT BILLINGS	70	51	81	45	61	-1	2.3	2.0	1.0	2.3	396	17.3	152	92	45	0	0	0	0	5	2	2			
GLASGOW	74	53	87	49	63	4	.1	-.2	.1	.1	24	9.8	106	84	39	0	0	0	0	1	0	0			
GREAT FALLS	66	47	77	41	56	-3	.7	-.5	.4	.7	143	12.1	99	90	46	0	0	0	0	4	0	0			
HAVRE	71	49	82	47	60	1	.1	-.1	.1	.1	26	8.6	89	83	38	0	0	0	0	2	0	0			
HELENA	66	47	75	44	56	-1	1.2	1.0	.9	1.2	281	9.6	104	93	52	0	0	0	0	5	1	1			
KALISPELL	69	40	77	36	55	-1	.4	-.1	-.2	.4	78	11.3	99	96	45	0	0	0	0	3	0	0			
MILES CITY	73	55	82	51	64	2	1.2	1.0	.6	1.4	263	16.6	144	93	48	0	0	0	0	5	1	1			
MISSOULA	69	46	78	41	57	0	.3	-.1	-.1	.3	66	8.8	91	90	41	0	0	0	0	3	0	0			
NE GRAND ISLAND	89	65	95	56	77	11	.7	-.1	.4	.7	58	24.4	127	92	42	4	0	0	0	5	0	0			
LINCOLN	91	68	96	60	80	12	.8	.0	.7	.9	63	19.1	86	90	44	5	0	0	0	2	1	1			
NORFOLK	87	64	95	54	76	11	1.4	-.9	.7	1.5	139	24.1	121	95	49	2	0	0	0	4	1	1			
NORTH PLATTE	83	59	92	52	71	7	1.4	1.0	.9	1.5	187	16.6	100	98	47	1	0	0	0	4	1	1			
OMAHA	86	68	91	63	77	10	1.3	-.5	1.0	2.0	115	30.7	126	90	58	2	0	0	0	3	1	1			
SCOTTSSBLUFF	78	54	87	47	66	3	.5	-.3	.2	.8	160	12.3	101	98	43	0	0	0	0	6	0	0			
VALENTINE	82	59	91	51	71	8	.2	-.2	.1	.5	68	19.0	128	95	45	1	0	0	0	4	0	0			
NV ELY	69	36	73	32	53	-5	.5	-.3	.3	1.3	382	8.2	124	92	36	0	0	0	1	2	0	0			
LAS VEGAS	92	64	97	58	78	-4	.0	-.1	.0	-.1	29	3.4	117	36	14	5	0	0	0	0	0	0			
RENO	76	45	85	41	60	-2	.4	-.3	.4	.6	536	3.9	78	82	26	0	0	0	0	2	0	0			
WINNEMUCCA	73	44	83	39	59	-2	.8	-.7	.8	.8	476	5.7	107	84	33	0	0	0	0	2	1	1			
NH CONCORD	75	45	86	35	60	0	.1	-.6	.1	.3	19	22.5	91	97	41	0	0	0	0	1	0	0			
NJ ATLANTIC CITY	83	56	88	46	69	1	.3	-.4	.3	.3	20	26.2	87	98	45	0	0	0	0	0	0	0			
NM ALBUQUERQUE	80	58	86	51	69	-2	.7	.5	.4	1.4	333	7.9	137	87	34	0	0	0	0	3	0	0			
CLOVIS	80	62	87	57	71	0	1.7	1.3	.9	3.3	358	19.5	148	95	48	0	0	0	0	4	1	1			
ROSWELL	83	64	87	56	74	1	.6	-.2	.3	2.2	248	15.7	197	95	48	0	0	0	0	3	0	0			
NY ALBANY	78	52	85	42	65	2	.3	-.5	.2	.4	25	21.3	86	98	41	0	0	0	0	2	0	0			
BINGHAMTON	76	54	84	46	65	4	.4	-.4	.3	.5	29	22.4	86	92	45	0	0	0	0	2	0	0			
BUFFALO	79	58	87	49	68	5	1.1	-.8	.1	-.2	14	26.3	102	90	41	0	0	0	0	1	0	0			
NEW YORK	81	66	88	59	74	4	T	-.8	T	.2	9	28.3	94	79	41	0	0	0	0	0	0	0			
ROCHESTER	78	54	87	45	66	2	.3	-.3	.3	.4	32	19.8	89	93	44	0	0	0	0	1	0	0			
SYRACUSE	77	53	85	46	65	2	.4	-.4	.4	.6	38	25.0	91	94	47	0	0	0	0	2	0	0			
NC ASHEVILLE	83	60	90	55	72	3	T	-.9	T	.1	5	34.1	105	100	53	1	0	0	0	0	0	0			
CHARLOTTE	88	67	95	63	78	4	T	-.9	T	.1	5	34.1	105	100	53	1	0	0	0	0	0	0			
GREENSBORO	87	64	94	58	75	4	.1	-.8	.0	1.0	37.2	106	87	42	3	0	0	0	0	0	0	0			
HATTERAS	84	69	87	64	77	1	.0	-.4	.0	1.0	57	32.8	105	90	52	2	0	0	0	2	0	0			
NEW BERN	88	67	93	63	78	2	.5	-.1	.0	.3	12	49.9	129	88	53	0	0	0	0	0	0	0			
RALEIGH	88	65	96	58	77	4	.0	-.8	.0	2.5	95	39.4	98	96	48	2	0	0	0	1	0	0			
WILMINGTON	89	67	94	63	78	2	.0	-.1	.0	T	0	27.5	88	94	41	2	0	0	0	0	0	0			
ND BISMARCK	76	58	85	55	67	8	1.2	-.9	1.1	2.2	34	49.1	120	95	49	3	0	0	0	0	0	0			
FARGO	76	59	81	54	68	8	.5	.0	.5	1.1	112	19.1	121	95	59	0	0	0	0	2	1	1			
GRAND FORKS	74	57	82	49	66	8	1.8	1.3	1.6	1.9	180	17.2	117	95	61	0	0	0	0	3	1	1			
WILLISTON	71	53	78	49	62	7	.2	-.5	.1	.8	123	14.7	132	94	60	0	0	0	0	3	0	0			
OH AKRON-CANTON	82	62	87	58	72	3	.2	-.7	T	2.0	142	31.1	104	92	53	2	0	0	0	2	0	0			
CINCINNATI	86	68	93	62	77	8	T	-.5	.1	1.5	101	16.2	61	95	62	0	0	0	0	3	0	0			
CLEVELAND	82	64	87	58	73	7	.2</																		

Weather Data for the Week Ending September 14, 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 Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE	MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE
	DAYTON	86	64	93	59	75	7	.2	-.3	.1	2.6	214	29.2	111	92	49	2	0	3	0	0	0	0
TOLEDO	81	61	90	55	71	6	-.3	-.4	.2	1.5	38	17.8	76	94	54	1	0	0	0	0	0	0	0
YOUNGSTOWN	83	58	89	53	70	6	-.6	-.1	.6	1.8	121	19.0	70	96	48	0	0	2	2	0	0	0	0
OK OKLAHOMA CITY	88	71	91	70	80	5	1.6	-.8	1.3	8.5	539	28.5	121	91	52	2	0	2	2	0	0	0	0
TULSA	92	75	94	73	83	8	.4	-.6	.4	1.7	85	17.4	61	86	49	0	0	2	2	0	0	0	0
OR ASTORIA	67	49	73	43	58	-1	.1	-.4	.1	.0	.0	37.8	95	94	59	0	0	1	1	0	0	0	0
BURNS	74	38	80	32	56	-5	.0	-.1	.0	.0	.0	4.4	69	92	19	0	0	1	0	0	0	0	0
MEDFORD	85	47	91	41	66	0	.0	-.2	.0	.0	.0	10.6	95	86	21	1	0	0	0	0	0	0	0
PENDLETON	77	50	85	43	64	-2	.0	-.1	.0	.0	.0	9.2	121	64	24	0	0	0	0	0	0	0	0
PORTLAND	77	53	83	48	65	1	.0	-.3	.0	.0	.0	21.4	99	94	40	0	0	1	1	0	0	0	0
SALEM	78	48	83	41	63	0	.0	-.3	.0	.0	.0	22.0	96	90	34	0	0	1	1	0	0	0	0
PA ALLENTOWN	82	58	88	51	70	3	.0	-.9	.0	.0	.0	22.7	72	91	37	0	0	1	1	0	0	0	0
ERIE	79	61	88	55	70	6	.6	-.9	.0	.7	38	19.8	73	84	49	0	0	1	1	0	0	0	0
HARRISBURG	83	60	88	49	71	3	.5	-.3	.4	.8	47	22.5	80	91	44	0	0	3	3	0	0	0	0
PHILADELPHIA	84	64	90	57	74	4	.4	-.4	.4	.8	49	26.4	88	86	39	2	0	2	2	0	0	0	0
PITTSBURGH	82	61	89	56	72	6	1.1	-.5	1.1	2.0	150	24.4	89	91	49	0	0	2	2	1	1	0	0
SCRANTON	79	56	85	48	67	3	.2	-.6	.2	1.1	71	19.8	80	88	38	0	0	1	1	0	0	0	0
RI PROVIDENCE	76	56	83	50	66	1	.0	-.6	.2	1.4	80	31.5	102	90	47	0	0	1	1	0	0	0	0
SC CHARLESTON	90	71	94	66	80	3	.0	-.2	.0	1.1	43	44.4	109	92	48	4	0	0	0	0	0	0	0
COLUMBIA	91	66	97	59	79	2	.0	-.1	.0	.4	18	55.8	145	99	44	4	0	0	0	0	0	0	0
FLORENCE	91	67	96	59	79	3	.0	-.1	.0	.6	27	37.1	108	94	44	5	0	0	0	0	0	0	0
GREENVILLE	89	64	95	57	76	3	.4	-.7	.4	.4	19	41.7	110	96	44	4	0	0	1	1	0	0	0
SD ABERDEEN	78	60	90	55	69	8	.3	-.1	.2	.3	41	21.3	144	97	60	1	0	4	4	0	0	0	0
HURON	78	59	88	55	69	6	.9	-.6	.7	1.3	192	20.9	137	96	60	0	0	3	3	1	1	0	0
RAPID CITY	76	56	86	47	66	3	.5	-.3	.4	.6	116	15.5	112	93	50	0	0	3	3	0	0	0	0
SIoux FALLS	79	64	86	57	71	9	2.4	1.8	1.5	3.2	231	23.1	119	97	64	0	0	3	3	2	2	0	0
TN CHATTANOOGA	91	69	96	67	80	6	.0	-.1	.0	.1	2	40.5	106	96	50	4	0	1	1	0	0	0	0
KNOXVILLE	88	67	94	65	78	5	.0	-.7	.0	.1	4	38.7	112	98	52	2	0	0	0	0	0	0	0
MEMPHIS	92	74	93	73	83	7	.4	-.5	.4	.9	48	43.5	114	93	56	7	0	1	1	0	0	0	0
NASHVILLE	90	70	93	66	80	6	3.2	2.3	2.0	3.3	184	30.1	84	100	58	5	0	4	4	2	2	0	0
TX ABILENE	86	69	89	66	78	0	2.4	1.7	2.3	5.0	352	23.3	136	92	50	0	0	2	2	0	0	0	0
AMARILLO	84	64	87	61	74	3	.1	-.3	.1	1.5	159	11.8	75	94	44	0	0	2	2	0	0	0	0
AUSTIN	90	74	92	69	82	2	.1	-.7	.1	1.9	120	33.7	156	97	52	4	0	2	2	0	0	0	0
BEAUMONT	90	74	91	72	82	2	1.3	.0	.7	3.0	115	58.2	147	97	57	7	0	2	2	0	0	0	0
BROWNSVILLE	91	76	92	75	83	1	.4	-.9	.2	3.7	155	24.1	148	97	59	6	0	4	4	0	0	0	0
CORPUS CHRISTI	90	75	92	74	83	0	2.7	1.1	2.1	6.5	205	34.2	154	97	65	5	0	5	5	1	1	0	0
DEL RIO	91	73	94	69	82	1	2.6	2.0	1.7	2.8	228	13.1	108	75	40	6	0	2	2	0	0	0	0
EL PASO	85	63	96	59	74	1	1.2	.9	.6	1.4	211	7.7	141	96	42	1	0	4	4	1	1	0	0
FORT WORTH	91	73	93	72	82	3	.3	-.5	.3	2.7	180	32.5	146	93	50	6	0	1	1	0	0	0	0
GALVESTON	88	79	89	77	84	3	.5	-1.0	.4	4.5	150	49.4	176	83	62	0	0	2	2	0	0	0	0
HOUSTON	91	72	93	71	82	2	.5	-.7	.3	1.8	72	43.1	133	97	58	6	0	2	2	0	0	0	0
LUBBOCK	85	65	89	62	75	3	.7	-.2	.7	2.1	211	15.4	113	97	54	0	0	1	1	0	0	0	0
MIDLAND	86	66	89	62	76	0	.2	-.4	.2	.6	66	16.8	169	92	46	0	0	1	1	0	0	0	0
SAN ANGELO	88	69	92	66	79	1	2.1	1.4	1.0	2.1	155	14.2	111	93	46	4	0	3	3	2	2	0	0
SAN ANTONIO	92	74	94	71	83	2	.8	-.1	.5	1.0	60	27.1	133	92	48	6	0	4	4	1	1	0	0
VICTORIA	91	74	92	72	83	2	.5	-1.0	.2	1.8	61	45.2	175	100	55	7	0	3	3	0	0	0	0
WACO	93	73	94	71	83	3	.1	-.6	.1	1.5	109	29.6	136	96	51	7	0	3	3	0	0	0	0
WICHITA FALLS	90	71	92	69	81	3	1.7	.9	1.7	5.9	384	21.9	112	96	49	6	0	1	1	0	0	0	0
UT CEDAR CITY	76	50	79	45	63	-2	.0	-.2	.0	.9	198	8.8	118	79	26	0	0	1	1	0	0	0	0
SALT LAKE CITY	72	52	76	48	62	-5	1.5	1.3	1.1	2.4	626	13.0	119	89	45	0	0	6	6	1	1	0	0
VT BURLINGTON	71	48	79	39	60	-1	1.0	.3	.9	1.1	71	20.5	86	100	48	0	0	3	3	1	1	0	0
VA NORFOLK	85	65	88	61	75	1	.1	-1.0	.1	.4	19	32.4	97	93	48	0	0	1	1	0	0	0	0
RICHMOND	89	63	94	59	76	4	.0	-.8	.0	1.1	4	25.5	80	91	39	2	0	0	0	0	0	0	0
ROANOKE	88	62	94	57	75	5	.0	-.7	.0	.1	4	30.6	108	92	40	1	0	0	0	0	0	0	0
WA QUILLAYUTE	67	47	77	43	57	-1	-.1	-.2	.0	.1	5	67.2	109	99	58	0	0	2	2	0	0	0	0
SEATTLE-TACOMA	70	51	77	47	60	-1	.0	-.4	.0	.0	0	25.4	116	94	52	0	0	0	0	0	0	0	0
SPOKANE	74	44	82	39	59	-2	.0	-.2	.0	.0	3	9.7	92	74	27	0	0	0	0	0	0	0	0
YAKIMA	80	46	84	40	63	0	.1	.0	.1	.1	47	5.4	110	87	26	0	0	1	1	0	0	0	0
WV BECKLEY	80	59	84	53	70	5	1.9	1.0	1.4	2.3	129	28.7	90	96	57	0	0	5	5	1	1	0	0
CHARLESTON	86	63	89	54	74	5	3.4	2.7	2.3	4.6	307	29.6	93	99	57	0	0	5	5	2	2	0	0
HUNTINGTON	88	65	94	56	76	6	.1	-.7	.1	.5	34	27.5	89	94	50	2	0	2	2	0	0	0	0
PARKERSBURG	84	62	87	55	73	4	.5	-.2	.4	1.5	106	31.7	110	96	53	0	0	3	3	0	0	0	0
WI GREEN BAY	76	61	88	53	69	8	.7	.0	.3	4.0	62	17.3	83	98	66	0	0	5	5	0	0	0	0
LACROSSE	76	65	89	56	70	7	.5	-.3	.3	.5	31	26.1	110	100	75	0	0	2	2	0	0	0	0
MADISON	80	63	89	56	71	9	2.7	2.0	1.2	3.0	193	27.1	115	94	63	0	0	4	4	3	3	0	0
MILWAUKEE	78	66	94	60	72	9	2.6	1.9	1.2	3.7	266	26.4	114	91	61	1	0	5	5	2	2	0	0
WAUSAU	70	58	81	49	64	5	2.0	1.1	1.2	3.2	162	28.7	118	100	73	0	0	5	5	1	1	0	0
WY CASPER	74	50	78	36	62	2	.4	.2	.3	.4	119	10.3	118	90	35	0	0	3	3	0	0	0	0
CHEYENNE	71	51	76	46	61	2	.6	.3	.1	1.6	289	16.9	152	90	39	0	0	6	6	0	0	0	0
LANDER	71	48	76	37	59	-1	.3	.2	.2	.3	103	11.0	110	85	38	0	0	3	3	0	0	0	0



### Summer Weather Review

**HIGHLIGHTS:** Hot, dry weather from the Corn Belt to the mid-Atlantic region headlined a summer of mixed weather returns. Temperatures were generally more than 2° F above normal from the northern Plains to the mid-Atlantic coast. Cooler-than-normal weather covered much of the Pacific Northwest, southern Rockies, and southern Plains. The average summer temperature of 77.8° F in Philadelphia, PA, was the hottest on record (former mark was 77.1° F, set in 1988 and 1900). The mercury hit 90° F on 49 days in Philadelphia, tying another 1988 record.

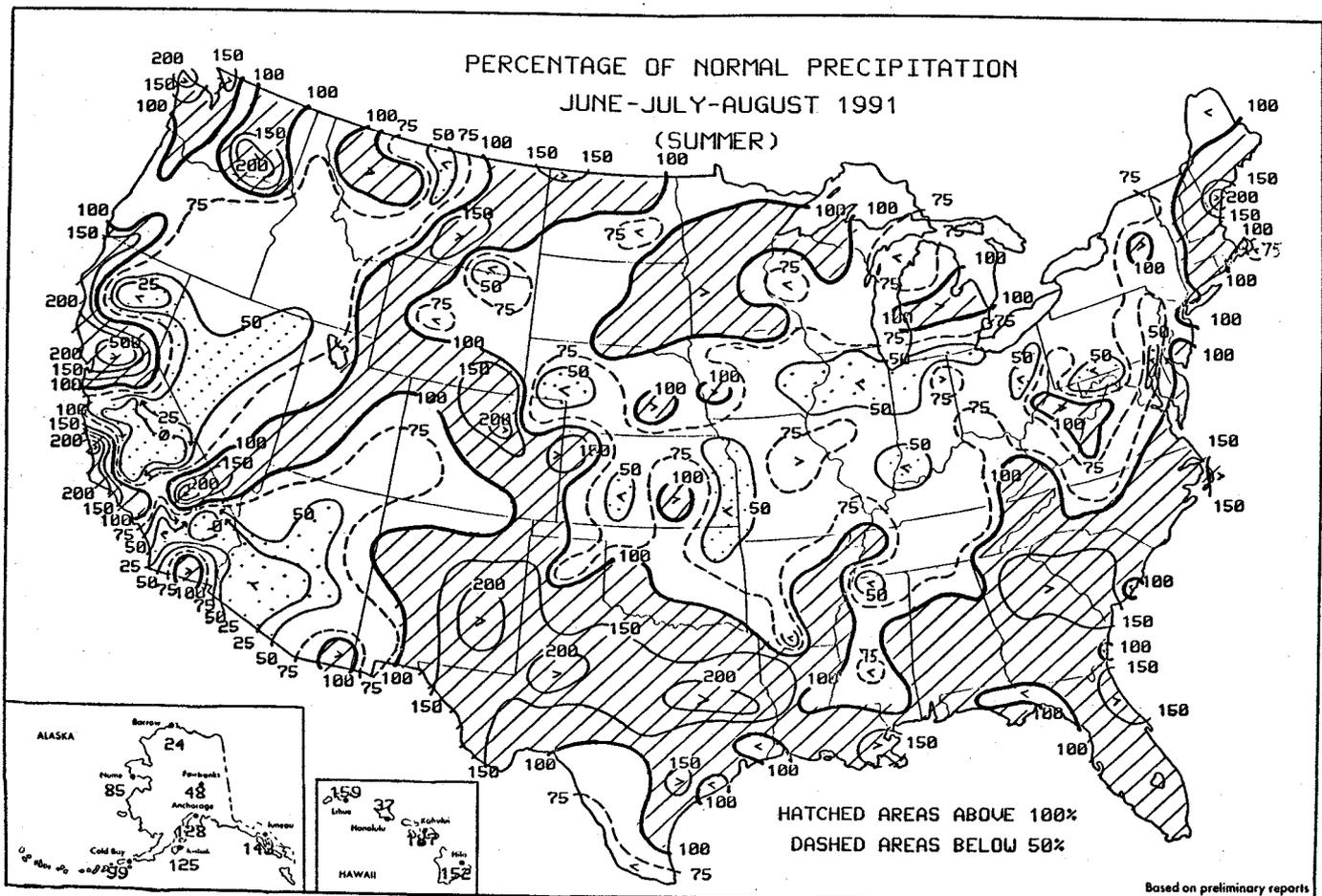
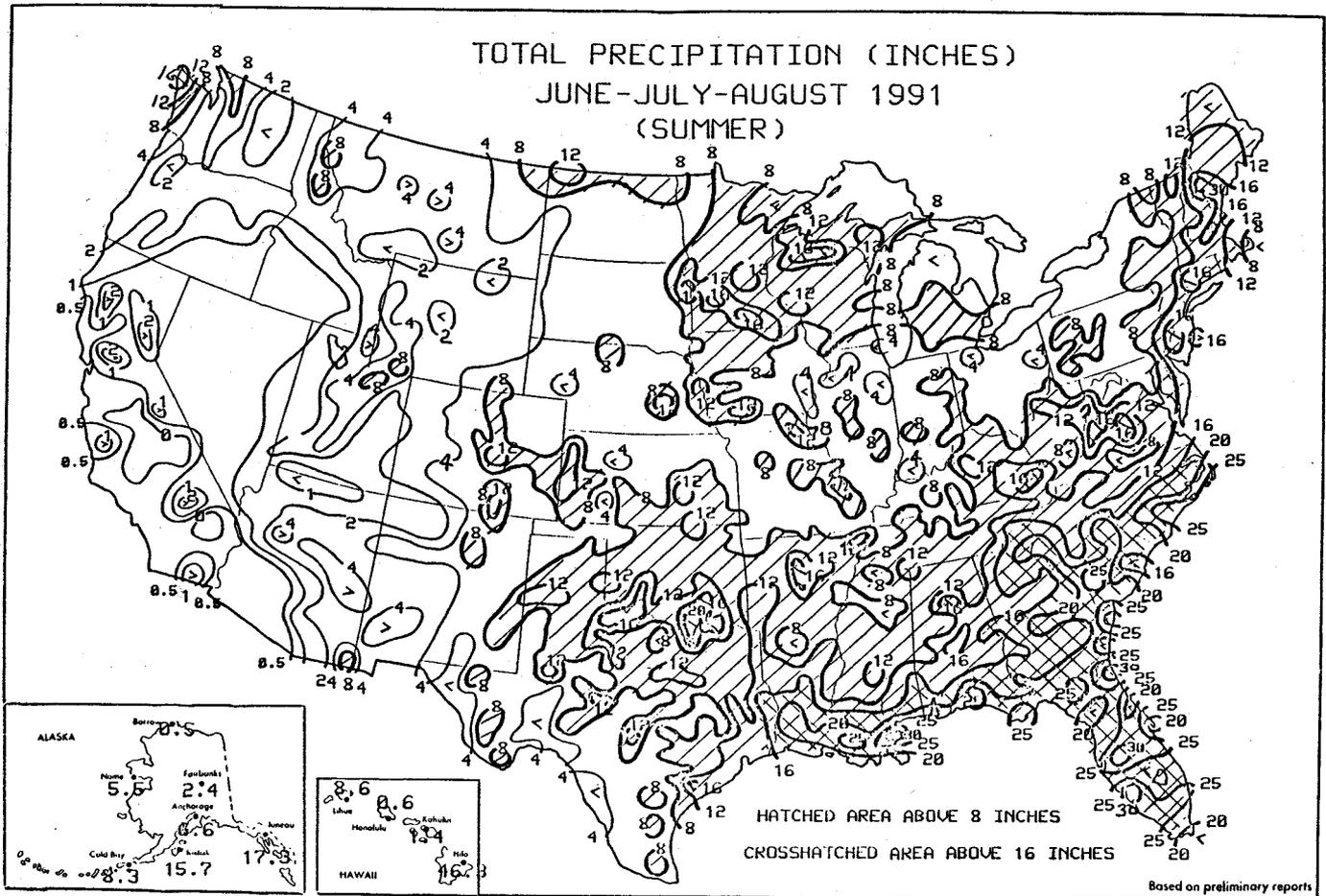
Rainfall was heavier than normal in an arc from New England to the Gulf coast, and from the southern Plains to the northern Rockies. Portions of the upper Midwest were also wetter than normal. But in spotty locations from the central Plains to Pennsylvania, summer rainfall was less than half of normal. One such dry pocket encompassed Moline, IL, which collected just 3.79 inches of rain (29 percent of normal; driest summer since 1886). In contrast, Portland, ME, had its wettest summer ever (18.66 inches), although 42 percent of that total fell before and during Hurricane Bob's passage on August 18-19.

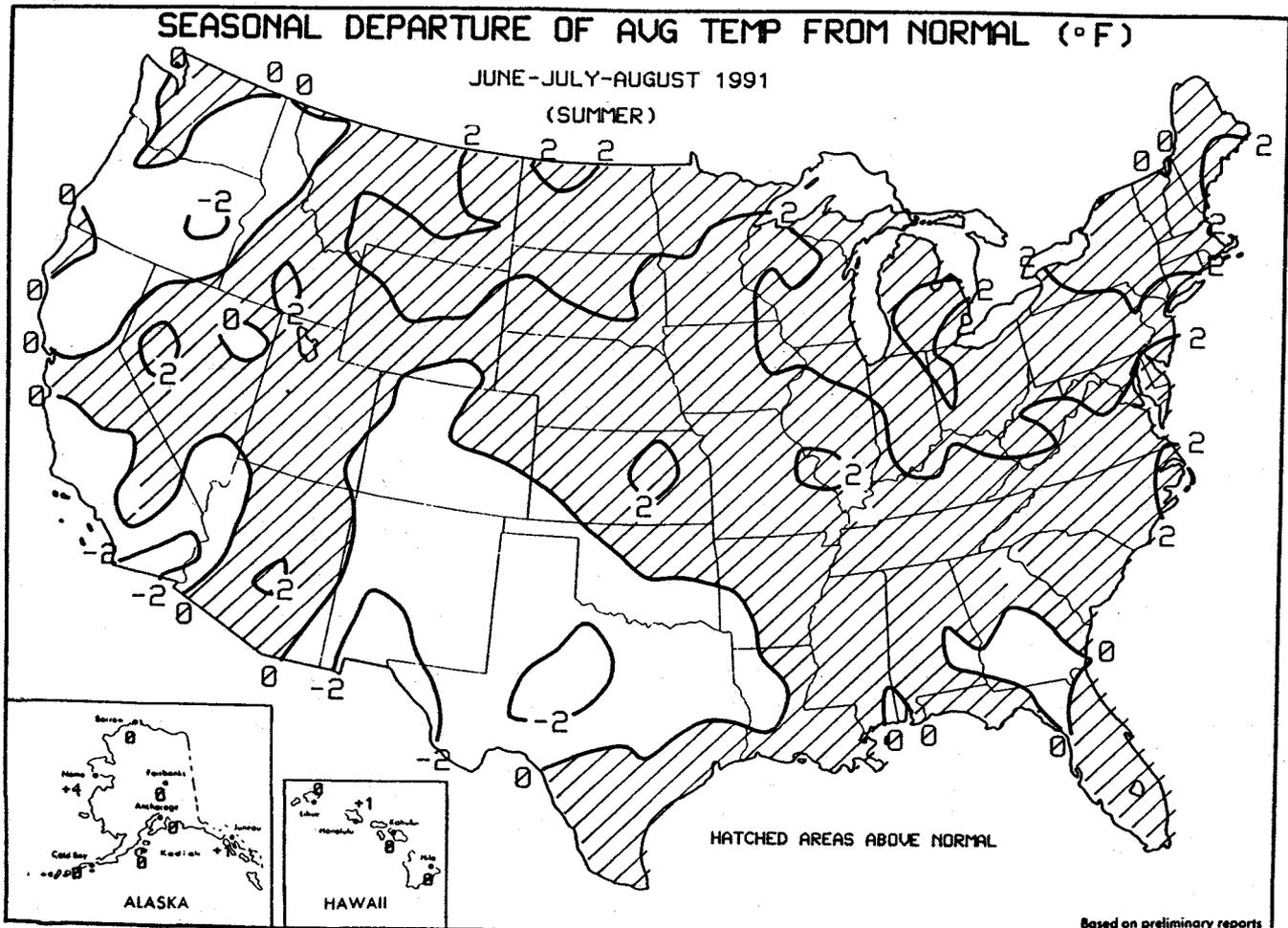
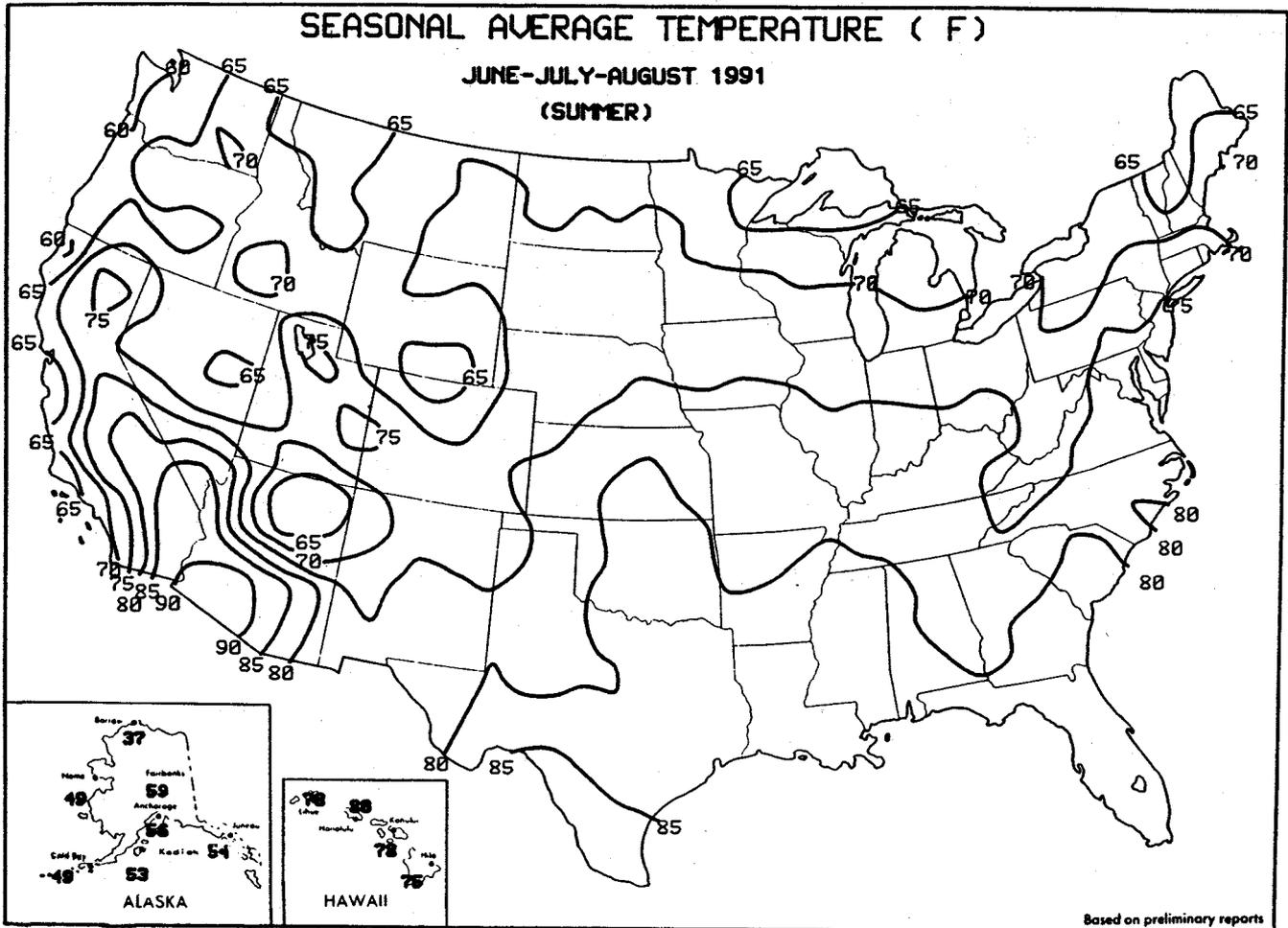
**JUNE:** Rainfall dwindled from Kansas to Pennsylvania (less than 50 percent of normal), while temperatures soared to 2 to 5° F above normal. Dry, warm weather persisted through a third consecutive month in the mid-Atlantic region. In contrast, wet conditions were prevalent from the Pacific Northwest to the northern Plains, and from the southern Plains to the Southeast. Thunderstorms pounded the southern Plains and the upper Midwest early in the month, and dotted the Southeast nearly every day. The northern Plains

received copious rain after mid-month. In the West, temperatures failed to attain summer levels, with departures reaching -6° F in eastern Oregon. Frost occurred in interior Northwest valleys as late as the 20th. The month's hottest spell originated in the Plains on the 25th and spread to the east coast by the 28th.

**JULY:** Dry, warm weather gripped much of the central Plains and the Corn Belt for the second month in a row. The northern half of the mid-Atlantic region received little rain. Weather conditions turned abruptly drier in the northern Plains during the month. Wet weather dominated again across much of the South. Three days of heavy rain before mid-month caused flooding in the southern Great Plains. Between the 8th and the 11th, a narrow band of heavy rain covered portions of Missouri and Nebraska. The most damaging heat of July occurred from mid-month until the 24th. Nine days of 90° F heat and minimal rainfall heightened crop stress from the central Plains to the east coast.

**AUGUST:** Although rainfall was generally below normal in the Corn Belt, it was the wettest month since May. Most of the southern Plains and Southeast concluded summer with another damp month. In New England, Hurricane Bob deposited a large portion of the monthly rainfall on August 18 and 19. Dry weather persisted in the northern Plains and was accompanied by oppressive heat toward the end of the month. Pierre, SD, reached the 108° F mark on the 25th. At the end of meteorological summer (August 31), much of the Nation sweltered under the heat-producing upper air ridge.





### Summer 1991 in Historical Perspective

The summer of 1991 was warmer than normal for the Nation as a whole. Precipitation was highly variable but was below-normal overall. In terms of rankings, June-August 1991 was the 19th warmest such period since 1895 (table 1). Eight of the past eleven summers were warmer than normal, and this period's warmth is comparable in magnitude to the warm summers of the 1950's, but falls far short of the heat of the Dust Bowl during the 1930's (fig. 1). The areally weighted precipitation index ranks this summer as the 42nd driest on record (fig. 2).

It was a hot, dry summer across the Corn Belt (fig. 3) and into the Northeast. The Northeast region had the most anomalous warmth (8th warmest), followed by the East North Central and Central regions (both 12th warmest). To compound the effect of the heat, rainfall was in the lower third of the historical distribution in the three aforementioned regions. It was especially dry in the Central region (5th driest). Precipitation was significantly above normal only in the Southeast (21st wettest) and the West (23rd wettest).

Eight States (AZ, IL, IN, MD, NY, OH, PA, and WV) had the 10th driest, or drier, summer on record (table 2). Only California and New Hampshire ranked 10th wettest, or wetter, for the summer. The ranking in California has little impact on the State's 5-year drought since normal summer rainfall is nearly zero. Ten States (MD, NJ, NC, ND, OH, PA, RI, VA, WV, and WY) had one of their top ten warmest summers, while only New Mexico ranked 10th coldest, or colder (table 3).

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

REGION	PRECIPITATION	TEMPERATURE
NATIONAL	29	79
NORTHEAST	27	90
EAST NORTH CENTRAL	29	86
CENTRAL	5	82
SOUTHEAST	77	67
WEST NORTH CENTRAL	34	86
SOUTH	63	54
SOUTHWEST	45	48
NORTHWEST	66	43
WEST	75	48

Figure 2

U.S. NATIONAL WEIGHTED MEAN PRECIPITATION INDEX JUN-AUG, 1895-1991

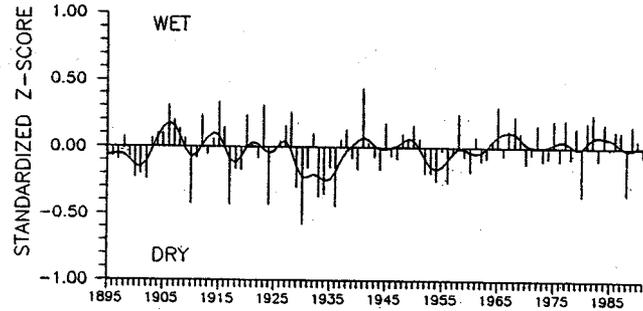


Figure 3

PRIMARY CORN AND SOYBEAN BELT PRECIPITATION JUN-AUG, 1895-1991

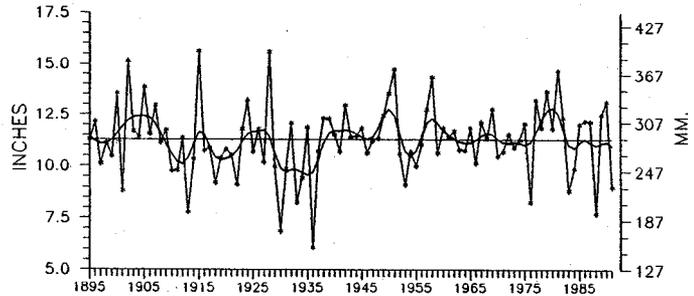


TABLE 2. PRECIPITATION RANKINGS FOR JUN-AUG 1991, BASED ON THE PERIOD 1895 TO 1991. 1 = DRIEST, 97 = WETTEST.

STATE	RANK	STATE	RANK	STATE	RANK	STATE	RANK
AL	53	IA	14	NE	24	RI	55
AZ	3	KS	16	NV	48	SC	85
AR	32	KY	16	NH	92	SD	36
CA	94	LA	74	NJ	65	TN	25
CO	73	ME	62	NM	80	TX	87
CT	81	MD	9	NY	7	UT	52
DE	49	MA	69	NC	73	VT	70
FL	83	MI	46	ND	30	VA	20
GA	84	MN	44	OH	2	WA	87
ID	36	MS	43	OK	38	WV	6
IL	7	MO	13	OR	57	WI	30
IN	4	MT	52	PA	9	WY	61

Figure 1

U.S. NATIONAL TEMPERATURE JUN-AUG, 1895-1991

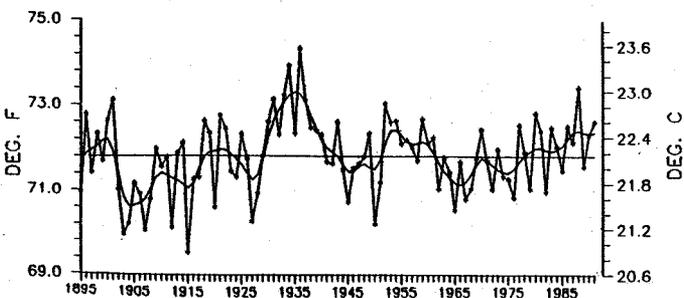


TABLE 3. TEMPERATURE RANKINGS FOR JUN-AUG 1991, BASED ON THE PERIOD 1895 TO 1991. 1 = COLDEST, 97 = WARMEST.

STATE	RANK	STATE	RANK	STATE	RANK	STATE	RANK
AL	35	IA	80	NE	70	RI	91
AZ	64	KS	82	NV	67	SC	64
AR	52	KY	85	NH	79	SD	84
CA	27	LA	47	NJ	91	TN	69
CO	60	ME	86	NM	7	TX	37
CT	86	MD	90	NY	83	UT	67
DE	70	MA	77	NC	88	VT	87
FL	78	MI	87	ND	92	VA	92
GA	33	MN	84	OH	93	WA	35
ID	70	MS	68	OK	71	WV	90
IL	73	MO	74	OR	27	WI	84
IN	81	MT	81	PA	94	WY	89

## National Agricultural Summary

September 9 - 15, 1991

**HIGHLIGHTS:** Unseasonably high temperatures in the Midwest sustained the early maturation of field crops. Rains, concentrated mainly in the upper and middle Mississippi Valley, aided late-seeded acreage. Soil moisture supplies remained mostly short in the Central States, short to adequate in the Northwest, and adequate in the Delta.

**SMALL GRAINS:** Winter wheat seeding progressed to 16 percent (%) complete in the 19 major producing States, compared with 13% last year and 18% for the historic average. Rainfall across much of the Midwest provided beneficial soil moisture for seeding. Spring wheat harvest was nearly complete, with only limited acreage remaining for harvest in Montana and the Pacific Northwest. Oats and barley harvests also neared completion.

**CORN:** Corn development continued to outpace last year and the historic average, with above-normal temperatures and rainfall promoting maturity in the Corn Belt. Ninety-five percent of the crop had denting in the 17 major producing States, 14 percentage points ahead of last year and 5 points ahead of the 5-year average. Sixty-six percent of the crop was mature, compared with 32% last year and 54% average. Corn harvest advanced to 13% complete in the 17 major States, 8 points ahead of last year and 6 points ahead of the average. Harvest got underway in the northernmost States and was in full swing in the Central and Southern States. Harvest was well along in Georgia and past the midpoint in Texas. Crop conditions improved slightly following rains. Poor or very poor conditions remained evident for much of the corn in the Ohio Valley, Illinois, and Pennsylvania, while ratings remained mostly fair to good for the 17 major States.

**SOYBEANS:** Soybean maturity continued to advance ahead of both last year and the average, with crop maturity being most advanced in the eastern Corn Belt and South Dakota. Crop maturity was behind schedule in the Gulf Coast States, Tennessee, and Minnesota. Leaves were dropping from plants on 41% of the acreage in the 19 major producing States, 20 points ahead of last year and 6 points ahead of the average. Harvest was in the early stages in the Ohio Valley and commencing in the Mississippi Valley. Changes in crop condition ratings from the previous week were mixed, with rains aiding late-seeded acreage in Missouri, South Dakota, and Indiana, while dry weather lowered conditions in the Southeast. The crop condition rating for the 19 major States was virtually unchanged at fair to good.

**COTTON:** Crop progress remained behind schedule in the 14 major producing States, running ahead of schedule only in Missouri, Texas, and the Carolina's. Bolls were opening on 49% of the acreage, compared with 54% last year and 51% average. Picking continued in Texas and got underway in the Western and Gulf States. Crop condition rated mostly fair in Alabama, Missouri, Oklahoma, South Carolina, and Tennessee and mostly good elsewhere. Boll rot became more prevalent across Arkansas, and bollworm damage continued in the Texas Plains despite spraying. Dryland cotton in the Texas Plains improved due to recent rain, and most fields showed good boll set.

**GRAIN SORGHUM:** Unseasonably hot weather in the eastern half of the Nation kept sorghum progress ahead of schedule. Heads were turning color on 84% of the acreage in the 12 major producing States, 3 points ahead of last year and 5 points ahead of the historic average. Fifty percent of the crop was mature, compared with 40% a year ago. Harvest was 29% complete, compared with 21% last year. Harvest was in full swing in the Delta and Texas, and in the early stages elsewhere. Crop condition rated mostly good in the Southwest and fair to good in the Midwest and Delta.

**RICE:** Rice harvest advanced to 39% complete in the five major producing States, 5 points ahead of last year but 5 points behind the average. Harvest was nearly complete in Texas, well along in Louisiana, and over 20% complete in Arkansas and Mississippi. Limited harvesting was beginning in California. Condition of standing fields rated fair in Mississippi and mostly good elsewhere.

**OTHER FIELD CROPS:** The third cutting of alfalfa approached completion in the Mississippi and Ohio Valleys, while growers were baling the fourth cutting in the Central States. Dry bean harvest continued in full swing in the northern Mountains and Great Plains. Peanut digging progressed in the Southeast and got underway in Oklahoma. Fall potato harvest gained momentum in most major producing States. Flax harvest was well along in the northern Great Plains. Safflower and sunflower harvests continued in California and got underway in Minnesota. Sweetpotatoes were being dug on both coasts and in the Delta.

**FRUIT AND NUTS:** Arizona lemon, peach, apple, and pistachio picking continued. California's Thompson seedless grape picking progressed, with the crop size below normal but quality good. Walnut harvest was progressing up the San Joaquin Valley, and almond harvest was full in swing. Peaches, nectarines, plums, pears, and apples were also being harvested in the State. Apple and pear picking was active in the Northeast, while peach picking approached completion. Cranberry harvest was underway in New England. New York's grape harvest continued, with above-average yields, and good quality and sugar content.

**VEGETABLES:** Melon and vegetable harvests continued in Arizona. California broccoli, cauliflower, celery, and lettuce harvests remained active. Melon picking slowed and tomato harvest continued. Onion harvest surpassed the midpoint in Colorado and increased in Utah. Sweet corn harvest continued in Idaho and Minnesota. Lima bean harvest progressed in Maryland and Delaware. Pepper, onion, tomato, carrot, and melon harvests progressed in Texas.

**PASTURES AND LIVESTOCK:** Pasture and range condition rated good to excellent in the Southeast, southern Plains, and Colorado, but fair to poor from Nebraska through the Northeast. Movement of livestock to fall grazing and markets was underway in the West.

Crop Progress

For Week Ending September 15, 1991

Winter Wheat  
% Planted

	1991	1990	Avg.
AR	0	0	0
CA	0	0	0
CO	35	32	43
GA	1	1	1
ID	12	9	14
IL	2	0	1
IN	5	2	3
KS	10	5	15
MI	15	5	4
MO	1	1	3
MT	23	21	19
NE	27	29	36
NC	6	2	2
OH	0	0	0
OK	18	7	14
OR	7	7	2
SD	52	46	47
TX	24	21	24
WA	20	37	39
19 STATES	16	13	18

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

Rice  
% Harvested

	1991	1990	Avg.
AR	22	7	27
CA	0	0	0
LA	78	86	82
MS	20	26	41
TX	96	91	96
5 States	39	34	44

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

Grain Sorghum  
% Coloring

	1991	1990	Avg.
AR	83	86	93
CO	67	63	66
IL	83	42	77
KS	75	75	65
LA	93	95	98
MS	88	93	96
MO	89	60	83
NE	96	88	89
NM	60	40	NA
OK	86	80	89
SD	85	81	79
TX	88	91	86
12 States	84	81	NA

Excl. States with NA 84 81 79

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

NA - not available.

Grain Sorghum  
% Mature

	1991	1990	Avg.
AR	68	56	72
CO	18	16	19
IL	53	6	50
KS	25	15	20
LA	77	88	91
MS	65	80	82
MO	47	19	47
NE	59	23	37
NM	8	6	NA
OK	22	9	21
SD	43	28	31
TX	78	86	70
12 States	50	40	NA

Excl. States with NA 51 40 43

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

NA - not available.

Grain Sorghum  
% Harvested

	1991	1990	Avg.
AR	40	17	50
CO	6	0	0
IL	6	0	6
KS	10	3	4
LA	66	80	75
MS	40	54	58
MO	17	3	16
NE	7	0	2
NM	0	1	NA
OK	4	1	6
SD	5	8	2
TX	72	58	58
12 States	29	21	NA

Excl. States with NA 30 21 23

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

NA - not available.

Corn  
% Dent

	1991	1990	Avg.
CO	76	81	84
GA	100	100	100
IL	100	71	92
IN	99	80	93
IA	88	91	97
KS	95	90	95
KY	100	100	100
MI	90	50	70
MN	95	88	91
MO	99	89	97
NE	99	92	95
NC	99	96	96
OH	100	61	83
PA	70	38	55
SD	99	83	77
TX	100	100	99
WI	87	62	75
17 States	95	81	90

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

Corn  
% Mature

	1991	1990	Avg.
CO	38	29	35
GA	100	100	100
IL	95	22	65
IN	82	18	57
IA	62	48	72
KS	80	65	65
KY	78	46	66
MI	40	4	15
MN	30	12	49
MO	83	43	75
NE	64	38	49
NC	95	93	91
OH	56	7	31
PA	26	4	14
SD	70	34	44
TX	76	91	88
WI	45	14	3
17 States	66	32	54

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

Corn  
% Harvested

	1991	1990	Avg.
CO	0	0	0
GA	83	85	81
IL	21	1	8
IN	13	1	5
IA	5	2	5
KS	35	20	15
KY	23	7	13
MI	5	0	1
MN	1	1	3
MO	32	6	17
NE	8	3	3
NC	37	35	27
OH	6	0	0
PA	4	0	1
SD	7	0	1
TX	62	72	70
WI	1	0	0
17 STATES	13	5	7

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

Soybeans  
% Dropping Leaves

	1991	1990	Avg.
AL	11	23	16
AR	9	4	6
GA	20	32	19
IL	59	13	44
IN	70	15	43
IA	30	17	39
KS	50	35	35
KY	25	13	23
LA	6	28	19
MI	50	10	25
MN	36	51	65
MS	6	19	21
MO	25	11	23
NE	53	33	36
NC	10	9	4
OH	83	17	37
SC	5	0	3
SD	81	61	56
TN	14	17	26
19 States	41	21	35

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

Cotton  
% Bolls Opening

	1991	1990	Avg.
AL	51	72	64
AZ	76	99	88
AR	50	52	62
CA	55	60	70
GA	45	81	62
LA	75	95	84
MS	66	91	83
MO	65	49	60
NM	46	45	57
NC	82	58	67
OK	9	21	16
SC	73	66	56
TN	54	61	62
TX	39	35	29
14 States	49	54	51

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

Crop Condition  
PERCENT

For Week Ending September 15, 1991

Rice

State	VP	P	F	G	EX
AR	0	0	25	69	6
CA	0	0	20	80	0
LA	0	0	37	63	0
MS	0	0	100	0	0
TX	0	0	0	100	0
5 State	0	0	30	67	3
Prev Week	0	0	24	76	0
Prev Year	0	0	34	64	2

Grain Sorghum

State	VP	P	F	G	EX
AR	0	4	65	31	0
CO	1	7	19	58	15
IL	0	16	37	44	3
KS	15	25	40	14	6
LA	0	23	53	24	0
MS	0	5	79	16	0
MO	5	20	48	26	1
NE	23	13	41	22	1
NM	0	0	9	91	0
OK	0	0	48	52	0
SD	0	14	37	42	7
TX	0	1	15	73	11
12 State	8	13	34	39	6
Prev Week	6	18	34	37	5
Prev Year	0	8	38	46	8

Corn

State	VP	P	F	G	EX
CO	0	2	15	56	27
GA	0	0	18	61	21
IL	9	17	49	21	4
IN	10	38	46	6	0
IA	0	3	39	52	6
KS	2	15	26	25	32
KY	1	20	54	19	6
MI	2	6	22	50	20
MN	1	2	29	60	8
MO	4	13	58	24	1
NE	6	8	34	46	6
NC	0	1	25	72	2
OH	10	26	40	22	2
PA	17	29	30	20	4
SD	3	13	29	43	12
TX	0	0	10	65	25
WI	1	4	14	65	16
17 State	4	12	36	40	8
Prev Week	5	12	35	42	6
Prev Year	1	3	20	62	14

Cotton

State	VP	P	F	G	EX
AL	0	8	54	38	0
AZ	0	0	15	54	31
AR	0	12	22	66	0
CA	0	0	5	90	5
GA	0	0	17	60	23
LA	0	1	40	59	0
MS	0	0	47	53	0
MO	0	0	78	22	0
NM	0	18	27	55	0
NC	0	0	29	65	6
OK	0	0	65	35	0
SC	0	0	67	33	0
TN	5	3	64	28	0
TX	0	2	35	55	8
14 State	0	2	36	56	6
Prev Week	0	2	34	60	4
Prev Year	2	6	41	48	3

Soybeans

State	VP	P	F	G	EX
AL	0	10	37	53	0
AR	0	0	45	55	0
GA	0	0	35	61	4
IL	2	14	54	25	5
IN	5	18	60	17	0
IA	0	2	33	58	7
KS	15	38	37	6	4
KY	2	13	59	26	0
LA	5	14	35	46	0
MI	0	5	25	45	25
MN	1	3	34	54	8
MS	1	5	51	43	0
MO	6	15	54	24	1
NE	5	31	52	12	0
NC	0	0	21	79	0
OH	6	21	40	30	3
SC	0	5	40	49	6
SD	0	14	23	49	14
TN	1	6	47	42	4
19 State	3	11	44	38	4
Prev Week	3	11	44	39	3
Prev Year	2	10	37	46	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:** Rainfall mostly none to light; 0.50 to 1.00 in. isolated areas. Temperatures 4 to 7° above normal; 2° above normal coast.

Days suitable for fieldwork 6.4 Soil moisture 67% short, 33% adequate. Corn 99% mature, 99% 1990, 98% avg.; 68% harvested, 66% 1990, 64% avg.; 25% fair, 61% good, 14% excellent. Sorghum 49% harvested, 49% 1990, 44% avg.; 52% fair, 44% good, 4% excellent. Peanuts 41% dug, 50% 1990, 27% avg.; 33% combined, 35% 1990, 17% avg.; 32% fair, 68% good. Cotton 51% bolls opened, 72% 1990, 64% avg.; 5% harvested, 11% 1990, 9% avg.; 8% poor, 54% fair, 38% good. Soybeans 98% blooming, 99% 1990, 98% avg.; 91% setting pods, 89% 1990, 90% avg.; 23% turning color, 39% 1990, 32% avg.; 11% dropping leaves, 23% 1990, 16% avg.; 4% mature, 11% 1990, 10% avg.; 1% harvested, 1% 1990, 2% avg.; 10% poor, 37% fair, 53% good. Winter wheat 8% seeded, 9% 1990, 9% avg. Pastures 15% poor, 33% fair, 43% good, 9% excellent. Livestock 21% fair, 68% good, 11% excellent. Activities: Harvesting corn, hay, sorghum; digging, combining peanuts; defoliating, harvesting cotton; planting wheat, fall vegetables; mowing pastures; spraying pecans for black aphids; maintaining harvest equipment; preparing land for winter grazing; harvesting catfish; general care of livestock, poultry, catfish.

**ALASKA:** Wet, cool, windy weather with little sunshine dominated, Railbelt wide. Highs 1° below normal to 6° above normal. Lows 3 to 10° above normal. Seasonal precipitation 3.22 in. drier than normal at Fairbanks to 1.87 in. wetter than normal at Anchorage.

Days suitable for haying, combining 1.0. Potato digging 3.0. Topsoil 90% adequate, 10% surplus. Subsoil 9% short, 91% adequate. Barley 70% harvest. Oats 20% harvest. Second crop hay 60% complete. Commercial potato harvest 60% complete. Some light to moderate lodging to small grains. Winter hay availability adequate.

**ARIZONA:** Sunny, hot, humid throughout period. Scattered showers 8th; northwest. Thunderstorms, southeast, 9th, 10th. Rain showers east, 11th, 12th; mostly sunny statewide 13th, 14th. Precipitation trace to 0.40 in. southeast. Temperatures 5° below to 1° above normal. Extremes 34°; 93° higher elevations, 49°; 103° desert.

Cotton bolls opening 76%, 99% 1990, 88% avg.; Cotton harvested 1%, 5% 1990, 4% avg. Activities: Irrigating, monitoring of insects, defoliation, harvesting west; cotton 15% fair, 54% good, 31% excellent; weed, insect infestations light to moderate. Alfalfa harvest moderate; weed, insect infestations light to moderate; rain damage mostly light; alfalfa rated good. Lemons harvested, west. Watermelons, cantaloupe harvested, central. Mixed vegetables harvested central, east. Peaches, apples, pistachios harvested, east.

**ARKANSAS:** Temperatures slightly above normal, scattered showers last half of week. Extremes 62°; 95°. Rainfall none to 1.74 in.

Days suitable for fieldwork 6. Soil moisture 16% short, 82% adequate, 2% surplus. Corn harvested 73%, 54% 1990, 76% avg.; 1% poor, 17%

fair, 82% good. Pasture 26% fair, 60% good, 14% excellent. Alfalfa 28% poor, 31% fair, 41% good. Other hay condition 15% poor, 25% fair, 61% good. Livestock good. Activities: Harvesting rice, grain sorghum, corn, hay, apples; preparing for the harvest of cotton; scouting crops for insects, diseases; applying pesticides; seeding supplemental cool season forage. Insecticides were applied to late cotton to help control the increasing boll weevil infestation. Many fields had been defoliated. Boll rot became more prevalent across the state. Recent rainfall increased the soybean crop yield prospects. Pecan yield prospects were better than previously expected in Lafayette County.

**CALIFORNIA:** High pressure replaced by very cold upper level low which moved into central portion State early, mid week. Low brought cooling temperatures, small amounts scattered precipitation. Light dusting snow reported on highest mountains. Late week high pressure began to slowly rebuild along west coast, bringing temperatures to near normal.

Field activities progressed, open weather. Wheat stubble burned, disced. Rice heading virtually complete, harvesting limited areas. Cotton defoliation continued; final irrigation most fields harvest began Riverside County. Harvest continued alfalfa seed, corn grain, corn silage, dry beans, safflower, sugarbeets, sunflowers. Sugar beet planting continued, old crop treated mildew. Alfalfa hay harvest normal. Small grain field preparation ongoing. Grape harvest for raisin, juice, wine continued. Raisins Fresno area laid on trays. Approximately 15% rolled, some raisins boxed. Thompson Seedless crop below normal, good quality. Walnut harvest progressing up valley. Almond harvest full swing. Peaches, nectarines, plums, Asian pears, apples harvested, packed. Prune harvest neared completion. Harvest early foothill pomegranates continued; lighter crop. Date dusting with sulfur continued Riverside area. Olive crop sizing normally. Navel oranges sizing well; yields reduced due to freeze damage. New growth on citrus trees. Lemons harvested Riverside. Broccoli moderate to heavy supply, generally good quality. Cauliflower light supply, variable quality. Harvest, packing all types melons slowed down, especially cantaloupe. Celery heavy supply, generally good quality. Iceberg lettuce moderate supply, variable quality. Fresh market, processing tomato harvest continued, major producing areas. Approximately 250 acres fall melons, squash disced up due to heavy infestation sweet potato whitefly, Riverside County. Late maturing fall crop potatoes frost protected with sprinklers, Tulalake area. Lettuce planting began Desert area. Sweet potato harvest continued. Range very poor to good northern State. Southern areas very poor to fair. Supplemental feeding continued.

**COLORADO:** Moisture from the Pacific Ocean fell across eastern areas of the State on the 9th, 10th. Less precipitation on 11th, some locally heavy hail in east. Moisture received on the 12th was west of the Divide. Cold front on the 14th lowered statewide temperatures 10 to 20°. Temperatures 1 to 2° above normal for the period.

Days suitable for fieldwork 5.0. Soil moisture 1% very short, 31% short, 62% adequate, 6% surplus. Third cutting alfalfa 46% complete, 50% 1990, 51% avg. Barley 88% harvested, 97% 1990, 97% avg. Oats 86% harvested, 92% 1990, 90% avg. Dry beans 37% harvested, 36% 1990, 35% avg. Sorghum is 18% mature, 16% 1990, 19% avg. Corn 38% mature, 29% 1990, 35% avg.; silage 51% harvested, 46% 1990, 51% avg.; 2% poor, 15% fair, 56% good, 27% excellent. Dry beans 4% poor, 28% fair, 55% good, 13% excellent. Sorghum 7% poor, 19% fair, 58% good, 15% excellent. Onion harvest 64% complete, 64% 1990, 54% avg. Summer potato harvest advanced to 69% complete. Fall potato harvest in San Luis Valley slowed by rain but now 5% complete. Winter wheat 35% seeded, 32% 1990, 43% avg. Livestock mostly good. Pasture, range feed excellent.

**FLORIDA:** Temperatures Panhandle 3 to 4° above normal. Central and south, within 2° of normal. Highs, upper 90s, lows lower 60s. Showers daily central, south; weekly rainfall 0.5 in. or less. Panhandle received only isolated showers.

Soil moisture adequate. Peanut harvesting, haying active. Sugarcane planting gaining momentum. Cotton, soybeans, sugarcane made normal progress. States pastures mostly good to excellent. Pasture ratings 10% fair, 75% good, 15% excellent. States herds mostly good to excellent. Groves very good condition. Sub surface moisture adequate, rainfall varied, interior counties irrigating, fruit splitting wet areas. Early bloom harvest continues. Young tree Hamlin harvest increasing. White and colored grapefruit movement active. Caretakers cutting cover crops. Spraying, fertilizations continue. Southern vegetable areas hot, wet; drier northern areas. Planting continued in southern localities. Northern squash, eggplant, hydroponic cucumber harvest underway.

**GEORGIA:** Dry week. Widely scattered thunderstorms late in week, 14th to 15th. Rain totals light, isolated reports 1.00 in. Week started cooler than normal, reached much above normal late week through 14th, 15th. Record high temperatures, many areas reaching upper 90s. Exception was mountains, highs only low 90s. Coolest early in week mid, upper 50s mountains, near 70° along coast. Temperatures 3 to 6° hotter than normal.

Days suitable for fieldwork 6.5. Soil moisture 9% very short, 51% short, 40% adequate. Cotton 1% harvested, 22% 1990, 7% avg. Sorghum 13% fair, 86% good, 1% excellent; 39% harvested for grain, 49% 1990, 38% avg. Peanuts 46% fair, 54% good; 39% dug, 41% 1990, 30% avg.; 26% threshed, 28% 1990, 19% avg. Soybeans 1% 1990, 1% avg. Small grain seeding underway. Apples 10% fair, 90% good; 64% harvested, 57% 1990, 57% avg. Pecans 11% poor, 62% fair, 27% good. Planting onion beds. Pastures, hay good. Cattle, hogs good.

**HAWAII:** Cool early in week, warmer by weekend. Evening, morning showers followed by mostly sunny days. Moderate trade winds 15 to 30 mph pushed some showers into leeward areas. Temperatures varied low 90s, to high 60s. Irrigation continued for normal crop development. Rainfall none to 3.70 in.

Days suitable for fieldwork 7.0. Some island crops progressed well with beneficial weather while others were slowed by hot conditions. Insect spraying continued active to maintain crop progress. Watermelon harvest moderate. Banana output, sweet corn picking continued

active. Head cabbage, cucumber plantings suffered insect damage. Sugar, pineapple planting, harvesting normal.

**IDAHO:** Temperatures 3° below normal to 2° above normal Statewide. Precipitation fell across State; select areas received over an inch.

Days suitable for fieldwork 5. Soil moisture 16% very short, 40% short, 43% adequate, 1% surplus. Winter wheat 98% harvested. Spring wheat 87% harvested. Spring barley 89% harvested. Potato good; 100% turning, 70% vines dying/killed, 10% harvested. Oats 85% harvested, 86% 1990, 91% avg. Second cutting alfalfa 97% complete, 95% 1990, 99% avg. Third cutting alfalfa 29% complete, 47% 1990, 52% avg. Dry peas, lentils harvest complete. Sugarbeet harvest 3% complete, 8% 1990, 3% avg. Apple harvest 7% complete, 10% 1990, 11% avg. Mint 96% harvested, 99% 1990, 99% avg. Plum, prune harvest 92% complete, 97% 1990, 81% avg. Hops 58% harvested, 33% 1990, 62% avg. Onions 32% harvested, 53% 1990, 43% avg. Sweet corn harvest 62% complete. Dry bean harvest 35% complete, 46% 1990, 49% avg. Corn for silage harvest 7% complete. Activities: Irrigating, fertilizing for fall crops, fall plowing, harvesting of potatoes, sweet corn, corn for silage. Irrigation water supplies good. Livestock good to excellent. Pasture, range conditions 74% of normal.

**ILLINOIS:** Temperatures 10 to 12° above normal across the State. Precipitation generally 0.28 to 3.66 in. central to northern part of State, while southern half of State varied none to 1.29 in.

Days suitable for fieldwork 5.50. Soil moisture 66% short, 32% adequate, 2% surplus. Soybeans turning yellow 87%, 39% 1990, 72% avg. Soybeans harvested 9%, 1% 1990, 7% avg. Pasture condition as a % of normal, where 100% = normal, was 69%. Alfalfa third cutting 89%, 83% 1990, 89% avg. Alfalfa 1% very poor, 8% poor, 57% fair, 32% good, 2% excellent.

**INDIANA:** Temperatures 7 to 12° above normal. Highs low 80s to low 90s. Lows 60s. Rainfall varied from 0.10 to 1.00 in. Rain statewide, varied greatly.

Days suitable for fieldwork 6.2. Topsoil 64% short, 36% adequate. Subsoil 81% short, 19% adequate. Soybean harvest 10%, 1% 1990, 7% avg.; turning color 92%, 42% 1990, 59% avg. Tobacco harvested 74%, 43% 1990, 63% avg. Winter wheat seeding 5%, 2% 1990, 3% avg. Silo filling 83%, 13% 1990, 54% avg. Pasture 51% of normal. Wheat acres plowed 36%, 38% 1990, 38% avg. Fall apple harvest 45%. Corn, soybean harvest continues.

**IOWA:** Temperatures 8 to 12° above normal. Extremes 49°; 96°. Precipitation 0.10 to 5.97 in.; average 1.69 in.

Days suitable for fieldwork 4.7. Topsoil 34% short, 62% adequate, 4% surplus. Subsoil 46% short, 53% adequate, 1% surplus. Pasture condition 75% of normal. Corn 96% in dough stage, 100% 1990, 100% avg. Soybeans 65% leaves turning color, 57% 1990, 76% avg.; 1% harvested, 0% 1990, 3% avg. Third cutting alfalfa 90% harvested, 92% 1990, 92% avg. Livestock good to excellent.

**KANSAS:** Temperatures 11° above normal north, central; 8° above normal south. Rainfall reported all areas, north received most precipitation.

Days suitable for fieldwork 6.0. Surface moisture 74% short, 25% adequate, 1% surplus. Subsurface moisture 89% short, 11% adequate. Range, pastures poor statewide. Supplies of roughage becoming short central one third State. Forage short except northwest. Stockwater short

except western one third State. Fourth cutting alfalfa 45% complete.

**KENTUCKY:** Unseasonably warm temperatures, spotty precipitation. Highest temperatures upper 90s, average upper 80s to lower 90s, 5 to 10° above normal. Scattered afternoon thunderstorms. Rainfall trace to 1.50 in.; majority less than 0.50 in., 0.25, 0.45 in. below normal.

Days suitable for fieldwork 4.7. Soil moisture 10% very short, 39% short, 51% adequate. Burley tobacco 83% cut, compared to 63% 1990, 74% avg. Dark tobacco 76% cut. Housed tobacco curing rapidly, humidity causing some houseburn, mold. Tobacco in fields 6% poor, 61% fair, 33% good. Hay crops 2% very poor, 19% poor, 47% fair, 32% good.

**LOUISIANA:** Temperatures 0.9 to 3.8° above normal. Extremes 65°; 95°. Rainfall 0.03 in. east central to 0.69 in. southwest.

Days suitable for fieldwork 4.3. Soil moisture 5% short, 72% adequate, 23% surplus. Corn 98% harvested, 98% 1990, 93% avg. Cotton 1% harvested, 26% 1990, 15% avg. Defoliant spraying active; boll rot slowly increased. Hay 62% final cutting, 78% 1990, 69% avg. Rice 99% headed, 99% 1990, 100% avg.; 87% ripe, 93% 1990, 92% avg. Second crop management continued south; condition good. Sorghum 100% headed, 100% 1990, 100% avg. Soybeans 97% setting pods, 98% 1990, 98% avg., 15% leaves turning color, 60% 1990, 42% avg. Insect, aerial blight pressure increased rapidly, severe in some cases. Sweet potatoes 1% poor, 61% fair, 38% good; 39% harvested, 44% 1990, 48% avg. Problems with weevils and beetles continued, south central. Sugarcane 9% fair, 70% good, 21% excellent; 50% planted, 38% 1990, 54% avg. Planting slow, wet fields. Vegetables 2% very poor, 7% poor, 59% fair, 32% good. Pastures 3% fair, 21% good, 76% excellent. Livestock 15% fair, 79% good, 6% excellent.

**MARYLAND & DELAWARE:** MARYLAND: Rainfall 0.06 in. Temperature 72.6°, normal 69.8°. Extremes 45°; 91°.

Days suitable for fieldwork 6.1. Topsoil 5% very short, 63% short, 32% adequate. Subsoil 9% very short, 59% short, 32% adequate. Field corn poor to fair; soybeans fair; sorghum, tobacco good. Field corn 95% dent, 84% 1990, 85% avg.; 73% mature, 36% 1990, 47% avg.; 79% harvested for silage, 42% 1990, 55% avg.; 21% harvested for grain, 9% 1990, 12% avg. Soybeans 33% turned, 22% 1990, 21% avg. Sorghum 89% turned; 78% mature. Tobacco 77% harvested, 79% 1990, 70% avg. Lima beans 79% harvested, 72% 1990, 77% avg. Sweet potatoes 8% harvested, 0% 1990, N/A avg. Other hay second cut 83% complete, 99% 1990, 95% avg.; third cut 32% complete, 40% 1990, 54% avg. Alfalfa third cut 94% complete, 97% 1990, 95% avg.; fourth cut 52% complete, 34% 1990, 38% avg. Hay supplies short. Pasture very poor. Apples good; 37% harvested, 34% 1990, 34% avg. Activities: Harvesting hay, vegetables; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

DELAWARE: Precipitation 0.03 in. Temperature 72.3°, normal 70.3°. Extremes 48°; 89°.

Days suitable for fieldwork 6.5. Topsoil 80% short, 20% adequate. Subsoil 20% very short, 80% adequate. Field corn, soybeans fair to good; sorghum good. Field corn 83% mature, 52% 1990, 61% avg.; 21% harvested for grain, 13% 1990, 19% avg.; 82% harvested for silage, 57% 1990, 69% avg. Soybeans 20% turned, 11% 1990, 22% avg.

Sorghum 43% turned. Sweet corn 93% harvested, 95% 1990, 96% avg. Potatoes 83% harvested, 99% 1990, 94% avg. Cucumbers 85% harvested, 89% 1990, N/A avg. Lima beans 48% harvested, 48% 1990, 56% avg. Tomatoes 94% harvested, 96% 1990, 90% avg. Other hay third cut 72% complete, 75% 1990, 85% avg.; fourth cut 53% complete. Alfalfa hay fourth cut 74% complete, 45% 1990, 52% avg. Hay supplies adequate. Pasture poor to fair condition. Apples good; 42% harvested, 44% 1990, 34% avg. Activities: Harvesting hay, vegetables; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

**MICHIGAN:** Temperatures 4° below to 8° above normal. Extremes 93°; 41°. Precipitation 0.03 to 2.53 in. across State.

Days suitable for fieldwork 5.5. Soil moisture 45% short, 50% adequate, 5% surplus. Corn 90% dent, 50% 1990, 70% avg.; 40% mature, 4% 1990, 15% avg.; 5% harvested 0% 1990, 1% avg.; 2% very poor, 6% poor, 22% fair, 50% good, 20% excellent. Soybeans 50% dropping leaves, 10% 1990, 25% avg.; 5% poor, 25% fair, 45% good, 25% excellent. Winter wheat 15% planted, 5% 1990, 4% avg. Pasture condition 70% of normal. Activities: Hay making, preparing ground for winter wheat, harvesting crops, picking apples, processing grapes, repairing equipment.

**MINNESOTA:** Temperatures 6 to 8° above normal. Extremes 43°; 94°. Precipitation 1.13 to 3.23 in. Greatest weekly total 4.66.

Days suitable for fieldwork 2.8. Topsoil 3% very short, 8% short, 59% adequate, 30% surplus. Field corn 95% denting, 88% 1990, 91% avg.; 30% mature, 12% 1990, 49% avg.; 1% picked/combined, 1% 1990, 3% avg.; 29% silage cut 12% 1990, 31% avg.; 25% moisture. Soybeans 73% turning yellow, 91% 1990, 92% avg.; 36% dropping leaves, 51% 1990, 65% avg.; 9% mature, 11% 1990, 24% avg.; 2% combined, 2% 1990, 5% avg.; 11% moisture. Dry beans 77% harvested, 62% 1990, 45% avg. Potatoes 29% harvested, 25% 1990, 30% avg. Flax 71% harvested, 77% 1990, 68% avg. Sugarbeets 5% harvested 1% 1990, 3% avg. Sunflowers 4% harvested, 1% 1990, 3% avg. Sweet corn 79% harvested, 77% 1990, 88% avg. Winter wheat 82% seeded, 73% 1990, 72% avg. Rye 69% seeded, 69% 1990, 71% avg. Hay, small grain 61% stubble plowed/tilled, 63% 1990, 63% avg. Field corn 1% very poor, 2% poor, 29% fair, 60% good, 8% excellent. Soybeans 1% very poor, 3% poor, 34% fair, 54% good, 8% excellent.

**MISSISSIPPI:** Temperature 80°, 3.5 above normal. Extremes 63°; 97°. Mostly dry statewide. State average 0.36 in., 0.63 below normal. Soil temperature 86°.

Days suitable for fieldwork 5.5, 4.0 1990, 5.5 avg. Soil moisture 6% very short, 26% short, 68% adequate. Corn 87% mature, 88% 1990, 89% avg.; 50% harvest, 43% 1990, 56% avg.; silage harvest 84%, 96% 1990, 95% avg.; 8% poor, 38% fair, 37% good, 17% excellent. Cotton open bolls 66%, 91% 1990, 83% avg.; 4% harvest, 15% 1990, 12% avg.; 47% fair, 53% good. Peanuts 70% harvest, 100% 1990, 100% avg. Rice 92% heading, 100% 1990, 100% avg.; 60% mature, 73% 1990, 84% avg.; 20% harvest, 26% 1990, 41% avg.; 100% fair. Sorghum 88% coloring, 93% 1990, 96% avg.; 65% mature, 80% 1990, 82% avg.; 40% harvest, 54% 1990, 58% avg.; 81% silage harvested, 90% 1990, 82% avg.; 5% poor, 79% fair, 16% good. Soybeans 96% blooming, 100% 1990, 99% avg.; 87% podding, 93% 1990, 90% avg.; 30% coloring, 40% 1990, 40% avg.; 6% shedding leaves, 19% 1990, 21% avg.; 1% very poor, 5% poor, 51% fair, 43% good. Sweet potatoes

45% harvested, 46% 1990, 43% avg. Wheat planted 6%, 8% 1990, 4% avg.; 2% emerged, 4% 1990, 3% avg. Hay 92% harvested, 87% 1990, 87% avg. Pecans 23% very poor, 30% poor, 29% fair, 18% good. Livestock 3% very poor, 23% poor, 6% fair, 47% good, 21% excellent. Pasture 92% of normal. Activities: Harvesting crops, land preparation, farm management.

**MISSOURI:** Temperatures 6 to 14° above normal. Rainfall 0.82 in., ranging 0.25 in. or less east central, south central, southeast, to 1.50 in. north central, west central.

Days suitable for fieldwork 5.9. Topsoil 61% short, 39% adequate. Subsoil 72% short, 28% adequate. Corn mature 63% northeast to 100% west central, southeast. Corn harvesting varies 20% or less northwest, north central, northeast, east central districts to 73% southeast. Rain helped late soybeans, particularly southeast. Soybeans dropping leaves range 15% southeast to around 40% west central, central. Sorghum mature varies 24% northeast to 63% southeast. Sorghum harvested ranges around 5% northern third, west central, central, up to 27% southeast. Pasture 23% very poor, 35% poor, 32% fair, 10% good. Pastures poorest west central, southwestern, south central.

**MONTANA:** Temperatures 1 to 2° below normal west, southwest, 5° above normal east. Areas of heavy rain south, east; snow in some mountain areas.

Days suitable for fieldwork 4.9. Topsoil 49% short, 49% adequate, 2% surplus. Subsoil 56% short, 42% adequate, 2% surplus. Spring wheat harvested 94%, 97% 1990, 91% avg. Barley harvested 93%, 96% 1990, 88% avg. Oats harvested 91%, 93% 1990, 90% avg. Second cutting alfalfa harvested 92%, 87% 1990, 88% avg. Dry beans harvested 53%, 35% 1990, 34% avg. Corn silage harvested 44%, 23% 1990, 34% avg. Pasture, range feed condition 87% of normal.

**NEBRASKA:** Temperatures varied from near normal in the northwest to 10° above normal in the east. Precipitation 0.18 to 3.64 in.

Days suitable for fieldwork 5.1. Topsoil 68% short, 27% adequate, 5% surplus. Subsoil 85% short, 15% adequate. Corn 6% very poor, 8% poor, 34% fair, 46% good, 6% excellent; 99% dent, 92% 1990, 95% avg.; 64% mature, 38% 1990, 49% avg.; 8% harvested, 3% 1990, 3% avg. Sorghum 23% very poor, 13% poor, 41% fair, 22% good, 1% excellent; 96% coloring, 88% 1990, 89% avg.; 59% mature, 23% 1990, 37% avg.; 7% harvested, 0% 1990, 2% avg. Soybeans 5% very poor, 31% poor, 52% fair, 12% good; 91% turning, 74% 1990, 78% avg.; 53% dropping leaves, 33% 1990, 36% avg.; 3% harvested, 1% 1990, 1% avg. Alfalfa 8% very poor, 33% poor, 34% fair, 24% good, 1% excellent; 95% third cutting, 94% 1990, 93% avg. Wheat sown 27%, 29% 1990, 36% avg. Pasture, range 62% of normal.

**NEVADA:** Temperatures slightly below normal. Extremes 27°; 102°. Precipitation trace to 0.87.

Cooler temperatures, scattered showers across the State slowed fieldwork. Harvest of small grains, garlic nearing completion. Onion, hay, alfalfa seed harvest continuing. Livestock movement to fall grazing, market underway. Livestock good.

**NEW ENGLAND:** Precipitation none to 0.70 in. north, scattered areas 1.00 to 1.25 in.; none to 0.50 in. south. Temperatures low 50s to high 60s; 4° below to 2° above normal. Maximum

temperatures high 60s to mid 80s; minimum temperatures mid 30s to low 50s.

Days suitable for fieldwork 5.9. Soil moisture 18% short, 79% adequate, 3% surplus. Grazing availability 28% short, 69% adequate, 3% surplus. Fieldwork 5.0 days ahead of schedule. Maine potatoes 15% harvested, 10% 1990, 11% avg.; fair to good. Rhode Island potatoes 75% harvested, 76% 1990, 65% avg.; fair. Connecticut Valley potatoes 45% harvested, 31% 1990, 31% avg.; fair to good. Maine oats 90% harvested, 75% 1990, 70% avg.; fair to good. Field corn 16% harvested, 11% 1990, 16% avg.; fair to good. Sweet corn 89% harvested, 87% 1990, 88% avg.; fair to good. Second cut hay 93% complete, fair. Third cut hay 62% complete, 54% 1990, 52% avg.; good. Apples 33% harvested, 24% 1990, 21% avg.; size small to medium, poor to fair. Peaches 93% harvested, size small to medium, poor to fair. Pears 66% harvested, size small to medium, poor to fair. Cranberry harvest underway, berry size small to average, good. Blueberry harvest 99% complete, size medium, fair. Raspberry harvest 99% complete, size medium, good. Activities: Cutting hay, controlling weeds, insects, harvesting blueberries, apples, peaches, vegetables, potatoes, field corn, planting cover crops.

**NEW JERSEY:** Temperatures much above normal. Extremes 39°; 91°. Rainfall 0.01 in. north, 0.09 in. central, 0.48 in. south. Heaviest 24 hour total 1.13 in. on 13th, 14th. Estimated soil moisture percent field capacity, 61% north, 53% central, 44% south. Four inch soil temperature 67° north, 68° central, 70° south.

Soil moisture short most areas. Late season crops well advanced due to heat. Irish potato harvest increasing. Late season peach harvest complete. Fall variety apple prospects good; harvest began. Cranberry harvest about to begin. Fourth cutting hay very active. Pasture growth fair most areas. A good soaking rain needed.

**NEW MEXICO:** Most of the precipitation fell during first half of the week. Totals greatest in east, spotty to light over the west, southwest. Temperatures about 2° below normal for the State, with a few spots as much as 4 or 5° below normal.

Days suitable for fieldwork 4.7. Soil moisture 7% short, 86% adequate, 7% surplus. Crop conditions: Alfalfa 4% very poor, 11% poor, 40% fair, 41% good, 4% excellent. Corn, 86% good, 14% excellent; silage harvest active. Irrigated wheat 50% fair, 50% good with planting 75% complete. Dryland wheat 57% fair, 43% good with planting 86% complete. Chile 7% poor, 21% fair, 72% good; green harvest active in most areas. Onions, lettuce fair to good. Apples continue to vary across State at very poor to good. Pecans 33% fair, 67% good. Cattle 18% fair, 75% good, 7% excellent. Sheep 21% fair, 71% good, 8% excellent. Range 88% of normal, low of 50%, high of 120%.

**NEW YORK:** Above normal temperatures early in week. Cooling at end of week toward more normal readings. Extremes 29°; 89°. Scattered frost north of Mohawk Valley on 12th to 13th. Most areas received precipitation late on 10th into the 11th. Rainfall 0.10 in. or less in the southeast, west to 0.75 in. northern areas.

Days suitable for fieldwork 4.3. Soil moisture very short to adequate. Pasture conditions 45% of normal. Corn silage harvest 15% complete, 5% 1990. Oats harvest finished. Potato harvest gaining momentum. Third cutting alfalfa 71% finished, 61% 1990, 51% avg. Grape harvest continued very active. Yields averaging above

average with good quality and sugar content. Cooler weather helped color apples. Apple harvest gaining momentum. McIntosh apple harvest in full swing in Champlain Valley region and nearly finished in the Hudson Valley region. Vegetable harvests continued at near peak. Sweet corn picking began to draw to a close.

**NORTH CAROLINA:** Temperatures 2 to 5° above normal. Precipitation none to 0.39 in.

Days suitable for fieldwork 6.3. Soil moisture 1% very short, 40% short, 57% adequate, 2% surplus. Crop condition: Corn 1% poor, 25% fair, 72% good, 2% excellent; cotton 29% fair, 65% good, 6% excellent; peanuts 37% fair, 63% good; soybeans 21% fair, 79% good; hay 1% poor, 24% fair, 75% good; Sweet potatoes 5% poor; 31% fair, 64% good; Apples 24% fair, 76% good; sorghum 27% fair, 73% good; Pasture 1% poor, 27% fair, 68% good, 4% excellent. Harvested: Flue cured tobacco 84%; burley tobacco 85%; corn silage 80%; corn for grain 37%; sorghum for grain 24%; sweet potatoes 14%; apples 55%; hay second cutting 92%, third cutting 58%. Cotton opening bolls 82%, corn mature 95%; soybeans setting pods 91%; soybeans dropping leaves 10%. Activities: Harvesting tobacco, corn, sorghum, sweet potatoes, truck crops, hay; spraying row crops; harvesting, defoliating cotton; land preparation. Other activities: Tending livestock; harvesting apples; digging peanuts; equipment repair; general farm maintenance.

**NORTH DAKOTA:** Temperatures 3° above normal northwest to 6° above normal south central. Extremes 42° northwest, northeast, southwest; 95° south central. Precipitation 0.61 in. north central to 1.41 in. southeast.

Days suitable for fieldwork 5.1. Topsoil 13% very short, 34% short, 51% adequate, 2% surplus. Subsoil 31% very short, 51% short, 18% adequate. Spring wheat 100% combined, 99% 1990, 97% avg.; durum 98% combined, 98% 1990, 94% avg. Corn for grain 3% poor, 25% fair, 71% good, 1% excellent; 10% harvested, 0% 1990, 2% avg. Corn for silage 15% poor, 50% fair, 34% good, 1% excellent; 70% cut, 50% 1990, 47% avg. Sunflower 3% poor, 26% fair, 62% good, 9% excellent; 55% bracts turned brown and beyond, 38% 1990, 38% avg. Flax 2% poor, 25% fair, 65% good, 8% excellent; 81% combined, 70% 1990, 55% avg. Potatoes 97% good, 3% excellent; 42% dug, 21% 1990, 34% avg. Soybeans 33% fair, 56% good, 11% excellent; 14% combined, 5% 1990, 9% avg. Dry edible beans 14% fair, 71% good, 15% excellent; 83% combined, 59% 1990, 41% avg. Sugarbeets 100% good; 6% lifted, 1% 1990, 3% avg. Winter wheat 35% planted, 52% 1990, 47% avg. Rye 41% planted, 46% 1990, 47% avg. Pasture conditions 70% of normal. Stockwater supplies 8% very short, 44% short, 47% adequate, 1% surplus.

**OHIO:** Daily high temperatures lower 80s north to the mid to upper 80s south with low temperatures mostly in the mid 60s across the State. Rainfall amounts averaged below normal over large parts of State. Amounts commonly 0.20 to 0.60 inches some areas. A few locations received 1.00 to over 2.00 in. west central, southern areas.

Days suitable for fieldwork 5.7. Soil moisture 55% short, 43% adequate, 2% surplus. Pastures 21% very poor, 35% poor, 30% fair, 13% good, 1% excellent. Tomato harvest 76%, 56% 1990, 74% avg. Potato harvest 56%, 39% 1990, 55% avg. Summer apple harvest 87%, 98% 1990, 95% avg. Third cut alfalfa 84%, 94% 1990, 87% avg. Third cut other hay 63%, 45%, 1990, 49% avg. Corn for silage 77%, 12% 1990, 33% avg.

Activities: Preparing for winter wheat planting, harvesting corn, soybeans, chopping corn for silage, filling silos; harvesting potatoes, tomatoes, apples, peaches, peppers, cabbage, other fruits, vegetables, grapes; general farm maintenance; repairing, preparing storage facilities, spraying weeds; preparing fields for fall planting; cutting, hanging tobacco; harvesting corn, soybeans.

**OKLAHOMA:** No weather data available.

Days suitable for fieldwork 4.8. Topsoil 16% short, 72% adequate, 12% surplus. Subsoil 37% short, 63% adequate. Wheat 18% planted, 7% 1990, 14% avg.; 5% up to stand, 1% 1990, 4% avg. Cotton 9% open bolls, 21% 1990, 16% avg.; fair to good. Sorghum 86% milk to soft dough, 80% 1990, 89% avg.; 22% mature, 9% 1990, 21% avg.; 4% harvested, 1% 1990, 6% avg.; good to fair. Soybeans 86% setting pods, 86% 1990, 93% avg.; 16% mature, 3% 1990, 17% avg.; 7% harvested, 0% 1990, 4% avg. Peanuts 99% setting pods, 98% 1990, 98% avg.; 33% mature, 7% 1990, 34% avg.; 1% harvested, 1% 1990, 2% avg. Corn 96% mature, 62% 1990, 87% avg.; 87% harvested, 26% 1990, 53% avg. Pasture condition 97%. Crop insect activity light to moderate. Cattle good; marketings average; prices mixed.

**OREGON:** Temperatures near normal, coast; western interior 1 to 3° above. Precipitation less than 0.10 in. west; east mostly dry; Malheur, 0.16 in. Ontario 0.22 in.

Soil moisture 71% short, 29% adequate. Barley harvest continued. 1992 winter wheat planted, 7%. Hay harvest continued; mint, red clover, hops harvest continued. Field preparation for 1992 crop underway. Bartlett pear harvest continued, Anjou starting, Hood River Valley. Winter pear harvest, Medford district. Gravenstein, other early apples being harvested, Willamette Valley. Golden Delicious harvest two weeks away in Hood River district. Blackberry harvest later stages in Washington County. Hazelnut harvest set to start. Sweet corn harvest continued. Potato harvest continued Hermiston, Douglas, Klamath, Washington counties. Table beets harvesting, Lane County. Carrot, lima beans harvesting in Hermiston area. Onions pulled, windrowed in Marion, Polk, Yamhill counties. Livestock good to excellent; permittees moved off eastern summer ranges; yearling calves moved to feedlots; some weaning of new calf crop. Statewide range, pasture, 13% poor, 33% fair, 48% good, 6% excellent.

**PENNSYLVANIA:** Warm, dry week across State. Temperature 69°, 3° above normal. Extremes 40°; 90°. Precipitation 0.40 in., 0.45 in. below normal.

Days suitable for fieldwork 6. Soil moisture 91% short, 9% adequate. Corn 100% silk, 98% 1990, 99% avg.; 95% dough, 82% 1990, 89% avg.; 70% dent, 38% 1990, 55% avg.; 26% mature, 4% 1990, 14% avg.; 4% harvested, 0% 1990, 1% avg. Ensilage corn harvested 41% complete, 10% 1990. Corn 17% very poor, 29% poor, 30% fair, 20% good, 4% excellent. Soybean harvest 2% complete; 15% very poor, 22% poor, 32% fair, 27% good, 4% excellent. Wheat planted 18% complete, 10% 1990. Barley planted 28% complete, 15% 1990. Tobacco harvest 78% complete, 78% 1990. Potato harvest 57% complete, 37% 1990. Second cutting alfalfa 100% complete, 96% 1990. Third cutting alfalfa 78% complete, 62% 1990. Fourth cutting alfalfa 33% complete, 18% 1990. Second cutting clover timothy 94% complete, 86% 1990. Feed from pastures 44% very poor, 32% poor, 21% fair, 3% good. Quality of hay made mostly fair. Apple harvest 37% complete,

30% 1990. Peach harvest 96% complete, 92% 1990. Grapes harvest 53% complete, 28% 1990. Fall plowing 46% complete, 45% 1990. Activities: Repairing fence; hauling manure; harvesting hay, tobacco, potatoes, fruits, vegetables, corn silage; maintaining machinery; caring for livestock; fall plowing, planting.

**PUERTO RICO:** Island rainfall 1.20 in. was 0.64 in. below normal. The highest weekly rainfall 5.00 in. at Maricao, 2.91 in. at Adjuntas Aes, 2.61 in. at Pico Del Este Luquillo. Highest 24 hour total 2.31 in. WSFO San Juan. Divisional temperatures 82° on the Coasts, 76 to 77° in the Interior with Mean Station temperature 68.5° at Pico del Este Luquillo to 83.7° at WSFO San Juan. Extremes 57°; 95°.

**SOUTH CAROLINA:** Temperatures 4 to 7° above normal. Rainfall none north central to 1.30 in. mountains.

Days suitable for fieldwork 6.3. Soil moisture 5% very short, 56% short, 39% adequate. Apples good; 76% harvested, 79% 1990, 53% avg. Corn fair to good; 67% harvested, 78% 1990, 58% avg. Cotton 67% fair, 33% good; 73% open bolls, 66% 1990, 56% avg.; 2% harvested, 5% 1990, 3% avg. Fall Hay fair to good, 65% harvested, 47% 1990, 57% avg. Peanuts fair to good; 12% harvested, 8% 1990, 7% avg. Sorghum fair to good; 35% harvested, 41% 1990, 29% avg. Soybeans 5% poor, 40% fair, 49% good, 6% excellent; 93% setting pods, 85% 1990, 85% avg; 12% leaves turning, 8% 1990, 11% avg.; 5% shedding leaves, 0% 1990, 3% avg. Sweet potatoes fair to good, 45% harvested, 21% 1990, 16% avg. Tobacco fair to good, 98% harvested, 90% 1990, 92% avg.; 51% stalks destroyed, 31% 1990, 32% avg. Winter grazing fair to good, 19% planted, 16% 1990, 19% avg.; 8% emerged, 5% 1990, 9% avg. Pastures fair to good.

**SOUTH DAKOTA:** Temperatures 0 to 10° above normal. Extremes 33°; 93°. Rainfall over most of State, amounts 1.00 to 2.00 in. east, south central. Less than 0.50 in. elsewhere. Maximum 2.75 in..

Days suitable for fieldwork 4.5. Topsoil 21% critical, 44% short, 31% adequate, 4% surplus. Subsoil 29% critical, 47% short, 21% adequate, 3% surplus. Sunflowers 1% poor, 25% fair, 63% good, 11% excellent. Livestock 5% fair, 79% good, 16% excellent. Pasture conditions 80% of normal.

**TENNESSEE:** High pressure early week. Cold front, showers mid week. High pressure reestablished late week. Temperatures 7 to 9° above normal most locations. Rainfall above normal middle; below normal east, west.

Days suitable for fieldwork 5.5. Soil moisture 11% very short, 37% short, 52% adequate. Corn 70% mature, 63% 1990, 74% avg.; 62% harvested silage, 53% 1990, 76% avg.; 18% harvested grain, 11% 1990, 19% avg. Cotton 54% open bolls, 61% 1990, 62% avg.; 5% very poor, 3% poor, 64% fair, 28% good. Sorghum 82% turning color, 86% 1990 94% avg.; 38% mature, 57% 1990, 72% avg.; 10% harvested, 5% 1990, 31% avg. Soybeans 94% setting pods, 92% 1990, 96% avg.; 14% shedding leaves, 17% 1990, 26% avg.; 4% mature, 4% 1990, 9% avg. Burley tobacco 84% harvested, 72% 1990, 77% avg. Dark fired tobacco 70% harvested, 73% 1990, 79% avg. Dark air cured tobacco 65% harvested, 78% 1990, 78% avg.

**TEXAS:** Rainfall throughout much of State enhanced moisture conditions, moisture supplies

good for small grain emergence. Harvest activities continued as conditions permitted. Some hay baling resumed in areas delayed by wet conditions. Range, pasture remained good, abundant forage available. Livestock good to excellent. Sheep shearing operations winding down in Hill Country.

**Crops:** Corn harvest continued on High Plains as conditions allowed, yields ranged average to above average. Silage harvest winding down. Sorghum harvest continued in Hill Country. High Plains, insect problems continued some fields. Sorghum harvest 72% 1991, 58% 1990, 58% avg. Dryland cotton improved from recent rainfall in Plains. Most fields have good boll set. Bollworm damage continued in Plains despite spraying. Continued wet weather delayed some harvest operations in Central Texas. Cotton harvest 18% 1991, 15% 1990, 14% avg. Planting small grain continued many parts of State, as weather conditions allowed. Second crop rice making normal progress. Disease problems occurred in some fields in Upper Coast. Soybean harvest continued in Blacklands. Ample moisture supplies produced above average yields. Pod rot problems in some East Texas fields. Irrigation some peanut fields active in Hill Country. Some disease problems reported due moist conditions. Peanut rated at 87% of normal; 2% very good, 1% poor, 12% fair, 72% good, 13% excellent.

**Commercial Vegetables:** Rio Grande Valley, peppers, onion, tomatoes continued good progress. East Texas, harvest of peppers, sweet potatoes continued. High Plains, harvest of carrots, bell peppers full swing. Trans Pecos, harvest of melons resumed. Land preparation fall lettuce began. Pecan spraying for weevils occurred in High Plains. Nut drop continued due weevil infestation. Insect damage caused some premature defoliation.

**Range and Livestock:** Ranges, pastures improved many areas during past two weeks. Additional hay cuttings made where possible. Calves being weaned, weaning weights excellent.

**UTAH:** Temperature maximums 7° below normal, minimums 4° above normal. Precipitation moderate to heavy.

Days suitable for fieldwork 4.0. Soil moisture 26% short, 41% adequate, 33% surplus. Winter wheat seeded 40% completed, 49% 1990, 54% avg. Corn 57% dented, 77% 1990, 76% avg. Field corn mature 22%, 49% 1990, 40% avg. Corn silage 9% harvest, 23% 1990, 25% avg. Alfalfa third cutting 56% completed, 70% 1990, 67% avg. Alfalfa seed harvest 50% completed. Pasture, range mostly good to excellent. Apple harvest 10% completed, 8% 1990, 11% avg. Peach harvest 73% completed. Potato harvest 30% complete, 22% 1990, 17% avg. Dry onion harvest 26% complete, 40% 1990, 34% avg. Cattle moved from summer range 13% complete, 31% 1990, 16% avg. Sheep moved from summer range 8% completed, 33% 1990, 16% avg.

**VIRGINIA:** Hot, very dry. High pressure pushed temperatures about 4° above normal. Precipitation sparse none to 0.93 in. Bluefield.

Days suitable for fieldwork 6.2. Topsoil 26% very short, 57% short, 10% adequate, 7% surplus. Corn for grain harvested 34%, 25% 1990, 23% avg. Corn for silage harvested 60%, 48% 1990 and avg. Corn dented 92%, 86% 1990, 85% avg. Corn mature 74%, 67% 1990, 68% avg. Sweet potato harvest 50% complete. Flue tobacco harvested 73%, 71% 1990, 54% avg. Fire cured tobacco harvested 94%, 92% 1990, 75% avg. Burley tobacco harvested 69%, 62% 1990, 52% avg. Sun tobacco 85%, 81% 1990, 82% avg. Peanuts dug 3%. Apples harvested 38%, 32% 1990, 36% avg. Soybean 7% very poor, 17% poor,

50% fair, 26% good. Peanut 71% fair, 29% good. Pasture 14% very poor, 48% poor, 26% fair, 10% good, 2% excellent. Winter wheat seeded 2%, 5% 1990, 2% avg. Oats seeded 6%, 4% 1990, 3% avg. Barley 5%, 4% 1990, 3% avg.

**WASHINGTON:** Temperatures 4° above normal to 2° below normal, east; 4° above normal to 1° below normal west. Precipitation none to 0.71 in. east; none to 0.21 in. west.

Days suitable for fieldwork 7. Soil moisture 50% short, 50% adequate. Hay, other roughage 8% very short, 77% short, 15% adequate. Irrigation water 2% very short, 97% short, 1% adequate. Range, pasture 4% very poor, 23% poor, 27% fair, 46% good. Winter wheat 4% very poor, 33% fair, 63% good. Barley 6% fair, 86% good, 8% excellent. Spring wheat 7% poor, 29% fair, 64% good. Potatoes 100% good. Dry beans 100% good. Corn 100% good. Winter wheat 20% planted; 15% emerged; 99% harvested. Spring wheat 98% harvested. Spring barley 98% harvested. Alfalfa hay 3rd cutting 82%. Grain harvest was nearly complete with exception of Ferry, Spokane Counties. Winter wheat seeding continued in the central portion of the State. Rain was needed for good seedbed moisture in most areas. Russian wheat aphid continued to fly in Walla Walla County, could be a problem in early planted winter wheat. D'Anjou pears, Galas, early delicious apples being harvested in central part of State. Harvest of late vegetables continued throughout the State. Pastures drying up in some portions of State, ranchers moving from forest service allotments.

**WEST VIRGINIA:** Temperature 72°. Extremes 45°; 95°. Precipitation 0.87.

Days suitable for fieldwork 5.6. Soil moisture 30% very short, 44% short, 26% adequate. Corn 41% poor, 19% fair, 40% good; 100% silked, 98% dough stage, 76% mature. Oats 100% harvested. Gardens fair. Tobacco good; 98% topped, 81% harvested. Hay 15% very poor, 31% poor, 38% fair, 16% good; 81% second cutting, 76% third cutting. Apples poor.

Pastures 40% very poor, 12% poor, 30% fair, 18% good; 52% of normal. Cattle good. Sheep good. Activities: General maintenance, fencing, cutting hay, harvesting oats, clipping pastures, chopping silage, spraying orchards, harvesting tobacco, apple harvesting.

**WISCONSIN:** Temperature 67°, 7° above normal. Extremes 37°; 96°. Precipitation 1.70 to 3.60 in.

Days suitable for fieldwork 2.2. Soil moisture 22% short, 54% adequate, 24% surplus. Pasture condition 70% of normal, 87% 1990, 77% avg. General condition of crops 2% poor, 18% fair, 69% good, 11% excellent. Corn 1% very poor, 4% poor, 14% fair, 65% good, 16% excellent; dent 87%, 62% 1990, 75% avg.; mature 45%, 14% 1990, 35% avg.; harvested 1%; silo filling 22% complete, 5% 1990, 19% avg. Corn harvest just starting in the southern districts. Most note that corn will reach maturity before the first killing frost. Soybean 6% poor, 14% fair, 69% good, 11% excellent; leaves 78% turned, 34% 1990, 50% avg.; leaves 31% shed, 5% 1990, 18% avg. Third crop hay 70% harvested, 58% 1990, 60% avg.

**WYOMING:** Temperatures mostly above normal. Precipitation mostly well above normal across the State.

Days suitable for fieldwork 4.7. Topsoil 30% short, 62% adequate, 8% surplus. Barley 10% mature, 90% harvested. Spring wheat 5% mature, 95% harvested. Oats 10% mature, 10% 1990, 10% avg.; 90% harvested, 90% 1990, 90% avg. Alfalfa third cutting 25% complete, 45% 1990, 40% avg. Dry beans 60% windrowed, 60% 1990, 60% avg.; 25% combined, 30% 1990, 30% avg. Corn 5% milk, 5% 1990, 5% avg.; 30% dough, 30% 1990, 30% avg.; 60% dented, 35% 1990, 45% avg.; 5% mature, 20% 1990, 15% avg.; 0% harvested, 10% 1990. Corn silage 30% harvested, 55% 1990, 35% avg. Potatoes 10% harvested, 35% 1990, 20% avg. 1992 winter wheat 65% seeded, 65% 1990, 50% avg.; 15% emerged, 25% 1990, 20% avg.; mostly fair to good condition. Ranges, pastures good to excellent. Prospects for winter grazing mostly good to excellent. Hay, roughage supplies adequate to surplus.

## International Weather and Crop Summary

### HIGHLIGHTS

September 8 - 14, 1991

**USSR** ... In Western USSR, mostly dry weather in the south helps winter grain planting and summer crop harvests. In the New Lands, unseasonably warm, dry weather favors rapid spring grain harvesting.

**EUROPE** ... Rain soaks southern France and Italy's Po Valley. Dry weather prevails in the northwest.

**EASTERN ASIA** ... Favorable harvest weather occurs in Manchuria, with some harvest delays in the North China Plain. Two typhoons hit Japan.

**SOUTHEAST ASIA** ... Widespread rain covers Indochina, resulting in local flooding. Showers improve planting conditions for the Philippine fall grains.

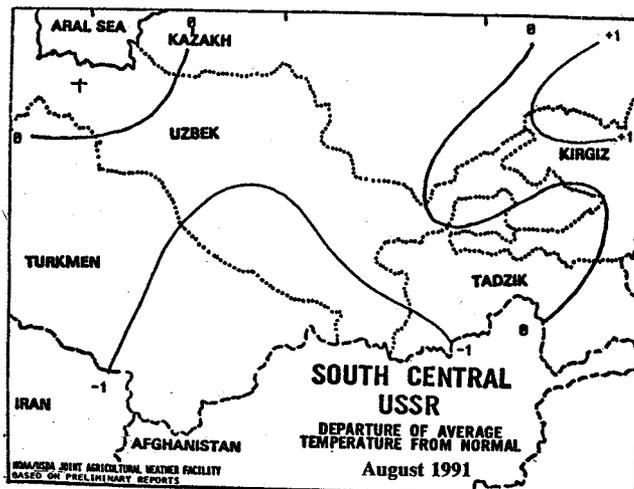
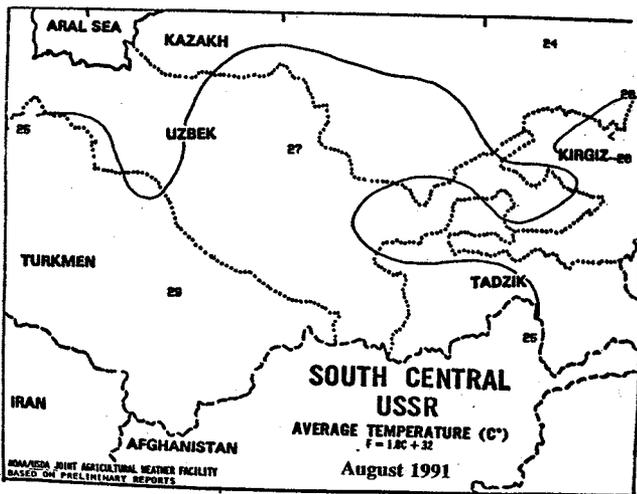
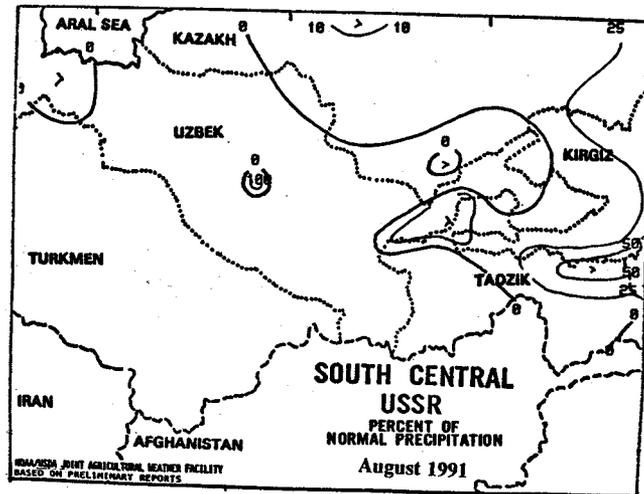
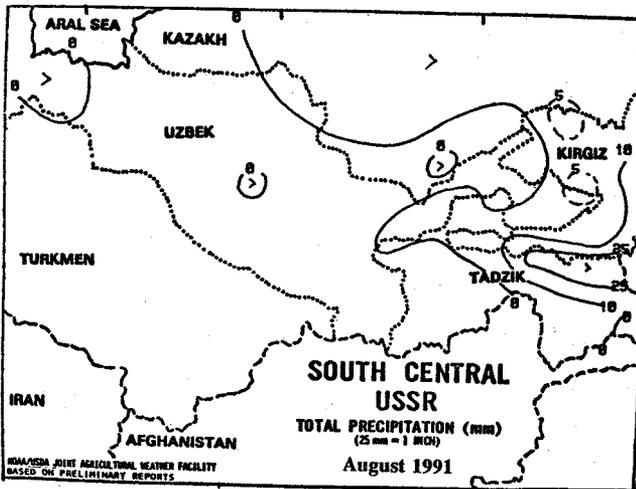
**SOUTH ASIA** ... Seasonably drier weather dominates northwestern and central crop regions as the southwest monsoon recedes.

**SOUTH AMERICA** ... Moisture is needed for corn planting and coffee flowering in southern Brazil. Adequate moisture continues in Argentina.

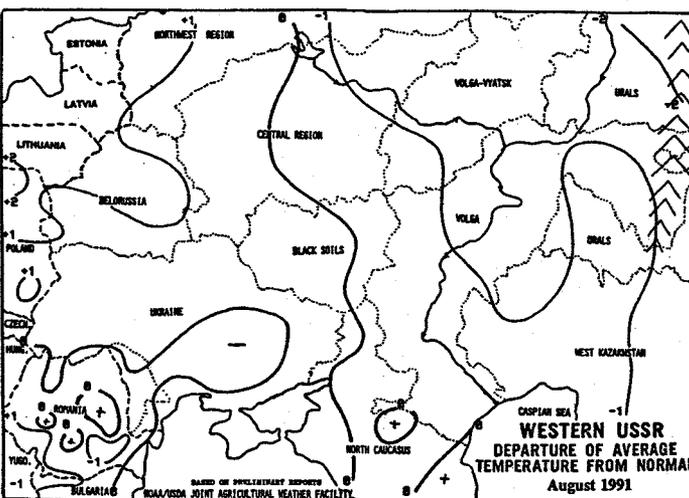
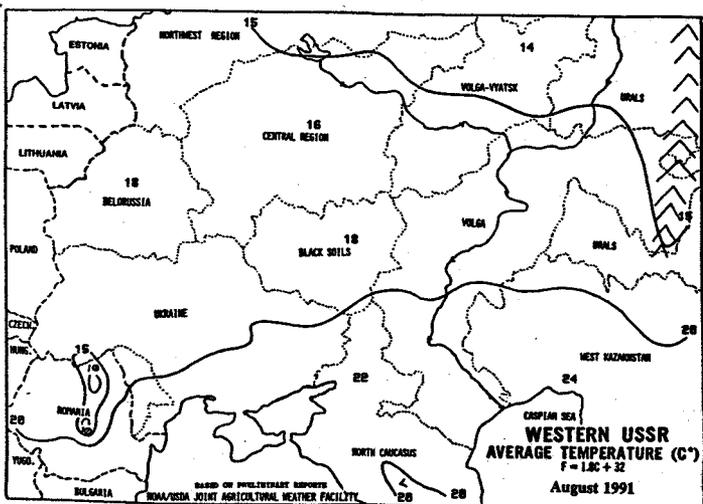
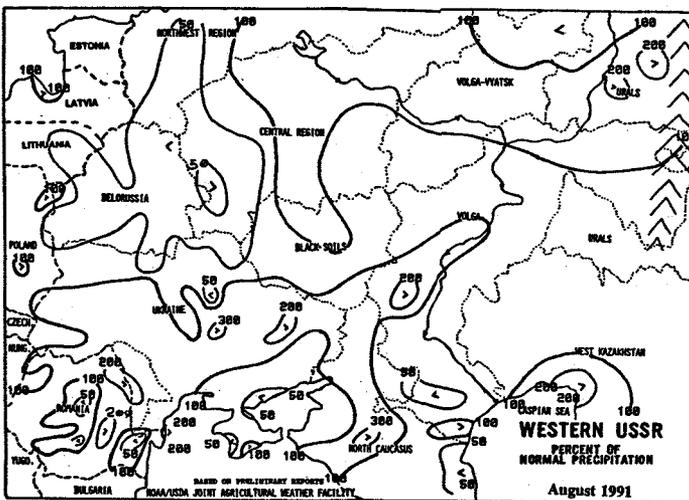
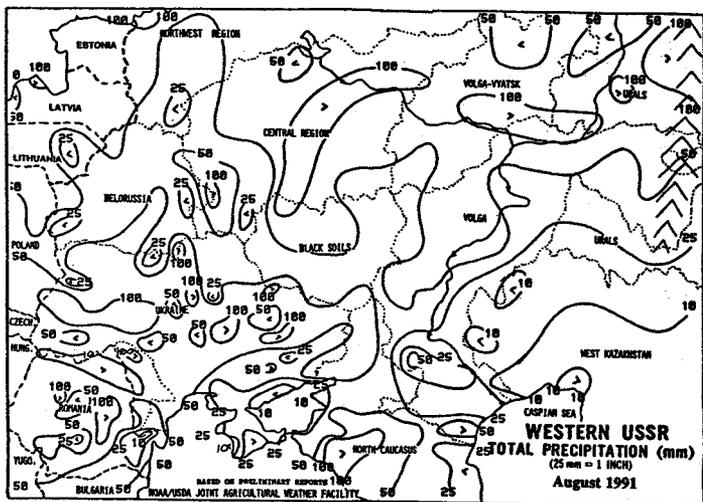
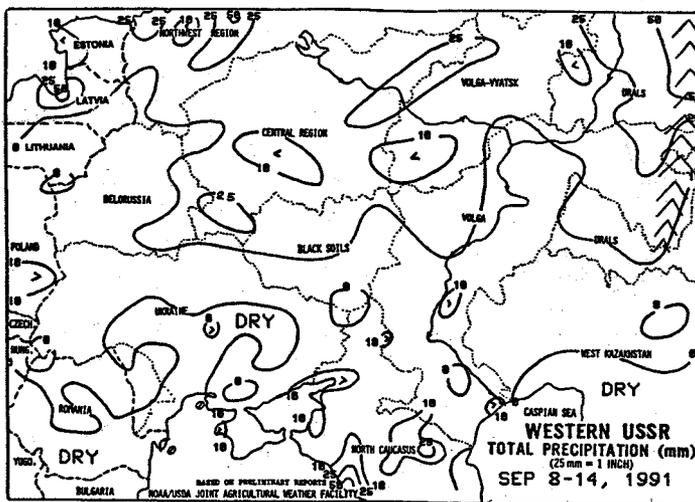
**AUSTRALIA** ... Moisture brings some relief in Queensland, but more is needed.

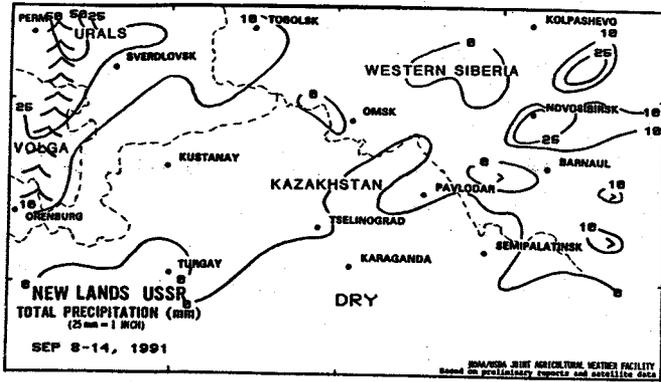
**CANADA** ... Showers in the eastern Prairies hinder grain and oilseed harvests.

**MEXICO** ... Rains begin to diminish in the south allowing for corn harvesting to progress.

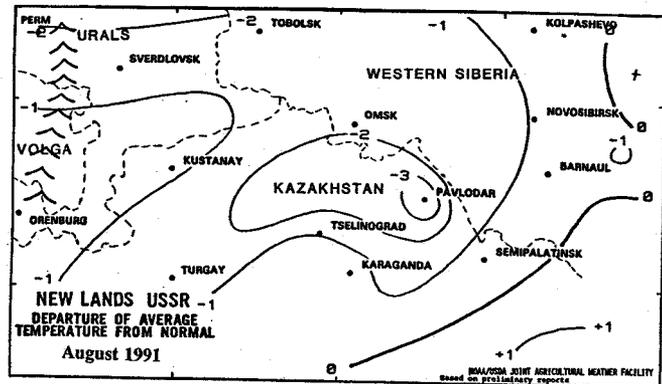
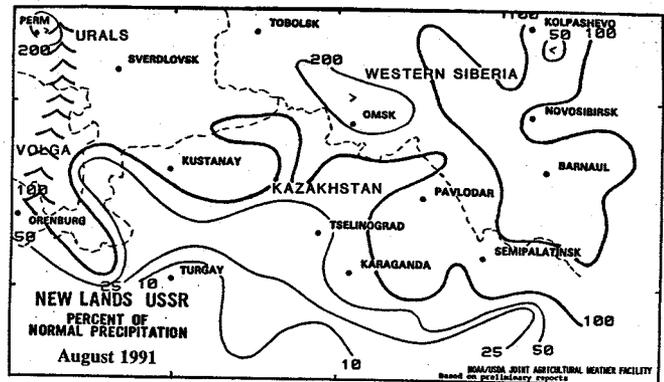
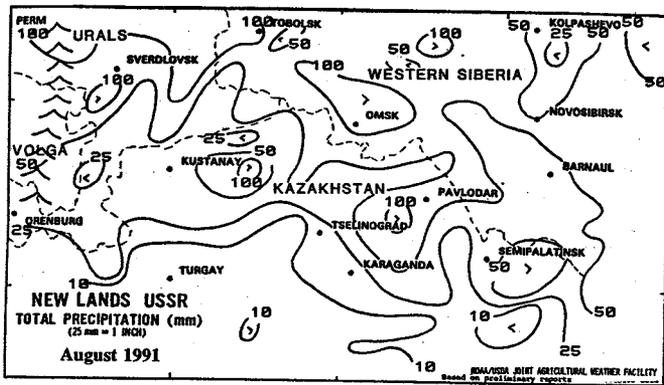


**Western USSR ...** Little, if any, precipitation covered the Ukraine and the North Caucasus, helping fieldwork in preparation for winter grain planting and summer crop harvests. September is the optimum month for planting winter grains in these areas. Light showers (10-28mm) over the Baltic States, Central Region, northern Black Soils Region, and the Volga Vyatsk caused only minor delays in late-harvest activities. In August, crop harvesting was well underway, while planting of the 1992 winter grain crop began in northern areas. Above-normal precipitation, mainly due to heavy rains early in the month, continued to exacerbate flood conditions in Moldova and the southwestern Ukraine. In contrast, hot, dry weather over the eastern Ukraine, North Caucasus, lower Volga, and the eastern Black Soils Region caused further deterioration in the condition of summer crops. However, during the last 10 days in August, widespread significant rain and cooler weather in these eastern areas reversed unfavorable dryness, increasing preplanting moisture for winter grains. Further north, near- to below-normal precipitation over the Central Region, Volga Vyatsk Region, and the upper Volga benefited spring grain harvesting and winter grain planting.

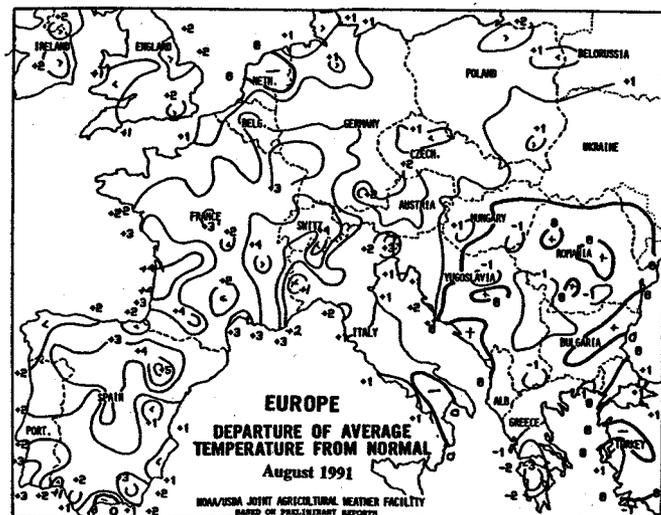
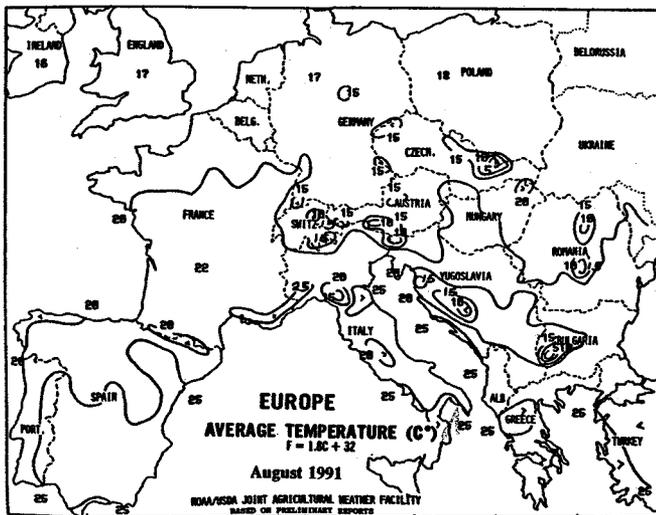
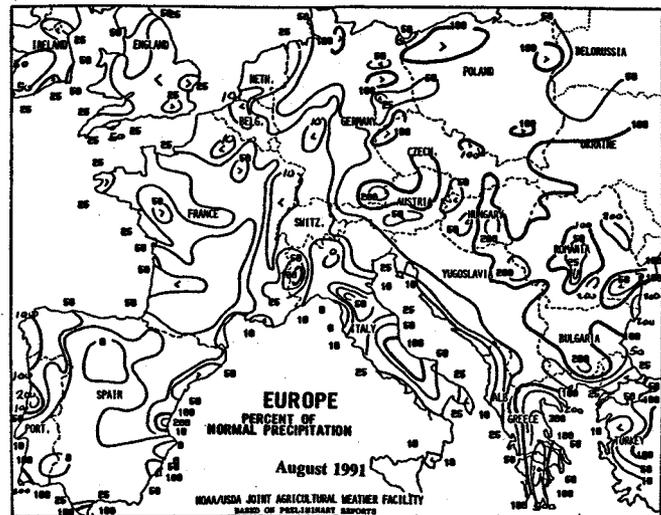
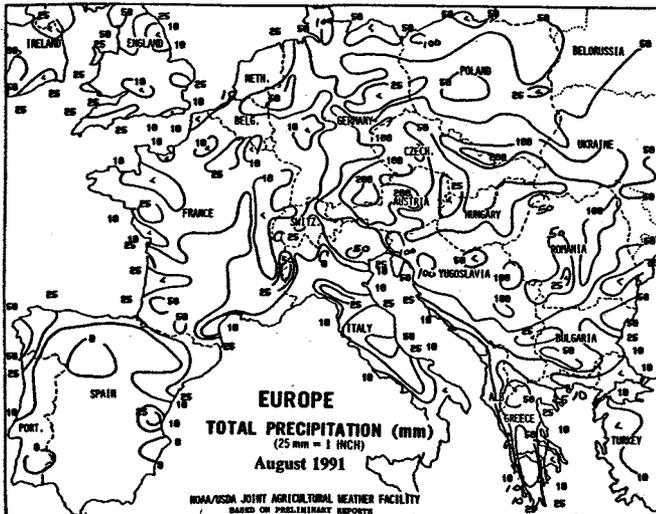
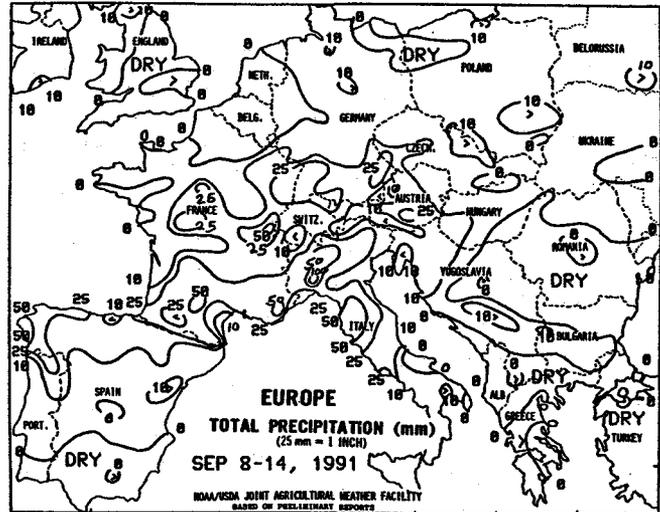


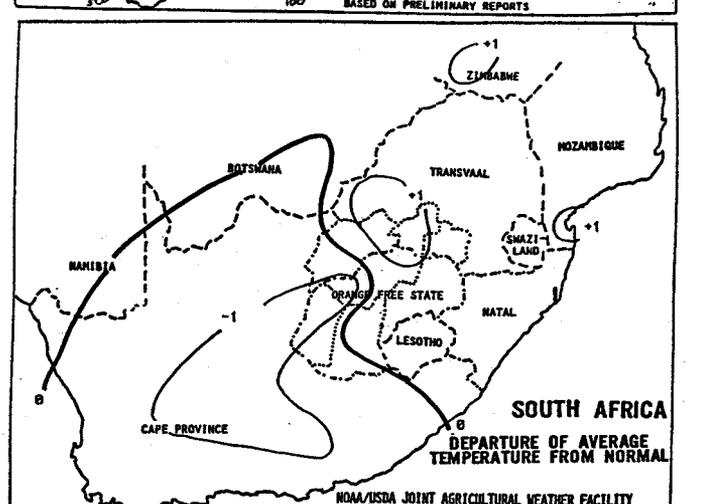
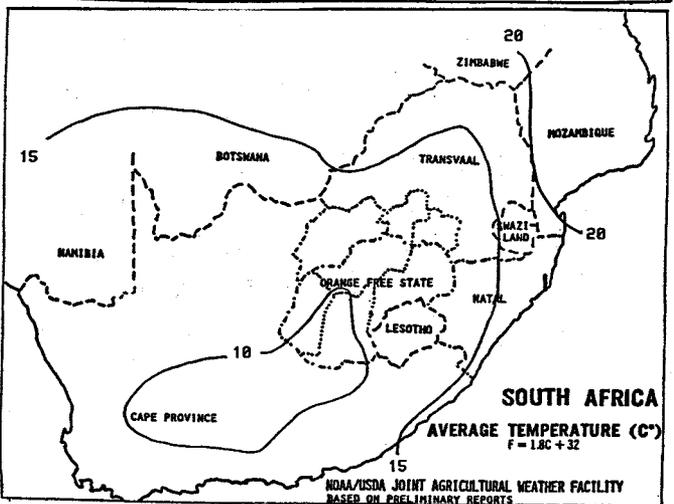
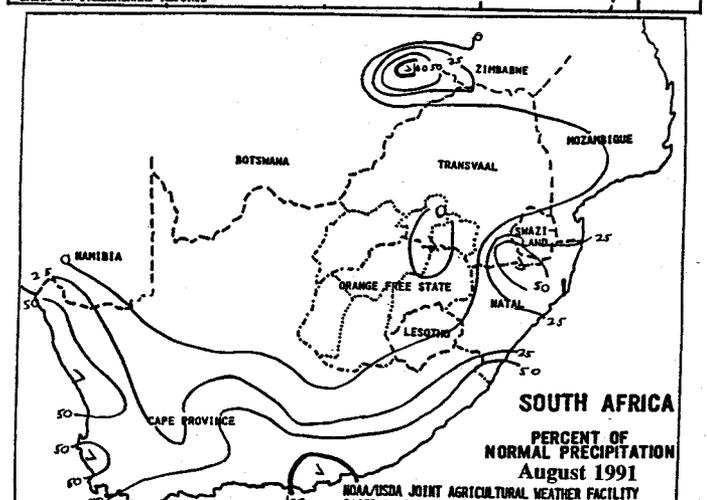
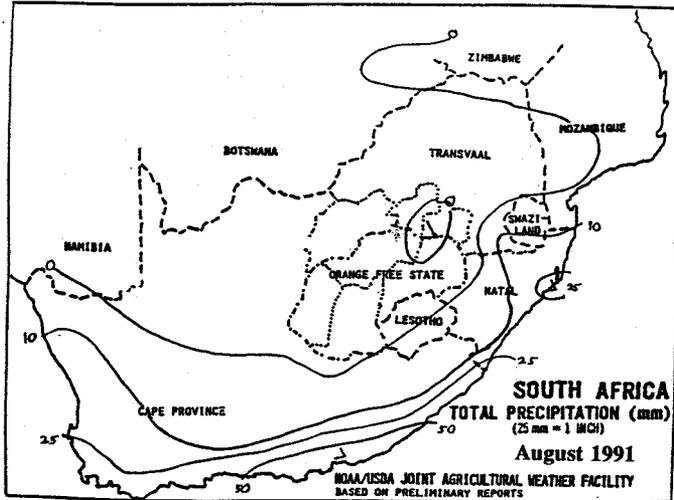
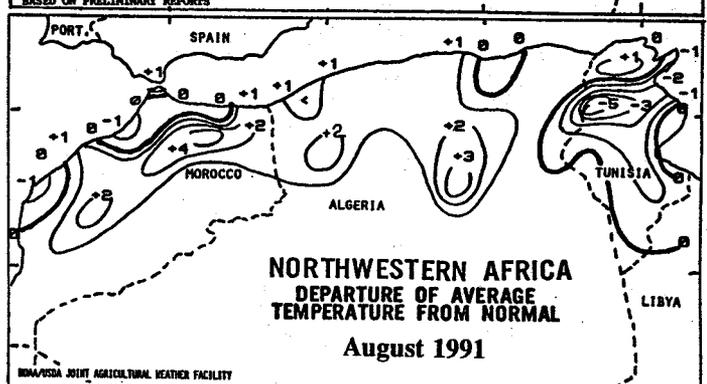
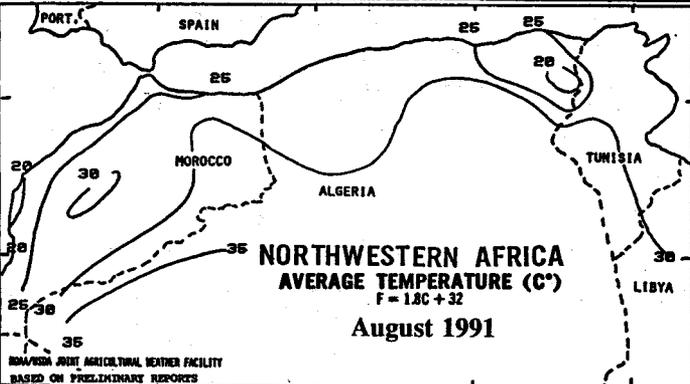
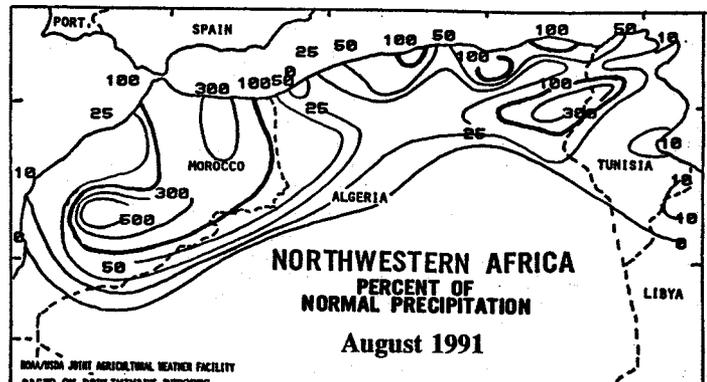
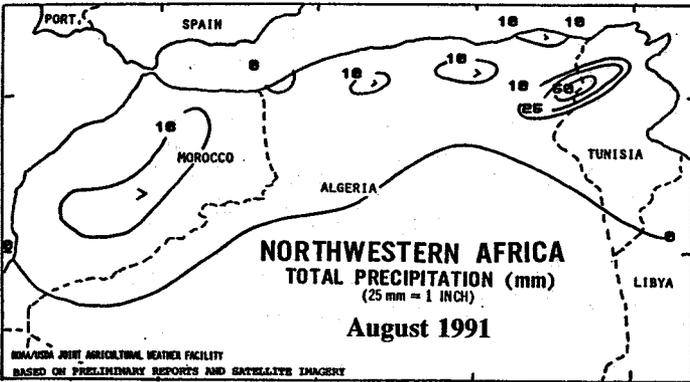


**NEW LANDS** ... Unseasonably warm, dry weather covered most of the region, favoring rapid spring grain harvesting. Exceptions were northern spring grain areas in the Urals and around Novosibirsk, which received rainfall ranging from 25 to 73mm. Weekly average temperatures were 2-4 degrees Celsius (C) above normal over the eastern two-thirds of the region and near normal in the extreme west. In August, most spring grains were still ripening, with harvest to begin by early September. Near- to above-normal precipitation in drought-stricken areas of Kazakhstan, the southern Urals, and Western Siberia helped to stabilize conditions for immature spring grains, preventing further crop deterioration. Elsewhere, continued above-normal precipitation in the northern Urals benefited crop development.

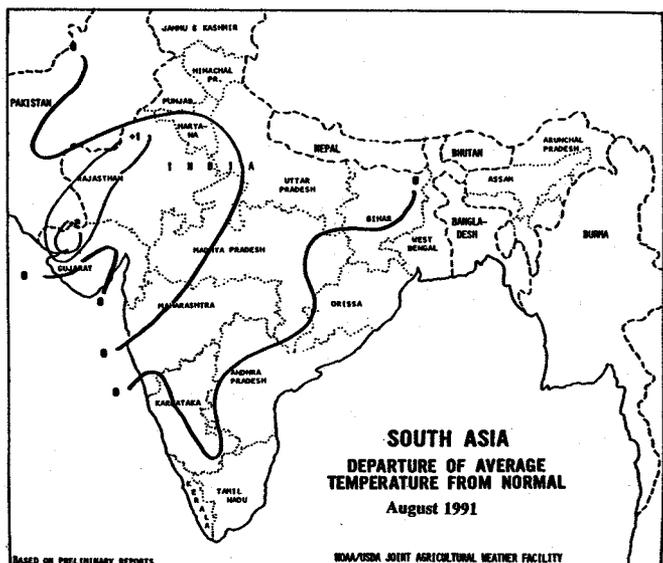
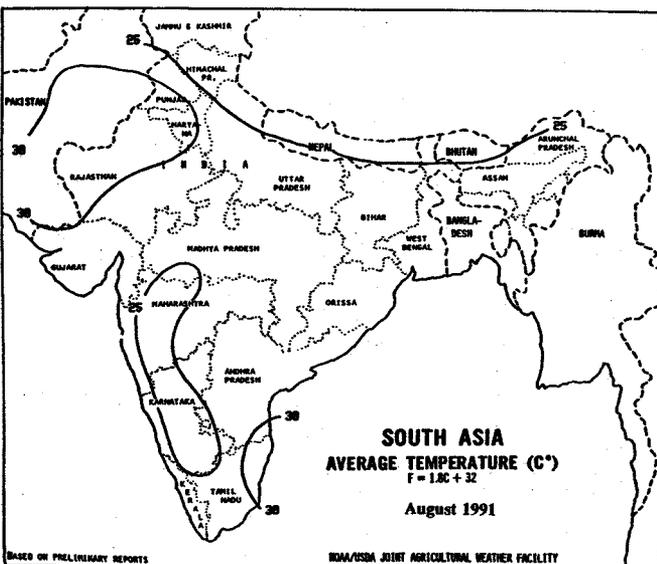
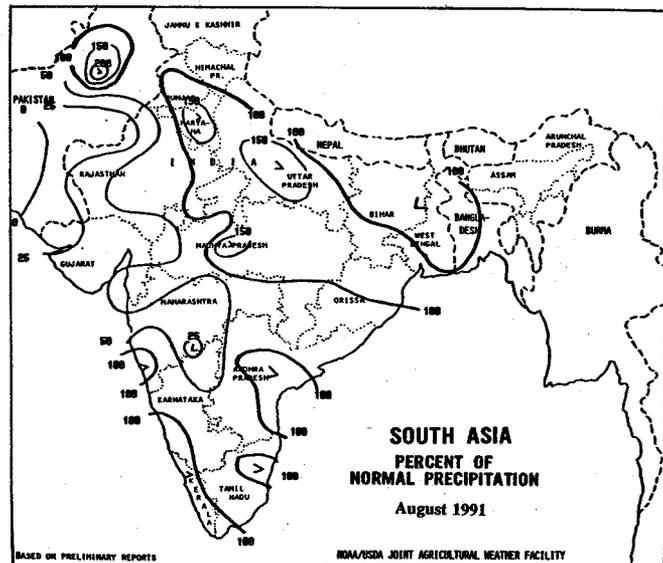
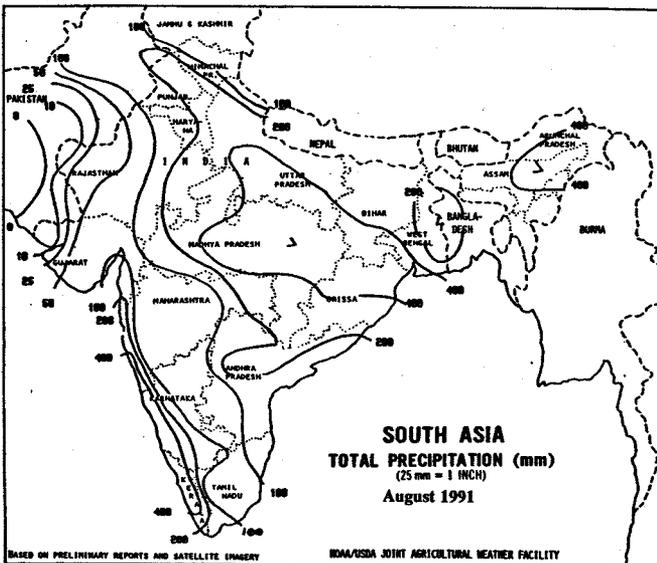
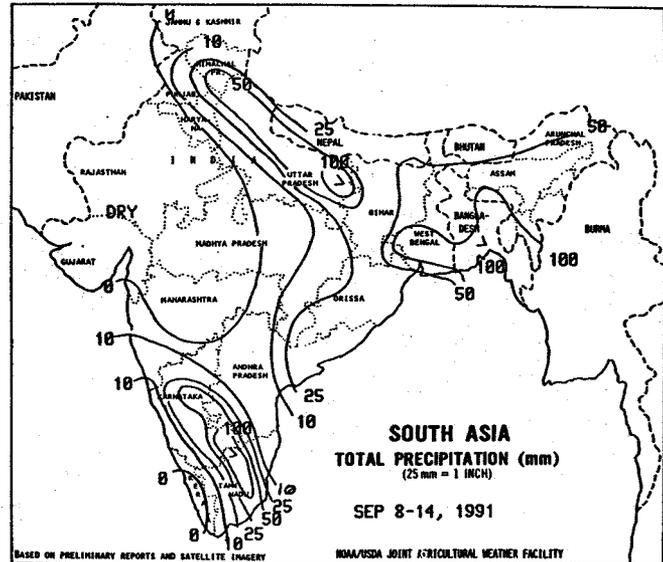


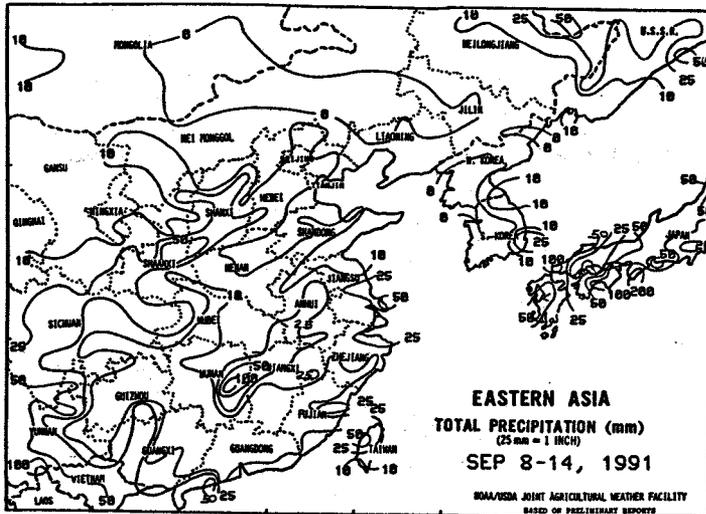
**EUROPE** ... A broad area of significant rainfall (10-50mm) covered northern portions of Portugal and Spain, southern and central France, and the Alpine region. Locally heavier rain (50-135mm) soaked much of Italy's Po Valley. The wetness interfered with harvest activities but improved topsoil moisture for winter grain planting. Dry weather prevailed from England across northern France to the Benelux countries, and throughout most of southeastern Europe. Light showers (less than 10mm) fell elsewhere across northern and eastern Europe, causing little delay in grain and sugarbeet harvesting and preparation for winter grain planting. August rainfall was mostly below average in Western Europe and quite variable in eastern Europe, with above-average monthly amounts found in northern Poland, scattered areas of Czechoslovakia, Hungary, Romania, and Bulgaria. Dryness favored harvesting, but topsoil moisture is needed for winter grain establishment in the northwest. Hot weather in southwestern France stressed immature corn.



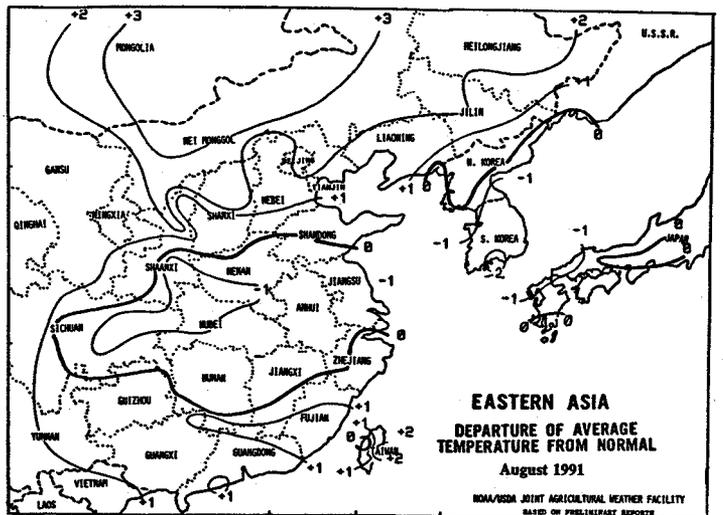
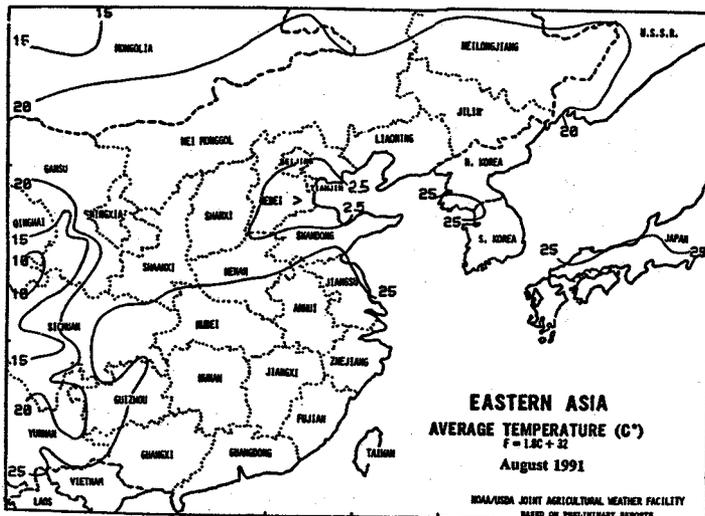
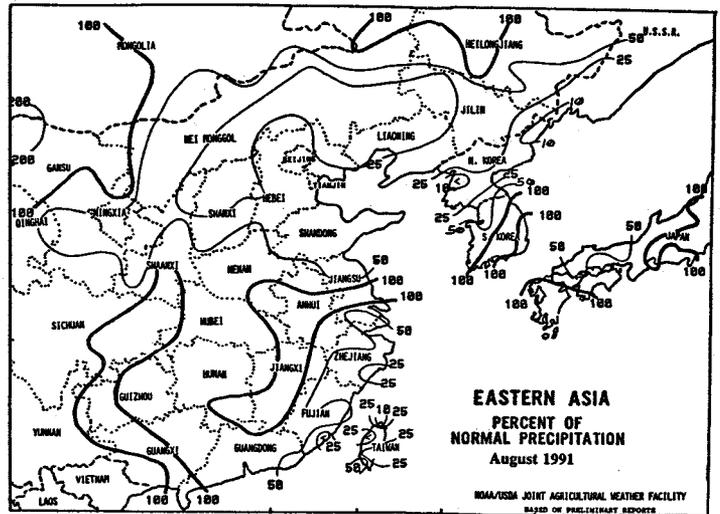
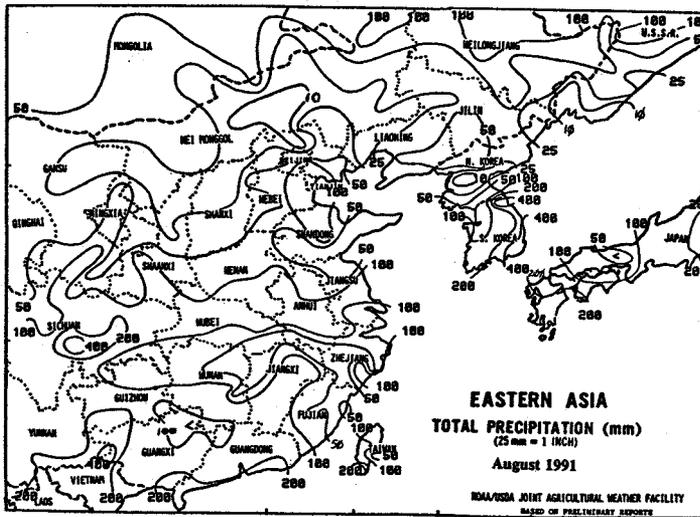


**SOUTH ASIA** ... Dry, seasonably warm weather covered much of northwestern and central India and Pakistan, reflecting conditions typical of the retreat of the southwest monsoon. Highly variable showers continued in rice and wheat areas of eastern India and Bangladesh, with most areas reporting 25-100mm or more. In the south, timely rain (17-140mm) improved fall planting conditions in Karnataka and local areas of Andhra Pradesh and Tamil Nadu. In August, frequent, seasonable showers improved irrigation reserves in most grain and oilseed regions of central, north-central, and eastern India and Bangladesh but caused more flooding, especially in Bangladesh. However, a drying trend continued in the northwest and extended southward through the southern interior, reducing moisture for late-planted, immature grains, oilseeds, and cotton.

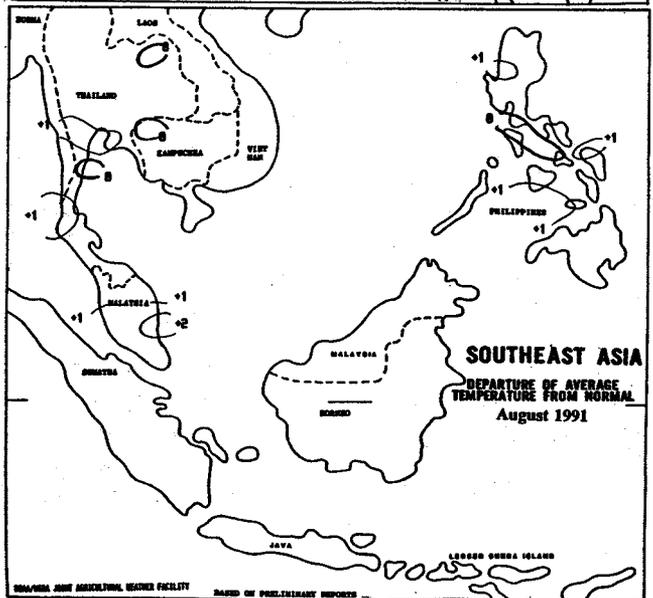
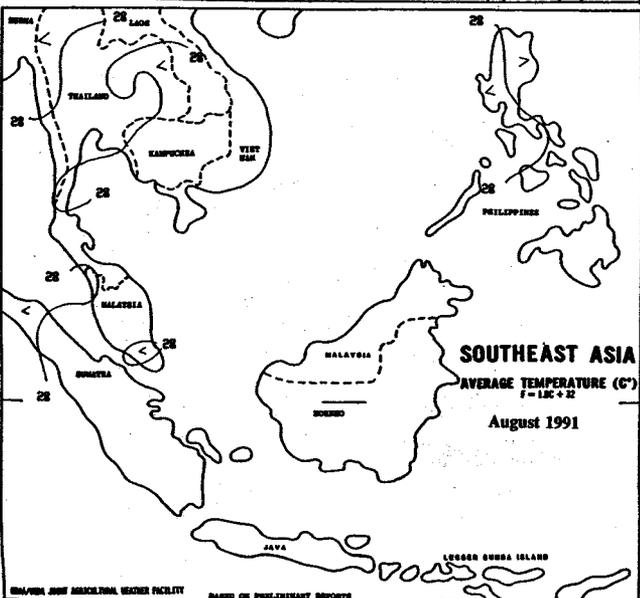
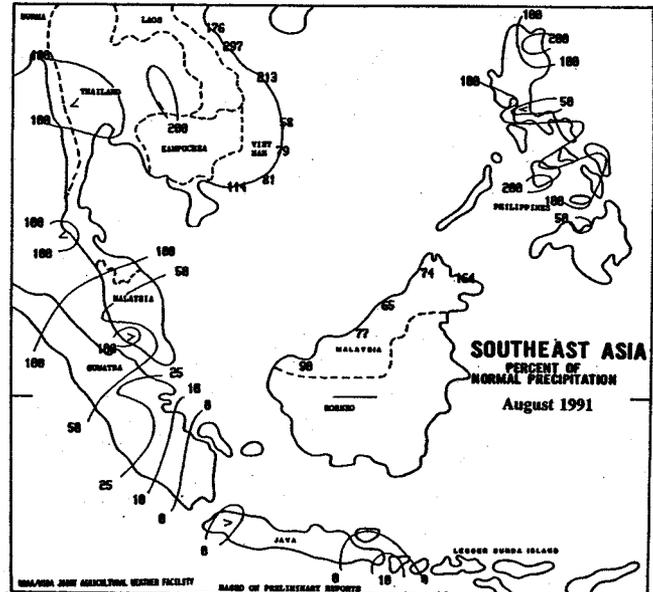
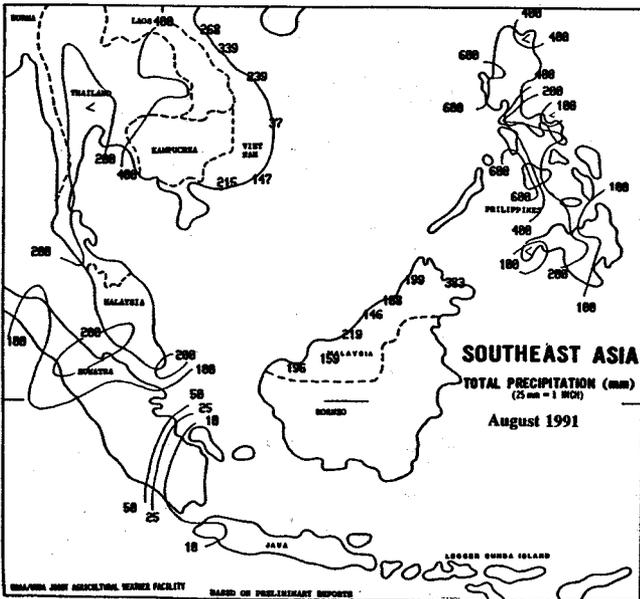
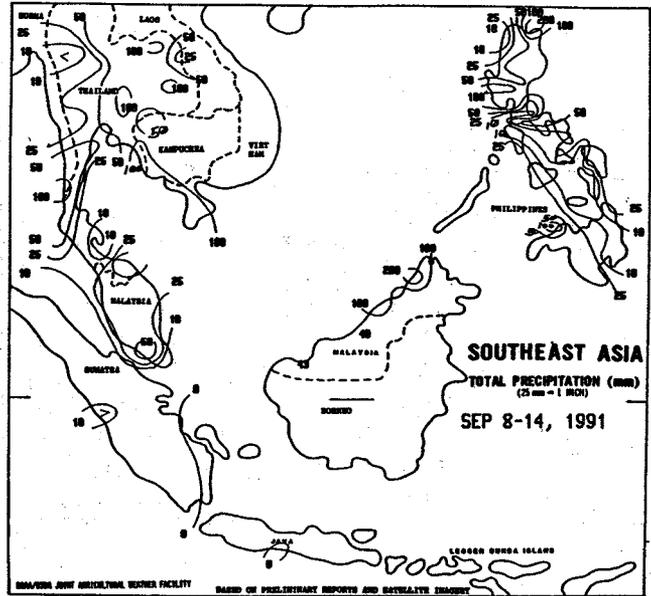


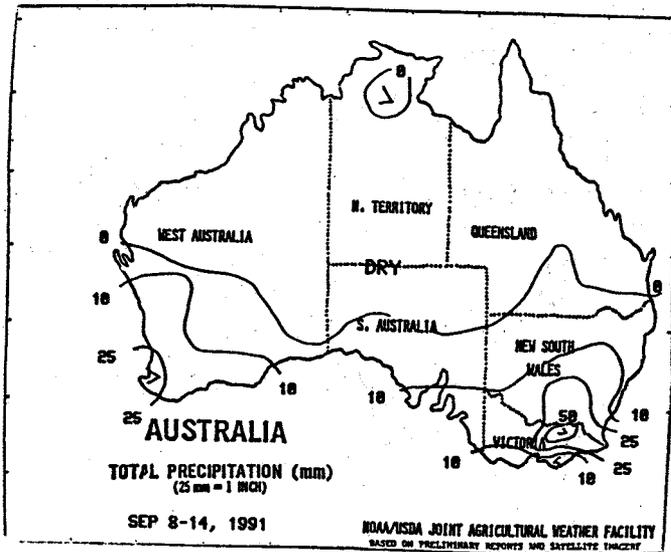


**EASTERN ASIA ...** Little or no rain fell across Manchuria, aiding corn and soybean harvesting, while the North China Plain received scattered rain (7-41mm), delaying summer crop harvesting. Light to moderate rain (11-47mm) covered the middle and lower Yangtze Valley, slowing single-crop rice harvesting. Heavier rains (51-108mm) in northern Hunan and Jiangxi continued to relieve long-term dryness. Beneficial dry weather aided late double-crop rice in southern China, which had been previously wet. Typhoon Kinna hit the Ryukyu Islands (Okinawa) on September 12th, then passed through the Korea Strait and weakened over the west coast of Japan on the 14th. Kinna had sustained winds of 75-90 knots (86-104mph) on September 13th and dumped 75-200mm across the southern half of Japan. Earlier in the week, Typhoon Ivy brushed southeastern Japan producing locally heavy rains (greater than 50mm). During August, most northern and central areas received below-normal rainfall, which aided spring wheat harvesting in Manchuria and slightly stressed late-summer crops in the North China Plain. Above-normal rains replenished reservoirs in interior southern China, while coastal areas were somewhat dry.

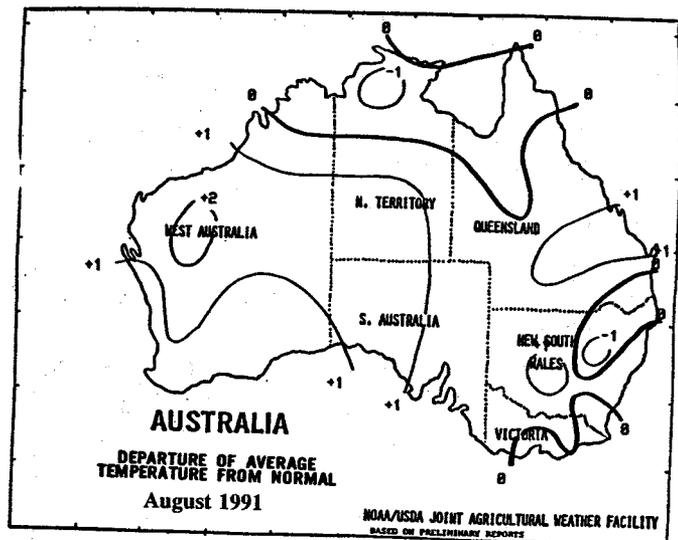
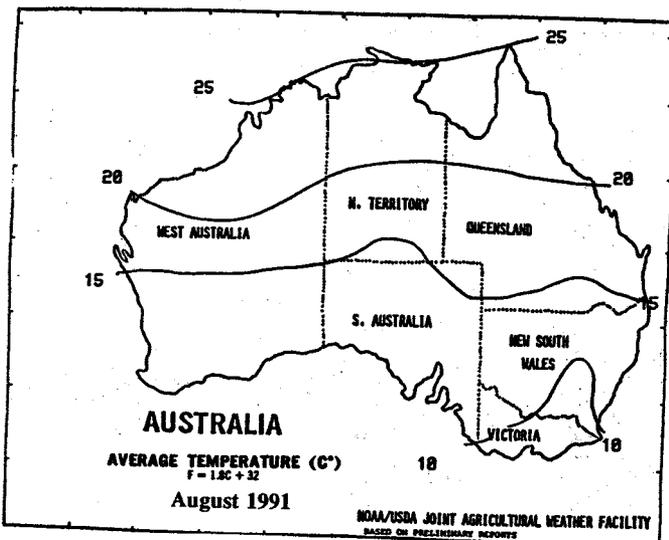
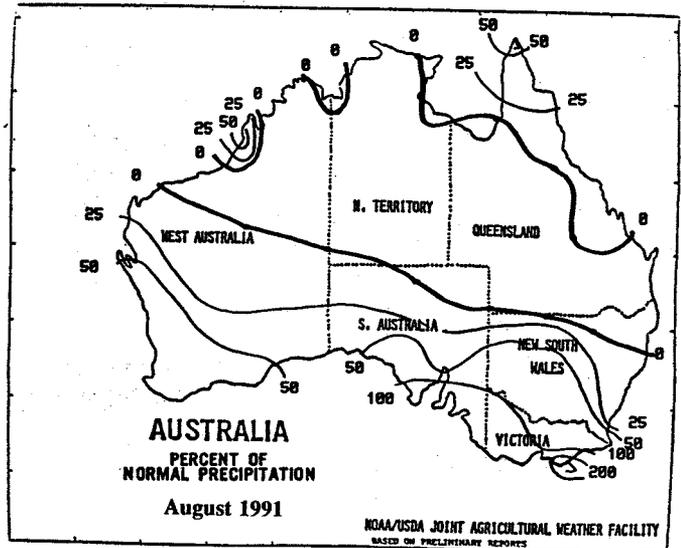
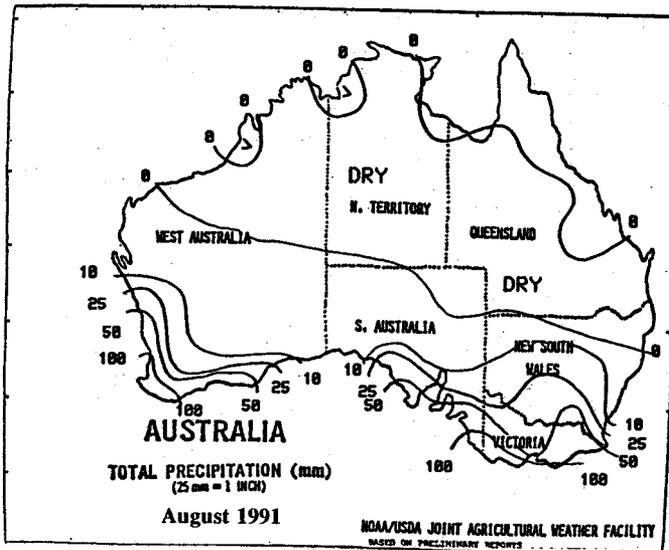


**SOUTHEAST ASIA** ... Seasonably heavy showers (50-100mm or more) covered most Thai rice areas, with inundating rains (100-235mm) returning to many locations. Seasonable showers continued elsewhere in Indochina, with excessive amounts (100-211mm) reported in Vietnam's Mekong Delta. Moderate to heavy showers (25-50mm, with scattered amounts of 100-235mm) continued over Malaysia, but unseasonably dry weather persisted over Indonesia. In the Philippines, beneficial showers (25-50mm) improved local grain planting conditions in the central and southern islands but excessive rain (100mm or more) continued in western Luzon. In August, rainfall was near to above normal over most of Indochina, due partly to Typhoon Fred which struck Vietnam on the 17th. The rainfall benefited late-planted rice across the region but caused flooding along the Mekong River. Near- to above-normal August rains over the Philippines boosted moisture for fall plantings but caused flooding in western Luzon.

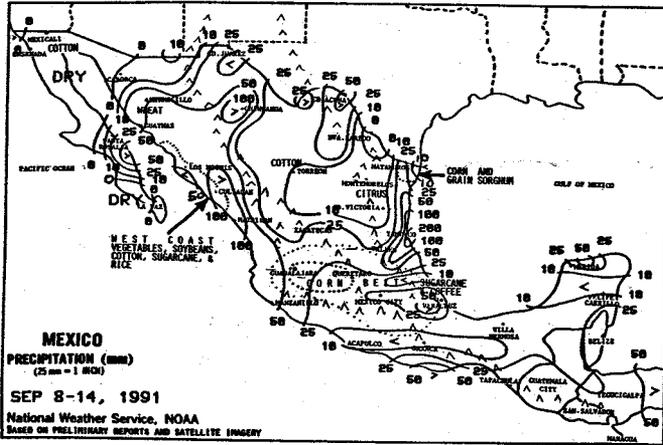




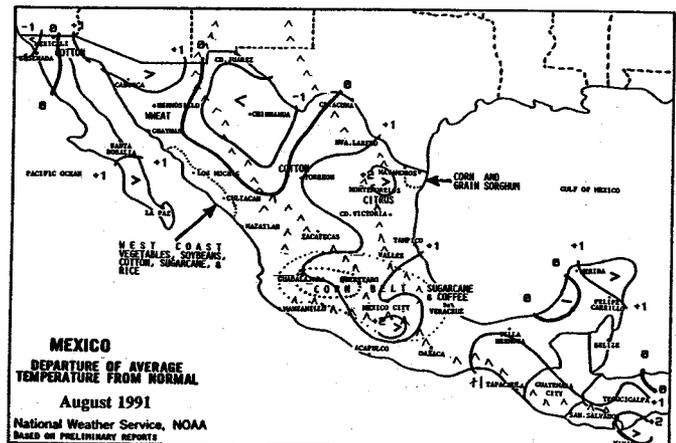
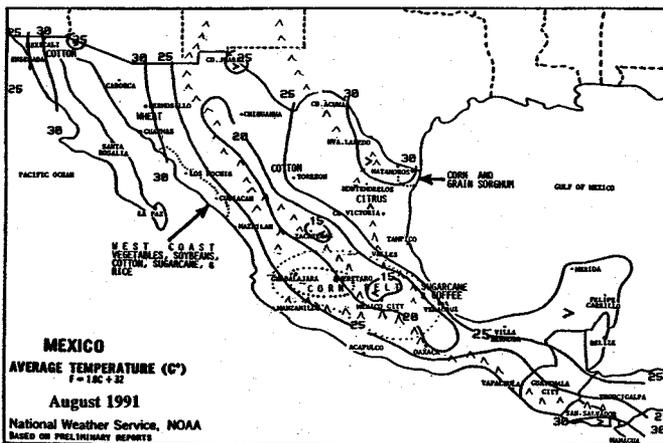
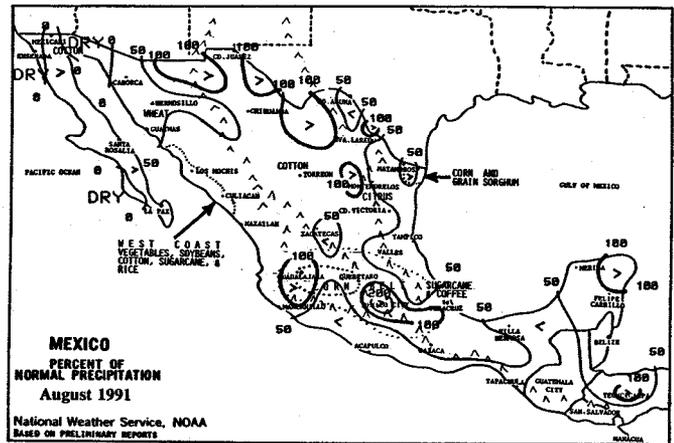
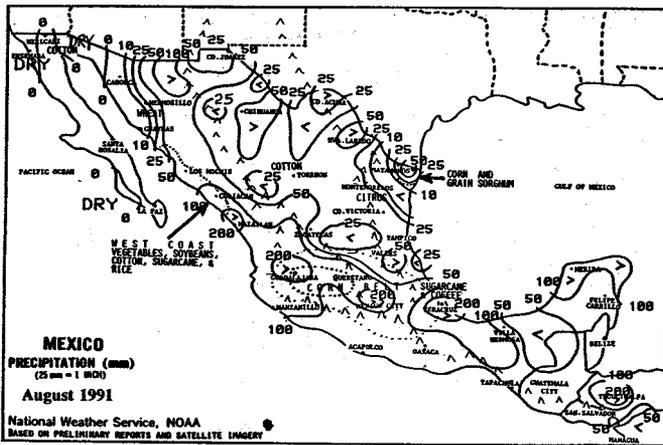
**AUSTRALIA** ... Light rain (3-15mm) fell across Queensland and northern New South Wales, which was the first significant rain since the end of July. While the rain was beneficial, more is needed for adequate winter wheat growth in those areas. Beneficial rain (3-21mm) covered the winter grain regions in Western Australia which were tending dry. Elsewhere, light to moderate rain (10-40mm) kept moisture conditions favorable for winter grains. In August, Queensland and northern New South Wales received little or no rainfall, stressing winter wheat. Western Australia and the southern two-thirds of New South Wales received somewhat below-normal rainfall, while only portions of South Australia and Victoria received above-normal rainfall.



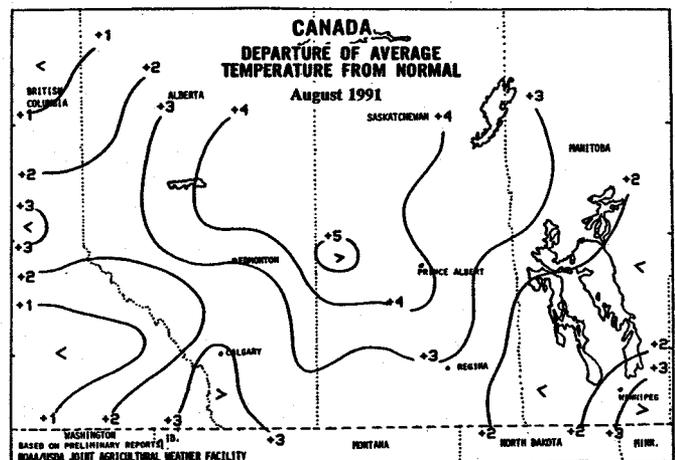
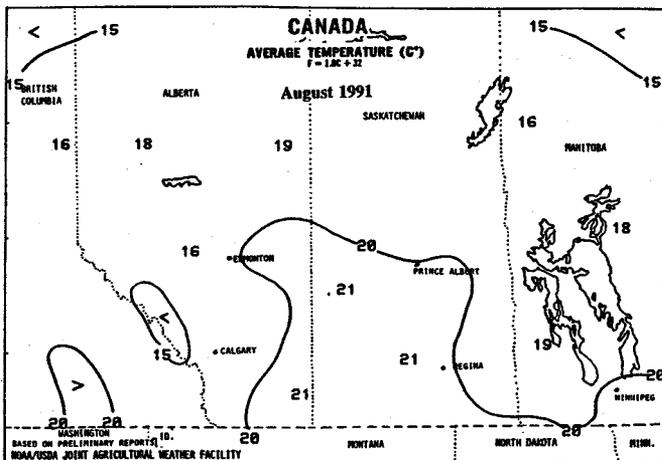
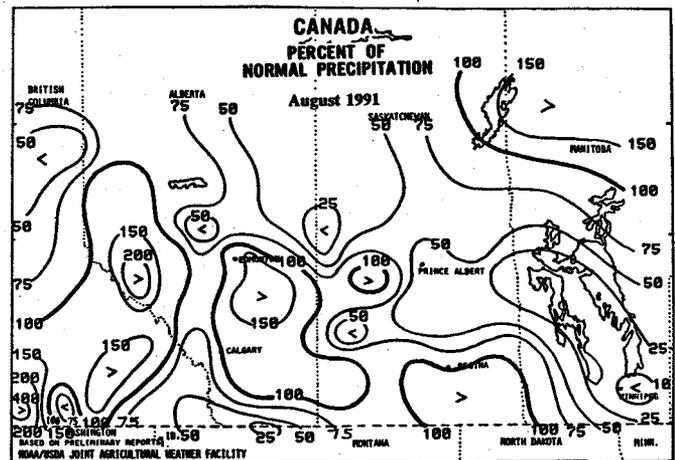
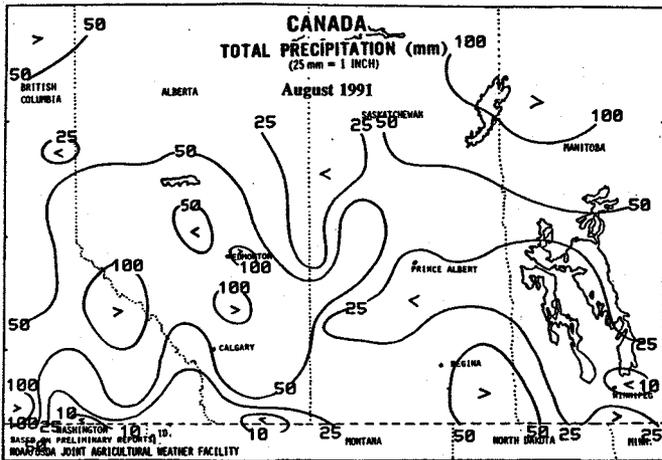
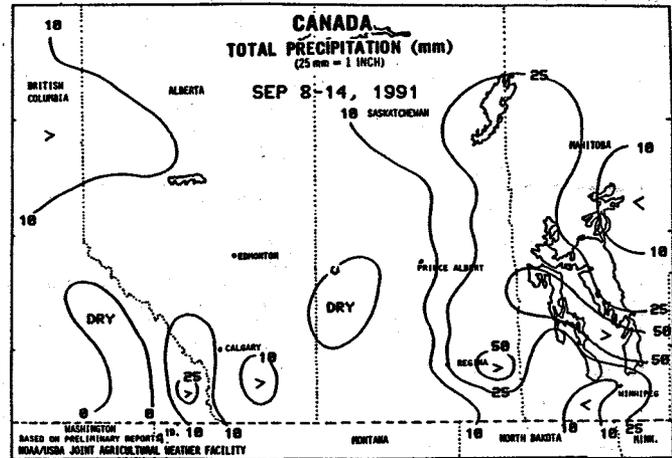




**MEXICO** ... The main rainy season seems to be winding down as only light to moderate showers (11-33mm) fell across the Southern Plateau Corn Belt. The lighter rainfall should enable corn harvesting to progress. Scattered rains (15-70mm) covered the northwestern wheat areas, boosting soil moisture levels for the upcoming winter wheat season. In August, the Southern Plateau Corn Belt received near- to above-normal rainfall as did the north-central rangeland. Portions of the northeast and extreme southern crop areas received below-normal rainfall.



CANADA ... Moderate to heavy showers (10-58mm) brought grain and oilseed harvests to a halt in eastern Saskatchewan and Manitoba. In contrast, only light rain (1-6mm) fell in northern crop areas of Alberta and western Saskatchewan and temperatures were near to above normal, allowing rapid progress. In August, grain and oilseed maturation and early harvests progressed normally, helped by monthly temperatures that averaged 2-5 degrees C above normal. However, a week of heavy rain in the middle of the month slowed fieldwork and caused local damage in Alberta and parts of western Saskatchewan. The rainfall resulted in above-normal monthly rainfall in those areas, compared with near- to below-normal amounts in the east.



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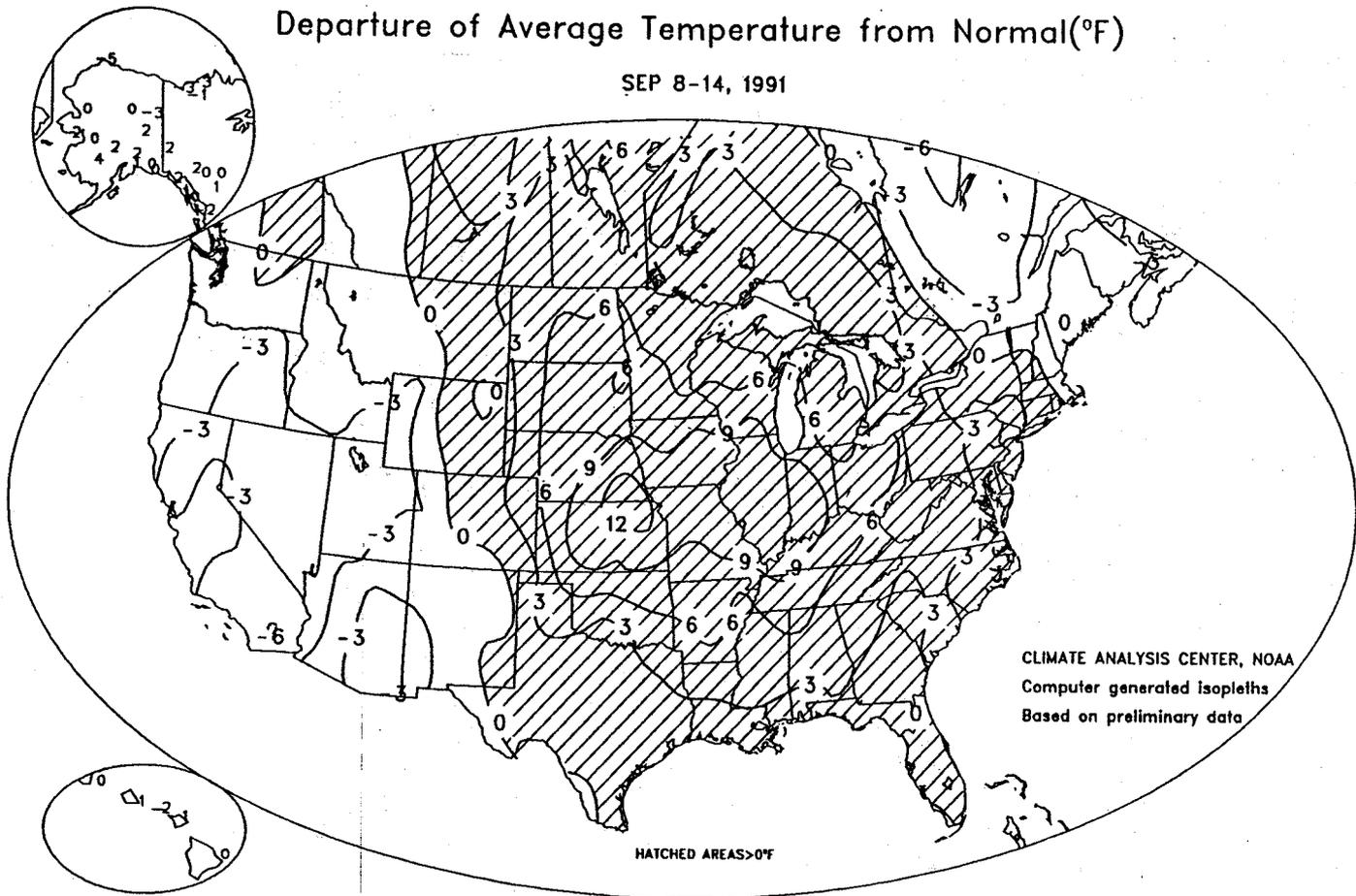
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## Departure of Average Temperature from Normal(°F)

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