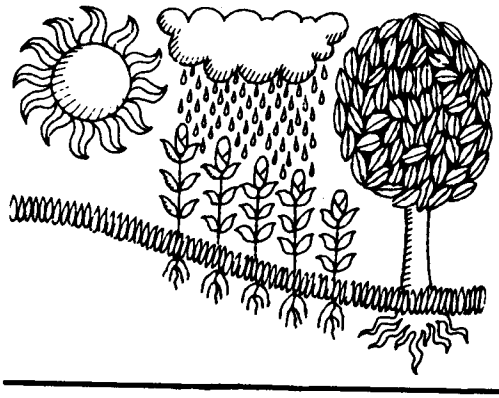


WEEKLY WEATHER AND CROP BULLETIN

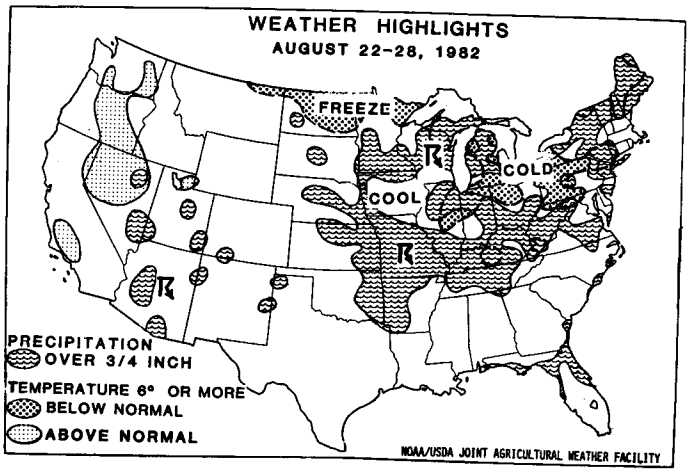
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

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

Volume 69, No. 35 WASHINGTON, D.C. Aug. 31, 1982

National Weather Summary

August 22-28



HIGHLIGHTS: Cool weather over the Corn Belt and the spring wheat areas of the northern Plains slowed crop development. Freezing temperatures in North Dakota and Minnesota did some damage to immature crops. Many record-low temperatures were set from the northern Plains to the Northeast. Heavy rain accompanied thunderstorms in Missouri, Arkansas, and the northern Tennessee Valley and caused local flooding. Dry weather persisted in parts of the central and southern Plains, in the northern Plains, and in parts of Ohio.

SUNDAY . . .Fall-like weather spread into the northeastern United States, and many record-low temperatures were reached from West Virginia to Vermont. The heaviest showers were concentrated along a line from northern Missouri to western Nebraska and through the central and northern Rockies. Lighter showers and thunderstorms extended through the Great Lakes region and the upper Ohio Valley to southern New England.

MONDAY . . .Some heavy showers and thunderstorms doused eastern Nebraska, and lighter storms covered most of the northern Plains, the middle Mississippi Valley, the Ohio and Tennessee Valleys, the eastern Great Lakes, and the Northeastern States. A few showers reached down the east coast to Florida. Some heavy thunderstorms broke out in the Southwest, causing local flooding in Arizonia and Nevada. High temperatures reached into the hundreds in the southern Plains, and the Southwest, and through central California to southern Oregon.

TUESDAY . . .Severe weather was scattered from the Southwest to the Northeast. Heavy showers hit the Southwest again, with deluges in Arizonia, New Mexico, and southern Colorado. Some heavy storms, also shook southeastern Kansas, the area across southern Missouri to Kentucky and Tennessee, and Indiana and Ohio. Temperatures warmed to the eighties in the East and in most of the eastern Corn Belt.

WEDNESDAY . . .Widespread showers continued in the Southwest, but storms were generally light. Light showers and thunderstorms were also over the eastern portion of the central Plains, but the heaviest rain was in the Northeast. Widely scattered light showers fell throughout the Eastern States. Another surge of cool air moved over the eastern Corn Belt, but warmer weather covered the western portion and the Plains to South Dakota.

THURSDAY . . .Scattered, light showers and thunderstorms continued in the Southwest and in the central and southern Rockies, and spread eastward through part of the central Plains. Severe thunderstorms dumped hail and heavy rain from eastern Kansas through much of Missouri and into the Ohio Valley. Another line of severe storms moved to northern Wisconsin and southern Minnesota. Morning temperatures were in the high thirties and low forties over the extreme northern Plains, but afternoon highs reached the eighties as far north as South Dakota.

FRIDAY . . .An outbreak of very cold air moved over south-central Canada and the northern Plains. Freezing temperatures reached into northern North Dakota and Minnesota, breaking long standing records in many cases. Daytime highs remained in the fifties and sixties from North Dakota to the western Great Lakes, but record-high temperatures were reached in the southern Plains. Severe thunderstorms broke out in southern Missouri, and eastern Oklahoma and through Arkansas. Showers and thunderstorms were more scattered eastward through Kentucky and Tennessee, to the east coast, and northward through the East Coast States.

(Continued on back cover)

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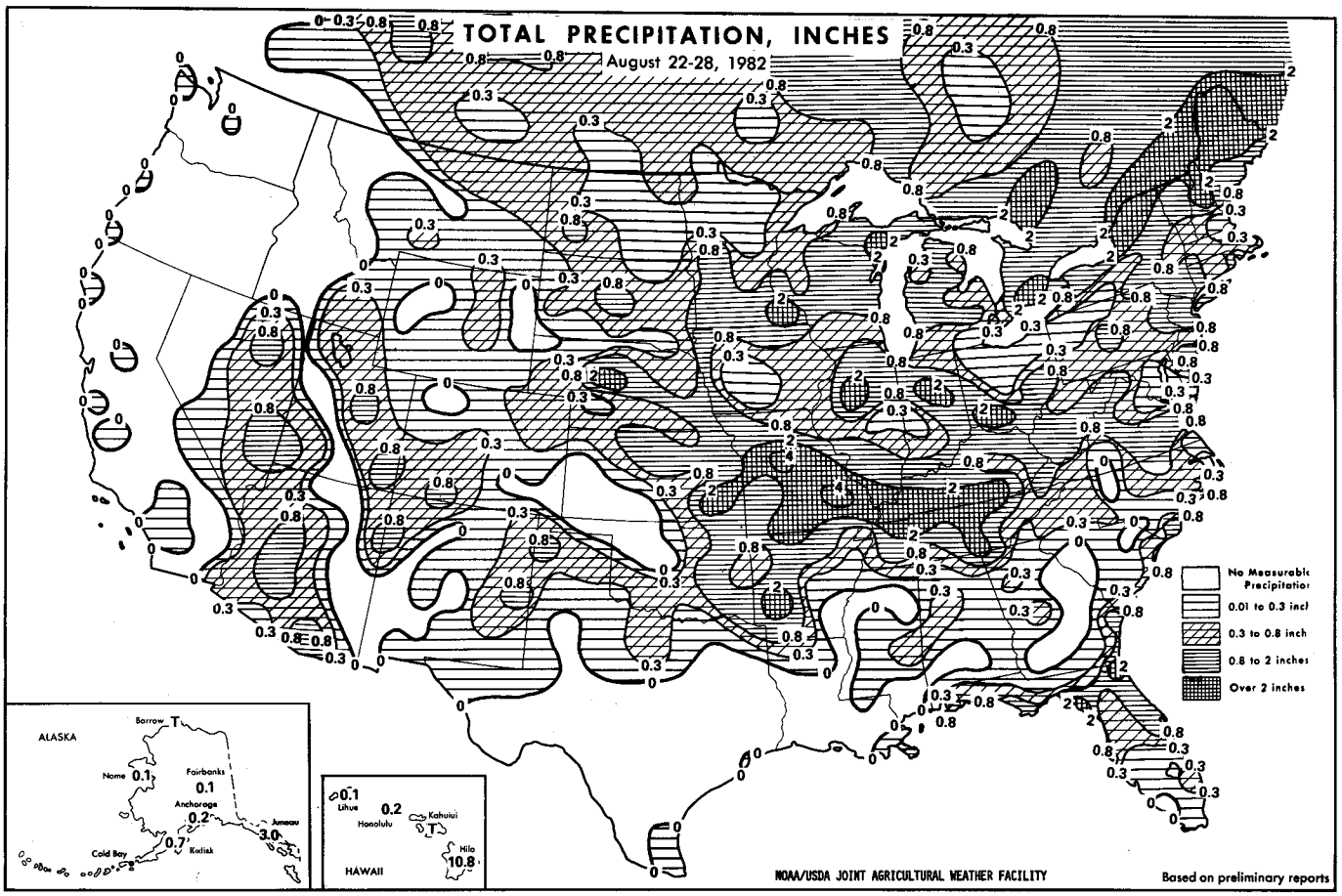
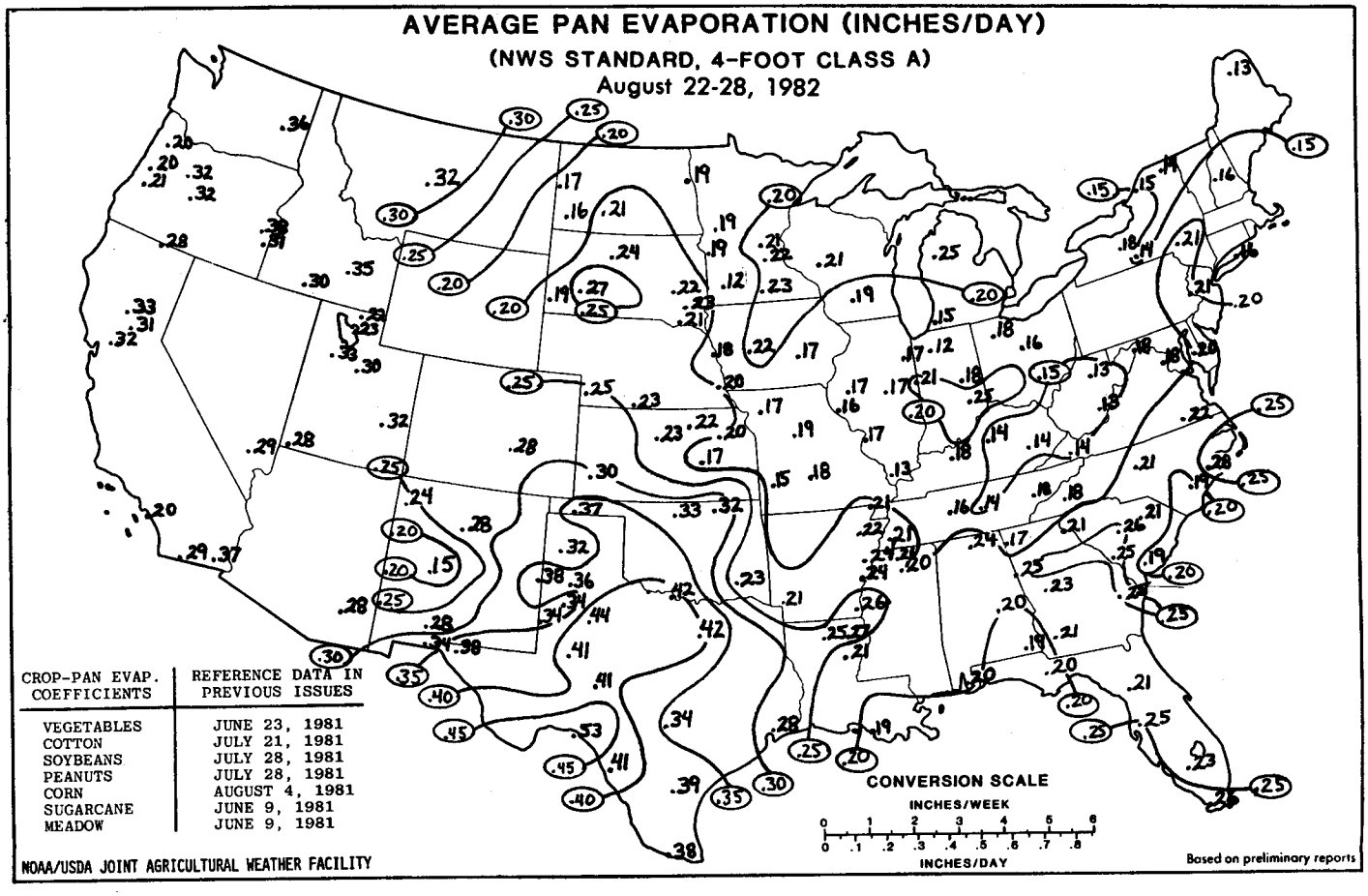
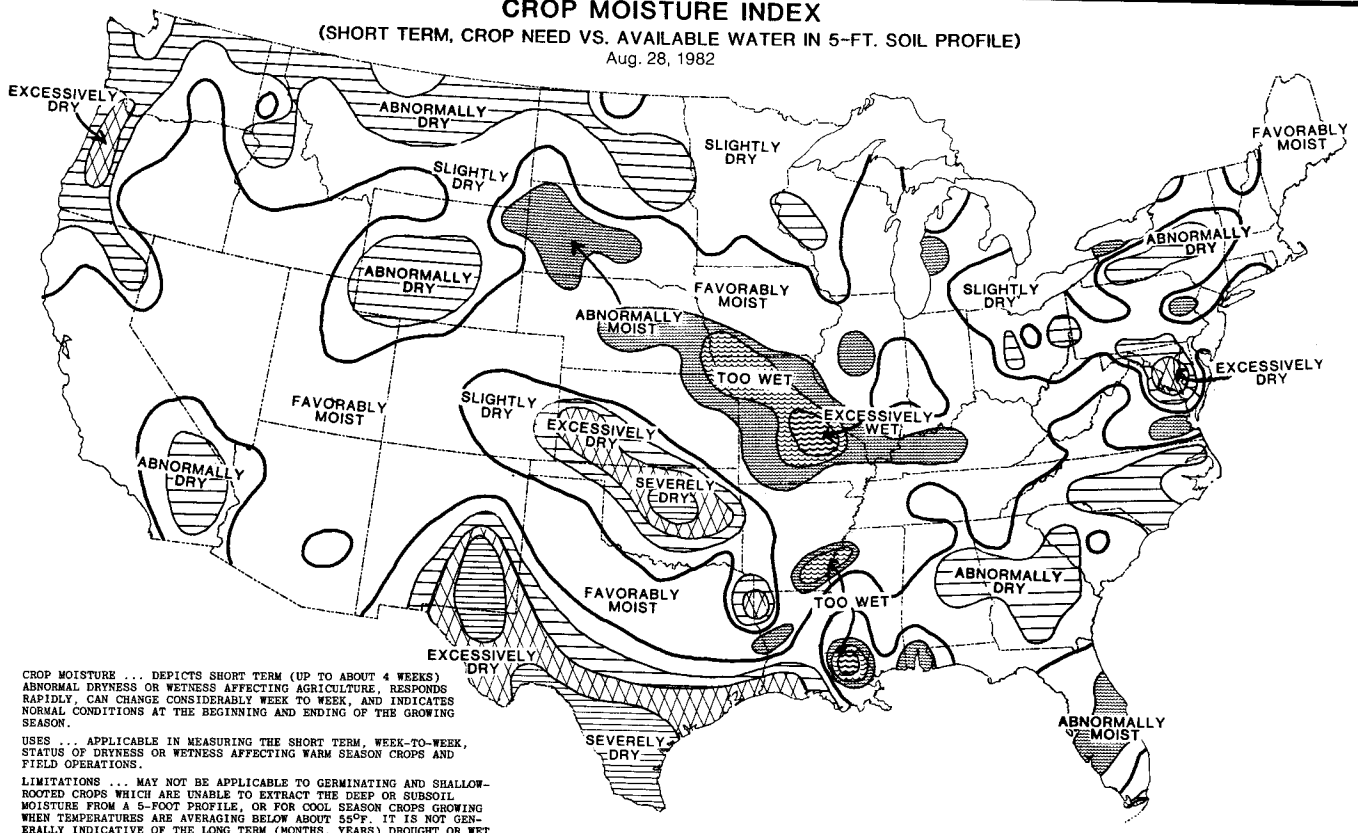

TOTAL PRECIPITATION, INCHES
August 22-28, 1982
No Measurable Precipitation
0.01 to 0.3 inch
0.3 to 0.8 inch
0.8 to 2 inches
Over 2 inches
ALASKA
Barrow T
Nome 0.1
Fairbanks 0.1
Anchorage 0.2
Juneau 3.0
Cold Bay 0.7
Kodiak
HAWAII
Lihue 0.1
Honolulu 0.2
Kahului T
Hilo 10.8
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


AVERAGE PAN EVAPORATION (INCHES/DAY)
(NWS STANDARD, 4-FOOT CLASS A)
August 22-28, 1982
CROP-PAN EVAP. COEFFICIENTS
REFERENCE DATA IN PREVIOUS ISSUES
VEGETABLES JUNE 23, 1981
COTTON JULY 21, 1981
SOYBEANS JULY 28, 1981
PEANUTS JULY 28, 1981
CORN AUGUST 4, 1981
SUGARCANE JUNE 9, 1981
MEADOW JUNE 9, 1981
CONVERSION SCALE
INCHES/WEEK
INCHES/DAY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

CROP MOISTURE INDEX

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

Aug. 28, 1982



CROP MOISTURE ... DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK, AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND ENDING OF THE GROWING SEASON.

USES ... APPLICABLE IN MEASURING THE SHORT TERM, WEEK-TO-WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS.

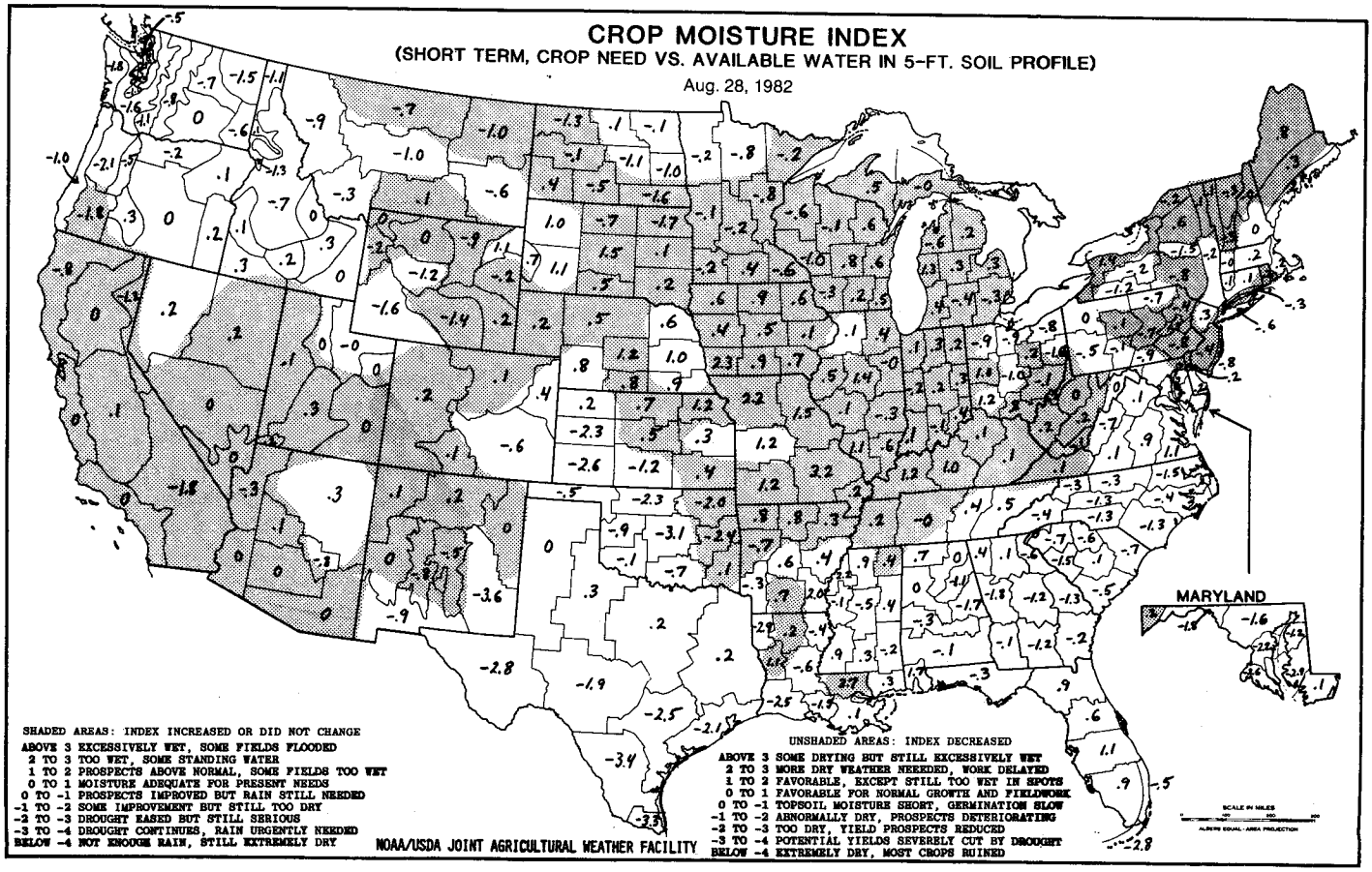
LIMITATIONS ... MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW-ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS)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

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

CROP MOISTURE INDEX

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

Aug. 28, 1982



SHADED AREAS: INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET, SOME FIELDS FLOODED
2 TO 3 TOO WET, SOME STANDING WATER
1 TO 2 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET
0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL TOO DRY
-2 TO -3 DROUGHT EASED BUT STILL SERIOUS
-3 TO -4 DROUGHT CONTINUES, RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN, STILL EXTREMELY DRY

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

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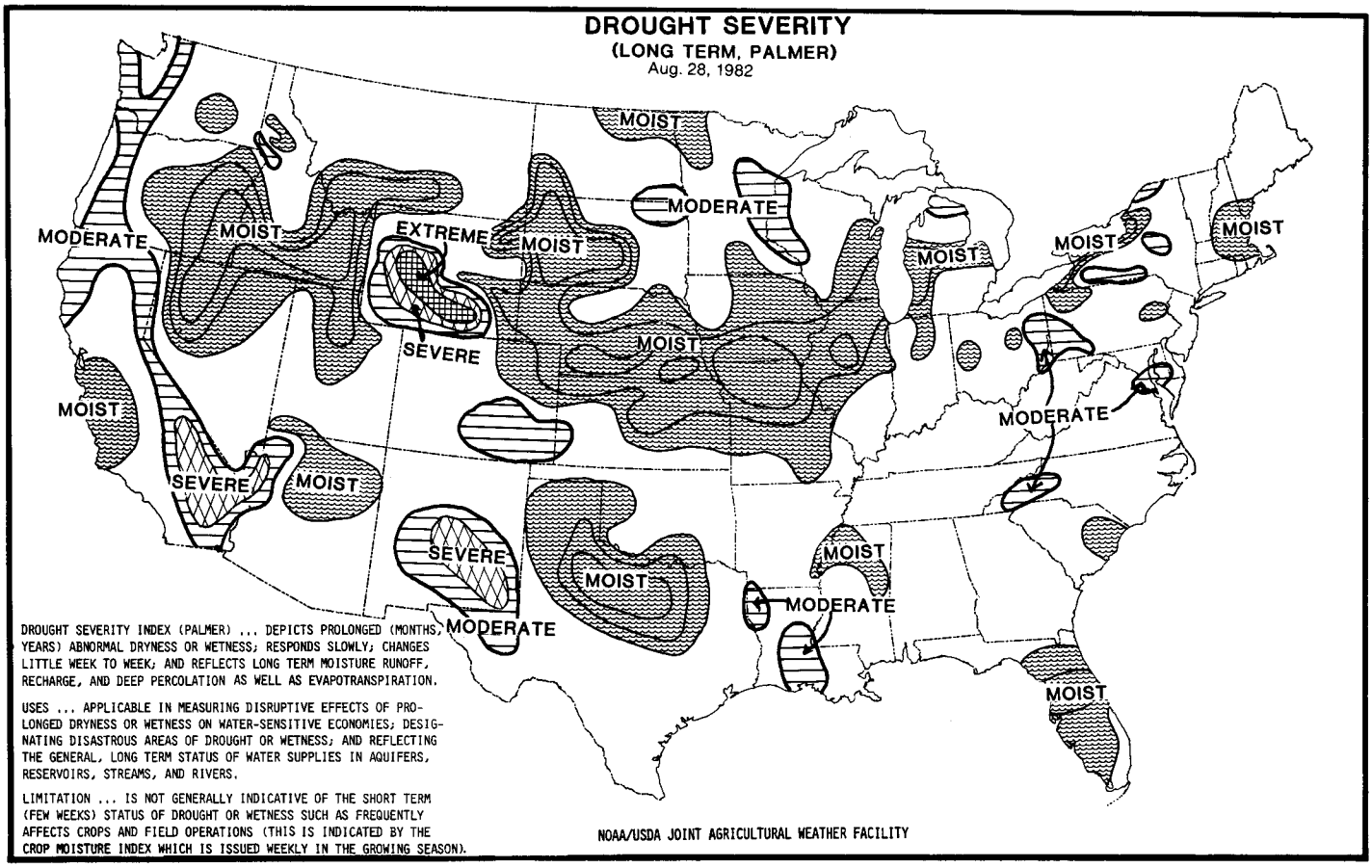
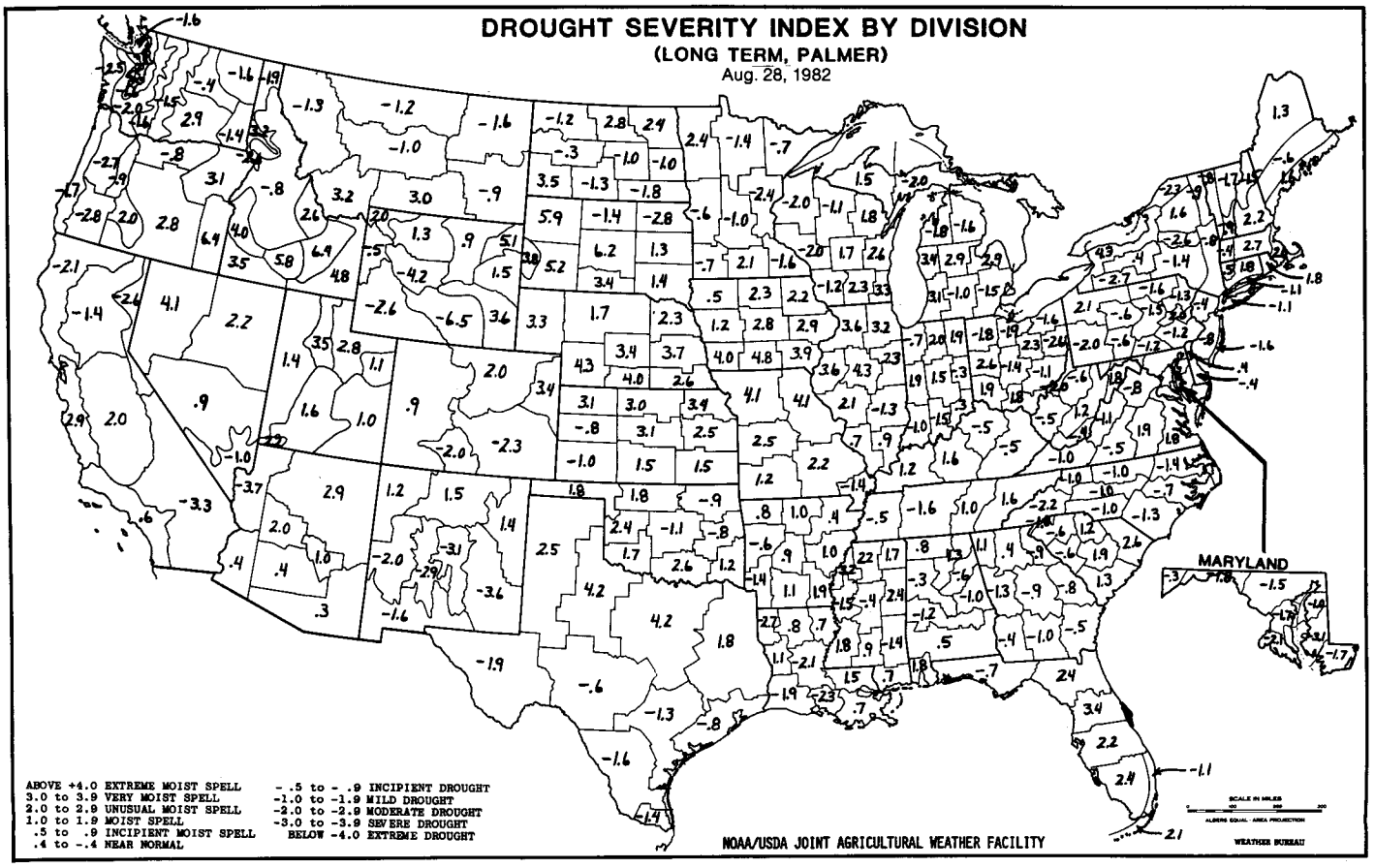
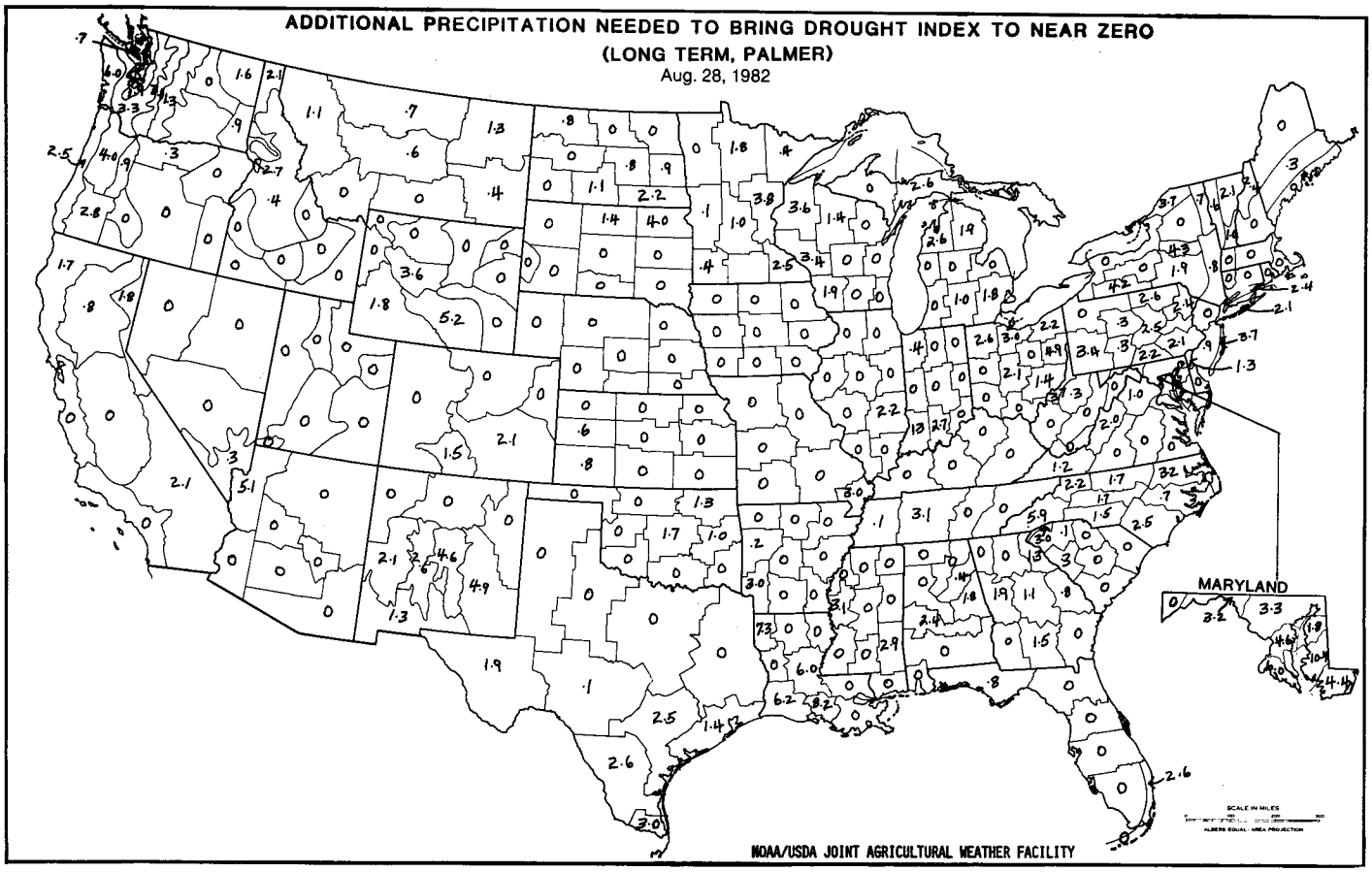
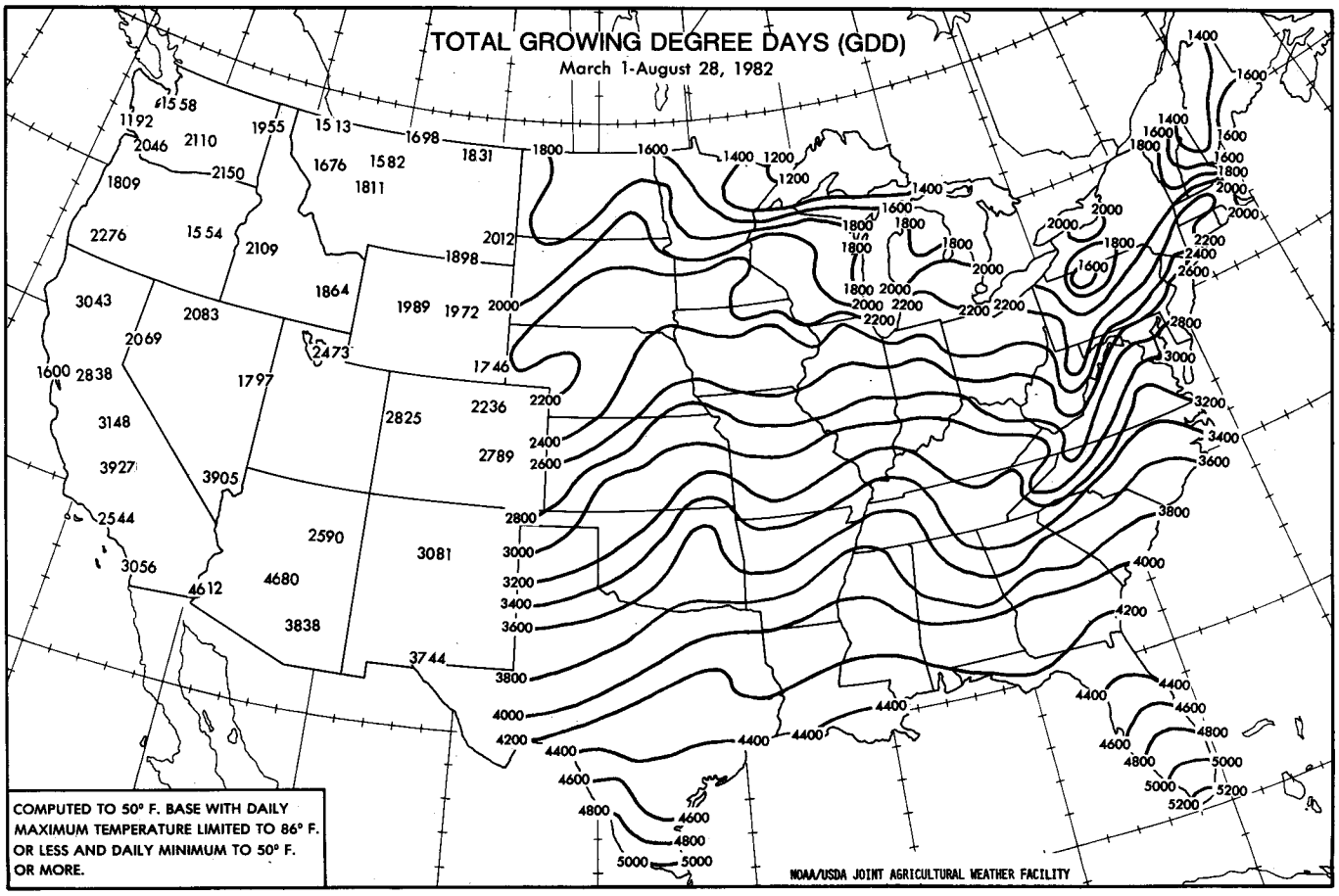
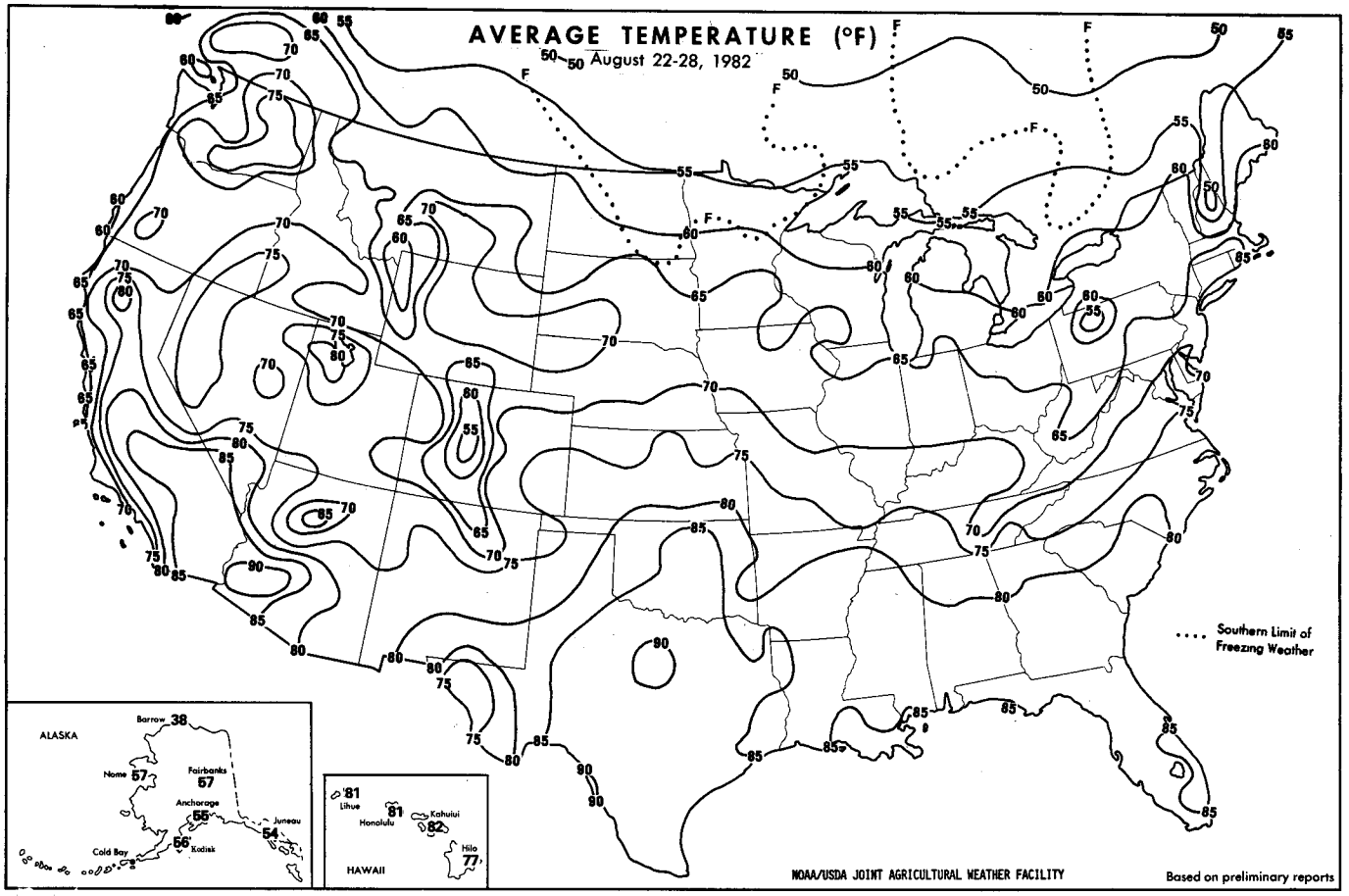
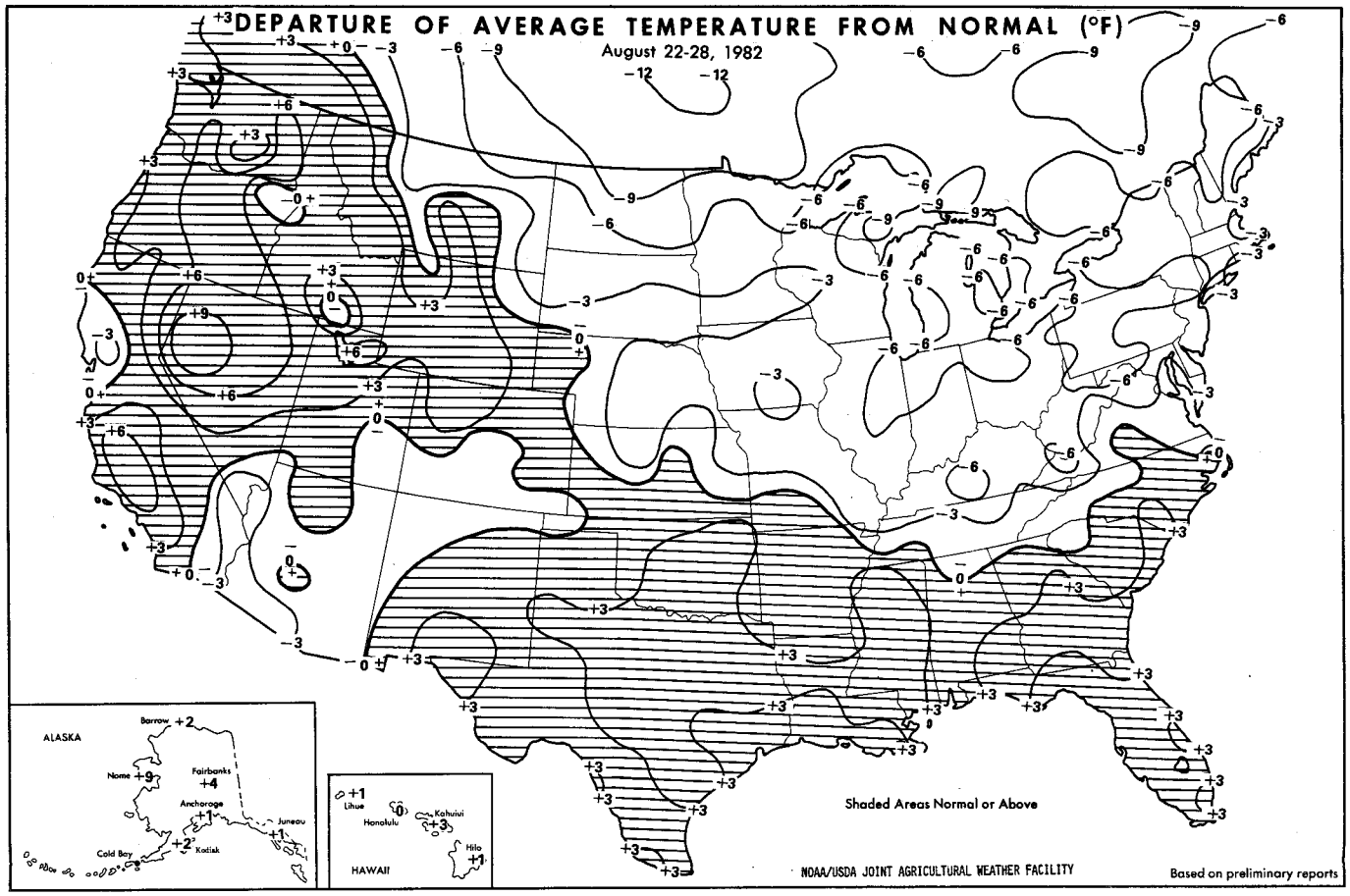

DROUGHT SEVERITY
(LONG TERM, PALMER)
Aug. 28, 1982
MOIST
MODERATE
MOIST
EXTREME
MOIST
MODERATE
MOIST
MOIST
MOIST
SEVERE
MOIST
MOIST
MODERATE
SEVERE
MOIST
SEVERE
MOIST
MOIST
MODERATE
MODERATE
MOIST
DROUGHT SEVERITY INDEX (PALMER) ... DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE WEEK TO WEEK; AND REFLECTS LONG TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION AS WELL AS EVAPOTRANSPIRATION.
USES ... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER-SENSITIVE ECONOMIES; DESIGNATING DISASTROUS AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL, LONG TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, STREAMS, AND RIVERS.
LIMITATION ... IS NOT GENERALLY INDICATIVE OF THE SHORT TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX WHICH IS ISSUED WEEKLY IN THE GROWING SEASON).
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


DROUGHT SEVERITY INDEX BY DIVISION
(LONG TERM, PALMER)
Aug. 28, 1982
MARYLAND
ABOVE +4.0 EXTREME MOIST SPELL
3.0 to 3.9 VERY MOIST SPELL
2.0 to 2.9 UNUSUAL MOIST SPELL
1.0 to 1.9 MOIST SPELL
.5 to .9 INCIPIENT MOIST SPELL
.4 to -.4 NEAR NORMAL
- .5 to - .9 INCIPIENT DROUGHT
-1.0 to -1.9 MILD DROUGHT
-2.0 to -2.9 MODERATE DROUGHT
-3.0 to -3.9 SEVERE DROUGHT
BELOW -4.0 EXTREME DROUGHT
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


ADDITIONAL PRECIPITATION NEEDED TO BRING DROUGHT INDEX TO NEAR ZERO
(LONG TERM, PALMER)
Aug. 28, 1982
MARYLAND
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


TOTAL GROWING DEGREE DAYS (GDD)
March 1-August 28, 1982
COMPUTED TO 50° F. BASE WITH DAILY MAXIMUM TEMPERATURE LIMITED TO 86° F. OR LESS AND DAILY MINIMUM TO 50° F. OR MORE.
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

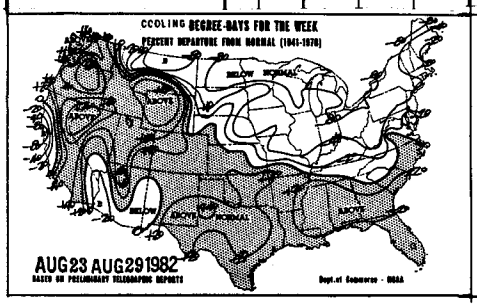

AVERAGE TEMPERATURE (°F)
August 22-28, 1982
.... Southern Limit of Freezing Weather
ALASKA
Barrow 38
Nome 57
Fairbanks 57
Anchorage 55
Juneau 54
Cold Bay 56
Kodiak
HAWAII
Lihue 81
Honolulu 81
Kahului 82
Hilo 77
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

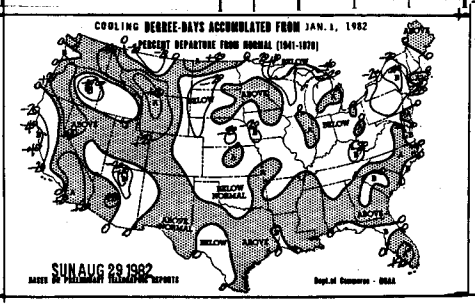

DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
August 22-28, 1982
Shaded Areas Normal or Above
ALASKA
Barrow +2
Nome +9
Fairbanks +4
Anchorage +1
Juneau +1
Cold Bay +2
Kodiak
HAWAII
Lihue +1
Honolulu 0
Kahului +3
Hilo +1
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

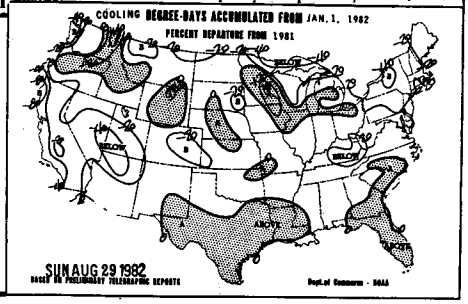
COOLING DEGREE DAYS (BASE 65°) FOR WEEK ENDING AUG. 29, 1982.

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

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1981
ALA.					
BIRMINGHAM	117	25	1550	1	150
MOBILE	135	33	2002	12	82
MONTGOMERY	134	29	1914	160	27
ARIZ.					
FLAGSTAFF	14	7	79	53	177
PHOENIX	176	16	3191	553	422
TUCSON	116	10	1984	136	353
WINSLOW	56	10	879	139	273
YUMA	145	41	3107	39	464
ARK.					
FORT SMITH	114	11	1469	173	73
LITTLE ROCK	112	13	1654	72	79
CALIF.					
BAKERSFIELD	149	43	2164	483	35
EUREKA	0	0	0	0	45
FRESNO	107	23	1383	68	582
LOS ANGELES	53	18	362	10	342
RED BLUFF	96	1	1283	204	532
SAN DIEGO	61	16	636	177	414
SAN FRANCISCO	1	6	39	27	64
STOCKTON	64	4	918	64	519
COLO.					
DENVER	41	8	539	19	238
GRAND JUNCTION	69	12	1097	108	124
PUEBLO	59	6	872	8	227
CONN.					
BRIDGEPORT	18	27	482	148	138
HARTFORD	21	9	566	29	132
DEL.					
WILMINGTON	38	16	892	45	38
D.C.					
WASHINGTON	57	17	1199	15	223
FLA.					
APALACHICOLA	128	16	1909	57	11
DAYTONA BEACH	115	3	2017	28	50
FORT MYERS	134	12	3051	507	211
JACKSONVILLE	136	24	2123	208	42
KEY WEST	141	8	3507	269	502
LAKELAND	134	16	2353	20	203
MIAMI	146	21	3191	473	278
ORLANDO	130	15	2432	264	142
TALLAHASSEE	131	22	2356	34	101
TAMPA	136	16	2568	20	186
WEST PALM BEACH	130	5	2937	394	265
GA.					
ATLANTA	86	4	1423	138	247
AUGUSTA	107	12	1622	11	35
MACON	126	21	1806	26	20
SAVANNAH	130	25	1900	88	97
IDAHO.					
BOISE	64	26	561	67	4
LEWISTON	67	28	749	175	102
POCATELLO	40	17	378	38	60
ILL.					
CAIRO	58	30	1454	53	93
CHICAGO	13	25	617	24	1
MOLINE	17	29	719	80	31
PEORIA	16	35	786	68	66
ROCKFORD	12	27	674	28	60
SPRINGFIELD	17	40	920	47	117
IND.					
EVANSVILLE	48	19	1120	52	95
FORT WAYNE	8	30	597	57	37
INDIANAPOLIS	22	26	810	37	54
SOUTH BEND	8	31	581	34	38
IOWA.					
BURLINGTON	22	30	794	86	25
DES MOINES	31	17	806	19	82
DUBUQUE	9	24	529	27	36
SIOUX CITY	27	21	718	129	49
KANS.					
CONCORDIA	72	2	1128	14	77
DODGE CITY	91	14	1200	7	251
GOODLAND	52	3	693	124	58
TOPEKA	47	24	964	208	155
WICHITA	91	2	1287	122	189
KY.					
LEXINGTON	47	15	912	108	16
LOUISVILLE	46	21	985	91	249
LA.					
BATON ROUGE	140	28	2333	338	251
LAKE CHARLES	122	6	2074	5	34
NEW ORLEANS	138	22	2280	232	13
SHREVEPORT	141	20	2013	41	171
MAINE.					
CARIBOU	0	6	152	24	15
PORTLAND	14	2	232	5	40
MD.					
BALTIMORE	48	11	903	43	134
MASS.					
BOSTON	32	5	581	11	205
MICH.					
ALPENA	0	14	185	24	42
DETROIT	6	29	465	120	65
FLINT	5	19	437	38	14
GRAND RAPIDS	12	20	534	9	12
HOUGHTON LAKE	2	12	220	18	7
LANSING	21	9	473	16	9
MARQUETTE	0	7	113	14	50
MUSKEGON	7	22	410	15	18
S. STE. MARIE	0	12	42	95	24
MINN.					
DULUTH	0	13	95	79	53
INTERNATL FALLS	0	7	158	16	115
MINNEAPOLIS	16	15	653	104	209
ROCHESTER	8	16	495	48	131
ST. CLOUD	22	1	432	23	79
MISS.					
JACKSON	135	28	2013	175	3
MERIDIAN	129	26	1927	145	106
MO.					
COLUMBIA	30	37	898	195	157
KANSAS CITY	41	28	992	105	32
ST. LOUIS	44	30	1141	112	64
SPRINGFIELD	87	13	1227	67	24
MONT.					
BILLINGS	43	19	579	125	58
GLASGOW	0	24	407	4	109
GREAT FALLS	0	18	204	95	69
HAVRE	0	18	273	90	49
HELENA	19	5	329	96	40
KALISPELL	5	2	105	1	62
MILES CITY	23	15	662	10	36
MISSOULA	4	8	188	12	28
NEBR.					
GRAND ISLAND	33	23	710	212	149
LINCOLN	39	20	923	94	97
NORFOLK	26	23	677	157	152
NORTH PLATTE	39	6	627	109	26
OMAHA	24	37	821	208	18
VALENTINE	38	1	692	17	30
NEV.					
ELY	18	4	194	6	112
LAS VEGAS	116	28	2235	89	583
RENO	56	38	373	70	42
WINNEMUCCA	57	37	447	70	99
N.H.					
CONCORD	11	7	281	47	107
N.J.					
ATLANTIC CITY	33	15	823	69	16
TRENTON	33	19	777	63	95
N.MEX.					
ALBUQUERQUE	75	3	1163	32	92
ROSWELL	101	21	1489	155	95
N.Y.					
ALBANY	17	11	316	210	104
BINGHAMTON	3	17	269	68	102
BUFFALO	1	23	337	58	138
NEW YORK	38	20	733	168	306
ROCHESTER	8	20	391	89	105
SYRACUSE	13	16	294	196	309
N.C.					
ASHEVILLE	39	8	821	77	10
CHARLOTTE	85	4	1322	13	28
GREENSBORO	64	4	1086	54	106
HATTERAS	88	4	1255	77	64
RALEIGH	77	4	1327	161	20
WILMINGTON	99	4	1431	121	66
N.DAK.					
BISMARCK	0	28	348	106	53
FARGO	0	27	400	46	2
WILLISTON	11	12	503	112	144
OHIO.					
AKRON-CANTON	9	24	543	15	45
CINCINNATI	35	23	813	108	79
CLEVELAND	19	13	544	8	20
COLUMBUS	28	23	627	82	15
DAYTON	25	23	691	118	112
TOLEDO	5	32	543	63	18
YOUNGSTOWN	4	24	383	80	157
OKLA.					
OKLAHOMA CITY	135	34	1463	67	148
TULSA	138	36	1838	252	59
OREG.					
ASTORIA	3	3	11	3	29
BURNS	18	1	153	116	21
MEDFORD	58	23	587	104	34
PENDLETON	50	12	596	16	114
PORTLAND	39	18	345	84	15
SALEM	22	5	255	43	27
PA.					
ALLENTOWN	16	22	523	157	215
ERIE	10	11	305	60	97
HARRISBURG	31	21	642	251	193
PHILADELPHIA	37	21	869	77	93
PITTSBURGH	12	20	470	100	79
SCRANTON	8	22	394	146	173
R.I.					
PROVIDENCE	25	6	505	26	191
S.C.					
CHARLESTON	124	26	1705	71	213
COLUMBIA	102	3	1596	85	7
GREENVILLE	70	10	1187	116	235
S.DAK.					
ABERDEEN	17	15	601	71	95
HURON	28	11	654	9	151
RAPID CITY	18	20	399	188	75
SIOUX FALLS	20	19	580	82	172
TENN.					
CHATTANOOGA	80	2	1296	56	122
KNOXVILLE	78	1	1153	138	250
MEMPHIS	132	35	1909	251	123
NASHVILLE	77	9	1300	102	41
TEXAS.					
ABILENE	146	27	2015	46	35
AMARILLO	84	8	1128	85	213
AUSTIN	161	31	2496	257	171
BEAUMONT	144	23	2166	60	2
BROWNSVILLE	150	17	3251	454	355
CORPUS CHRISTI	147	12	2587	29	153
DEL RIO	160	21	2602	200	337
EL PASO	127	28	2887	152	15
FORT WORTH	158	28	2080	61	51
GALVESTON	138	23	2248	72	18
HOUSTON	143	19	2440	264	41
LUBBOCK	117	36	1409	9	108
MIDLAND	132	23	1800	1	82
SAN ANGELO	149	24	1844	316	159
SAN ANTONIO	159	28	2336	22	7
VICTORIA	154	22	2553	207	224
WACO	170	34	2346	130	179
WICHITA FALLS	155	24	1836	251	199
UTAH					
SALT LAKE CITY	77	26	919	114	94
VT.					
BURLINGTON	13	7	301	71	125
VA.					
LYNCHBURG	61	5	904	39	128
NORFOLK	70	6	1159	24	169
RICHMOND	56	13	1184	34	101
ROANOKE	41	14	860	22	79
WASH.					
QUILLAYUTE	4	4	14	6	25
SEATTLE-TACOMA	24	17	137	18	33
SPOKANE	33	9	452	100	148
WALLA WALLA	86	36	899	144	161
YAKIMA	27	2	440	3	34
W.VA.					
BECKLEY	11	15	353	74	70
CHARLESTON	25	27	819	93	85
HUNTINGTON	22	33	677	271	285
PARKERSBURG	36	17	907	14	68
WIS.					
GREEN BAY	6	18	319	54	40
LACROSSE	14	24	654	13	26
MADISON	4	22	358	76	95
MILWAUKEE	8	23	359	55	46
WYO.					
CASPER	39	15	498	86	43
CHEYENNE	18	1	266	36	5
LANDER	35	17	504	152	42
SHERIDAN	53	27	483	75	83







Weather Data for the Week Ending Aug. 28, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE May 30	PCT. NORMAL SINCE May 30	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	91	69	93	64	80	2	.3	- .6	.3	22.6	167	48.9	134	94	53	4	0	1	0
MOBILE	93	74	95	72	84	3	.2	- 1.3	.2	31.3	144	56.0	121	94	52	7	0	2	0
MONTGOMERY	93	74	95	71	84	3	0	- .8	0	15.5	122	45.6	137	87	50	7	0	0	0
AK ANCHORAGE	63	48	67	44	55	1	.2	- .4	.1	5.0	93	6.9	81	94	59	0	0	4	0
BARROW	45	32	66	29	38	2	T	- .2	T	1.7	81	3.3	103	100	84	0	4	1	0
FAIRBANKS	70	44	73	35	57	4	.1	- .4	.1	5.3	93	8.3	102	82	39	0	0	2	0
JUNEAU	59	50	64	47	54	1	3.0	1.8	1.7	8.5	69	26.6	94	100	83	0	0	7	1
KODIAK	62	51	66	47	56	2	.7	- .4	.3	13.3	112	35.8	110	93	71	0	0	4	0
NOME	67	48	70	39	57	9	.1	- .7	.1	5.1	75	10.7	101	78	52	0	0	1	0
AZ PHOENIX	101	80	109	75	90	2	1.2	.9	.6	2.4	120	5.7	130	71	29	7	0	3	2
PRESCOTT	80	61	85	59	71	-1	1.8	1.2	1.0	3.7	54	10.1	80	88	41	0	0	4	2
TUCSON	94	69	100	65	81	-2	.6	.1	.4	4.9	109	8.3	114	81	29	6	0	2	0
YUMA	98	80	111	75	89	-3	.7	.6	.5	.9	180	2.5	167	68	37	6	0	3	1
AR FORT SMITH	92	70	97	67	81	1	.4	- .3	.3	12.2	122	31.9	112	93	48	4	0	2	0
LITTLE ROCK	90	71	97	68	81	1	.1	- .5	.1	16.0	180	40.8	131	88	61	4	0	2	0
CA BAKERSFIELD	100	75	106	68	87	7	T	0	T	0	+100	4.3	116	67	22	7	0	0	0
EUREKA	65	53	70	51	59	2	T	- .1	T	.8	80	24.4	109	91	73	0	0	0	0
FRESNO	95	67	101	58	81	4	T	0	T	.3	300	8.6	137	81	24	7	0	0	0
LOS ANGELES	79	66	85	65	72	3	0	0	0	0	+100	8.6	115	84	56	0	0	0	0
RED BLUFF	96	64	108	60	80	1	0	- .1	0	1.8	257	12.8	98	77	24	4	0	0	0
SACRAMENTO	85	56	97	54	71	-3	0	0	0	.1	100	18.1	156	82	34	1	0	0	0
SAN DIEGO	77	70	81	68	73	2	T	0	T	0	+100	9.0	161	89	74	0	0	0	0
SAN FRANCISCO	69	56	72	53	62	-1	T	0	T	.1	100	22.6	200	79	57	0	0	0	0
CO DENVER	83	58	90	54	71	1	.1	- .2	.1	4.5	94	8.7	79	77	30	1	0	2	0
GRAND JUNCTION	86	65	93	60	75	2	.1	- .1	.1	1.5	83	3.8	73	77	35	3	0	1	0
PUEBLO	83	62	91	57	73	0	T	- .4	T	10.5	202	13.5	145	90	40	3	0	0	0
CT BRIDGEPORT	74	59	81	46	66	-5	1.8	.9	1.4	18.0	180	35.4	142	89	56	0	0	2	1
HARTFORD	77	55	84	41	66	-3	.6	- .4	.5	21.0	196	38.2	143	87	46	0	0	2	1
DC WASHINGTON	82	64	92	60	73	-2	T	- 1.0	T	12.4	99	27.8	105	80	46	1	0	0	0
FL APALACHICOLA	91	75	93	73	83	2	1.9	0	1.0	19.5	93	40.9	109	98	73	5	0	5	2
DAYTONA BEACH	90	73	92	71	81	0	1.7	.1	1.3	18.4	94	37.4	117	96	64	5	0	3	1
JACKSONVILLE	94	75	97	73	84	3	2.6	.7	1.7	20.2	95	35.0	96	100	59	7	0	5	1
KEY WEST	90	80	91	75	85	1	.9	- .2	.9	13.9	108	26.7	122	81	62	6	0	1	1
MIAMI	92	79	93	78	86	3	T	- 1.6	T	21.9	99	43.3	117	86	53	7	0	1	0
ORLANDO	92	75	93	74	83	2	.7	- .9	.4	25.6	115	42.5	120	92	53	7	0	3	0
TALLAHASSEE	94	73	96	71	83	2	.1	- 1.4	.1	23.6	106	44.2	102	98	53	7	0	2	0
TAMPA	88	79	91	77	84	2	.8	- .9	.6	29.5	132	41.0	117	92	67	1	0	3	1
WEST PALM BEACH	91	75	92	74	83	0	.5	- 1.2	.4	18.6	88	53.5	144	89	58	7	0	3	0
GA ATLANTA	89	68	92	64	79	2	T	- .7	T	14.0	116	38.1	113	89	49	3	0	1	0
AUGUSTA	92	69	96	65	80	2	0	- .9	0	10.6	81	28.5	93	94	45	6	0	0	0
MACON	94	72	96	67	83	3	.4	- .4	.4	11.4	94	34.4	111	94	48	7	0	1	0
SAVANNAH	92	75	96	72	84	4	.9	- .5	.6	27.9	137	43.7	119	90	53	6	0	2	1
HI HILO	83	72	85	71	77	1	10.8	8.5	4.1	56.4	209	138.2	169	97	74	0	0	7	6
HONOLULU	88	75	89	74	81	0	.2	.1	.2	2.6	153	22.7	169	82	56	0	0	3	0
KAHULUI	89	75	91	73	82	3	T	0	T	2.1	233	22.5	201	78	49	2	0	2	0
LIHUE	85	76	86	75	81	1	.1	- .4	.1	7.3	130	45.4	182	86	66	0	0	3	0
ID BOISE	92	57	94	50	74	4	0	- .1	0	1.8	106	7.3	95	52	16	7	0	0	0
LEWISTON	93	60	95	54	76	7	0	- .2	0	1.4	47	6.8	83	52	14	6	0	0	0
POCATELLO	87	55	93	45	71	4	.7	.6	.7	3.4	162	9.8	132	66	21	2	0	1	1
IL CHICAGO	75	54	85	43	64	-5	1.1	.4	1.1	12.8	123	25.5	117	92	50	0	0	1	1
MOLINE	78	56	82	47	67	-4	.5	- .3	.4	14.5	115	29.0	121	95	53	0	0	2	0
PEORIA	76	58	82	51	67	-5	2.6	1.9	2.5	14.7	137	31.8	133	97	64	0	0	4	1
QUINCY	77	60	85	55	68	-5	.6	- .3	.5	15.2	120	30.2	--	95	66	0	0	3	1
ROCKFORD	75	54	82	43	64	-6	.9	0	.8	15.8	130	28.9	118	99	53	0	0	3	1
SPRINGFIELD	78	58	86	55	68	-5	.4	- .3	.2	8.1	75	24.1	104	98	67	0	0	3	0
IN EVANSVILLE	81	62	86	53	72	-3	1.6	.9	.9	9.2	86	31.7	109	90	52	0	0	4	1
FORT WAYNE	75	54	78	48	65	-5	1.3	.7	1.2	11.9	111	30.1	122	87	50	0	0	2	1
INDIANAPOLIS	78	57	80	50	67	-4	.3	- .4	.2	10.0	93	29.7	114	94	57	0	0	3	0
SOUTH BEND	73	55	76	45	64	-6	.8	.1	.5	13.7	128	29.0	123	94	58	0	0	2	1
IA DES MOINES	79	59	84	52	69	-2	T	- .7	T	11.9	106	29.4	135	81	47	0	0	1	0
SIOUX CITY	78	58	87	51	68	-3	.8	.1	.8	7.7	71	18.1	93	81	46	0	0	1	1
WATERLOO	76	54	82	46	65	-4	.4	- .3	.4	8.9	68	22.5	97	91	49	0	0	2	0
KS CONCORDIA	85	66	98	59	75	0	1.6	.9	1.5	18.7	165	31.7	158	85	51	2	0	3	1
DODGE CITY	88	68	99	63	78	2	T	- .6	T	9.1	103	14.7	97	79	42	2	0	0	0
GOODLAND	85	59	93	55	72	0	T	- .4	T	13.8	182	20.4	161	85	37	2	0	0	0
TOPEKA	81	63	95	53	72	-3	1.4	.5	1.1	16.9	120	30.0	120	91	64	1	0	3	1
WICHITA	88	68	101	62	78	0	.2	- .5	.2	10.0	85	22.4	108	83	45	2	0	2	0
KY BOWLING GREEN	80	62	84	52	71	-6	2.4	1.7	1.4	11.0	99	31.2	95	99	56	0	0	4	2
LEXINGTON	81	62	85	55	71	-3	.5	- .2	.4	8.8	71	24.6	79	90	48	0	0	4	0
LOUISVILLE	80	62	86	53	71	-3	1.3	.6	1.2	11.5	105	29.6	98	91	52	0	0	4	1
LA ALEXANDRIA	94	73	95	71	84	1	0	- .6	0	14.8	126	32.3	--	86	43	7	0	0	0
BATON ROUGE	93	76	95	74	85	4	0	- .9	0	11.4	77	32.7	87	86	48	7	0	0	0
LAKE CHARLES	91	73	93	70	82	0	0	- 1.0	0	12.1	72	29.0	78	91	54	7	0	0	0
NEW ORLEANS	94	75	96	72	84	3	0	- 1.2	0	19.5	117	39.5	103	96	54	7	0	0	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending Aug. 28, 1982

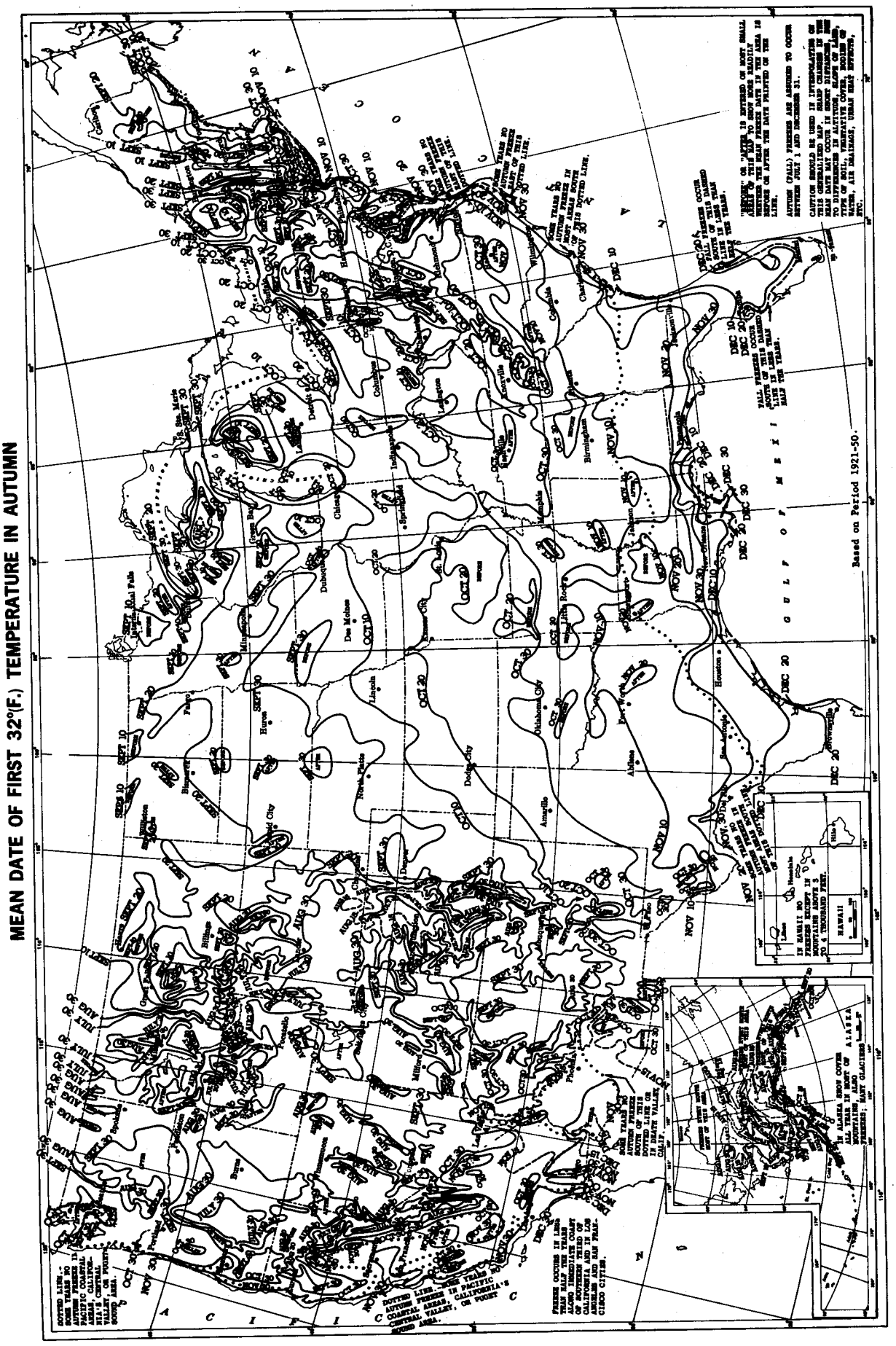
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE May 30	PCT. NORMAL SINCE May 30	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	95	74	99	71	85	2	0	- .6	0	7.9	89	22.3	76	92	43	7	0	0	0
ME CARIBOU	67	48	78	39	57	-3	2.7	1.9	1.2	11.9	106	23.7	107	94	48	0	0	6	3
PORTLAND	71	54	80	40	63	-2	.4	- .2	.2	13.1	162	30.7	126	87	49	0	0	3	0
MD BALTIMORE	82	60	92	55	71	-3	.1	- .8	.1	8.7	74	24.6	91	81	43	1	0	1	0
SALISBURY	82	60	89	55	71	-3	.1	- 1.2	.1	12.0	91	28.2	96	99	52	0	0	2	0
MA BOSTON	75	61	85	51	68	-2	.2	- .7	.1	20.3	218	35.7	134	75	44	0	0	2	0
CHATHAM	71	58	79	49	64	--	.6	--	.4	10.6	--	28.4	--	89	63	0	0	4	0
MI ALPENA	67	47	74	36	57	-6	.5	- .1	.4	7.1	91	14.6	86	97	52	0	0	3	0
DETROIT	76	51	81	42	64	-6	T	- .7	T	9.5	97	21.6	100	87	43	0	0	3	0
FLINT	73	51	81	39	62	-5	1.9	1.2	1.5	9.2	97	16.6	84	96	52	0	0	3	1
GRAND RAPIDS	75	53	80	42	64	-4	1.3	.7	1.3	9.2	105	21.2	105	89	44	0	0	2	1
HOUGHTON LAKE	69	48	76	33	58	-5	.8	.3	.6	9.9	115	20.2	116	95	50	0	0	3	1
LANSING	74	50	79	36	62	-6	.8	.2	.8	7.9	90	15.9	79	97	50	0	0	2	1
MARQUETTE	63	41	71	33	52	-9	1.1	.3	.7	9.2	80	22.6	102	98	55	0	0	4	1
MUSKEGON	71	55	75	41	63	-5	1.2	.5	.8	9.0	117	21.8	115	98	61	0	0	3	1
SAULT STE. MARIE	62	44	69	33	53	-9	1.5	.8	1.0	6.6	76	20.0	109	95	56	0	0	5	1
MN ALEXANDRIA	71	53	82	43	62	-4	1.0	.1	.9	9.7	87	19.1	104	93	43	0	0	2	1
DULUTH	67	45	75	34	56	-6	.4	- .5	.3	9.5	81	20.3	99	88	46	0	0	4	0
INT'L FALLS	66	40	74	30	53	-8	.2	- .5	.2	8.1	72	15.6	88	98	49	0	2	4	0
MINNEAPOLIS	77	56	84	48	66	-2	1.1	.5	.9	5.0	46	16.3	89	83	39	0	0	2	1
ROCHESTER	73	54	80	47	64	-3	2.2	1.4	1.4	8.7	73	22.7	113	86	52	0	0	3	1
MS GREENWOOD	93	73	94	71	83	3	T	- .6	T	10.7	102	35.2	--	93	52	7	0	1	0
JACKSON	95	72	96	71	84	3	T	- .7	T	20.5	183	42.3	128	97	47	7	0	1	0
MERIDIAN	94	73	95	70	83	3	.6	- .2	.6	18.0	142	41.5	118	91	53	7	0	1	1
MO CAPE GIRARDEAU	82	65	87	58	74	-4	3.3	2.4	1.6	13.4	125	36.4	127	100	62	0	0	3	2
COLUMBIA	78	62	88	56	70	-5	2.8	2.0	2.3	16.8	146	31.0	127	96	67	0	0	5	1
KANSAS CITY	79	64	91	56	71	-4	1.9	1.0	.9	20.4	150	36.1	143	95	66	1	0	3	2
SAINT LOUIS	80	64	87	59	72	-4	1.3	.7	1.1	19.6	178	35.3	144	99	65	0	0	4	1
SPRINGFIELD	88	68	94	64	78	2	1.8	1.1	1.3	15.8	140	30.3	117	87	54	4	0	4	1
MT BILLINGS	87	57	91	49	72	4	T	- .3	T	6.8	155	13.8	137	74	25	3	0	1	0
GLASGOW	72	48	84	43	60	-6	.7	.4	.4	3.3	61	9.1	112	85	38	0	0	2	0
GREAT FALLS	75	45	84	41	60	-5	T	- .3	T	4.2	76	12.9	114	82	33	0	0	1	0
HAVRE	73	50	83	45	61	-4	.4	.1	.4	3.5	73	11.3	131	82	35	0	0	2	0
HELENA	83	49	89	45	66	2	T	- .2	T	4.0	93	9.3	115	78	24	0	0	1	0
KALISPELL	82	46	85	35	64	4	0	- .3	0	6.4	136	13.7	133	93	29	0	0	0	0
MILES CITY	81	54	89	50	68	-2	.1	- .2	.1	6.0	102	10.6	103	82	30	0	0	2	0
MISSOULA	86	46	88	42	66	3	0	- .2	0	3.1	84	11.4	136	86	23	0	0	0	0
NE GRAND ISLAND	79	59	85	53	69	-4	.4	- .2	.4	13.0	134	28.3	160	96	57	0	0	4	0
LINCOLN	79	61	88	55	70	-4	.4	- .4	.2	16.1	139	28.3	139	93	62	0	0	2	0
NORFOLK	78	58	86	52	68	-4	.4	- .3	.3	7.7	73	20.0	109	92	52	0	0	2	0
NORTH PLATTE	83	55	91	47	69	-2	T	- .4	T	5.6	63	14.3	95	91	40	2	0	1	0
OMAHA	76	59	84	53	68	-4	.4	- .5	.3	9.7	78	25.0	115	90	64	0	0	3	0
SCOTTSBLUFF	86	56	94	53	71	2	.3	.1	.3	13.3	225	17.7	157	83	32	2	0	3	0
VALENTINE	82	55	90	49	69	-2	.2	- .3	.2	9.3	111	18.1	130	71	38	1	0	1	0
NV ELY	84	52	89	45	68	4	.4	.2	.3	2.3	100	8.0	133	82	34	0	0	2	0
LAS VEGAS	92	72	100	67	82	-4	.6	.5	.4	.8	67	2.6	93	80	36	5	0	4	0
RENO	93	55	101	46	74	9	0	0	0	1.1	122	4.3	91	64	17	6	0	0	0
WINNEMUCCA	94	54	100	42	74	8	0	- .1	0	2.4	160	4.7	84	40	11	6	0	0	0
NH CONCORD	75	51	81	34	63	-3	.2	- .5	.2	13.5	142	27.8	125	86	44	0	0	2	0
NJ ATLANTIC CITY	81	57	88	49	69	-3	1.0	- .1	.5	8.7	69	22.9	77	96	49	0	0	3	1
NM ALBUQUERQUE	89	63	93	57	76	0	.2	- .1	.2	2.5	74	4.4	80	83	33	2	0	3	0
CLOVIS	90	66	96	63	78	3	1.5	1.0	1.5	9.3	119	12.2	--	79	35	5	0	2	1
ROSWELL	92	66	99	63	79	3	.4	.1	.3	2.8	54	4.4	52	78	32	6	0	2	0
NY ALBANY	75	52	82	39	64	-4	.5	- .2	.5	11.2	124	24.6	119	90	42	0	0	2	0
BINGHAMTON	71	50	76	42	61	-5	1.0	.3	1.0	12.6	117	26.1	108	90	50	0	0	2	1
BUFFALO	70	51	76	42	61	-6	1.6	.8	1.5	9.0	108	25.6	117	91	50	0	0	4	1
NEW YORK	77	63	83	55	70	-4	1.6	.7	1.0	10.5	95	26.1	98	84	47	0	0	2	2
ROCHESTER	74	51	80	41	63	-5	1.2	.5	1.1	10.1	119	20.4	100	84	45	0	0	4	1
SYRACUSE	75	54	80	43	64	-4	.5	- .3	.5	11.4	120	23.1	100	95	51	0	0	2	0
NC ASHEVILLE	82	58	85	54	70	-1	.6	- .4	.5	16.0	120	37.3	122	100	58	0	0	3	1
CHARLOTTE	86	68	93	64	77	1	.3	- .6	.3	10.9	99	30.0	106	92	49	2	0	1	0
GREENSBORO	85	62	90	56	74	-1	T	- 1.0	T	14.0	112	33.1	119	88	52	1	0	0	0
HATTERAS	85	72	87	60	79	2	.2	- 1.4	.2	14.4	83	40.1	116	94	62	0	0	1	0
NEW BERN	88	68	93	62	78	0	.8	- .7	.4	13.0	65	30.9	81	91	53	3	0	2	0
RALEIGH	87	66	92	63	77	1	T	- 1.0	T	14.4	107	32.7	113	86	48	2	0	1	0
WILMINGTON	88	71	93	65	79	0	1.0	- .4	.9	19.6	95	39.6	106	94	56	2	0	2	1
ND BISMARCK	72	48	81	33	60	-7	.3	- .1	.3	5.3	69	12.0	97	95	41	0	0	2	0
FARGO	71	49	77	33	60	-7	T	- .6	T	5.3	57	10.5	70	90	38	0	0	3	0
GRAND FORKS	70	46	79	32	58	-7	.3	- .3	.3	7.6	87	13.5	96	93	37	0	1	1	0
WILLISTON	74	47	92	35	61	-5	.4	0	.2	5.1	75	11.0	97	71	34	1	0	3	0
OH AKRON-CANTON	75	53	82	46	64	-5	.1	- .5	.1	8.1	78	22.7	94	83	41	0	0	1	0
CINCINNATI	78	59	82	53	69	-5	1.2	.6	.9	14.0	131	33.2	120	83	49	0	0	3	1
CLEVELAND	75	53	84	45	64	-5	.1	- .5	.1	8.7	90	22.0	94	88	46	0	0	2	0
COLUMBUS	78	55	83	46	66	-4	.3	- .3	.2	9.0	80	25.8	97	94	49	0	0	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Aug. 28, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE May 30	PCT. NORMAL SINCE May 30	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	77	58	81	52	68	-4	1.6	1.0	1.5	12.3	121	32.2	130	87	55	0	0	4	1
TOLEDO	76	50	81	38	63	-7	.1	- .6	.1	5.6	57	18.0	84	94	48	0	0	2	0
YOUNGSTOWN	74	49	81	38	61	-6	.1	- .6	.1	8.3	78	22.5	88	92	46	0	0	2	0
OK OKLAHOMA CITY	98	71	104	68	84	5	0	- .7	0	8.2	87	27.7	130	70	33	6	0	0	0
TULSA	98	72	104	68	85	5	.7	0	.7	7.5	69	22.6	92	88	38	6	0	2	1
OR ASTORIA	73	56	82	51	64	4	T	- .4	T	2.6	57	41.5	121	86	58	0	0	0	0
BURNS	89	47	93	41	68	4	0	- .1	0	1.4	82	6.4	89	--	--	1	0	0	0
MEDFORD	95	54	101	49	75	5	T	- .1	T	1.0	59	9.2	83	73	19	5	0	0	0
PENDLETON	88	58	92	51	73	4	0	- .1	0	.8	47	5.5	75	49	15	3	0	0	0
PORTLAND	85	58	99	55	72	6	0	- .2	0	3.7	137	22.4	114	85	32	3	0	0	0
SALEM	86	49	97	44	68	2	0	- .2	0	1.9	79	21.4	98	91	28	3	0	0	0
PA ALLENTOWN	76	55	83	46	65	-5	1.2	.3	1.2	19.1	158	35.3	126	87	46	0	0	1	1
ERIE	71	53	78	41	62	-4	.2	- .6	.2	12.7	123	26.1	112	78	48	0	0	2	0
HARRISBURG	77	58	84	50	68	-5	.4	- .3	.4	12.9	96	29.1	105	89	44	0	0	2	0
PHILADELPHIA	79	60	87	54	70	-4	.3	- .6	.2	10.5	89	30.7	118	91	44	0	0	2	0
PITTSBURGH	75	55	81	47	65	-4	.6	0	.4	7.6	72	22.9	92	90	46	0	0	3	0
SCRANTON	74	53	80	42	63	-5	.7	0	.6	13.9	128	28.3	124	91	56	0	0	3	1
RI PROVIDENCE	74	59	83	47	66	-3	1.4	.5	.8	18.7	201	36.8	142	83	47	0	0	4	1
SC CHARLESTON	92	74	95	73	83	4	.2	- 1.1	.1	18.9	90	35.5	96	94	56	5	0	2	0
COLUMBIA	91	69	95	64	80	0	T	- 1.2	T	21.1	141	39.4	121	92	47	4	0	0	0
FLORENCE	91	70	96	67	80	2	T	- 1.0	T	13.2	85	30.6	99	96	47	4	0	0	0
GREENVILLE	86	64	91	61	75	-1	0	- .9	0	18.5	154	42.2	132	93	53	1	0	0	0
SD ABERDEEN	77	52	89	40	65	-4	--	--	--	--	--	--	--	87	34	0	0	1	0
HURON	79	56	86	45	68	-2	.6	.1	.3	8.0	99	16.1	113	94	42	0	0	3	0
RAPID CITY	79	54	88	49	66	-3	.4	.1	.3	9.6	132	18.9	138	87	44	0	0	3	0
SIOUX FALLS	78	56	84	47	67	-3	.8	.1	.7	7.8	77	15.4	85	90	45	0	0	2	1
TN CHATTANOOGA	87	64	89	57	76	-1	2.0	1.4	1.4	13.9	116	38.8	112	96	49	0	0	3	2
KNOXVILLE	86	65	87	59	75	-1	.7	.1	.5	13.2	113	39.3	124	93	54	0	0	3	0
MEMPHIS	90	76	94	68	83	4	T	- .7	T	14.5	138	41.5	124	84	61	3	0	1	0
NASHVILLE	85	65	90	56	75	-2	1.2	.5	.5	11.1	106	34.0	109	97	54	1	0	3	1
TX ABILENE	97	74	100	70	86	3	T	- .4	T	6.6	92	16.5	103	71	31	7	0	1	0
AMARILLO	90	63	95	59	76	0	.2	- .4	.2	11.4	127	14.9	105	79	36	5	0	1	0
AUSTIN	100	75	102	73	87	4	0	- .6	0	3.5	49	16.4	81	87	30	7	0	0	0
BEAUMONT	92	73	93	69	83	0	0	- 1.3	0	16.7	101	40.4	113	93	58	7	0	0	0
BROWNSVILLE	95	77	97	74	86	2	.2	- .7	.1	1.3	20	15.5	118	87	44	7	0	2	0
CORPUS CHRISTI	96	76	97	73	86	1	0	- .9	0	1.4	19	15.2	92	91	47	7	0	0	0
DEL RIO	99	75	101	73	87	2	0	- .4	0	3.4	83	8.2	80	74	30	7	0	0	0
EL PASO	96	69	99	66	83	3	.2	- .1	.1	1.6	47	2.7	53	64	25	7	0	2	0
FORT WORTH	99	76	102	72	87	4	T	- .6	T	7.6	109	29.8	141	70	31	6	0	1	0
GALVESTON	89	80	90	77	85	2	T	- 1.1	T	6.5	51	18.7	73	79	65	3	0	1	0
HOUSTON	96	74	97	71	85	2	0	- 1.0	0	7.8	60	21.9	73	93	40	7	0	0	0
LUBBOCK	94	69	99	65	81	5	T	- .4	T	8.2	119	16.2	128	69	32	6	0	0	0
MIDLAND	97	70	102	69	84	3	T	- .3	T	5.1	106	9.9	109	64	25	7	0	1	0
SAN ANGELO	97	74	101	70	86	3	0	- .4	0	7.0	156	15.0	136	73	30	7	0	0	0
SAN ANTONIO	98	75	100	70	87	3	0	- .7	0	2.1	30	12.4	74	82	29	7	0	0	0
VICTORIA	97	76	98	74	87	3	T	- .8	T	1.8	20	17.8	85	87	40	7	0	0	0
WACO	101	77	102	73	89	4	0	- .5	0	6.7	114	21.8	109	78	32	7	0	0	0
WICHITA FALLS	102	72	107	70	87	3	.5	.1	.5	9.5	128	30.4	171	76	29	7	0	1	1
UT BLANDING	78	56	84	52	67	-2	1.5	1.2	1.1	4.7	127	9.3	118	93	52	0	0	4	1
CEDAR CITY	82	61	91	56	71	2	.8	.5	.8	3.4	131	10.1	155	85	41	2	0	1	1
SALT LAKE CITY	90	64	97	61	77	5	.3	.1	.3	3.7	128	11.2	112	65	22	3	0	2	0
VT BURLINGTON	74	53	83	39	64	-2	1.6	.7	.8	11.7	107	22.7	107	90	43	0	0	5	2
VA NORFOLK	84	67	93	58	75	0	.2	- 1.1	.1	16.9	110	33.6	111	90	51	1	0	2	0
RICHMOND	84	63	90	59	73	-2	2.0	.9	1.4	19.1	131	34.7	119	95	58	1	0	2	2
ROANOKE	82	59	88	52	71	-3	T	- .9	T	14.4	130	31.9	125	91	50	0	0	0	0
WA COLVILLE	87	53	92	50	70	5	0	- .2	0	3.3	106	11.6	117	64	26	1	0	0	0
QUILLAYUTE	73	51	89	44	62	4	.1	- .6	.1	6.0	71	66.3	119	96	57	0	0	2	0
SEATTLE-TACOMA	78	58	88	54	68	5	0	- .3	0	2.1	66	21.5	106	85	40	0	0	0	0
SPOKANE	87	55	91	51	71	5	0	- .1	0	2.2	92	9.4	93	58	18	3	0	0	0
YAKIMA	88	50	92	43	69	2	0	- .1	0	2.1	191	5.2	113	78	21	4	0	0	0
WV BECKLEY	75	55	78	47	65	-3	1.0	.2	.6	15.4	127	31.6	108	99	63	0	0	3	1
CHARLESTON	80	57	85	49	68	-4	1.7	1.0	1.1	13.1	107	31.1	110	97	53	0	0	4	1
HUNTINGTON	78	58	84	49	68	-5	1.9	1.2	1.8	13.3	120	31.1	114	99	55	0	0	3	1
PARKERSBURG	78	59	82	51	69	-4	.5	- .2	.3	11.5	91	26.3	87	94	52	0	0	3	0
WI GREEN BAY	72	53	79	46	63	-3	1.7	1.0	.9	10.0	110	18.8	106	93	52	0	0	3	2
LA CROSSE	76	54	83	47	65	-5	1.8	1.1	1.2	5.7	50	14.3	69	100	53	0	0	3	2
MADISON	73	50	80	38	62	-5	.7	0	.3	8.4	76	19.7	97	98	53	0	0	3	0
MILWAUKEE	72	56	78	47	64	-4	.6	0	.4	10.0	104	23.6	121	91	54	0	0	3	0
WAUSAU	70	52	78	48	61	-5	1.4	.5	.8	13.5	111	24.2	112	95	51	0	0	3	1
WY CASPER	89	53	91	46	71	4	.7	.5	.5	7.0	219	11.7	144	93	20	5	0	3	1
CHEYENNE	78	54	84	48	66	0	.3	0	.3	8.9	159	13.6	124	89	40	0	0	2	0
LANDER	86	56	92	52	71	4	.1	- .1	.1	3.1	107	6.6	68	63	23	1	0	1	0
SHERIDAN	86	52	92	47	69	2	.3	0	.2	5.3	106	10.0	88	81	26	2	0	2	0
PR SAN JUAN	92	78	93	77	85	3	.2	- 1.3	.1	8.4	45	29.9	84	87	61	7	0	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS


MEAN DATE OF FIRST 32°(F.) TEMPERATURE IN AUTUMN
Based on Period 1921-50.
GULF OF MEXICO
PACIFIC OCEAN
ATLANTIC OCEAN
HAWAII
ALASKA

National Agricultural Summary

August 23-29

HIGHLIGHTS: Cool weather covered the area from the Northern Plains through the Corn Belt and into the Northeast. Development of already late crops continued slow. Freezing temperatures in North Dakota and Minnesota damaged immature crops to varying degrees. Rainfall benefited crops in the eastern half of the Nation, but Texas remained dry. Heavy rains in Missouri and Tennessee left farmers with only 2 to 4 days suitable for fieldwork. Elsewhere, 4 to nearly 7 days were available. Soil moisture was short to adequate in all areas of the Nation except in Missouri and Tennessee where adequate to surplus supplies were reported. Winter wheat harvest reached 97% completion, with the only remaining acreage in the northern producing States. Spring wheat was 60% harvested, slightly behind normal. Corn developed faster than average in the eastern Corn Belt, but progress continued to lag in the western region. In the 17 major States, 78% was in or past the dough stage and 43% was in or past the dent stage. Harvests picked up momentum in southern areas. Soybeans had bloomed on 97% of the acreage and set pods on 86%. Cotton was setting bolls on 94% of the acreage. Bolls were opening in many fields. Harvest continued active in Texas. Sorghum harvest became more widespread across the South. Early apple harvests gained momentum. Livestock were in mostly good condition.

SMALL GRAINS: The winter wheat harvest was 97% complete in the 15 major producing States, 1 point behind last year and average. Harvesting was finished in all States except Colorado, Idaho, Montana, Oregon, and Washington. In the Corn Belt, producers plowed land for fall planting of the 1983 crop. Plowing was 27% finished in Indiana. In the Southwest, growers began seeding operations. Some wheat was planted in Texas where moisture was adequate.

Spring wheat was 60% harvested in the 5 major producing States, lagging last year's 82% and the 66% average. Progress was behind schedule in all States except South Dakota, where harvesting was completed.

CORN: Corn continued in good to excellent condition in parts of the Corn Belt and Southeast and fair to mostly good in other regions. More rain is needed in eastern parts of the Corn Belt to prevent further stress. Cool temperatures again slowed growth of the already late crop, especially in the western Corn Belt and northern areas. Frost damaged some fields in North Dakota, but the extent is not yet known. High winds in Illinois flattened some fields. In the 17 major producing States, 78% of the corn was in or past the dough stage and 43% in or past the dent stage. Progress was generally ahead of average in the eastern Corn Belt but lagging in the western Corn Belt and in the northern States. Harvesting became more widespread in southern areas, reaching 58% completion in Georgia. Harvests reached as far north as Virginia.

SOYBEANS: Soybeans were in good to excellent condition in some southern areas and in parts of the Corn Belt. In other regions, mostly good conditions were reported. Rainfall benefited the crops, but more is needed for good development. Cool weather during the week slowed growth. In the 18 major producing States, 97% of the crop had bloomed and 86% was setting pods. Like corn, soybean development generally lagged in the western Corn Belt. Fields started to turn yellow in parts of the eastern Corn Belt, and in Georgia, leaves began to drop.

COTTON: Cotton was in fair to mostly good condition. In the 14 major producing States, plants were setting bolls on 94% of the acreage, 5 points behind last year and average. Set was complete in all States except New Mexico, North Carolina, Oklahoma, and Texas. Bolls were opening in many fields. The Texas harvest was 12% finished; harvest was complete from the Coastal Bend through the Lower Valley. Dry soils prevented stalk destruction in many areas. Producers further north in Texas would welcome additional rainfall since dryland stands are moisture stressed.

OTHER CROPS: Sorghum was in fair to mostly good condition. Heading was complete on 82% of the acreage in the 7 major States, behind last year's 91% and the average of 92%. Harvesting gained momentum across the South, while further north fields began to turn color. Harvest was 63% complete in Texas, 1 point behind average. Harvest gained momentum in the Low Plains area of the State. In Central Texas, heavy weed populations were causing harvesting problems.

Rice was headed on 86% of the acreage in the 5 major States, 5 points behind normal. The Texas harvest reached 87%, 9 points behind average. In Louisiana, harvest was 59% complete, and in other States, growers were just beginning to harvest the 1982 crop.

Tobacco harvest remained active in all producing areas. Cutting in Georgia neared completion.

Peanut harvest started in many areas. Texas growers irrigated the crop to combat the hot, dry conditions. Many dryland stands were moisture stressed.

VEGETABLES: Fall vegetable planting gained momentum in northern areas as summer harvests continued to decline in volume. Florida growers prepared land for fall planting. Seeding and transplanting of crops became more active. Fall planting was well along in Texas. California growers continued harvesting a wide variety of crops.

FRUITS AND NUTS: Peach harvests remained active in northern areas, while early apple harvests gained momentum. Florida's citrus groves were in excellent condition. New crop fruit made excellent growth. The first 1982-83 fresh fruit was packed during the week. California growers harvested apples, pears, nectarines, plums, and prunes. The almond harvest gained momentum.

PASTURES AND LIVESTOCK: Pastures and ranges benefited from recent rains in most areas but remained dry and started deteriorating in Texas, where supplemental feeding increased. Producers in that State continued to cull herds to prevent overgrazing. Livestock in South Texas showed signs of heat stress, but in other regions of the Nation, animals were in good condition. Producers were preparing for auctions.

CROP PROGRESS

FOR WEEK ENDING AUG 29

SOYBEANS
% BLOOMING

	1982	1981	AVG.
ALA	97	96	94
ARK	90	90	88
GA	97	95	NA
ILL	100	100	100
IND	100	100	100
IOWA	100	100	100
KANS	85	95	NA
KY	96	85	86
LA	99	96	97
MICH	100	100	100
MINN	99	99	99
MISS	98	98	99
MO	88	85	92
NEBR	100	100	NA
N C	88	90	84
OHIO	100	100	100
S C	94	92	92
TENN	100	100	97
18 STATES	97	96	NA
EXCL. STATES WITH NA	97	96	97

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

NA - NOT AVAILABLE

SOYBEANS
% SETTING PODS

	1982	1981	AVG.
ALA	86	78	79
ARK	73	71	67
GA	85	84	NA
ILL	95	93	95
IND	98	80	94
IOWA	90	100	100
KANS	60	75	85
KY	80	64	75
LA	85	88	86
MICH	90	90	96
MINN	97	98	98
MISS	83	87	85
MO	70	67	79
NEBR	85	100	100
N C	64	72	59
OHIO	100	85	95
S C	73	68	71
TENN	83	79	78
18 STATES	86	85	NA
EXCL. STATES WITH NA	86	85	88

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

NA - NOT AVAILABLE

CORN
% DENT

	1982	1981	AVG.
COLO	8	36	32
GA	99	99	NA
ILL	71	55	67
IND	75	25	50
IOWA	28	48	57
KANS	35	45	50
KY	78	61	64
MICH	30	25	32
MINN	23	16	40
MO	64	75	65
NEBR	15	35	40
N C	92	93	88
OHIO	70	30	40
PA	22	33	25
S DAK	17	28	36
VA	72	83	NA
WIS	17	25	31
17 STATES	43	41	NA
EXCL. STATES WITH NA	42	40	50

THESE 17 STATES PRODUCED 93% OF THE 1981 CORN CROP.

NA - NOT AVAILABLE

CORN
% DOUGH

	1982	1981	AVG.
COLO	52	60	61
GA	100	100	NA
ILL	95	95	95
IND	100	75	95
IOWA	65	83	90
KANS	80	85	90
KY	98	87	90
MICH	90	90	92
MINN	69	64	74
MO	86	89	79
NEBR	55	80	80
N C	96	99	98
OHIO	100	70	80
PA	77	83	76
S DAK	59	63	76
VA	89	94	NA
WIS	61	67	61
17 STATES	78	81	NA
EXCL. STATES WITH NA	77	80	85

THESE 17 STATES PRODUCED 93% OF THE 1981 CORN CROP.

NA - NOT AVAILABLE

WINTER WHEAT
% HARVESTED

	1982	1981	AVG.
CALIF	100	100	100
COLO	94	99	99
IDAHO	75	82	76
ILL	100	100	100
IND	100	100	100
KANS	100	100	100
MO	100	95	100
MONT	70	95	90
NEBR	100	100	100
OHIO	100	100	100
OKLA	100	100	100
OREG	96	94	94
S DAK	100	100	100
TEX	100	100	100
WASH	93	92	87
15 STATES	97	98	98

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

SPRING WHEAT
% HARVESTED

	1982	1981	AVG.
IDAHO	48	72	50
MINN	64	92	71
MONT	30	60	50
N D	59	82	60
S DAK	100	100	100
5 STATES	60	82	66

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

SORGHUM
% HEADED

	1982	1981	AVG.
COLO	66	77	85
KANS	65	85	85
MO	85	80	89
NEBR	90	100	100
OKLA	80	100	95
S DAK	89	90	90
TEX	95	96	96
7 STATES	82	91	92

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

COTTON
% SETTING BOLLS

	1982	1981	AVG.
ALA	100	100	96
ARIZ	100	100	100
ARK	100	100	100
CALIF	100	100	100
GA	100	100	100
LA	100	100	100
MISS	100	100	100
MO	100	99	98
N MEX	99	100	97
N C	99	99	98
OKLA	75	95	90
S C	100	100	100
TENN	100	100	98
TEX	91	99	99
14 STATES	94	99	99

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

RICE
% HARVESTED

	1982	1981	AVG.
ARK	5	5	3
CALIF	0	0	0
LA	59	70	68
MISS	5	7	5
TEX	87	97	96
5 STATES	29	33	31

THESE 5 STATES PRODUCED 98% OF THE 1981 RICE CROP.

RICE
% HEADED

	1982	1981	AVG.
ARK	87	91	91
CALIF	60	70	76
LA	93	98	97
MISS	94	94	95
TEX	100	100	100
5 STATES	86	90	91

THESE 5 STATES PRODUCED 98% OF THE 1981 RICE CROP.

State Summaries of Weather and Agriculture

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

ALABAMA: Temperatures above normal. Rainfall variable from trace to near 1.00 in.

Soil moisture short to adequate. Fieldwork: 5.7 days. Corn: Mature 89%, 77% average; harvested 40%, 51% 1981. Soybeans: Blooming 97%, 96% 1981, 94% average; setting pods 86%, 78% 1981, 79% average. Cotton bolls open 21%, 25% 1981, 11% average. Sorghum harvested 20%; peanuts dug 5%. Conditions: Corn, soybeans, cotton, peanuts, sorghum, pastures and livestock in good condition.

ALASKA: Varied weather conditions allowed farmers in all areas of Railbelt 2 to 6 days suitable for harvesting crops. The seasons first killing frost Delta Junction area ended growth of most crops on 26th through the 28th. Overall freeze damage should be light. Small grain crop prospects varied widely throughout Railbelt. Tanana Valley grain ranged below average on late seeded fields. Average and above on early seeded fields Matanuska Valley. Prospects average or below. Nearly all fields of oats and barley in turning stage or beyond. Farmers busy swathing and combining Delta area where nearly 5% has been combined. Second crop harvest hay ranges not started to 50% complete. Second crop hay growth short. Harvest of potatoes continues slow on early varieties. Growers waiting for more size. Soil moisture conditions ranged short to mostly adequate.

ARIZONA: Thunderstorms produced heavy rains over sections west. Amounts ranged upwards over 2.00 in. Over eastern half State amounts mostly between 0.50 and 1.50 in. Marked decrease thunderstorm activity over State later part week. Average temperatures varied 3° below normal to 3° above.

Rains took toll on alfalfa crop. Alfalfa cutting delayed everywhere. Heavy rain damage reported Navajo, Yavapai Counties, light to moderate damage elsewhere. Cotton crop made good progress, boll setting present all fields. Open bolls apparent approximately 75% cotton acreage planted. Insect activity continued problem Statewide, pesticide controls increasing for pink bollworm, bud bollworm. Sorghum crop, heading stage most counties. Corn for grain approaching harvest stage, Cochise County. Harvest activity expected early September. Corn harvest continued Greenlee, Santa Cruz Counties. Rains affected various fruit, vegetable activities. Watermelon harvest southeastern counties slowed due to rain. Few watermelons harvested central area. Honeydew harvest expected to finish middle September. Plantings fall vegetables slowed by recent rains. Wet fields delayed lettuce planting Cochise, Pima Counties. Apple harvest Cochise County begin 1st September. Yavapai County reported insect damage from June bugs to peach crop. Lemon ring picking harvest Yuma area, fruit sizes ranging walnut size upwards. Tree conditions very good young groves, older groves showed pale yellow leaves, inside dead wood. Some grapefruit picked Yuma area. Citrus groves overall good shape. Livestock water supplies increased. Soil moisture increased to adequate most parts State except Yuma County which reported inadequate moisture. Ranges mostly fair to good condition only southwestern ranges poor condition. Rains initiated green grass growth, improved range conditions. Livestock central, southwestern areas fair condition, good to excellent condition remainder State.

ARKANSAS: Warm, wet week. Highest temperature 102°, lowest 58°. All departures from normal -2 to +3°. Most rainfall 2.56 in., least zero.

Over six days suitable for fieldwork. Soil moisture adequate northeast and east central, short elsewhere. Crop growth moderate to slow. Soybean condition good to fair; blooming 90%, 90% 1981, 88% average; setting pods 73%, 71% 1981, 67% average; turning yellow 5%, less than 5% 1981. Rice good condition; headed 87%, 91% 1981 and average; ripe 21%, 25% 1981, 26% average; harvested 5%, 5% 1981, less than 5% average. Cotton good condition; bolls opening 18%, 16% 1981, 23% average. Boll worm activity heavy most areas. Corn harvested 35%, 30% 1981, 22% average. Sorghum harvest 13%, 29% 1981, 18% average. Pastures average. Cattle good condition.

CALIFORNIA: All areas experienced above normal temperatures, with the Sierra Nevada 8° above normal and the San Joaquin Valley and South Coast 4° above normal. Precipitation was light and very spotty. The State was very warm early in the period, but cooled midweek.

Field crop development behind schedule. Warmer weather needed. Cotton wilt remains problem San Joaquin Valley. Rice development slow - cool nighttime temperatures. Rice 60% headed, 70% a year ago. Dry bean harvest started southern San Joaquin Valley. Late planted beans blooming. Safflower harvest continues. Alfalfa seed harvest increasing. Some corn being cut for silage. Gravenstein apple fresh market harvest nearly complete. Apple varieties released last week include McIntosh, Jonathon, Golden, and Red Delicious. Harvest of Bartlett pears and nectarines and plums continued, prune harvest active. Almond harvest gaining momentum. Artichokes light supply on Central Coast, variable quality. Broccoli supply good, quality good on Central Coast. Light diversion to freezing. Carrot supplies, quality good Salinas Valley. Cauliflower harvest, Central Coast, active. Good quality, good supply, heavy diversion to freezers. Gap in celery harvest, Salinas Valley. Quality good, supplies light. Harvest increase next week. Lettuce supply heavy Central Coast, good quality. Planting active, San Joaquin Valley. Field preparation active, Desert. Melon harvest active, northern California. Summer onion harvest continues San Joaquin Valley. Some fields plowed under, market conditions. Bell peppers in moderate supply - harvest increasing Gilroy-Hollister. Good quality. Summer potato harvest near completion, southern California. Harvest fall potatoes, Norgold Russets, getting underway Tulelake-Butte Valley. Sweetpotato harvest initial stages, Merced area. Market tomato harvest active, interior valley and coastal districts. Processing tomato harvest heavy San Joaquin, Sacramento Valleys. Mountain ranges continue provide good grazing. Supplemental feeding increasing foothill districts. Fire danger high many areas. Stock water supplies adequate mountain ranges. Ponds dried up some lower regions.

COLORADO: Numerous showers and thunderstorms continued to be rule causing flash flooding watches in the west. Temperatures in most areas were within a few degrees of normal.

Scattered showers slowed the winter wheat, small grain, and hay harvest. Row crop prospects continue to improve. Winter wheat 94% harvested, in 1981 99%. Barley, 96% turning color, 86% ripe, and 66% harvested. Last year 97% turning color, 90% ripe, and 74% harvested. Dry beans, 92% flowered and 5% cut. Last year 93% flowered and 6% cut. Corn progressing normally, 93% silked, 52% in dough stage, and 8% dented. In 1981, 97% silked, 60% in dough,

and 36% dented. Sorghum, 66% headed, 8% turning color. Last year 77% headed and 5% turning color. Second cutting alfalfa 71% and third cutting 57% complete. In 1981, second cutting 85% and third cutting 20% complete. Moisture generally adequate. Five days suitable for fieldwork. Livestock in good condition.

FLORIDA: Usual summer weather under slowly lowering pressures brought an increase in showers and thunderstorms especially over the northern and central portions of the Peninsula. Temperatures ranged from 70 to 90°.

Soil moisture mostly adequate. Corn harvest nearing completion, peanut harvest underway, haying continues where dry enough. Soybeans good condition but fields weedy, insects increasing. Cotton good condition, spraying for insects active. Sugarcane growing rapidly. Pastures good to excellent condition, however, low land pastures still very wet. Armyworms in some pastures. Cattle mostly good condition. Citrus grove condition continues excellent, abundance of moisture. Some caretakers pumping out excessive water. Most trees flushed with new growth. New crop fruit excellent progress. The first 1982-83 fresh fruit were packed last week. Normal summer weather of hot days and showers prevailed vegetable areas. Fieldwork increased as wet fields dried out. Eggplant, celery, pepper, tomato plantings continue to gain. Plantings of cabbage, cucumbers, squash, small acreage watermelons underway. Plant live generally good. Sweet corn seeding continues active in Everglades. Snap bean plantings should start soon.

GEORGIA: Quite dry except near coast. Scattered showers almost daily. Average near 0.75 in. coast but less than 0.25 in. elsewhere. Temperatures near normal north and slightly above normal elsewhere. Rather dry 28th and 29th. Scattered showers 29th produced less than 0.10 in. rainfall on average. Temperatures slightly below normal northern half.

Soil moisture 2% very short, 39% short, 58% adequate, 1% surplus. Five days suitable for fieldwork. Haying, silage and grain harvesting active. Spraying continues for disease and insects. Corn 24% fair, 67% good, 9% excellent; 99% dent stage this year and last, 97% mature, 98% last year; 58% harvested, 66% last year, 46% average. Cotton 33% fair, 57% good, 9% excellent; bolls open 19%, 37% last year, 31% average. Peanuts 23% fair, 70% good, 5% excellent; 3% dry this year, 2% last year and average; 1% threshed this year, last and average. Insect and disease control continues. Soybeans 21% fair, 72% good, 6% excellent; 97% blooming, 95% last year; 85% setting pods, 84% last year; 2% dropping leaves, 5% last year. Actively spraying for loopers and other worms. Tobacco 14% fair, 79% good, 7% excellent; 99% harvested, 90% last year, 92% average. Apples 13% very poor, 19% poor, 29% fair, 32% good, 7% excellent; 65% picked, 60% last year, 52% average. Pecans 3% poor, 33% fair, 58% good, 5% excellent. Spraying for scab. Hay 21% fair, 73% good, 5% excellent. Hay harvest very active. Pasture 11% fair, 79% good, 9% excellent. Cattle and hogs good.

HAWAII: Wet weather drenched the Island of Hawaii. Minor flooding reported. Damage minimal. Field activities slowed. Occasional isolated showers other Island affected crop progress, especially to leafy crops. Irrigation necessary in some major crop areas to maintain fair to good crop progress. Spraying continuing to minimize insect and disease damage. Vegetables: Supplies light. Wet, humid weather affecting progress of leafy crops. Bananas: Rains beneficial. Supplies light. Papayas: Supplies light. Pineapples: Harvest slacking. Sugar: Steady harvest expected. Pastures: Rains beneficial. Generally fair to good condition.

IDAHO: High pressure and warm temperatures dominated. Temperatures averaged 2 to 6° above normal. Highest temperature was 101° at Mountain Home While the lowest was 29° at Stanley. Precipitation was below normal in all areas with only spotty shower activity being recorded, mainly in the mountains. The most precipitation was 0.18 at Grangeville.

Small grain harvests had top priority as combining was in full swing. Winter wheat harvest advanced 37 points to 75%, 82% last year, 76% average. Spring wheat 48% harvested, 72% last year, 50% average. Barley 47% harvested. Potatoes in very good condition with 59% turned color and vines dying on 15%, comparable to last year. Second cut alfalfa hay 82% complete. Sweet corn for processing 65% harvested. Dry beans 84% turned, 23% swathed. Mint harvest 99% completed. Onions 10% harvested. Dry peas 96% harvested and lentils 66% harvested. Cattle in very good condition, ranges beginning to dry.

ILLINOIS: Temperatures 2 to 8° below normal. Minimum readings fell into the 40's in the northern and central sections. Precipitation moderate to heavy (0.45 to 5.00 in.). Some areas recorded 2.50 in. during a 24-hour period.

Winter wheat 100% combined, 100% 1981, 100% average. Corn 41% excellent, 53% good, 6% fair. Corn 95% dough, 95% 1981, 95% average; 71% dent, 55% 1981, 67% average; 15% mature, 5% 1981, 26% average. High winds last week through central areas flattened or partially flattened some corn acres, but the extent of the damage has not yet been determined. Soybeans 24% excellent, 63% good, 13% fair. Soybeans 100% blooming, 100% 1981, 100% average; 95% setting pods, 93% 1981, 95% average; 16% turning yellow, 6% 1981, 14% average. Alfalfa 21% excellent, 71% good, 8% fair; 67% third crop cut, 69% 1981, 62% average. Pastures 20% excellent, 56% good, 21% fair, 3% poor. Soil moisture 24% short, 69% adequate and 7% surplus. Days suitable for fieldwork: 5.0.

INDIANA: Fieldwork averaged 5 days. Topsoil and subsoil moisture were rated short to mostly adequate. Corn 10% mature, 1981 1%, average 9%. Corn 75% dented, 1981 25%, average 50%. Corn 100% in dough, 1981 75%, average 95%. Soybeans 15% turning yellow, 1981 2%, average 15%. Soybeans 98% setting pods, 1981 80%, average 94%. Soybeans 100% blooming, 1981 100%, average 100%. Wheatland 27% plowed, 1981 25%, average 28%. Tobacco 20% harvested, 1981 5%, average 15%. Silos 10% filled, 1981 5%, average 15%. Pastures fair to good condition.

IOWA: Temperatures averaged about 2° above normal with light to moderate rainfalls early week followed by widespread moderate to heavy rains beginning at weekend.

Topsoil moisture: 3% surplus, 67% adequate, 30% short. Subsoil moisture: 4% surplus, 95% adequate, 1% short. Corn in or past milk stage: 90%, last year 100%, normal 100%. Corn in or past dough stage: 65%, last year 83%, normal 90%. Corn in or past dent stage: 28%, last year 48%, normal 57%. Soybeans setting pods: 90%, last year 100%, normal 100%. Third crop alfalfa hay harvested: 50%, last year 63%, normal 58%. Second crop clover harvested: 90%, last year 100%, normal 95%. Fieldwork: 5.9 days suitable. Crop conditions: Corn, soybeans, hay, and pasture mostly good to excellent. Livestock in fair to good condition.

KANSAS: Precipitation averaged little or none southwest and south central, increasing east and north to 2.00 in. Temperatures averaged from 73° east central to 78° southwest and south central and from 2 to 3° above normal west to from normal to 2° below normal central and east.

Corn dough stage 80%, 85% last year, 90% average; denting 35%, 45% last year, 50% average; mature 15%, 15% year ago, 25% average, condition good. Sorghum headed 65%, 85% last year, 85% average; coloring 5%, 20% last year, 25% average; mature 1%, 1% last year; condition good. Soybeans blooming 85%, 95% year ago; podding 60%, 75% last year, 85% average; shedding leaves 2%, 4% year ago; condition good. Alfalfa 3rd cutting 85%, 95% last year, 90% average; 4th cutting 15%, 20% last year and normal. Pasture and range condition good. Fieldwork: 5.5 days suitable.

KENTUCKY: Week got off to wet but mild start and finished dry and cool. Temperatures averaged about 1 to 2° below normal. Rainfall varied from 0.50 to over 5.00 in. and at most stations averaged about 1.00 to 2.00 in. above normal.

Days favorable for fieldwork, 4.0. Soil moisture 26% short, 56% adequate, 18% surplus. Rains relieved dry conditions in west. Burley 33% cut, comparable with last year, ahead of average progress of 27%. Blue mold reported in many counties but production prospects still very good. Corn 20% mature, another 58% dented. Approximately 15% silage corn harvested. Soybeans 80% podded or podding. Rain very beneficial to late soybeans. Pastures fair to good, aided by recent rains.

LOUISIANA: Rainfall light, scattered. Temperatures range from normal south to 5° above normal north.

Soil moisture short to adequate. Days suitable: 5.8. Corn harvested 70%, 68% 1981, 51% average. Rice headed 93%, 98% 1981, 97% average; ripe 68%, 80% 1981, 79% average; harvested 59%, 70% 1981, 68% average. Condition fair to good. Cotton setting bolls 100% 1982, 1981 and average; open bolls 14%, 49% 1981, 24% average; condition good. Soybeans flowering 99%, 96% 1981, 97% average; setting pods 85%, 88% 1981, 86% average; beans turning 8%, 12% 1981; condition fair to good. Sorghum turning color 96%, 88% 1981, 81% average; ripe 87%, 73% 1981, 55% average; harvested 66%, 49% 1981, 29% average; condition fair to good. Sweetpotatoes harvested 24%, 36% 1981, 29% average; condition good. Sugarcane planted 7%, 16% 1981; condition good. Pecans rated fair. Vegetables rated fair. Last cutting hay 18%, 89% 1981. Pastures fair to good. Cattle good condition.

MARYLAND AND DELAWARE: Cool and dry. Temperatures averaged 2° below normal. High in 90's, lows in 40's. Precipitation averaged 0.38 in. Range 0 to 0.38 in.

Delaware: Corn in good condition; 100% in dough, 1981 90%; dent stage 70%, 1981 70%. Soybean condition good; 100% bloomed, 1981 85%; podding 70%, 1981 55%. Fieldwork averaged 6 days.

Maryland: Corn in good condition; 80% in dough, 1981 90%; 55% in dent, 1981 70%; harvest for silage 10% complete. Soybeans in good condition; 90% bloomed, 1981 90%; 70% podding, 1981 70%. Tobacco good to excellent condition, 55% harvested, 1981 65%. Apples and peaches mostly good condition; apples 30% harvested, peaches 80%. Fieldwork averaged 6 days.

MICHIGAN: This cool, wet week was more like October than August. Average temperatures were 9° below normal in the Upper Peninsula and 4 to 7° below normal in the Lower Peninsula. The heaviest precipitation was over the central portion of the Lower Peninsula with over 1.00 in.

Cool nighttime temperatures continue to slow crop development. Soil moisture supplies adequate due to rains received during week. Fieldwork: 5 days suitable. Oat harvest 90% complete, 93% last year, 97% average. Corn in dough 90%, 90% in 1981, and 92% average. Corn dented 30%, 25% last year, 32% average. Soybeans blooming 100%, 100% 1981, 100% average. Soybeans setting pods 90%, 90% last year, 96% average. Dry beans leaves shedding 30%, 35% 1981, 31% average. Harvest will begin this week as fields dry. Fruit and vegetable harvest continues in full swing.

MINNESOTA: Cool weather with frost in the north and heavy rainfall southern two-thirds of State. Temperatures averaged from the mid 50's north to the mid 60's south and were from 1 to 4° below normal south and 3 to 9° below normal north. The highest reported temperature was 90° at Browns Valley and the coolest was 28° at Fosston. Rainfall averaged less than 0.50 in. northern one-third of the State. The southern half generally averaged between 1.00 and 2.00 in. The largest reported totals were 3.37 in. at Rochester and 3.20 in. at Redwood Falls.

Widespread showers relieved dry conditions in most areas. Early frost is source of concern. Late-planted row crops need 3 weeks or more of warm, frost-free weather. Frost in northern areas 27th; some killing frosts reported. Northwest districts, small grain harvest bogged down by heavy rains. Topsoil moisture: 10% very short, 26% short, 62% adequate, and 2% surplus. Cut or swathed: Spring wheat 84%, 1981 99%, normal 90%; oats 97%, 1981 99%, normal 96%; barley 96%, 1981 99%, normal 97%. Combined: Spring wheat 64%, 1981 92%, normal 71%; oats 91%, 1981 96%, normal 85%; barley 83%, 1981 98%, normal 89%. In milk: Corn 97%, 1981 99%, normal 97%. In dough: Corn 69%, 1981 64%, normal 74%. Denting: Corn 25%, 1981 16%, normal 40%. Setting pods: Soybeans 97%, 1981 98%, normal 98%. Turning yellow: Soybeans 7%, 1981 8%, normal 21%.

MISSISSIPPI: Temperatures near normal northern half of State and 1 to 3° above normal southern half. Extremes: 60 and 99°. Weak cold front set off widely scattered showers. Greatest 24-hour rainfall 2.15 in.

Soil moisture adequate to short. Fieldwork: 5.8 days suitable. Cotton 100% setting bolls, 100% last year and average; 36% open bolls, 60% last year, 38% average; condition good. Soybeans 98% blooming, 98% last year, 99% average; 83% setting pods, 87% last year, 85% average; condition good. Rice 94% headed, 94% last year, 95% average; 5% harvested, 7% last year, 5% average; condition good. Sorghum 99% headed, 18% harvested. Corn 60% mature, 18% harvested. Hay 85% harvested. Sorghum silage 60%. Peanuts 15%. Corn silage 80%. Sweetpotatoes 12% harvested. Pasture condition good.

MISSOURI: Temperatures averaged 4 to 5° below normal, except in the extreme southeastern and southwestern parts of the State. Rainfall was over 1.00 in. throughout the State and some areas received up to 5.00 in.

Fieldwork: 2.1 days suitable. Corn 86% in dough stage or beyond, last year 89%, normal 79%. Corn 64% dented, last year 75%, normal 65%. Corn mature 19%, last year 21%, normal 22%. Grain sorghum 85% headed, last year 80%, normal 89%. Sorghum 29% mature, last year 18%, normal 22%. Sorghum 3% harvested, last year 1%, normal 1%. Soybeans 88% blooming or beyond, last year 85%, normal 92%. Soybeans 70% setting pods, last year 67%, normal 79%. Third cutting alfalfa hay 69% harvested, last year 78%, normal 79%. Cotton with open bolls 24%, 78% last year, 75% normally. Corn condition 14% excellent, 65% good, 21% fair. Soybean condition 7% excellent, 51% good, 41% fair,

1% poor. Condition of grain sorghum 5% excellent, 64% good, 30% fair, 1% poor. Pasture 15% excellent, 63% good, 22% fair. Topsoil moisture 48% surplus, 50% adequate, 2% short.

MONTANA: Warm week west, southwest and south central as temperatures averaged 2 to 5° above normal. Rest of State had temperatures 1 to 3° below normal. Freezing temperatures across high valleys of southwest. Precipitation confined mostly to north central, northeast and south central. Totals ranged up to 1.25 in. and in some areas of north central.

Topsoil moisture short to adequate. Subsoil moisture mostly adequate. Six days suitable for fieldwork. Crop progress compared with last year and normal: Percent harvested winter wheat 70, 95, 90; spring wheat 30, 60, 50; barley 40, 65, 55; oats 45, 70, 60; second cutting alfalfa hay 55, 75, 70. Row crops growing well and in good condition.

NEBRASKA: Precipitation: Widespread thunderstorms. Amounts ranging from a few tenths up to 2.00 to 3.00 in. Temperatures: 1 to 4° below normal except Panhandle which was 2° above normal.

Row crop development near two weeks behind normal. Corn good. Dough 55%, 80% previous year and normal. Dent 15%, 35% last year and 40% normal. Soybeans mostly good to fair. Podding 85%, 100% last year and normal. Turning color 1%, 6% last year and 10% normal. Sorghum mostly good to fair. Heading 90%, 100% last year and normal. Turning color 5%, 35% last year and 45% normal. Alfalfa mostly good to fair. Third cutting 60%, 70% last year and normal. Pasture and range feed supplies adequate. Dry bean harvest underway. Topsoil moisture mostly adequate to short. Subsoil moisture adequate. Days suitable for fieldwork: 4.7.

NEVADA: Warm, moist air predominated most of week. Scattered thundershowers with locally heavy rain produced some flash flooding central and southern areas. Hail reported scattered localities. Temperatures averaged 4 to 7° above normal all areas except extreme south which had 3° below normal due to cloud cover. Extremes: 35 and 112°.

Widespread showers slowed remaining harvest small grains and hay. Potato growth normal, higher yield than year ago expected. Cattle mostly good condition.

NEW ENGLAND: Rainfall averaged between 1.00 and 2.00 in. in much of northern New England and also along coastal Rhode Island and Connecticut. Elsewhere, amounts averaged between 0.50 and 1.00 in. Most of precipitation fell on the 25th accompanied by gusty 40 and 50 mph winds. Temperatures averaged below normal. Coldest morning was the 29th, when overnight temperatures tumbled into the 30's and 40's over much of the region. A few valleys in northern New England received frost.

Maine potatoes: Topkilling most varieties, some harvest for processing continues, quality ranges from very poor to very good. Second crop hay harvest: 85%; 1981, 73%, quality about average. Silage corn may not mature before hard frost. A large crop of excellent quality blueberries past peak harvest in Maine. Cranberries in Mass. starting to color, record harvest expected.

NEW JERSEY: Another cool week with temperatures averaging 5° below normal. Extremes 34° at Neshanic Station and 26 to 31° in Cranberry Bogs on 29th, and 88° at several stations on 25th. Rainfall averaged 1.02 in. north, 1.22 in. central and 0.94 in. south. The heaviest 24-hour total 1.22 in. at Toms River on 24th to 25th. Estimated soil moisture, in percent of field capacity, averaged 85% north, 68% central and 69% south. Four inch soil temperatures averaged 68° north, 71° central and 74° south.

Showers widespread. Most areas need a good rain. Fall vegetable growth good under irrigation. Cool temperatures slowing crop maturity. Irish potato digging continues active. A few growers digging sweetpotatoes. Peach harvest at peak. Many varieties being picked at present. Fall apples coloring well. Corn silage making beginning. Third cutting of hay continues. Preparation and planting of fall grains and cover crops underway.

NEW MEXICO: Average temperatures were slightly above normal in the east and south.

Soil moisture in an adequate supply in most of the northern areas, while the south remains varied from very short to adequate. Cotton continues in good condition. Alfalfa hay in good condition. Scattered showers continue to cause problems. Grain sorghum in fair to good condition with about 75% heading. Winter wheat seeding continues to increase in activity. Corn in good to excellent condition. Peanuts in good condition and progressing well. Sweetpotatoes showing prospects for a good crop. Irish potato harvest about 75% complete. Green chile harvest remains active and in good condition. Ranges in fair to good condition depending on rainfall received. Cattle and sheep in good condition and gaining well. Cotton setting bolls 99%, 100% 1981, 97% average.

NEW YORK: Very cool week, crop growth slowed. Rain, showers slowed fieldwork. Corn maturing slowly. Oat harvest 73% done, 65% 1981, 74% average. Second cutting alfalfa 85% cut, 85% 1981, 82% average. Third cutting alfalfa 22% in, 25% 1981, 23% average. Apples in good condition, harvest starting. Pear condition good. Peach harvest 50% done. Long Island potato harvest, Upstate vegetable harvesting active.

NORTH CAROLINA: Temperatures: Near normal in the Piedmont, 1 to 2° below normal in west and 1 to 2° above normal along the coastal plain. Precipitation: Varied from zero to more than 1.00 in.

Fieldwork: 5.9 days suitable. Soil moisture: 1% very short, 25% short, 70% adequate, and 4% surplus. Conditions: Pasture, tobacco, soybeans, sweetpotatoes, and sorghum mostly good. Corn good to excellent. Cotton and peanuts fair to good. Apples mostly poor to fair. Harvests: Sweetpotatoes 6%, 1981 5%, 9% average; flue-cured tobacco 87%, 1981 78%, 70% average; burley tobacco 14%, 1981 15%; corn for grain 8%, 1981 12%; corn for silage 48%, 1981 49%; apples 15%, 1981 22%, 20% average; hay 82%, 1981 80%, 80% average. Phenological stages: Cotton setting bolls 99%, 1981 99%, 98% average; cotton opening bolls 29%, 1981 33%, 16% average; corn soft dough 96%, 1981 99%, 98% average; corn dent 92%, 1981 93%, 88% average; corn matured 73%, 1981 74%, 72% average; soybeans bloomed 88%, 1981 90%, 84% average; soybeans setting pods 64%, 1981 72%, 59% average. Major farm activities: Flue-cured tobacco harvest, cutting silage, hay making and pesticide application.

NORTH DAKOTA: Temperatures were unseasonably cool. Averages were 5 to 10° below normal. Coldest temperature was 22° north central on 27th. Several high temperature readings of 92° on 22nd. Rainfall was below normal. All stations reported some rain but amounts were 0.25 to 0.50 in. below normal. Driest areas were central and east. Highest total for week was 0.80 in. southwest.

Heavy frost the morning of 27th did varying amounts of damage particularly north central, northeast, central and east central. Immature corn, soybeans, and dry beans appeared to be most

severely damaged by temperatures which dipped to the low 20's in a few scattered locations. Some damage also to sunflower, potatoes, and late small grains. Damage continues to be assessed, but the extent cannot be fully appraised at this time. Active week for small grain harvest slowed at times by cool, damp weather. At week's end, small grain combining was near the average pace. As of 29th, the percents combined with last year and average were: Hard red spring wheat, 59, 82, 60; durum, 45, 72, 44; sunflower development about 5 days behind normal; other row crops also behind. An average of 6.1 days were suitable for fieldwork.

OHIO: Temperatures 3 to 6° subnormal north to 1 to 2° subnormal south. Extremes especially wide; first light frost or frost threat across northern third of State. Precipitation widespread: Totals across northern half averaged 0.10 to 0.33 in., southern areas received 0.50 to 2.00 in.

Farm activities included hay cutting and baling, sweet corn pulling, vegetable harvesting, corn silage harvesting, tobacco topping and cutting, seeding forage crops, plowing for winter wheat, and general farm maintenance. Recent cool weather and scattered rain relieved crop stress but may have come too late. Winter plowing has been limited due to dry soil conditions. Corn in dough 100%, 70% 1981, 80% average. Corn dented 70%, 30% 1981, 40% average. Corn mature 10%, 0% 1981, 10% average. Soybeans blooming 100%, 100% 1981, 100% average. Soybeans setting pods 100%, 85% 1981, 95% average. Soybeans pod set, leaves green 75%, 40% 1981, 65% average. Soybeans turning yellow 15%, 5% 1981, 5% average. Alfalfa harvest - 3rd cut 75%, 40% 1981, 35% average. Other hay harvest - 2nd cut 90%, 90% 1981. Other hay harvest - 3rd cut 60%. Days favorable: 6.0. Pasture condition fair. Soil moisture 58% short, 42% adequate.

OKLAHOMA: Rainfall was beneficial in east ranging from 0.60 in. northeast and east central to 1.20 in. southwest. Elsewhere, rainfall was mostly less than 0.25 in. Temperatures ranged from 1° above normal Panhandle to 8° above southeast.

Showers have alleviated many stress problems in east, but dry conditions prevail in west. Until this week, rainfall had been below 1.00 in. each week in every district since August 1. Wheat harvested: 100%, 100% 1981, 100% average. Sorghum headed: 80%, 100% 1981, 95% average. Cotton setting bolls: 75%, 96% 1981, 90% average. Days suitable for fieldwork: 6.8.

OREGON: Record highs recorded except along coast. Traces of precipitation were reported along coast and extreme eastern areas. Showers moved into western half early 29th.

Winter wheat harvest 96%; 94% last year and average. Only high elevation fields remain. Fall land preparation underway. Some grass seed harvest in progress. Field burning continues. Hay continues. Bartlett pear harvest in full swing. Early apples and peaches continue. Evergreen blackberry harvest down due to low prices. Cranberries maturing normally. Snap bean and sweet corn being picked in volume. Onion harvest started in most areas. Potato harvest for processing in full swing. Later potatoes sizing well. Pastures mostly fair; need rain. Cattle and calves mostly good shape.

PENNSYLVANIA: Record cold snaps beginning and end of week with near normal temperatures mid-period. Freezing temperatures with widespread frost 22nd when lows 30's and 40's most places. Extremes: 24 and 87° with averages 3 to 9° below normal for coolest week in two months. Lowest minimum readings since early May. Rainfall from showers and thunderstorms primarily 24th through 26th produced from 1.00 to 2.00 in. rainfall southwest mountains and parts of Poconos to 0.25 in. or less northern and southern tier counties.

Five days suitable. Moisture adequate to short. Activities: Spraying; baling straw; plowing; seeding alfalfa; making hay; and harvesting oats, tobacco, peaches, apples, cantaloups, watermelon, potatoes, cabbage, sweet corn, and tomatoes. Oat harvest virtually complete, same as last year. Tobacco 25% harvested, last year 35%. Potatoes 31% harvested, last year 29%. Corn 77% in or past the dough stage with 22% dented; last year 83% in or past the dough stage with 33% dented; average 76% in or past the dough stage with 25% dented. Fall plowing 28% complete; last year 31% complete; average 29%. Harvest of second crop alfalfa 92% complete, last year at this time virtually complete. Third crop alfalfa 49% harvested, last year 50%. Fourth crop alfalfa 7% harvested, same as last year. Second crop Clo-Tim 76% harvested, last year 80%. Quality of hay made fair to good. Feed from pastures average to below average.

PUERTO RICO: Island average rainfall 2.01 in. or 0.30 in. above normal. Highest total 4.34 in. Temperatures averaged about 83 to 81° on Coasts and 78 to 77° Interior Divisions. Extremes: 94 and 57°.

SOUTH CAROLINA: Temperatures 1 to 3° above normal. Scattered thunderstorms in the eastern half of the State only.

Soil moisture short to adequate. Fieldwork: 6 days suitable. Corn condition good, 94% mature, 91 last year, 90 average; 37% harvested, 34 last year, 40 average. Cotton fair to good, insect pressures on the increase, bolls cutting out due to dry weather; 37% open bolls, 22 last year, 34 average. Soybeans in good condition, need rain; 94% blooming, 92 last year and average; 73% setting pods, 68 a year ago, 71 average; 2% turning leaves. Loopers and corn earworm active. Tobacco 96% harvested, 88 last year, 90 average. Stalks destroyed. Apples poor to fair, 43% harvested, 20 last year, 30 average. Grapes 64% harvested, 35 last year, 65 average. Fall snap beans 64% planted, 60 a year ago, 76 average. Cucumbers 93, 82 and 78. Fall hay and pastures fair to good, with 48% harvested, 32 last year, 35 average.

SOUTH DAKOTA: Temperatures averaged 3 to 5° below normal. Extremes: 96 and 33°.

Topsoil moisture critically short in much of northern districts. Precipitation near or above normal in most areas. Up to 2.57 in. reported. Some areas in east received first significant rains in several weeks. Adequate over much of west central, south central, east central and southeast. Short elsewhere. Subsoil moisture critically short northeast and north central. Adequate from south central through west central to southern part of northwest. Also, small areas extreme west, southeast and east central. Five days suitable. Corn in north hurting from drought. Expect more harvested for silage than usual. Grasshopper populations generally heavy in north counties; especially in northwest. Flax ripe 89%, 1981 91%, average 87%. Sunflowers blooming 92%, 1981 92%, average 93%. Soybeans setting pods 93%, 1981 91%, average 98%. Flax harvested 60%, 1981 67%, average 62%. Corn silked 94%, 1981 100%, average 100%. Corn dough 59%, 1981 63%, average 76%. Corn dented 17%, 1981 28%, average 36%. Sorghum headed 89%, 1981 90%, average 90%. Sorghum showing color 17%, 1981 34%, average 33%.

TENNESSEE: Fieldwork: 3.8 days. Soil moisture 13% short, 64% adequate, 23% surplus. Cotton setting bolls 100%, 1981 100%, average 98%;

open bolls, 14%, 1981 7%, average 8%. Corn dented 95%, 1981 91%, average 81%; mature 29%, 1981 33%, average 25%; harvested 4%, 1981 3%, average 3%. Soybeans blooming 100%, 1981 100%, average 97%; setting pods 83%, 1981 79%, average 78%. Tobacco harvested: Burley 45%, 1981 53%, average 43%; dark-fired 45%, 1981 61%, average 43%; air-cured 40%, 1981 68%, average 46%. Pastures fair to good. Livestock good.

TEXAS: Ill-defined, stationary cold front stretched across Panhandle resulting widely scattered showers and thunderstorms along and south of front. End of week, another cold front extended across North Texas producing good precipitation over portion of region. Temperatures above normal. Precipitation below normal State.

Crops: Hot, dry weather taking toll many dryland crops, native pastures across State. Surface moisture supplies short some areas, moderate to high winds further depleted available moisture. Land preparation small grain planting underway, dry conditions have delayed fieldwork many areas. Along coast, second crop rice developing well. Cotton good progress across Panhandle, producers would like additional rainfall since dryland stands moisture stressed. Insect populations heavy some areas, light to moderate bollworm damage reported scattered fields. Low Plains some late-planted fields not bloomed. Harvest complete Coastal Bend through Lower Valley, but dry soil conditions preventing stalk destruction many areas. Fields Central Texas developing well, hot, dry weather increased boll shed many areas. Statewide condition was 62% of normal with 1% excellent; 29% good; 51% fair; and 19% poor. This compares with 88% of normal last year. Sorghum maturing rapidly, harvest good progress across State. Harvest gaining momentum Low Plains, although some delays in hail-damaged fields. Heavy weed populations causing harvesting problems Central Texas. Condition across the State was 80% of normal with 12% excellent; 52% good; 31% fair; and 5% poor. This compares with 92% of normal last year. Most corn High Plains beyond irrigation needs, harvest begin within two weeks. Silage operations active past month as producers prepare winter feeding. Grain harvest active Central Texas southward, yields fair to excellent. Statewide condition was 86% of normal with 17% excellent; 62% good; 17% fair; and 4% poor. This compares with 94% of normal last year. Small grain planting underway limited areas. Land preparation some progress, but many parts State ground too hard and dry for most cultivation activities. South Central Texas oats dry-seeded for winter pastures. High Plains wheat planted where moisture supplies adequate. Peanut harvest some progress during week. Most stands Cross-Timbers to South Texas need rain, many dryland stands moisture stressed. Irrigation operations active under hot temperatures. Early soybean fields along coast making good progress, few insect problems reported. The late crop developing, but lower yields are expected. Irrigated stands developing Panhandle, although podworm infestations reached treatment levels in some areas. Most haying operations standstill. Some additional cuttings possible from irrigated meadows; most operations over for season. Some areas State, hay supplies low and quality poor.

Range and pasture: Supplemental feeding increasing as native ranges and pastures continue decline. Some grass fires Edwards Plateau. Producers continue cull herds prevent overgrazing. Auctions active, markets steady to higher. Stock water supplies decreasing South Texas, livestock show signs of heat stress.

Commercial vegetables: Lower Rio Grande Valley, fall planting of cauliflower, cabbage, tomatoes and cucumbers full swing. Irrigation operations active citrus groves. Coastal Bend, watermelon harvest active. Land preparation good progress fall cucumbers. San Antonio-Winter Garden, cabbage planting good progress. East Texas, sweetpotato and melon harvest good progress. Sweetpotato yields average. Trans-Pecos, harvest onions and potatoes complete El Paso, remaining supplies shipped to market. Cantaloup harvest complete Hudspeth County, tomato harvest underway within week. Plains, cucumbers, bell peppers and potatoes move to market. Onion harvest almost complete. Pecan trees continue moisture stressed, droppage heavy many areas. Cotton squaring 100%, 100% 1981, 100% average. Cotton setting bolls 91%, 99% 1981, 99% average. Cotton open bolls 16%, 23% 1981, 22% average. Cotton harvested 12%, 8% 1981, 11% average. Rice harvested 87%, 97% 1981, 96% average. Sorghum headed 95%, 96% 1981, 96% average. Sorghum turning color 71%, 76% 1981, 76% average. Sorghum mature 67%, 67% 1981, 68% average. Sorghum harvested for grain 63%, 65% 1981, 64% average. Corn for grain harvested 41%, 38% 1981, 33% average. Peanuts harvested 7%, 7% 1981, 10% average. Sunflowers harvested 1%, 5% 1981, 4% average.

UTAH: Recurring periods shower and thunderstorm activity southern half of State. Accumulated amounts moisture generally heavy to moderate. Average temperatures ranged from 4° below normal to 8° above. Moisture use by plants, as indicated by pan evaporation, near normal.

Fieldwork possible: 5.6 days. Major activities included small grain and hay harvest. Some delays and crop damage due to summer rains. Winter wheat harvest 91% complete. Seeding begun in northern counties. Barley 80% harvested, spring wheat 63%. Almost 95% of corn crop in tassel or beyond. Development slightly behind normal. Second cutting alfalfa winding down at higher elevations, third cutting beginning in lower valleys. Livestock and range feed continue in very good condition. Movement from high mountain pastures will begin in early September.

VIRGINIA: Hot and humid at beginning of period, cooling to well below normal over the weekend. Scattered showers and thunderstorms giving rainfall generally less than 0.50 in but with a few heavier showers giving around 1.50 in. in localized areas. Highs: 80's to low 90's and low over the weekend in the upper 30's in the north.

Mild, open weather enabled farmers to continue harvesting tobacco, hay, corn silage and fruits and vegetables. Other activities included seeding pastures and alfalfa hay. There were 5.3 days suitable for fieldwork. Topsoil moisture 32% short, 64% adequate, 4% surplus. Haying active in northern, central and southwestern counties. Corn in excellent condition: 89% dough, 94% 1981; dent 72%, 83% 1981; mature 46%, 45% 1981; cut for grain 10%, 21% 1981, 13% average; cut for silage 43%, 39% 1981. Yields good with little damage from disease or insects. Soybeans in excellent condition: 87% blooming, 69% setting pods. Insect scouting and insecticide application active. Tobacco condition excellent. Flue-cured 62% pulled, 68% 1981, 43% average. Fire-cured: 68% cut, 54% 1981, 34% average. Burley: 32% harvested, 33% 1981, 17% average. Sun-cured: 57% harvested, 43% 1981, 29% average. Peanuts in excellent condition. Spraying active for leafspot and sclerotinia blight. Pastures and hay in excellent condition with seeding of alfalfa, clover and grasses active. Peach harvest 76% complete while apples 13% harvested. Livestock in good condition with preparations for sales active.

WASHINGTON: The combination of high pressure to the west and north plus low pressure to the south produced a good easterly flow of hot, dry air over the State through 25th. Afternoon temperatures were

well into the 90's in most areas. The pressure pattern began to change on 25th as low pressure and a southwest flow of cooler marine air began to invade the State. High temperatures fell by as much as 30° on the west side of the Cascades on 26th. The cool air was less pronounced on the east side of the Cascades as maximum temperatures fell by only 5 to 10°. No significant rainfall was reported during the week.

West: Potato vines being killed as harvest draws near. Blueberries and blackberries were harvested. Other vegetables being harvested include cucumbers, sweet corn, carrots, green peas, green beans, squash, vegetable seeds, and other leafy vegetables. Pastures generally in good condition, although a good rain would be welcomed. Livestock in good condition. Feed supplies adequate.

East: Grain harvest winding down. Dry peas, lentils, hops, mint, potatoes and dry beans were also harvested. Growers also preparing for fall crop seeding. Bartlett pears, peaches, prunes, and nectarines were picked. Harvest of vegetables included onions, carrots, sweet corn, and vegetable seeds. Second and third cutting of alfalfa hay also took place. Livestock in good condition. Feed supplies adequate. Winter wheat harvested 93%, 92% 1981, 87% average.

WEST VIRGINIA: Temperatures below normal. High 86°, low 35°. Precipitation near normal. Range: Trace to 1.88 in.

Soil moisture adequate to short. Days worked averaged: 4.3. Main activities: Hay harvesting, gardening, general maintenance, pasture clipping. Oats: 99% harvested, 94% of normal; 95% harvested in 1981. Corn: Good to fair condition. Tobacco: Fair to good condition; 80% topped, 23% harvested; 79% and 16% in 1981. Pasture: Good to fair condition. Hay: Fair to good condition; 2nd cutting 73% complete, 79% of normal; 72% complete in 1981. Apples: Fair to good condition. Peaches: Poor to fair condition; 75% harvested, 73% of normal. Gardens good to fair condition.

WISCONSIN: A relatively cool week as temperatures averaged 5° below normal. Unseasonably cool temperatures covered much of the northern half of the State late in the week. Temperatures ranged from a high of 86° in Iola on the 23rd to a low of 29° in Morse on the 28th. Rainfall occurred early in the week with most districts reporting totals in the 1.00 to 2.00 in. range.

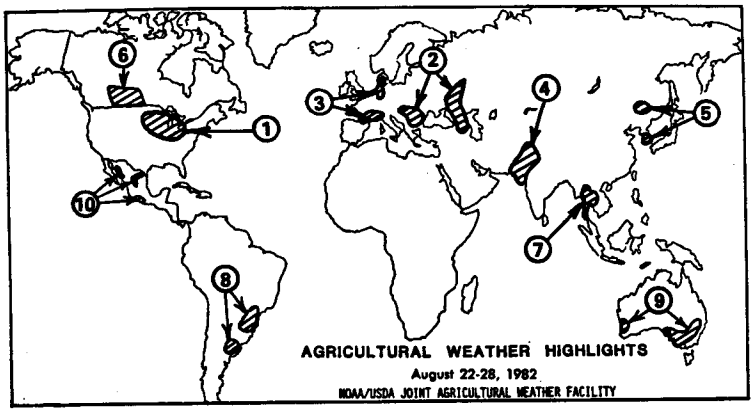
Fieldwork: 5 days suitable. Combines rolled and now an estimated 86% of the oats have been harvested, 91% 1981, 82% average. Yields of oats have been generally sub-par. Haymaking activity continues and 88% of the 2nd crop has been harvested, 97% 1981, 83% average. An estimated 16% of the 3rd crop has been harvested, 18% 1981. Pastures perked up with recent rains and rated at 80% of normal, 88% 1981, 82% average. The corn crop continues to develop well and currently 61% at the dough stage of development, 67% 1981, 61% average. Some early planted corn has dented. An estimated 17% at the dent stage of development, 25% 1981, 31% average. Many of the fruits and vegetables now available at direct marketing outlets. Topsoil moisture supplies were rated 19% short, 77% adequate, and 4% surplus. Moisture supplies shortest in the northwest and west central crop reporting districts.

WYOMING: Temperatures averaged normal. Rainfall in western sections below normal. Central normal and eastern stations received abundant moisture.

Topsoil moisture adequate 73%.State. Average 6 days suitable fieldwork. Winter wheat harvested: 90%; last year most. Spring wheat mature: 80%; year ago 95%. Oats harvested: 45%; year ago 65%. Barley mature: 80%; year ago 95%. Barley harvested: 60%; year ago 75%. Dry beans setting pods: 95%; year ago 85%. Corn in milk: 70%; year ago 40%. Corn in dough: 33%; year ago 55%. Corn dented: 5%; year ago 5%. Second cutting alfalfa 55% complete. Third cutting 10% complete. Other hay harvest 85% complete. Winter wheat seeded for harvest 1983: 10% complete. Stock water adequate 85% State. Livestock shipments about the same as a year ago. Weights of calves, lambs about same as last year or heavier most areas. Spring wheat harvested: 50%; year ago 75%. Oats mature: 80%; year ago 85%.

International Weather and Crop Summary

August 22-28



1. UNITED STATES: Freezing temperatures damage some immature crops in northern North Dakota and Minnesota. Cool weather over the Corn Belt and spring wheat areas slow crop development.

2. USSR: Mostly dry weather aids harvest; becoming unfavorably dry in the southern Volga Valley and North Caucasus for winter grain planting.

3. EUROPE: Wet weather delays harvest in some areas.

4. SOUTH ASIA: Monsoon appears to be withdrawing early; dryness threatens western Gujarat.

5. EASTERN ASIA: Heavy rainfall detrimental in northeastern China; beneficial in South Korea.

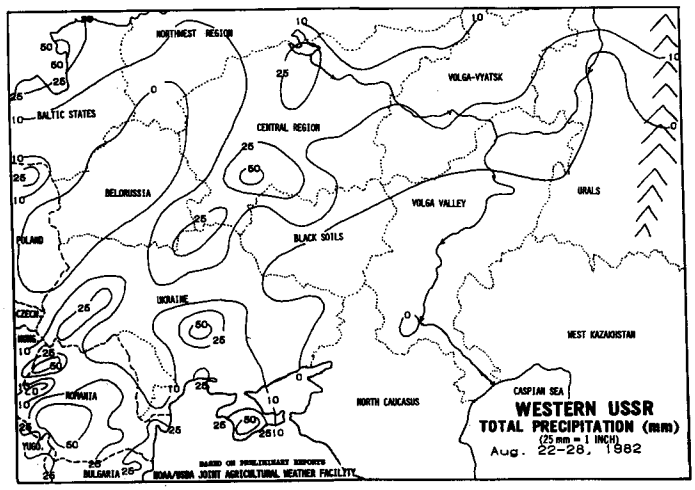
6. CANADA: Subfreezing temperatures in northern and eastern Prairie grain areas may lower crop quality.

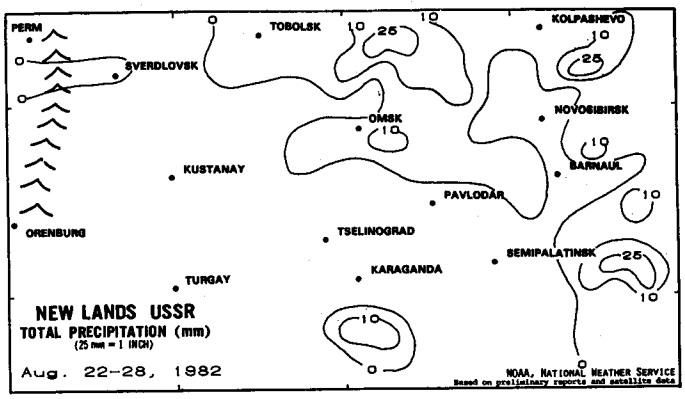
7. SOUTHEAST ASIA: Much of Thailand benefits from above-normal rainfall.

8. SOUTH AMERICA: Showers and unseasonably mild weather promote vegetative growth of wheat in Brazil and Argentina.

9. AUSTRALIA: Crops and rangelands continue to suffer from persistent drought and warm weather.

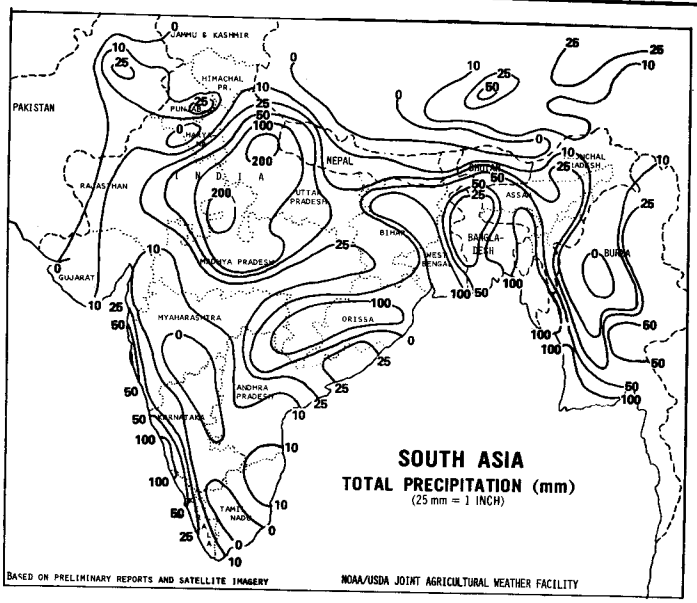
10. MEXICO: Dry weather continues in northeast. Showers in the northwestern watershed benefit livestock and reservoirs.



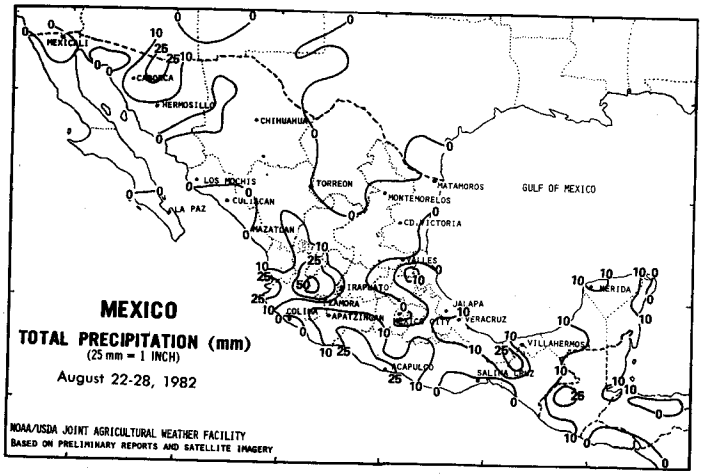


USSR: Showers fell in a band stretching northeastward from the central Ukraine through the Central Region into the Volga-Vyatsk region. Rainfall amounts were generally light, but some locations did receive amounts greater than 25 mm. Harvest delays were limited to those areas receiving the heaviest rainfall. In contrast, mostly dry weather covered Belorussia, the Volga Valley, the southern Black Soils and the North Caucasus, aiding harvest activity. The dry weather this past week in the southern Volga Valley and North Caucasus continues the pattern of the previous 2 weeks. Winter grain planting will be beginning soon in these areas, and topsoil moisture conditions are becoming unfavorably low. More rain is needed soon to ensure good sowing conditions. Weekly temperatures were seasonable in the west and well above normal in the east.

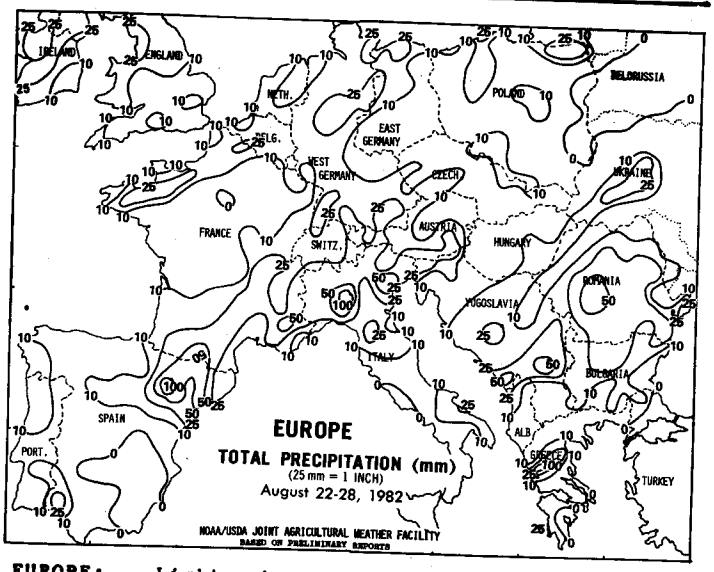
In the New Lands, a ridge of high pressure prevented storm systems from entering the spring grain areas. As a result, mostly dry weather covered the region, but some light scattered showers were reported in central areas. Overall, the favorable weather conditions allowed the harvest to increase. Weekly temperatures were above normal in the west and below normal in the east.



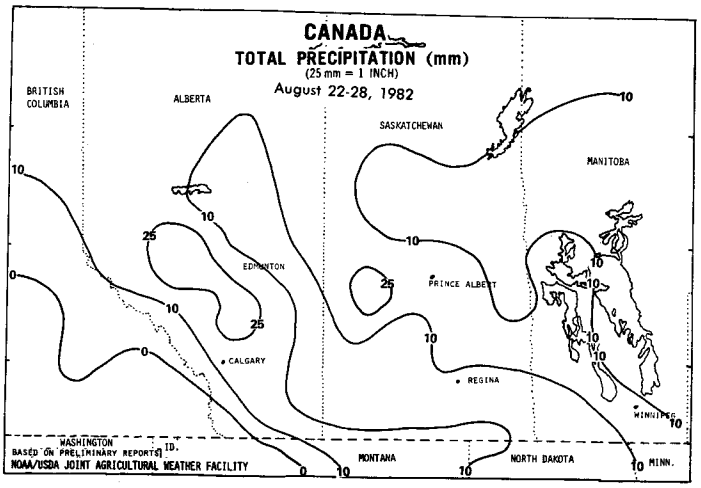
SOUTH ASIA: Westerly winds in the upper atmosphere have shifted southward into northern India, indicating a possible early termination of the summer monsoon. Convergence of these winds with moist air from the east produced heavy rains and flooding over much of Uttar Pradesh and Madhya Pradesh. Areas to the west had only scattered showers at best, a situation which does not normally develop until mid-September. Gujarat was also affected by the drying pattern. Eastern parts of the state remained adequately moist for peanuts, but western areas were becoming unfavorably dry with the crop in a moisture-sensitive stage of development. Many interior areas of southern India remained unfavorably dry. However, a strong weather system which caused flooding in Orissa was moving across the area at the week's end. Most of northeastern India had generous rains, but drier weather persisted in parts of Bangladesh and Nepal. Temperatures were slightly below normal in the north and slightly above normal in the south.



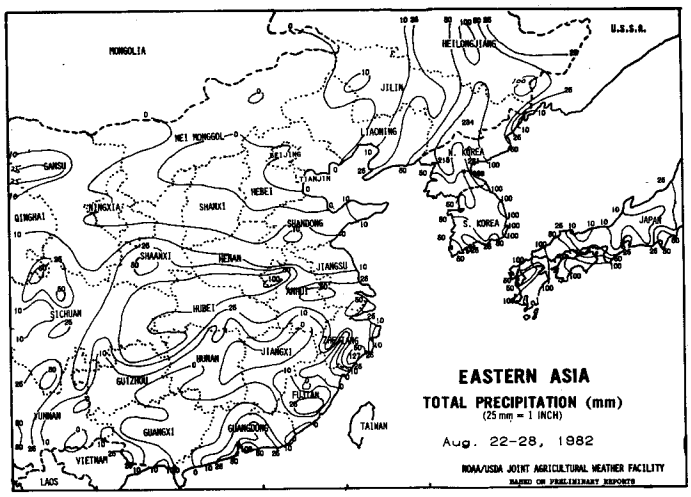
MEXICO: A few very light showers fell in parts of the northeast, but the drought in that area continued. The large area of rangeland south of the Big Bend area had little or no rain. Sugar cane areas along the east coast generally had good rain. On the western side of the mountain range, rain fell from about 21° north to 16° north. Continued rain in parts of the northestern watershed should help replenish some reservoirs and help pasture lands.



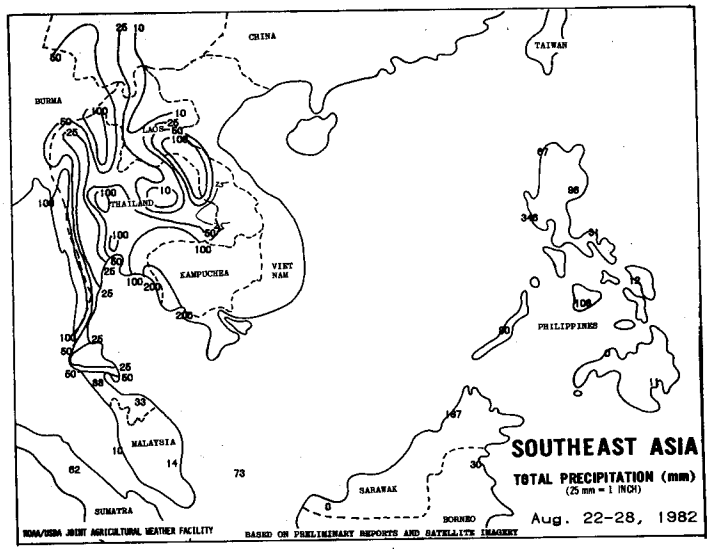
EUROPE: Light showers from England, eastward through crop areas of northern Europe, caused only minor delays in the harvest. In West Germany, persistent showers during the week in some areas delayed the harvest. Wet weather covered southern France and northern Italy, benefiting soil moisture supplies. Heavy rains, 50-100 mm, which fell on a couple of locations in northern Italy likely produced local flooding. Crop areas in western Yugoslavia, Bulgaria, and Romania experienced wet weather early in the week, delaying the harvest. Weekly temperatures were below normal in most crop areas except those in the northeast.



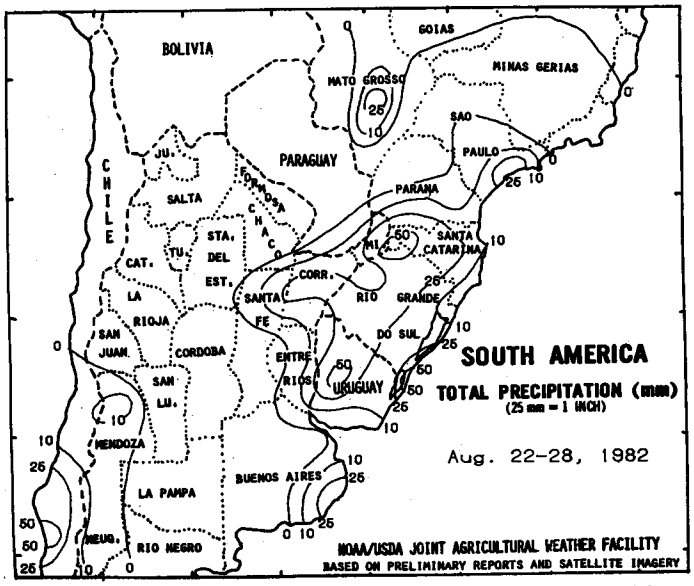
CANADA: An outbreak of unseasonably cold autumn-like weather which produced subfreezing temperatures in northern and eastern Prairie grain areas followed showery weather early in the week. Southeastern Saskatchewan, where crop development and wheat harvesting are most advanced, reported temperatures as low as -4° to -5°C. Elsewhere, harvesting of spring wheat and rapeseed were in initial stages. Subfreezing temperatures would have the greatest impact on the quality of grain since crops are nearing maturity. The duration of freezing temperatures as well as the severity of frost are important factors in determining the severity of freeze damage. The immature crop is susceptible to damage due to the high moisture content of the grain kernels and oilseeds. Western Prairie crop areas were not subjected to freezing temperatures because the high-pressure system, which brought the cold air mass to the eastern half of the grain belt. moved southeastward into the Great Lakes region.



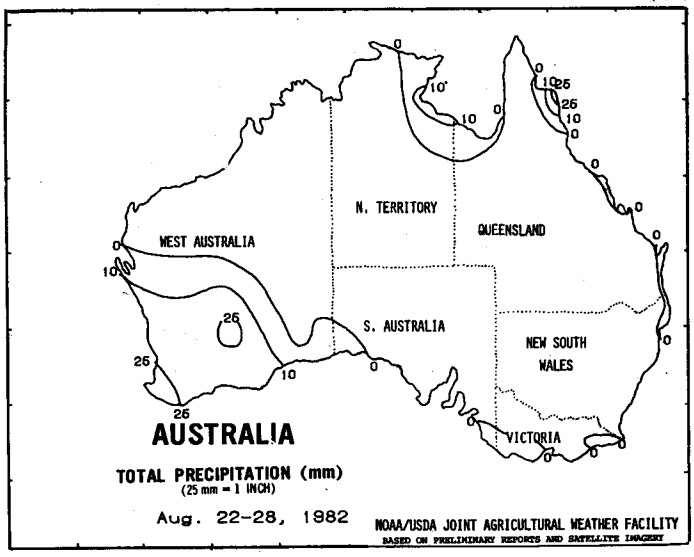
EASTERN ASIA: Above-normal rainfall continued in a band across the southern part of the North China Plain. However, amounts slackened somewhat, and the major cotton areas escaped with near-normal rainfall or less--conditions favorable for harvesting. Relatively dry weather south of the Yangtze River benefited late-season crop development. Little or no rain fell on northern parts of the North China Plain, but moisture should be adequate for crops which should be maturing. Heavy rain in Heilongjiang was likely detrimental to maturing crops. Typhoon Ellis spread beneficial rain across much of South Korea, maintaining favorable moisture conditions. Temperatures dipped below normal, with little crop impact.



SOUTHEAST ASIA: Much of Thailand had continued above-normal rainfall. Most of it fell early in the week, with drier weather setting in during the last 5 days. Some dry pockets occurred, most notably in the western part of the country where some areas remained unfavorably dry. Variable rainfall in the north improved reservoir supplies somewhat, but much more is needed. Rainfed rice in the east should have adequate moisture. Temperatures remained only slightly below normal. Satellite imagery indicated that rainfall in Vietnam, Laos, and Kampuchea was less than in Thailand, with the greatest amounts falling the southern portion of the area.



SOUTH AMERICA: The weekly rainfall distribution was similar to those of recent weeks, with showers developing over eastern Argentina and intensifying over Uruguay and southern Brazil. In Brazil, the persistent rains have caused some disease in Rio Grande do Sul. Unseasonably warm weather has promoted early vegetative growth in the south and rapid development of early maturing wheat in the north. The early wheat harvest in Parana begins in September. Higher-than-average temperatures were also reported in Argentina's wheat area, inducing more vigorous vegetative growth after the seasonal semidormant period. Moisture supplies are generally favorable for early spring growth, although timely rains will be needed during the growing season.



AUSTRALIA: Rainfall was again limited to Western Australia, providing timely moisture for early vegetative growth of wheat in the southwestern portion of the state. The western crop area usually produces about 30 percent of Australia's crop. However, the drought-plagued eastern and southern crop areas will fall well below their normal production expectations. The dominance of a large high-pressure system over the eastern half of the continent has forced weather disturbances to dissipate before reaching the parched crop areas of New South Wales and adjacent states. Crops and rangelands are suffering from severe moisture stress as virtually no significant, widespread rain has fallen in eastern areas since March. Unseasonably warm weather has further aggravated the depressed agricultural situation.

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National Weather Summary (continued from front page)

SATURDAY . . .The very cold air modified somewhat as it moved eastward. However, temperatures in the thirties and forties set records from Minnesota to western New York. Warm temperatures continued in the Plains and pushed into western North Dakota. Light showers were scattered over most of the West. Showers and thunderstorms were heavier from central Texas to central Alabama and light to the southeast coast. A few light showers fell from New York through southern New England.

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