

WEEKLY WEATHER AND CROP BULLETIN

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

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

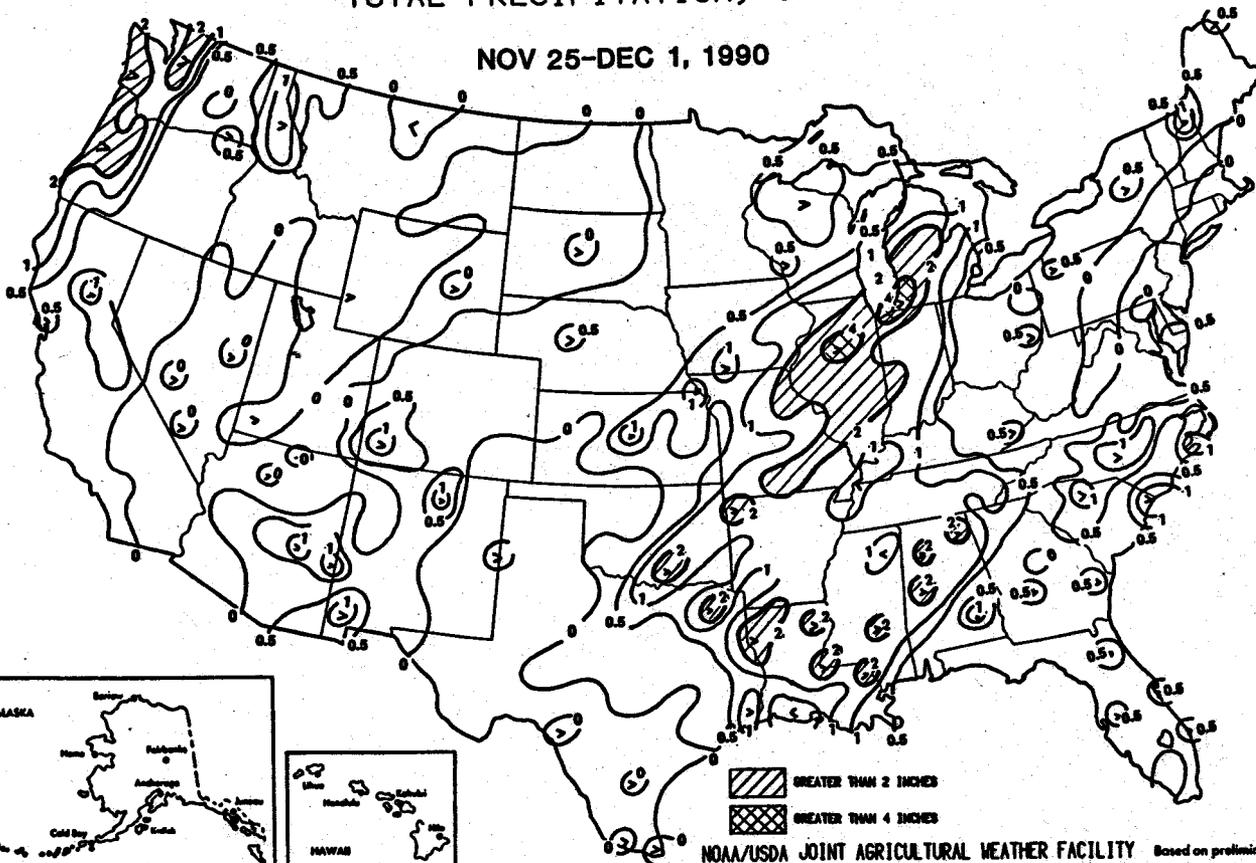
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December 4, 1990

TOTAL PRECIPITATION, INCHES

NOV 25-DEC 1, 1990



HIGHLIGHTS

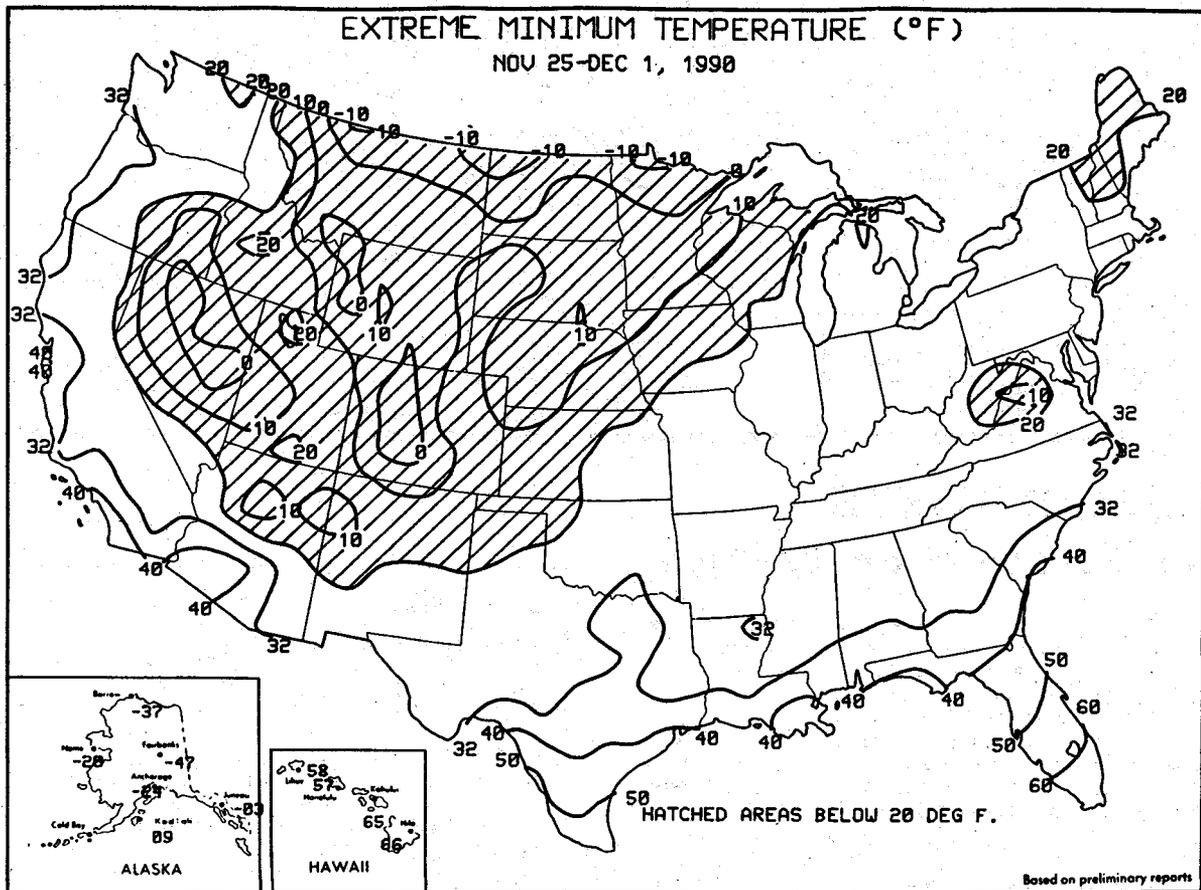
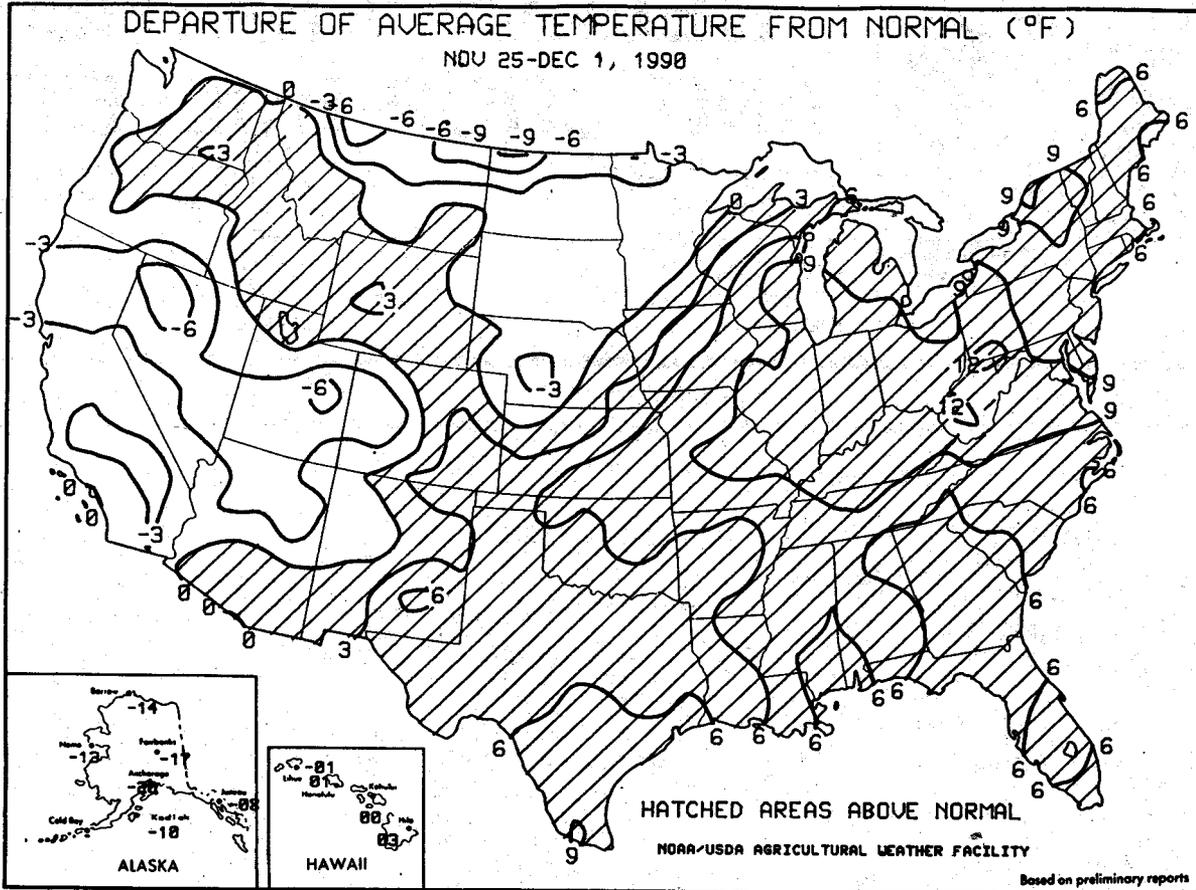
November 25-December 1, 1990

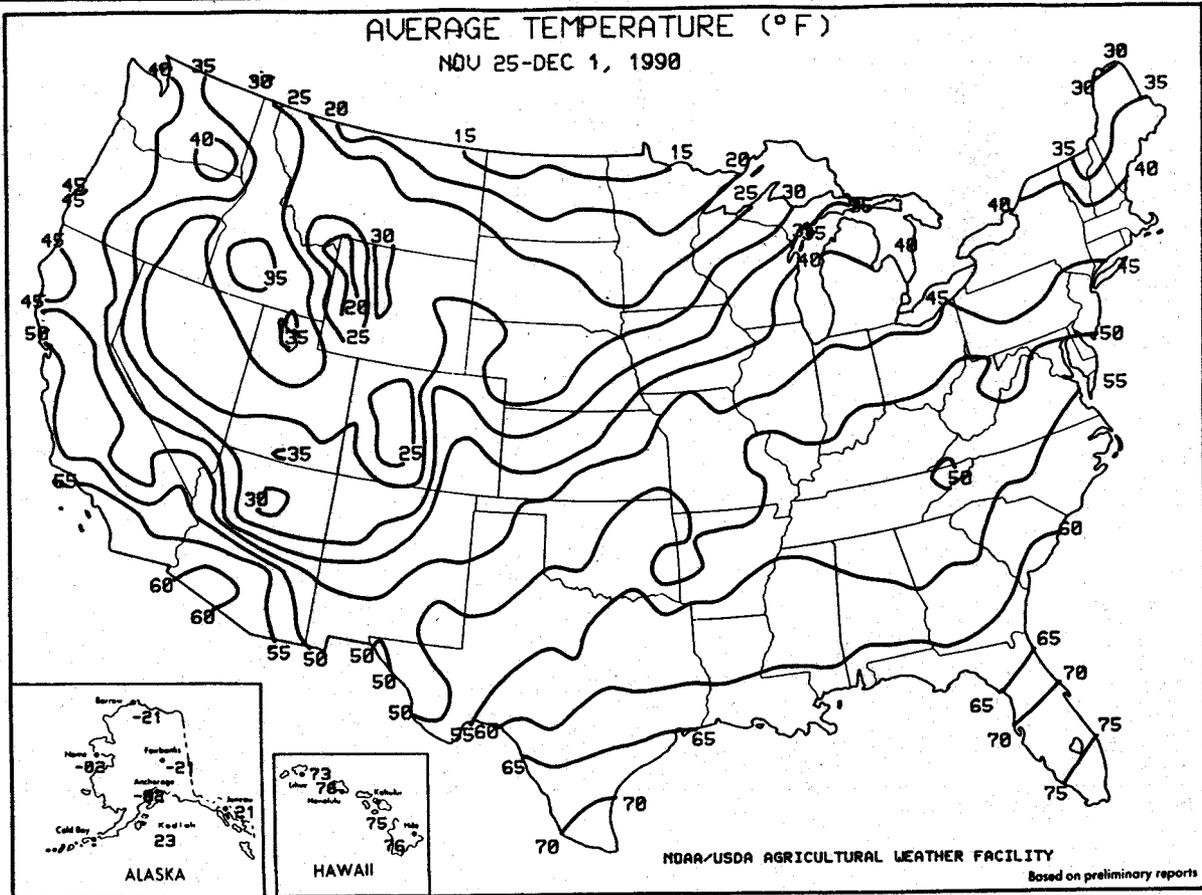
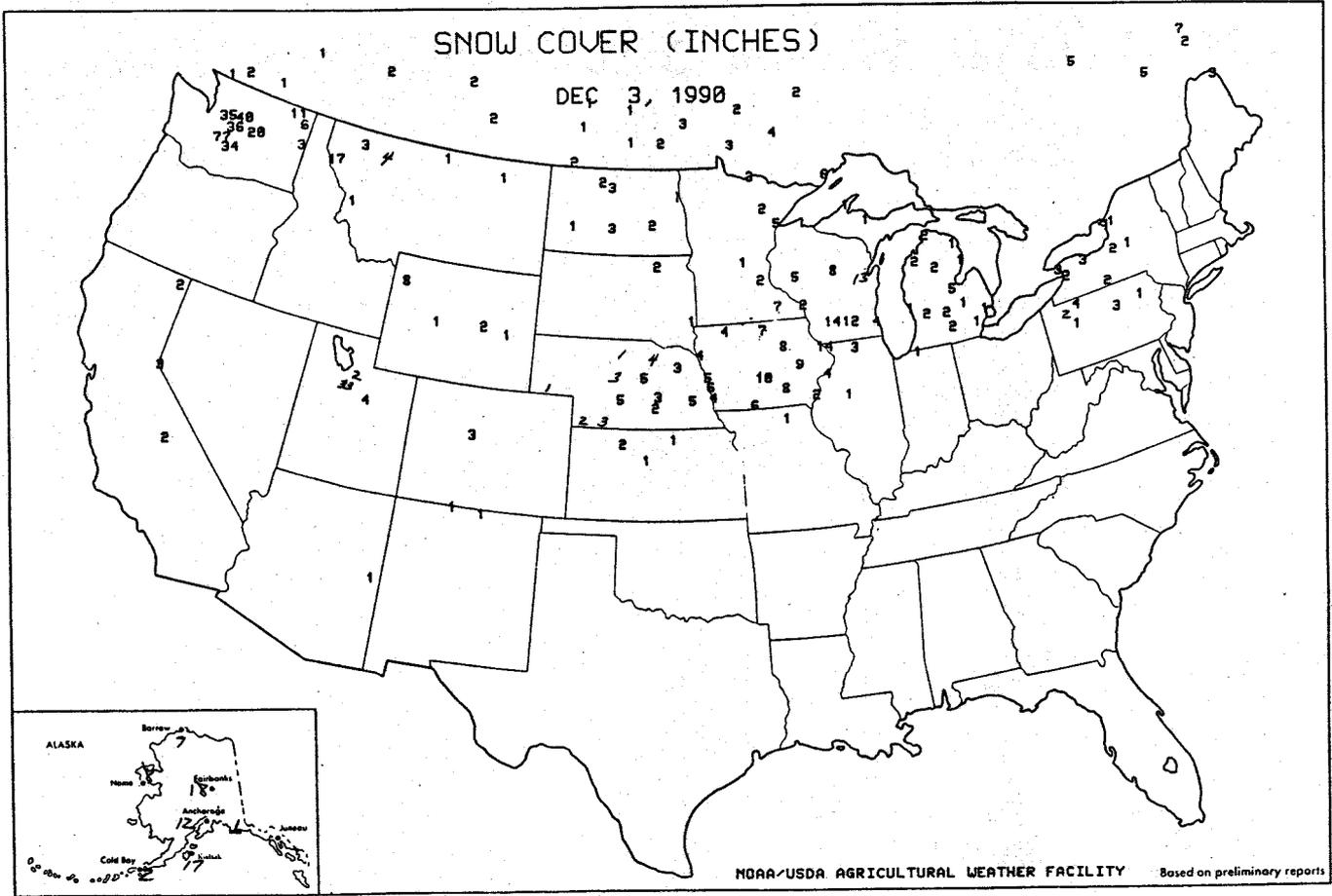
Anomalous warmth persisted in the **eastern half of the Nation** for most of the week. A storm system brushed the **Great Lakes** and **New England** with light precipitation early in the week. Meanwhile, a strong storm dropped southeastward into the **central Rockies**, bringing widespread light rain and mountain snow to the **West**. Cool air settled down the **west coast** as the storm moved eastward. Heavy rains broke out Tuesday from the **lower Mississippi Valley** to the **Great Lakes**. Isolated severe weather was also reported Tuesday, including tornadoes in **Missouri** and **Illinois**. Light rain spread to the **eastern seaboard** by Thursday. Over 90 high temperature records were shattered early to midweek in the **East**. Much cooler air overspread the **eastern two-thirds of the** (Continued to back cover)

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National Weather Data for Selected Cities

Weather Data for the Week Ending December 1, 1990

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	68	42	81	25	55	6	1.2	.2	1.2	.0	0	41.4	84	85	44	0	3	1	1	
MOBILE	71	50	80	37	61	5	.2	-.9	1.1	.0	0	50.8	86	91	50	0	0	2	1	
MONTGOMERY	72	42	84	27	57	6	.2	-.7	.0	.0	0	50.1	113	92	40	0	1	0	0	
AK ANCHORAGE	5	-10	21	-24	-2	-20	.3	-.1	1.3	.0	0	16.5	119	79	55	0	0	2	0	
BAIROV	-14	-27	-4	-37	-21	-14	T	-.1	T	.0	0	4.5	102	73	57	7	7	0	0	
FAIRBANKS	-12	-29	12	-47	-21	-18	.2	-.1	1.1	.0	0	15.6	160	79	71	0	0	3	0	
JUNEAU	27	16	35	-3	21	-8	2.0	.9	1.5	.0	0	53.5	110	96	79	7	7	5	0	
KODIAK	30	16	46	9	23	-10	.6	-.6	1.5	.5	300	61.5	111	74	43	7	7	3	0	
NOME	5	-9	18	-20	-2	-13	.3	-.1	1.2	T	0	21.2	152	84	69	0	0	2	1	
AZ PHOENIX	71	47	81	40	59	3	T	-.1	1.2	T	0	7.3	119	61	24	7	0	1	1	
PRESCOTT	53	22	66	15	37	-3	.2	-.2	.2	.0	0	15.3	89	74	29	0	0	0	0	
TUCSON	69	41	80	30	55	0	.1	-.0	1.1	.0	0	13.4	132	72	24	7	1	1	1	
YUMA	70	49	81	44	59	0	.0	-.1	.0	.0	0	2.2	104	32	13	0	0	0	0	
AR FORT SMITH	64	37	78	24	51	5	1.3	.4	.7	.0	0	56.4	153	93	49	0	0	0	0	
LITTLE ROCK	62	44	76	34	53	6	1.3	.2	1.3	.0	0	55.6	124	74	52	0	0	2	2	
CA BAKERSFIELD	60	35	73	32	48	-4	.1	-.0	1.1	.0	0	3.2	65	92	45	0	0	1	0	
EUREKA	54	40	59	37	47	-3	1.2	-.3	1.1	T	0	26.4	82	89	66	0	0	0	1	
FRESNO	59	34	67	32	47	-2	.4	-.1	1.4	.0	0	8.0	91	92	44	0	0	3	3	
LOS ANGELES	71	49	77	46	60	1	.1	-.3	.1	.0	0	5.2	50	74	26	0	0	1	0	
REDDING	57	31	64	27	44	-6	.4	-.2	1.4	.0	0	24.0	70	90	42	0	0	1	0	
SACRAMENTO	60	34	65	29	47	-2	.3	-.3	.3	.0	0	12.0	85	90	34	0	0	1	0	
SAN DIEGO	68	48	73	45	58	-2	.1	-.2	1.1	.0	0	6.6	81	81	32	3	3	1	0	
SAN FRANCISCO	60	42	63	39	51	-1	.1	-.5	1.1	.0	0	8.6	53	88	45	0	0	1	0	
CO DENVER	52	26	77	19	39	4	.2	.0	.2	.0	0	16.5	113	61	23	0	5	1	0	
GRAND JUNCTION	40	17	55	10	29	-5	.5	.3	.4	.0	0	7.4	101	88	47	0	7	2	0	
PUEBLO	58	20	82	9	39	3	.1	.0	1.1	.0	0	15.4	146	76	22	0	6	1	0	
CT BRIDGEPORT	55	36	63	29	45	5	.1	-.8	1.1	.0	0	40.2	107	78	45	0	2	2	0	
HARTFORD	56	31	71	25	43	7	T	-1.0	T	.0	0	48.3	120	80	40	0	6	0	0	
DC WASHINGTON	64	43	73	33	54	9	T	-.7	T	.0	0	36.1	101	85	45	0	0	2	0	
FL APALACHICOLA	71	53	78	40	62	4	.3	-.5	.2	.0	0	36.5	71	93	60	0	0	2	0	
DAYTONA BEACH	78	58	85	51	68	6	T	-.5	T	.0	0	35.8	77	90	61	0	0	1	0	
JACKSONVILLE	76	50	84	40	63	4	.1	-.3	1.1	T	0	29.2	59	96	50	0	0	2	0	
KEY WEST	82	73	84	70	78	4	T	-.6	T	T	0	55.2	93	91	68	0	0	1	0	
MIAMI	82	70	84	64	76	5	.1	-.3	1.1	T	0	33	91	87	62	0	0	3	0	
ORLANDO	80	60	84	50	70	6	.2	-.2	.2	.0	0	30.9	91	87	62	0	0	2	0	
TALLAHASSEE	75	47	82	38	61	5	T	-.9	T	.0	0	50.7	65	93	58	0	0	2	0	
TAMPA	82	59	86	49	71	7	.1	-.4	1.1	.0	0	41.3	69	90	49	0	0	1	0	
WEST PALM BEACH	81	69	84	60	75	6	.5	.0	.5	.0	0	34.2	77	96	55	0	0	2	0	
GA ATLANTA	66	42	76	30	54	6	.6	-.8	.5	.0	0	53.9	94	87	59	0	0	2	1	
AUGUSTA	72	39	82	27	55	5	.8	-.2	.8	.0	0	54.5	123	83	41	0	2	1	0	
MACON	71	40	83	27	56	4	T	-.7	T	.0	0	38.7	97	96	40	0	2	2	1	
SAVANNAH	72	48	83	38	60	6	.4	-.1	.3	.0	0	32.4	80	92	41	0	2	0	0	
HI HILO	83	69	86	66	76	3	1.7	-1.8	1.4	.2	45	41.0	87	91	46	0	0	3	0	
HONOLULU	84	68	88	57	76	0	T	-.8	T	.0	0	181.4	157	95	68	0	0	3	1	
KAHULUI	82	67	85	65	75	0	T	-.5	T	.0	0	14.7	74	85	52	0	0	0	0	
LIHUE	79	66	81	58	73	-1	.1	-.2	.0	.0	24	20.3	131	94	67	0	0	1	0	
ID BOISE	46	26	58	21	36	1	.2	-1.2	.0	T	24	34.3	89	87	63	0	0	3	0	
LEWISTON	48	37	54	33	43	5	.2	-.2	1.1	T	25	11.1	109	84	37	0	6	2	0	
POCATELLO	42	24	59	15	33	2	.2	-.1	.2	T	0	10.6	92	70	36	0	0	2	0	
IL CHICAGO	53	35	67	24	44	9	1.7	.2	.2	.0	0	9.0	93	80	42	0	6	1	0	
MOLINE	53	31	70	22	42	9	1.2	1.6	1.6	.0	0	40.8	128	83	52	0	3	2	1	
PEORIA	54	33	67	25	43	9	1.1	.6	1.1	.0	0	47.4	135	81	50	0	3	2	1	
QUINCY	55	33	71	26	44	8	2.1	3.9	4.3	.0	0	51.7	157	88	57	0	3	2	1	
ROCKFORD	51	29	66	21	40	8	1.6	1.3	1.3	.0	0	37.2	103	83	49	0	4	2	2	
SPRINGFIELD	56	38	71	28	47	10	1.6	1.1	1.6	.0	0	42.5	122	88	57	0	6	2	1	
IN EVANSVILLE	62	39	75	26	50	10	2.1	1.7	1.5	.0	0	47.7	149	87	59	0	2	2	2	
FORT WAYNE	54	36	69	27	45	11	1.1	.3	.7	.1	45	45.2	118	88	51	0	3	3	1	
INDIANAPOLIS	57	36	70	24	46	9	1.7	.8	.7	T	0	47.0	146	85	58	0	3	3	2	
SOUTH BEND	54	36	68	27	45	10	4.1	1.0	1.0	T	30	42.8	119	94	62	0	3	4	2	
IA DES MOINES	50	27	71	20	39	6	.6	-.3	.5	.0	0	50.4	144	84	49	0	3	3	1	
SIOUX CITY	44	20	62	10	32	2	.1	-.1	.1	.0	0	41.8	141	82	45	0	5	2	1	
WATERLOO	47	23	62	16	35	6	.3	.0	.3	.0	0	23.9	97	84	47	0	7	1	0	
KS CONCORDIA	50	27	61	19	39	2	.2	-.0	.2	.0	0	40.3	127	89	51	0	6	1	0	
DODGE CITY	59	26	82	18	43	2	.5	-.2	.2	.0	0	25.2	95	81	43	0	5	2	0	
GOODLAND	46	21	66	11	34	5	.5	-.4	.3	.0	0	20.4	102	74	24	0	5	1	0	
TOPEKA	57	31	77	22	44	8	.6	-.2	.3	.0	0	19.2	122	77	43	0	7	2	0	
WICHITA	61	34	73	21	47	8	T	-.3	T	.0	0	33.5	104	87	38	0	4	2	0	
KY BOWLING GREEN	65	41	78	23	53	11	.8	-.2	.7	.0	0	18.6	67	84	38	0	3	2	0	
LEXINGTON	62	40	76	24	51	10	.3	-.5	.3	.0	0	41.9	94	78	46	0	2	2	1	
LOUISVILLE	64	42	77	25	53	11	.4	-.4	.4	.0	0	42.0	100	87	46	0	3	1	0	
LA ALEXANDRIA	69	48	80	30	59	5	1.1	.1	.8	.0	0	48.7	122	82	42	0	2	3	0	
BATON ROUGE	73	51	83	33	62	6	.6	-.4	.6	.0	0	52.5	110	90	50	0	1	3	1	
LAKE CHARLES	72	52	81	35	62	5	.2	-.9	.2	.0	0	60.7	119	88	52	0	0	2	1	
NEW ORLEANS	72	56	81	46	64	7	.9	-.2	.9	.0	0	49.7	101	92	58	0	0	2	0	

Based on 1951-80 normals

Weather Data for the Week Ending December 1, 1990

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS						
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		01 INCH OR MORE	.50 INCH OR MORE		
SHREVEPORT	69	46	81	29	57	5	2.1	1.2	2.1	.0	0	61.7	154	90	49	0	1	2	2	1	
ME CARIBOU	39	23	53	13	31	6	4	4	4	.0	0	40.9	123	83	56	0	6	3	3	0	
PORTLAND	51	29	64	23	40	7	7	-1.1	-1.1	.0	0	44.8	115	81	42	0	5	0	0	0	
MD BALTIMORE	63	38	73	25	51	9	7	-1.7	-1.7	.0	0	37.0	96	81	44	0	2	0	0	0	
SALISBURY	65	39	76	25	52	9	6	-1.1	-1.1	.0	0	37.1	89	91	41	0	2	1	1	1	
MA BOSTON	59	39	74	32	49	9	6	-1.0	-1.0	.0	0	43.3	110	72	36	0	1	1	1	0	
CHARHAM	51	39	57	31	45	4	5	-1.7	-1.7	.0	0	39.0	93	79	57	0	1	1	1	0	
MI ALPENA	48	29	67	19	38	8	6	-1.1	-1.1	.0	0	29.4	109	89	56	0	5	3	3	0	
DETROIT	54	36	69	23	45	10	5	-1.1	-1.1	.0	0	38.3	135	83	52	0	3	3	3	0	
FLINT	52	33	66	24	42	9	5	-1.0	-1.0	.0	0	30.6	113	85	59	0	5	3	3	1	
GRAND RAPIDS	52	34	65	26	42	9	3.1	2.4	3.0	.0	0	39.6	126	89	62	0	4	2	2	1	
BOUGHTON LAKE	43	29	62	22	36	9	2.4	2.2	2.8	.0	0	29.1	111	85	60	0	5	3	3	0	
LANSING	52	33	63	25	42	7	1.1	1.8	2.2	.0	0	34.9	127	86	59	0	5	3	3	1	
MARQUETTE	34	20	43	15	27	9	2.2	2.2	2.2	.0	0	31.1	89	82	72	0	7	4	4	0	
MUSKEGON	53	36	63	28	44	10	2.0	1.6	1.9	.0	22	32.6	126	86	61	0	3	2	2	1	
SAULT ST. MARIE	42	24	55	17	33	9	7	-1.1	-1.1	.0	0	32.6	106	92	64	0	6	3	3	1	
MN ALEXANDRIA	29	14	39	8	21	11	1	-1.1	-1.1	.0	0	20.5	86	85	62	0	7	1	1	0	
DULUTH	28	13	35	2	21	11	2	-1.1	-1.1	.0	0	33.0	117	91	71	0	7	3	3	0	
INT'L FALLS	25	6	40	2	15	11	2	-1.1	-1.1	.0	0	19.1	82	85	62	0	7	3	3	0	
MINNEAPOLIS	34	19	43	8	27	11	3	-1.1	-1.1	.0	0	32.0	127	84	57	0	7	7	7	0	
ROCHESTER	39	20	49	13	30	11	1	-1.1	-1.1	.0	0	42.3	154	87	58	0	2	2	2	0	
MS GREENWOOD	69	45	83	30	57	7	1.7	1.4	1.4	.0	0	45.5	95	88	44	0	1	1	1	1	
JACKSON	71	45	82	30	58	7	1.4	1.1	1.9	.0	6	47.6	102	96	48	0	2	2	2	0	
MERIDIAN	70	44	82	29	57	7	1.4	1.1	1.9	.0	6	47.6	102	96	48	0	2	2	2	0	
MO CAPE GIRARDEAU	61	42	75	29	51	10	1.4	1.4	1.4	.0	6	58.9	123	95	46	0	2	2	2	0	
COLUMBIA	58	36	75	27	48	10	1.3	1.3	1.3	.0	0	45.5	111	90	53	0	4	2	2	1	
KANSAS CITY	57	34	78	22	46	10	2.0	1.5	1.9	.0	0	50.3	144	78	45	0	3	3	3	0	
SAINT LOUIS	60	42	74	22	46	10	3	1.3	1.3	.0	0	39.3	114	77	43	0	3	1	1	0	
SPRINGFIELD	60	36	75	23	48	10	1.7	1.1	1.3	.0	0	38.6	122	74	45	0	2	2	2	1	
MT BILLINGS	38	18	53	9	28	10	1.1	1.1	1.1	.0	0	57.1	154	84	47	0	4	2	2	1	
GLASGOW	27	7	47	-7	17	10	1	-1.1	-1.1	.0	0	10.8	76	67	38	0	7	1	1	0	
GREAT FALLS	36	16	55	-3	26	10	1	-1.1	-1.1	.0	0	6.4	60	85	61	0	7	3	3	0	
HAVRE	33	10	54	-7	22	10	1	-1.1	-1.1	.0	0	5.9	53	84	58	0	6	0	0	0	
HELENA	43	19	55	8	31	4	4	-1.1	-1.1	.0	0	8.0	73	71	36	0	7	2	2	0	
KALISPELL	36	23	45	11	30	2	7	-1.1	-1.1	.0	60	38.2	269	91	58	0	7	4	4	1	
MILES CITY	39	16	58	8	28	1	1	-1.1	-1.1	.0	0	8.7	64	81	41	0	7	0	0	0	
MISSOULA	38	21	49	15	29	1	2	-1.0	-1.0	.0	33	12.4	104	82	55	0	6	4	4	0	
NE GRAND ISLAND	45	21	58	14	33	1	1	-1.1	-1.1	.0	0	25.9	115	84	42	0	7	2	2	0	
LINCOLN	49	25	67	17	37	4	2	-1.0	-1.0	.0	0	25.7	98	86	44	0	7	2	2	0	
NORFOLK	42	19	59	8	31	0	1	-1.0	-1.0	.0	0	26.3	115	82	50	0	7	2	2	0	
NORTH PLATTE	40	12	60	1	26	4	3	-1.2	-1.2	.0	0	15.8	84	93	45	0	7	1	1	0	
OMAHA	47	25	66	16	36	2	2	-1.2	-1.2	.0	0	23.2	79	77	56	0	6	1	1	0	
SCOTTSBLUFF	47	19	73	10	33	1	2	-1.1	-1.1	.0	0	17.3	123	80	32	0	7	1	1	0	
VALENTINE	43	15	63	6	29	0	0	-1.0	-1.0	.0	0	16.8	100	83	34	0	7	1	1	0	
NV ELY	45	9	58	-5	27	-3	1	-1.1	-1.1	.0	0	8.4	103	75	27	0	7	1	1	0	
LAS VEGAS	60	35	71	28	48	-1	1	-1.1	-1.1	.0	0	3.8	101	44	15	0	4	0	0	0	
RENO	46	19	63	12	33	-3	2	-1.0	-1.0	.0	0	4.8	80	85	38	0	7	2	2	0	
WINNEMUCCA	42	11	63	-4	27	-7	1	-1.1	-1.1	.0	0	5.8	84	81	46	0	7	1	1	0	
NE CONCORD	53	24	71	15	38	7	7	-1.1	-1.1	.0	0	37.2	112	88	39	0	7	0	0	0	
NJ ATLANTIC CITY	61	35	69	20	48	6	1	-1.1	-1.1	.0	0	33.2	87	92	49	0	3	2	2	0	
NM ALBUQUERQUE	51	25	61	17	38	-1	1	-1.0	-1.0	.0	0	9.6	130	70	24	0	6	1	1	0	
CLOVIS	58	32	72	20	45	3	7	-1.0	-1.0	.0	0	12.9	78	72	33	0	4	1	1	0	
ROSWELL	65	36	81	24	50	7	0	-1.0	-1.0	.0	0	7.3	71	54	18	0	3	0	0	0	
NY ALBANY	53	34	68	27	44	10	7	-1.1	-1.1	.0	0	42.5	130	79	42	0	3	0	0	0	
BINGHAMTON	50	33	70	27	41	8	8	-1.1	-1.1	.0	0	40.8	120	81	48	0	5	1	1	0	
BUFFALO	54	35	72	27	45	9	2	-1.1	-1.1	.0	0	42.2	124	78	45	0	3	1	1	0	
NEW YORK	60	42	69	37	51	9	1	-1.1	-1.1	.0	0	46.4	119	72	45	0	0	1	1	0	
ROCHESTER	53	34	74	26	44	8	1	-1.1	-1.1	.0	0	36.0	125	79	44	0	4	1	1	0	
SYRACUSE	53	35	74	31	44	9	4	-1.4	-1.4	.0	0	44.3	124	80	42	0	4	4	4	0	
NC ASHEVILLE	65	33	74	20	49	6	2	-1.2	-1.2	.0	0	55.1	135	95	37	0	4	1	1	0	
CHARLOTTE	68	43	77	29	55	8	5	-1.2	-1.2	.0	0	46.4	117	83	35	0	2	2	2	0	
GREENSBORO	67	39	74	26	53	8	3	-1.4	-1.4	.0	0	39.4	101	85	39	0	2	2	2	0	
HATTERAS	69	49	80	32	59	7	7	-1.4	-1.4	.0	0	42.6	83	89	52	0	1	1	1	1	
NEW BERN	70	43	80	28	56	6	4	-1.4	-1.4	.0	0	48.7	98	100	47	0	2	3	3	0	
RALEIGH	69	42	77	29	56	9	5	-1.2	-1.2	.0	0	34.5	90	81	38	0	2	2	2	0	
WILMINGTON	72	46	77	33	59	7	5	-1.3	-1.3	.0	0	50.7	101	95	41	0	0	2	2	0	
ND BISMARCK	32	8	50	1	20	-3	7	-1.1	-1.1	.0	0	12.2	83	79	41	0	7	0	0	0	
FARGO	32	10	53	3	21	0	0	-1.2	-1.2	.0	0	16.2	86	76	44	0	7	1	1	0	
GRAND FORKS	27	7	45	0	17	-2	1	-1.1	-1.1	.0	150	15.5	88	76	49	0	7	2	2	0	
WILLISTON	28	5	50	-11	17	-5	1	-1.1	-1.1	.0	0	8.9	69	85	53	0	7	1	1	0	
OH AKRON-CANTON	55	35	71	21	45	9	7	-1.6	-1.6	.0	0	58.9	178	86	51	0	3	0	0	0	
CINCINNATI	60	39	74	23	50	11	5	-1.3	-1.3	.0	0	49.7	134	81	46	0	3	3	3	0	
CLEVELAND	55	35	71	25	45	8	7	-1.6	-1.6	.0	0	45.2	139	84	49	0	4	1	1	0	
COLUMBUS	59	36	75	24	48	10	2	-1.4	-1.4	.0	0	46.2	135	87	47	0	3	2	2	0	

Based on 1951-80 normals

Weather Data for the Week Ending December 1, 1990

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	59	38	74	25	49	11	.4	-.3	.4	.0	0	49.7	155	89	52	0	3	2	0
TOLEDO	55	34	69	25	44	10	.4	-.3	.2	.0	0	32.8	113	84	56	0	3	3	0
YOUNGSTOWN	55	34	72	23	44	9	.1	-.6	.0	.0	11	40.2	117	82	47	0	2	2	0
OK OKLAHOMA CITY	63	39	73	28	51	7	T	-.3	.0	.0	0	39.1	132	77	37	0	3	0	0
TULSA	64	42	77	29	53	8	.2	-.3	.2	.0	0	35.9	98	75	42	0	2	2	0
OR ASTORIA	50	37	53	34	44	-1	2.3	1.2	.5	131	68.0	116	94	64	0	0	0	6	0
BURNS	41	17	48	7	29	-2	.1	-.3	.1	.0	0	4.5	52	85	41	0	7	1	1
MEDFORD	48	32	50	27	40	0	.5	-.3	.4	.0	0	12.4	76	99	65	0	4	3	3
PENDLETON	48	34	58	32	41	3	.4	.0	.3	.0	20	8.6	83	77	46	0	0	0	0
PORTLAND	50	38	56	34	44	1	1.5	.2	.5	.4	232	30.9	100	94	65	0	1	0	6
SALEM	50	36	55	34	43	1	1.6	.1	.6	.6	267	33.7	101	94	66	0	0	0	6
PA ALLENTOWN	57	31	70	19	44	7	.1	-.8	.1	.0	0	38.5	95	84	47	0	3	3	0
ERIE	55	37	71	30	46	9	.1	-.7	.1	.0	0	45.0	122	83	46	0	0	1	3
HARRISBURG	59	33	70	22	46	7	T	-.8	.0	.0	0	38.0	106	84	41	0	3	3	0
PHILADELPHIA	61	40	71	31	50	9	T	-.8	.0	.0	0	32.0	84	93	56	0	2	3	0
PITTSBURGH	58	35	75	25	47	9	.1	-.5	.0	.0	0	43.7	129	81	42	0	0	0	0
SCRANTON	56	34	72	26	45	9	T	-.7	.0	.0	0	41.8	129	81	40	0	0	0	0
RI PROVIDENCE	58	32	72	24	45	6	T	-1.0	.0	.0	0	39.3	96	87	47	0	3	4	0
SC CHARLESTON	73	49	81	40	61	8	.2	-.4	.2	.0	0	41.1	85	93	46	0	0	1	3
COLUMBIA	71	40	79	27	56	5	.8	-.2	.8	.0	0	41.8	91	97	46	0	0	0	0
FLORENCE	72	43	84	28	57	6	T	-.5	.0	.0	0	31.2	76	89	35	0	2	2	1
GREENVILLE	68	40	77	24	54	6	.2	-.2	.2	.0	0	46.2	98	89	38	0	1	2	0
SD ABERDEEN	35	12	59	6	24	0	0	.0	.0	.0	0	20.5	120	80	40	0	0	2	0
HURON	37	14	53	6	25	-1	T	-1.1	.0	.0	0	22.6	126	81	41	0	7	7	0
RAPID CITY	41	15	57	11	28	-2	.0	-.1	.0	.0	0	16.2	103	73	29	0	7	7	0
SIOUX FALLS	34	15	43	3	25	-2	.2	.0	.1	.0	0	18.6	80	86	37	0	2	2	0
TN CHATTANOOGA	65	38	79	25	51	6	.9	-.2	.9	.0	0	58.2	122	87	45	0	3	3	1
KNOXVILLE	65	39	78	26	52	7	.5	-.5	.5	.0	0	46.2	108	87	41	0	0	1	1
MEMPHIS	65	44	79	31	55	7	1.1	.0	.9	.0	0	49.2	105	83	44	0	3	3	1
NASHVILLE	66	43	78	25	55	10	1.0	.0	1.0	.0	0	36.3	83	81	41	0	1	2	1
TX ABILENE	67	43	82	31	55	5	.1	-.2	.1	.0	0	30.5	136	78	33	0	2	2	1
AMARILLO	61	31	79	19	46	5	.0	-.1	.0	.0	0	17.3	94	60	26	0	5	0	0
AUSTIN	72	53	83	38	62	7	T	-.4	.0	.0	0	27.8	95	80	45	0	0	1	1
BEAUMONT	73	56	80	37	64	7	.9	-.2	.9	.0	0	62.7	125	91	59	0	0	1	1
BROWNSVILLE	81	64	86	52	72	7	.2	-.1	.2	.0	0	18.8	78	89	57	0	0	1	0
CORPUS CHRISTI	78	61	90	49	69	7	.0	-.3	.0	.0	0	20.7	69	87	49	1	0	0	0
DEL RIO	72	51	82	40	62	6	T	-.1	.1	.0	0	25.4	153	65	34	0	0	1	0
EL PASO	64	39	75	27	51	3	.1	.0	.0	.0	0	12.5	174	76	28	0	3	1	0
FORT WORTH	68	45	81	30	56	5	.4	-.0	.3	.0	0	43.8	149	90	46	0	0	2	0
GALVESTON	72	61	77	48	66	7	.5	-.3	.5	.0	0	36.4	98	88	60	0	0	1	0
HOUSTON	73	54	82	32	63	6	.1	-.8	.1	.0	0	39.5	93	87	52	0	1	1	0
LUBBOCK	63	36	78	24	50	5	.0	-.1	.0	.0	0	15.5	90	61	23	0	2	0	0
MIDLAND	68	36	83	22	52	3	.0	-.1	.0	.0	0	13.5	103	83	22	0	4	4	0
SAN ANGELO	68	43	81	28	55	5	T	-.2	.0	.0	0	28.6	165	87	37	0	1	1	0
SAN ANTONIO	73	52	84	34	62	6	T	-.5	.0	.0	0	38.1	138	86	45	0	0	0	0
VICTORIA	75	57	82	42	66	6	T	-.5	.0	.0	0	35.0	101	88	53	0	0	0	0
WACO	69	48	81	30	58	5	T	-.4	.0	.0	0	37.1	128	91	48	0	1	1	0
WICHITA FALLS	64	39	75	27	52	4	T	-.3	.0	.0	0	36.8	145	81	33	0	2	1	0
UT CEDAR CITY	46	17	61	9	31	-3	.2	.0	.2	.0	0	9.6	100	80	35	0	7	1	0
SALT LAKE CITY	46	27	62	22	36	1	.1	-.2	.1	.0	0	10.2	73	86	42	0	7	1	0
VT BURLINGTON	50	33	68	25	41	11	.1	-.2	.1	.0	0	38.0	122	76	41	0	3	2	0
VA NORFOLK	70	45	82	31	57	9	.9	-.2	.8	.0	0	42.8	102	84	38	0	2	2	1
RICHMOND	69	39	76	30	54	9	.2	-.6	.1	.0	0	39.4	97	86	39	0	2	2	0
ROANOKE	67	40	78	27	54	11	T	-.6	.0	.0	0	39.9	110	76	34	0	2	0	0
WA QUILLAYUTE	45	36	50	32	41	-2	3.7	-.2	1.5	.5	102	101.0	113	98	71	0	1	7	4
SEATTLE-TACOMA	47	36	51	33	42	-1	1.0	-.4	.5	.5	225	41.7	129	94	65	0	0	4	0
SPOKANE	40	26	50	20	33	2	.5	.0	.3	.1	157	17.3	123	95	61	0	7	4	0
YAKIMA	49	24	54	16	36	2	T	-.3	.0	.0	25	6.0	91	87	39	0	6	1	0
WV BECKLEY	61	39	74	19	50	12	.1	-.6	.1	.0	0	36.5	93	77	36	0	3	1	0
CHARLESTON	67	41	84	22	54	12	.1	-.7	.1	.0	0	37.1	95	77	31	0	2	1	0
HUNTINGTON	64	41	81	23	53	11	.1	-.6	.1	.0	0	43.9	116	79	40	0	3	1	0
PARKERSBURG	62	41	79	23	51	11	T	-.5	.0	.0	0	44.0	125	71	38	0	2	1	0
WI GREEN BAY	49	28	63	20	38	10	.3	-.1	.1	.0	0	33.8	128	87	57	0	6	2	0
LACROSSE	45	26	54	20	35	6	.6	-.3	.6	.0	0	35.2	122	80	52	0	6	1	1
MADISON	51	28	65	20	39	10	.5	-.1	.5	.0	0	33.1	113	84	53	0	6	2	0
MILWAUKEE	53	34	67	24	43	11	1.3	.8	1.2	.0	0	38.2	133	81	55	0	4	2	1
WAUSAU	41	23	52	15	32	7	.6	-.2	.4	.0	0	33.4	110	92	62	0	6	2	0
WY CASPER	41	19	60	7	30	1	.2	.0	.2	.0	0	12.0	112	77	33	0	6	1	0
CHEYENNE	44	20	71	13	32	1	.2	-.1	.2	.0	0	19.3	149	66	29	0	6	2	0
LANDER	41	20	59	12	30	4	.2	-.1	.2	.0	0	11.1	89	70	29	0	6	1	0
SHERIDAN	44	15	62	6	29	1	.1	-.1	.1	.0	0	12.9	90	87	33	0	7	1	0

Based on 1951-80 normals

Heating Degree Days (Base 65°) For November 1990

States and Stations			States and Stations			States and Stations		
TOTAL	Depart Normal		TOTAL	Depart Normal		TOTAL	Depart Normal	
AL. Birmingham	282	-105	MD. Baltimore	454	-107	OK. Okla. City	307	-179
Mobile	145	-73	MA. Boston	496	-98	Tulsa	271	-203
Montgomery	229	-214	MI. Chatham	574	-20	OR. Astoria	510	-42
AK. Anchorage	1648	349	Alpena	787	-110	Burns	922	40
Barrow	2161	181	Detroit	618	-147	Medford	680	38
Fairbanks	2097	264	Flint	668	-118	Pendleton	583	-134
Nome	1508	44	Grand Rapids	645	-150	Portland	492	-93
AZ. Flagstaff	815	-46	Houghton Lake	774	-129	Salem	535	-74
Phoenix	65	-94	Lansing	667	-128	PA. Allentown	574	-101
Tucson	152	-52	Marquette	921	-126	Erie	564	-165
Winslow	686	23	S. Ste. Marie	866	-100	Harrisburg	535	-98
Yuma	54	-38	MN. Duluth	1003	-101	Philadelphia	453	-123
AR. Fort Smith	301	-155	Internatl Falls	1101	-102	Pittsburg	577	-125
Little Rock	237	-177	Minneapolis	820	-134	Scranton	619	-104
CA. Bakersfield	316	48	Rochester	815	-627	RI. Providence	549	-99
Eureka	141	-267	St. Cloud	939	-117	SC. Charleston	152	-110
Fresno	356	2	MS. Jackson	227	-89	Columbia	277	-62
Los Angeles	62	-77	Meridian	219	-116	Greenville	328	-95
Redding	396	56	MO. Columbia	435	-210	SD. Aberdeen	901	-143
Stockton		-351	Kansas City	452	-205	Huron	855	-129
San Diego	88	-30	St. Louis	375	-237	Rapid City	730	-173
San Francisco	262	-53	Springfield	381	-216	Sioux Falls	875	-85
CO. Denver	623	-166	MT. Billings	725	-175	TN. Chattanooga	344	-139
Pueblo	610	-134	Glasgow	1017	-57	Knoxville	382	-104
CO. Bridgeport	546	-39	Great Falls	813	-117	Memphis	249	-166
Hartford	608	-94	Havre	957	-102	Nashville	323	-169
DC. Washington	381	-108	Helena	823	-185	TX. Abilene	258	-103
FL. Apalachicola	102	-52	Kalispell	891	-132	Amarillo	454	-134
Jacksonville	96	-68	Miles City	821	-169	Austin	121	-100
Key West	0	0	Missoula	862	-134	Beaumont	121	-69
Miami	0	-5	NE. Grand Island	655	-167	Brownsville	26	-29
Orlando	14	-33	Lincoln	604	-191	Corpus Christi	42	-74
W. Palm Beach	0	-9	Norfolk	739	-131	Del Rio	128	-75
Tallahassee	142	-68	North Platte	797	-103	El Paso	354	-54
Tampa	11	-54	Omaha	635	-175	Fort Worth	190	-110
GA. Atlanta	252	-142	Valentine	795	-135	Galveston	46	-93
Augusta	263	-75	NV. Ely	912	-21	Houston	129	-72
Macon	243	-56	Las Vegas	290	-56	Lubbock	357	-138
Savannah	143	-97	Reno	715	-44	Midland	295	-90
ID. Boise	710	-49	Winnemucca	887	68	San Angelo	257	-69
Lewiston	530	-217	NH. Concord	737	-94	San Antonio	142	-57
Pocatello	813	-81	NJ. Atlantic City	504	-78	Victoria	73	-77
IL. Chicago	605	-151	NM. Albuquerque	595	-35	Waco	157	-108
Moline	622	-158	NY. Albany	689	-82	Wichita Falls	267	-129
Peoria	589	-167	Binghamton	721	-92	UT. Salt Lake City	704	-55
Rockford	690	-135	Buffalo	640	-101	VT. Burlington	758	-94
Springfield	512	-175	New York	421	-116	VA. Lynchburg	408	-132
IN. Fort Wayne	587	-160	Rochester	669	-63	Norfolk	301	-92
Indianapolis	518	-199	Syracuse	675	-57	Richmond	365	-118
South Bend	565	-176	NC. Asheville	445	-113	Roanoke	381	-162
IA. Des Moines	633	-159	Charlotte	282	-147	WA. Quillayute	584	-52
Dubuque	707	-169	Greensboro	371	-124	Seattle-Tacoma	547	-59
Souix City	744	-114	Hatteras	221	-55	Spokane	774	-129
KS. Concordia	527	-190	Raleigh	323	-127	Walla Walla		
Dodge City	499	-176	Wilmington	223	-72	Yakima	697	-107
Goodland	662	-145	ND. Bismark	1006	-86	WV Beckley	515	-169
Topeka	477	-192	Fargo	982	-122	Charleston	428	-163
Wichita	445	-176	Williston	1034	-88	Huntington	440	-142
KY. Lexington	453	-150	OH. Akron-Canton	611	-109	WI. Green Bay	744	-180
Louisville	387	-180	Cincinnati	477	-171	La Crosse	700	-191
LA. Baton Rouge	147	-71	Cleveland	585	-111	Madison	713	-178
Lake Charles	141	-63	Columbus	558	-129	Milwaukee	612	-219
New Orleans	122	-64	Dayton	534	-153	WY Casper	835	-128
Shreveport	208	-85	Toledo	612	-159	Cheyenne	784	-122
ME. Caribou	1014	-3	Youngstown	603	-141	Lander	939	-87
Portland	690	-108			Sheridan	804	-171	

Based on 1951-80 normals

National Agricultural Summary

November 26 - December 2, 1990

HIGHLIGHTS: Heavy rains and flooding continued in western Washington, causing cropland and livestock losses in the hardest hit areas. Rains in the eastern Corn Belt slowed harvest of corn and soybeans.

SMALL GRAINS: Snow cover protection on Montana winter wheat was mostly poor. Mississippi wheat was fair to good with 73 percent (%) emerged, 7 percentage points behind the 5-year average. Winter wheat and rye in South Dakota were in mostly good to fair condition. Florida wheat growers continued to plant winter wheat where moisture was available. In Kansas, 15% of the emerged wheat was being grazed, the same as normal. Kansas wheat was mostly good to excellent. Wyoming winter wheat was mostly fair to good with some wind damage.

CORN: Corn harvest was mostly finished in the major corn-growing States. Growers in western Nebraska and the eastern Corn Belt were trying to finish harvest.

SOYBEANS: Mississippi soybeans were mostly poor with 97% harvested, 7 points ahead of normal. Soybean harvest in Alabama was 97% complete, 8 points ahead of normal.

COTTON: Cotton harvest was 88% complete, 6 points ahead of normal. Most States were 90% or more complete. New Mexico and Texas harvests were 72% and 73% complete, respectively, but were ahead of normal. Arizona cotton harvest was 98% complete, 10 points ahead of normal with active stalk shredding. Texas cotton harvest continued in most areas with windy conditions causing delays in the Plains.

OTHER FIELD CROPS: Tobacco quality in Kentucky was mostly fair to good. Sugarcane harvest and planting were active in Florida. Louisiana

sugarcane and sweetpotato harvests were 76% and 98% harvested, both the same as last year. Christmas tree cutting was active in New Jersey. Hawaii sugarcane and pineapple harvests continued.

FRUIT AND NUTS: Mississippi pecan crop was mostly very poor with 54% harvested, 14 points behind normal. Georgia pecan crop was mostly fair to poor with 85% harvested, 12 points ahead of normal. Louisiana pecan harvest was 63% harvested, 12 points behind normal. Fruit growers in New York continued with orchard maintenance and pruning. Arizona citrus and pecan harvests were active, while apple packing continued in eastern areas. Florida fruit was beginning to soften in the drier groves. Fresh and processing harvests were very active. California fruit, date, persimmon, and kiwi harvests continued.

VEGETABLES: Georgia onion crop was over three-fourths planted. Warm temperatures and limited rainfall in Florida aided vegetable harvest. Texas Rio Grande pepper, onion, and tomato harvests continued; however, whiteflies were a major problem. Open conditions in the San Antonio Winter Garden area promoted fall vegetable progress. California broccoli and cauliflower supply were light with variable quality.

PASTURES AND LIVESTOCK: Pasture and livestock conditions were mostly fair to good. Range conditions in the southern two-thirds of California were very poor to poor. Hay supplies were mostly adequate except in southeastern Oregon where supplies were limited.

State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall mostly between 1.00 to 4.00 in. north; less than 0.30 in. many areas central, south. Temperatures 5 to 9° above normal.

Days suitable for fieldwork 5.5. Soil moisture 15% very short, 42% short, 43% adequate. Rains mid week helped improve pastures, stockwater supplies; provided much needed moisture for small grain development. Soybeans 97% harvested, 90% 1989, 89% avg. Winter wheat 82% seeded, 79% 1989, 81% avg. Pastures 10% very poor, 35% poor, 36% fair, 19% good. Livestock 3% poor, 43% fair, 54% good. Primary activities: Harvesting soybeans, fall vegetables, pecans; seeding, fertilizing winter annuals; soil testing; applying lime to cropland; machinery, equipment repair; providing supplemental feed to cattle; general care of livestock, poultry, catfish.

ARIZONA: Increased clouds, scattered showers 25th; cold front moved across State 26th; rain, snow showers widespread, rainfall 0.10 to 0.50 in.; snow 1.00 to 5.00 in.; skies cleared, continued cold 27th; clear skies, less wind, drier air 28th; mostly sunny skies, warmer 29th, 30th, 1st; temperatures 6° below normal to 4° above.

Cotton 98% harvested, 88% 1989, 88% 5 year avg.; stalk shredding, plow down mostly moderate to active. Alfalfa hay mostly good condition; harvest mostly light; sheeping off light. Wheat, barley seedbed preparations continued; 45% acreage planted, 23% stands established; stands mostly good condition, fair west. Citrus, pecan, mixed vegetable harvests active statewide. Apple packing continued east. Cattle, calves mostly fair to good statewide; ranges providing average to mostly average feed supplies; stockwater supplies, soil moisture short, mostly adequate; insect damage minimal; sheep, lambs mostly good to excellent condition.

ARKANSAS: Mild week with slightly to above normal temperatures, showers statewide. Extremes 17°; 80°. Rainfall 0.54 to 2.24 in.

Main activities: Soybean, cotton harvest; bush hogging, disking cotton stalks; planting winter forages; field preparation for next years crops; conducting winter pasture management practices; baling hay; livestock herd, health management practices. Cotton 100% harvested, 99% 1989, 98% avg. Soybeans 95% harvested, 99% 1989, 90% avg. Wheat 92% planted, 99% 1989, 93% avg.; 88% emerged, 95% 1989, 84% avg. Oats 95% planted, 98% 1989, 95% avg. Livestock condition was good. Wet conditions prevented fieldwork from progressing as normal.

CALIFORNIA: Weak frontal system brought varying amounts of rain to most areas early in the week. High pressure built back over the State resulting in near normal daytime temperatures, fairly dry conditions in the middle of the week. Another weaker system passed through Friday depositing only trace amounts of precipitation over the southern parts of the State.

Wet conditions slowed fieldwork. Field activity progressed, soils dried. Rice stubble burning progressed as regulations allowed. Cotton harvest nearly complete; shredding, discing for pink boll worm control. Ground preparation next year's crop

continued. Corn, grain sorghum harvests virtually complete. Sugarbeet harvest continued. Small grain seeding progressed; improved soil moisture. More rain needed seeded fields. Alfalfa hay harvest, green chopping continued. Avocado harvest progressed. Date, persimmons, kiwi harvest continued. Table grape harvest near completion, a few Emperors still to be picked. Orchards, vineyards irrigated, treated to control weeds, fertilized, pruned, disced. Ground fumigated, preparation of planting new orchards. Pecan harvest ongoing. Navel orange harvest gained momentum. Satsuma mandarin oranges picked, packed; good quality reported. Desert lemons, grapefruit, tangerines picked. Broccoli in light supply generally good quality, cauliflower in light supply, variable quality. Celery in Salinas area, Iceberg head lettuce in Huron area seasonally decreasing supply, generally good quality. Lettuce harvest steady in Riverside County, good quality. Other vegetables being harvested included carrots, cucumbers, green beans, long beans, eggplant, squash, leaf lettuce, kale, chili peppers, bell peppers, garlic, sugar peas, bitter melon, Chinese winter melons, bok choy, okra, taro root. Some growers in Fresno area continued to prepare seedbeds, pre irrigate, apply pre emergence herbicides for 1991 crops of processing tomatoes, garlic, onions. Livestock on supplemental feed most areas, average to good condition. Range conditions very poor to poor in the southern two thirds of State, poor to fair in northern third. Little to no growth on winter pastures north central, southern areas. Sheep grazing continued southern, central counties.

COLORADO: Continued warm and dry with above normal temperatures. Pacific storm system moved across the northern portion of the State on the 27th, precipitation amounts were generally less than 1.00 in. Temperatures above normal for much of the State except the Colorado River Basin 0 to 6° below normal.

FLORIDA: Rain mostly under 0.50 in., several areas under 0.10 in. Heaviest rain 1.29 in. Hastings. Another warm week. Temperatures 5 to 9° above normal. All reporting stations had highs 80° or above; mid to upper 80s common, Peninsula. Coolest readings mid, upper 30s Panhandle, western Big Bend; 40s northeast, colder central locations; 50s interior south to mostly mid, upper 60s southeast Atlantic Coast.

Soil moisture mostly short, except few low lying Peninsula areas adequate. Showers too light most areas to alleviate shortage. Growers planted winter wheat where moisture available. Sugarcane harvest, planting active. Pastures 5% very poor, 15% poor, 50% fair, 25% good, 5% excellent. Panhandle, northern Peninsula cattle mostly good; southern Peninsula fair to good. Citrus groves, trees good condition; rain needed, irrigation continued. Small quantity fruit softening, drier groves. Advanced maturity most early fruit types. Fresh, processed harvested very active. Caretakers preparing groves for winter. Warm temperatures, limited rainfall prevailed over vegetable producing areas. Planting, harvest active central, southern

areas. Volume leaders: tomatoes, cucumbers, peppers, squash, snap beans, radishes, celery, eggplant. First regular carrots dug, Zellwood.

GEORGIA: Temperatures 6 to 10° above normal. Warmest highs low, mid 70s northeast, mid 80s south. Coldest lows upper teens north, low 30s central, south, low 40s along coast. Rain amounts north mostly between 0.30 to 1.00 in., elsewhere generally under 0.25 in.

Days suitable for fieldwork 5.8. Soil moisture 17% very short, 44% short, 39% adequate. Sorghum 98% harvested for grain, 98% 1989, 97% avg. Soybeans 27% very poor, 48% poor, 18% fair, 7% good; 93% harvested, 82% 1989, 81% avg. Wheat 3% poor, 57% fair, 40% good; 76% planted, 58% 1989, 69% avg.; 54% emerged, 32% 1989, 50% avg. Cooler temperatures needed to control insects. Rye 3% poor, 65% fair, 32% good; 94% planted, 97% 1989, 92% avg. Other small grains 1% poor, 53% fair, 46% good; 87% planted, 89% 1989, 87% avg. Pecans 5% very poor, 36% poor, 56% fair, 3% good; 85% harvested, 80% 1989, 73% avg. Harvest very active, production disappointing. Onions over three fourths planted. Pasture 6% very poor, 13% poor, 46% fair, 35% good. Cattle, hogs fair to good.

HAWAII: Fair weather continued during past week. Strong high pressure system brought variable trade winds, mostly sunny conditions. Temperatures high 50s to low 80s. Rainfall none to 3.40 in.

Days suitable for farm work 7.0. Farmers returned to more normal field, harvesting activities as field conditions continued to improve. Papaya production steady, some disease incidence reported. Sugar, pineapple harvest continuous.

IDAHO: Heavy precipitation parts of north; above average southeast, otherwise below normal. Temperatures on warm side, up to 9° above normal.

Soil moisture adequate north; short to adequate rest of State. Activities: Machinery maintenance, hauling grain, attending meetings, fall plowing. Winter wheat good. Hay, roughage supplies adequate. Livestock good to excellent.

ILLINOIS: Temperatures 6 to 10° above normal. Precipitation generally 1.00 to 3.00 in., a few locations 4.00 to 5.00 in.

Winter wheat mostly good. Livestock good to excellent.

INDIANA: Temperatures 6 to 11° above normal. Lows low 30s to low 40s, highs upper 40s to near 60. Precipitation 0.50 to 4.50 in. Corn, soybean harvest slowed by mid week showers. Other activities: Plowing, moving grain, processing tobacco, spreading fertilizer, disking stalks, machinery repair, clearing fence rows, hauling manure, care of livestock. Soybean harvest virtually complete. Wet soil conditions, many areas.

IOWA: Temperatures 1 to 8° above normal. Extremes 3°; 73°. Precipitation 0.19 to 2.51 in.; average 0.95 in. Extremely variable weather. Moderate to heavy snow statewide 23rd. Weekend storm ends fall like weather. Snow, freezing rain causing stress on livestock.

Farmers are putting equipment in the machine sheds.

KANSAS: Temperatures normal northern one third; 2 to 8° above rest of State. Precipitation varied none southwest to almost 0.60 northeast.

Days suitable for fieldwork 5.5. Surface moisture 56% short, 44% adequate. Subsurface moisture 48% short, 52% adequate. Wheat emerged; 15% acreage being grazed, compared 10% 1989; 5 year avg. 15%. Wheat 90% good to excellent, 10% fair. Hessian fly heavier than usual southwest. Wheat streak mosaic continues show up central, west. Wheat better shape than last year. Ranges, pastures providing some grazing. Supplemental feeding increasing. Movement calves to market continues. Stockwater supplies low; hauling water necessary few areas.

KENTUCKY: Temperatures 6 to 8° above normal. High temperatures upper 50s, lower 60s, lows averaged upper 30s, lower 40s. Precipitation 0.25 in. southeast to 1.00 in. west.

Burley prices improved, up 33 cents from opening week. Belt total for season stands at 253 million pounds marketed, avg. price \$174.28 per cwt. Tobacco quality mainly fair to good. No tobacco has been placed under loan. Clean up harvest of corn, soybeans, some fields too wet to harvest. Wheat generally good condition.

LOUISIANA: Temperatures 3.7 to 5.9° above normal. Extremes 26°; 83°. Rainfall 0.62 to 2.02 in.

Days suitable for fieldwork 4.9. Soil moisture 12% short, 88% adequate. Pecans harvested 63%, 78% 1989, 75% avg. Soybeans harvested 100%, 100% 1989, 96% avg. Sugarcane harvested 76%, 78% 1989, 76% avg. Sweetpotatoes harvested 98%, 98% 1989, 98% avg. Wheat planted 90%, 94% 1989, 82% avg.; emerged 78%, 83% 1989, 72% avg.; 42% fair, 58% good. Livestock 52% fair, 48% good. Pasture 12% poor, 56% fair, 32% good. Vegetable 5% poor, 50% fair, 45% good.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.12 in. Temperature 53°, normal 42°. Extremes 22°; 78°.

Activities for the week: Finishing harvest of corn, soybeans; finishing seeding of small grains; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

DELAWARE: Precipitation 0.29 in. Temperature 53°, normal 43°. Extremes 23°; 76°.

Activities for the week: Finishing harvest of soybeans; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

MICHIGAN: Temperatures 5 to 12° above normal. Extremes 15°; 69°. Precipitation 0.34 to 4.12 in. across the State.

Days suitable for fieldwork 3.0. Soil moisture 16% adequate, 84% surplus. Corn 90% harvested, 100% 1989, 90% avg. Winter wheat 99% emerged, 100% 1989, 100% avg.; 2% very poor, 9% poor, 27% fair, 41% good, 21% excellent. Major activities: Harvesting remaining corn, soybeans, cleaning, storing farm equipment, caring for livestock, routine chores, preparing for winter.

MINNESOTA: Temperatures 1 to 2° below normal. Extremes 18°; 56°. Precipitation 0.10 to 0.20 in., greatest weekly total 1.60 in.

MISSISSIPPI: Temperatures 5° above normal. Extremes 20°; 84°. Wet statewide, with some areas receiving only scattered showers. Rainfall 1.31 in., 0.15 in. above normal. Soil temperatures 57°.

Days suitable for fieldwork 3.8, 4.1 1989, 3.6 avg. Soil moisture 18% short, 72% adequate, 10%

surplus. Soybeans 97% harvested, 95% 1989, 90% avg.; 23% very poor, 47% poor, 22% fair, 5% good, 3% excellent. Wheat 86% planted, 95% 1989, 82% avg.; 73% emerged, 86% 1989, 80% avg.; 2% poor, 47% fair, 44% good, 7% excellent. Pecans 54% harvested, 78% 1989, 68% avg.; 71% very poor, 28% poor, 1% fair. Pasture 25% very poor, 32% poor, 29% fair, 14% good. Livestock 6% very poor, 1% poor, 52% fair, 41% good. Hay, roughage 68% short, 32% adequate. Feed grain 22% short, 78% adequate. Activities: Finishing soybean harvest, subsoiling.

MISSOURI: Temperatures 9° above normal. Precipitation 1.00 in. northwest, west central districts to over 3.00 in. some eastern, south central counties.

Wet weather stopped fertilizing, late tillage. Topsoil 11% short, 84% adequate, 5% surplus. Subsoil 25% short, 74% adequate, 1% surplus. Wheat 1% poor, 39% fair, 56% good, 4% excellent. Hay 7% short, 73% adequate, 20% surplus. Livestock water supply 7% short, 93% adequate. Livestock 6% fair, 86% good, 8% excellent.

MONTANA: Temperatures 3 to 7° above normal except southeast near normal. Heavy snow mountain areas of northwest. Strong winds along east slope.

Snow cover protected winter wheat 82% poor, 14% fair, 4% good. Cattle, calves receiving supplemental feed 48%. Sheep, lambs receiving supplement feed 60%. Grazing mostly open but forage limited in most eastern areas due to drought.

NEBRASKA: Temperatures 6° below normal. Southwest up to 3° above normal east central. Extremes 1°; 67°. Precipitation traces up to 0.30 in.

Topsoil 54% short, 45% adequate, 1% surplus. Subsoil 79% short, 21% adequate. winter wheat 3% poor, 35% fair, 59% good, 3% excellent. Southwestern fields still snow covered by 30th. Snow cover, moisture should help crop going into winter. Pasture, range 9% very poor, 29% poor, 39% fair, 22% good, 1% excellent. Hay, roughage supplies 10% short, 83% adequate, 7% surplus. Open conditions allowed operators to stretch feed supplies by grazing crop residues. Snow cover caused some supplemental feeding during week, weekend snow will make more feeding necessary. Eastern farmers were working fall tillage, applying fertilizer before 28th snow stopped them. A few corn growers trying to finish harvest, especially west. Northeast dairy herds culled heavily due to lower milk prices. Main activities: Moving hay; equipment, building maintenance; ordering supplies; tax planning; livestock care.

NEVADA: Temperatures below normal. Extremes -5°; 73°.

Sudden cold temperatures increased livestock stress. Major farm activities: Caring for livestock, equipment maintenance.

NEW ENGLAND: Precipitation none to 0.85 in. Maine, none to 0.25 in. elsewhere. Temperatures high 20s to low 30s northern Maine mid 30s to mid 40s elsewhere.

Major farm activities; plowing fields, cutting fire wood, general repairs.

NEW JERSEY: Temperatures above normal, 42° south, 47° north, 49° coastal. Extremes 19°; 74°. Precipitation below normal, averaged 0.10 in. north, 0.08 in. south, 0.16 in. coastal. Heaviest 24 hour total 0.25 in. on 28th, 29th.

Harvest of soybeans, corn for grain nearing completion. Christmas tree cutting, digging active. Fruit tree pruning underway. Cider pressing active.

NEW MEXICO: Temperatures generally above normal except northwest quadrant of State. Precipitation a trace to 1.16 in.

Days suitable for fieldwork 6.3. Soil moisture 63% short, 37% adequate. Most cotton pick over first time. Heavy freeze this week helped open pecans, harvest well underway. Cattle, sheep fair to good. Range 3% very poor, 10% poor, 60% fair, 27% good.

NEW YORK: Weather data not available.

Fruit growers continued with orchard maintenance, pruning. Mild temperatures provided excellent conditions for outside work. Corn for grain harvest progressed.

NORTH CAROLINA: Temperatures were well above normal during the first of the week, a cold front on 28th brought seasonal temperatures. Extremes 15°; 81°. Precipitation none to 1.63 in.

Days suitable for fieldwork 4.9. Soil moisture 1% very short, 20% short, 75% adequate, 4% surplus. Pasture 5% poor, 39% fair, 56% good. Livestock feed from pasture 62%. Harvested: Sorghum 93%; cotton 98%; soybeans 85%. Wheat emerged 62%. Planted: Wheat 86%. Crop condition: Wheat 30% fair, 68% good, 2% excellent; oats 29% fair, 69% good, 2% excellent; barley 34% fair, 66% good; rye 28% fair, 71% good, 1% excellent. Major activities: Harvesting cotton, soybeans; planting small grains; land preparation. Other activities included: Harvesting sorghum; cutting wood; cutting, tagging Christmas trees; fumigating tobacco plant beds; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures average to 5° below normal. Precipitation below 0.10 in. statewide.

Livestock good, most receiving supplemental feeds. Hay supplies 7% short, 93% adequate. Pastures open for grazing 59%.

OHIO: Spring like conditions gave way to much colder temperatures. Rainfall came to the State late in the period. High temperatures low 50s to low 60s. Low mid 30s to low 40s. These readings were 8 to 13° above normal. Precipitation 0.40 to 1.50 in. with some areas receiving only 0.25 in. Totals ranged from 0.50 in. below normal to 1.00 in. above normal.

Farmers had several days suitable for fieldwork to finish harvesting crops. Some corn remained to be harvested where wet conditions prevented machinery from operating in fields. Soil moisture increased which benefitted winter wheat.

OKLAHOMA: Temperatures normal Panhandle to 5° above normal northeast. Precipitation none Panhandle to 2.08 in. east central.

Days suitable for fieldwork 5.7. Topsoil 30% short, 60% adequate, 10% surplus. Subsoil 10% short, 90% adequate. Wheat 97% emerged, 95% 1989, 90% avg.; 30% grazed, 35% 1989, 30% avg. Scattered showers benefitted growth, development. More rain needed to ensure a good root system. Cotton 80% harvested, 80% 1989, 40% avg. Many growers awaiting hard freeze to defoliate plants. Sorghum 97% harvested, 95% 1989, 85% avg. Soybeans 97% harvested, 95% 1989, 75% avg. Peanuts 99% harvested, 97% 1989, 90% avg. Pastures 75% fair, 25% good. Cattle good; marketings average, prices up slightly from preceding week.

OREGON: Temperatures near normal west; as much as 3° to 4° above normal north central; as much as 5° to 7° below normal south central, southeast. Precipitation over 2.00 in. coast, northwest interior; 0.50 to 1.50 in. southwest interior; below 0.67 in. east.

Soil moisture adequate western valleys; surplus coast; short to adequate Columbia Basin, northeast, southeast. Very little field activity except some winter spraying, last of seeding Willamette Valley. Wheat emergence generally very good, little pest damage. Some caneberries removed from training vines Washington Co. Cranberry bogs flooded for insect control south coast. Some fertilizing, discing, pre bedding of potato ground Baker Co. Livestock mostly good. Range, pasture fair to excellent west, poor to good east. Cattle moved down from mountains south. Cattle shipments finished southeast. Winter feeding underway most areas of southeast, some locales northeast. Concern about limited hay supplies southeast.

PENNSYLVANIA: Another pleasant week with above normal temperatures, below normal precipitation. Temperature 45°, 7° above normal. Extremes 14°; 79°. Precipitation 0.06 in, 0.70 in. below normal.

Corn 85% harvested, 81% 1989, 87% avg. Soybean harvest 92% complete, 82% 1989, 89% avg. Activities: Harvesting hay, corn, soybeans; spreading fertilizer; maintaining machinery, caring for livestock.

PUERTO RICO: Rainfall 1.16 in. was 0.07 below normal. Rainfall was 3.32 in. at Pico Del Este Luquillo, 2.85 in. San Sebastian, 2.56 in. Rio Balanco lower. Divisional temperature about 78 to 80° on the Coast, 72 to 74° in the Interior with mean station temperature 66° at Pico Del Este Luquillo to 81° at Roosevelt Roads N.S. Extreme 55°; 93°.

SOUTH CAROLINA: Temperatures 3° warmer than usual northwest to 6° higher than usual elsewhere. Rainfall less than 0.25 in. northwest to 1.67 in. north coast.

Days suitable for fieldwork 5.5. Soil moisture 28% short, 72% adequate. Soybeans 16% poor, 72% fair, 12% good.; 73% harvested, 71% 1989, 65% avg. Sorghum fair to good, 90% harvested, 76% 1989, n/a avg. Wheat fair to good, 65% planted, 67% 1989, 62% avg.; 43% emerged, 42% 1989, 49% avg. Pastures 8% poor, 33% fair, 59% good.

SOUTH DAKOTA: Near normal weather. Temperature -5°; 62°. Light precipitation southeast, extreme west. Snow 1.00 to 3.00 in. of snow. Precipitation for the year ranges: 5.43 in. above to 8.34 in. below.

Subsoil mostly short to critically short. Topsoil mostly adequate to short. Pasture conditions mostly good to fair. Livestock conditions mostly good. Winter wheat conditions good to fair. Rye conditions good to fair. Feed supplies mostly adequate. Stockwater supply adequate to short. Major activities moving hay, working cattle.

TENNESSEE: High pressure brought warm air into State early week. Cold front midweek brought rain. Another high pressure returned fair skies through 1st. Cold front 2nd brought more rain. Temperatures 5 to 10° above normal statewide. Warmest 79° Memphis, Dyersburg, Chattanooga 27th. Coldest 20° Crossville 30th. Precipitation 0.50 to almost 1.00 in. below normal northeast, 0.25 to almost 1.00 in. above normal elsewhere.

Fieldwork limited by rain most areas. Equipment repair, maintenance main activities.

TEXAS: Main storm systems during past week slipped northern areas. Warm humid air pulled northward over much of State. Eastern border areas of state picked up significant showers as did north central areas. Warm air kept temperatures at or above normal most areas through much of week. At weekend, coldest air of season started push into panhandle, western area. Temperature above normal all but western State. Greatest departures in south central areas 7° above normal. On other hand, south plains recorded departure 4° below normal for same period. Precipitation, all areas behind normal for week. Greatest deficit along the normally wet upper coast.

Crops: Grain sorghum harvest basically completed as open conditions allowed good progress, few fields still remained Low Plains. Grain sorghum 98% harvested, 97% 1989, 96% avg. Cotton harvest progressed rapidly remaining areas. Windy conditions caused delays Plains, producers continued report good yields. Fair to very good yields continued Trans Pecos area as harvest continued full swing. Cotton 99% open, 100% 1989, 97% avg. Small Grains maintained steady progress throughout last week, moisture needed many areas to sustain growth. Scattered green bug damaged continued hamper wheat fields Blacklands some spraying reported. Wheat 97% planted, 98% 1989, 97% avg.; 92% emerged, 89% 1989, 93% avg. Soybeans harvest resumed. Some rain delays reported along Upper Coast. Yields holding fair to average. Peanut harvest continued few delays. Excellent yields good grades reported irrigated fields Plains. Above average yields fair good quality reported dryland fields Cross Timbers, harvest winding down. Other field crops: Peanuts 82% harvested, 83% 1989, 85% avg. Pecans 44% harvested, 55% 1989, 62% avg. Soybeans 84% harvested, 87% 1989, 87% avg. Sugarbeets 72% harvested, 95% 1989, 85% avg. Sunflowers 75% harvested, 84% 1989, 91% avg. Oats planted 81%, 92% 1989, 91% avg.

Commercial Vegetables: Rio Grande Valley, pepper harvest continued. Onions, tomatoes steady progress. Whitefly numbers major problem. San Antonio Winter Garden, open conditions promoted fall vegetable progress. Cabbage maturing well demand high. Bean, broccoli, cauliflower, tomato, squash harvest continued. Pecan harvest active throughout growing regions. Killing frost enhanced harvest opportunities Plains. Fair good quality nuts reported, yields remain high. Light crop expected eastern, central areas due small undeveloped nuts, skippy trees, due lack sufficient moisture.

Range and Livestock: Summer forage quality diminish as cooler temperatures poured across range lands. Livestock good shape. Winter pastures good grazing. Supplemental feeding increased due winter weather. Some respiratory problems plagued livestock Plains because dry, dusty conditions. Range and pasture conditions 4% very poor, 5% poor, 41% fair, 40% good, 10% excellent.

UTAH: Precipitation mostly light, isolated stations moderate. Temperature maximums averaged normal, minimums 3° below normal.

Harvest of late crops virtually complete, with a few onions still unharvested. Winterization of equipment continues. Range, pasture in poor condition.

VIRGINIA: Warm with temperatures well above normal. Rainfall 0.60 to 1.00 in. east to 0.10 in. west.

Days suitable for fieldwork 5.6. Topsoil 2% very short, 42% short, 50% adequate, 6% surplus. Soybeans harvested 88%, 84% 1989, 68% avg. Winter grains, grazing crops condition 9% poor, 51% fair, 37% good, 3% excellent. Livestock mostly good condition. Pasture 10% poor, 46% fair, 36% good, 8% excellent. Forage from pastures, winter grazing crops dairy cattle 20%, beef cattle 68%, sheep 68%. Fruit tree pruning, Christmas tree harvest, sweetpotato, greens harvest active.

WASHINGTON: Temperatures normal to 6° above normal, east; 1° below normal to 1° above normal, west. Precipitation, none to 0.74 in. east; 2.31 to 7.44 in. west.

Days suitable for fieldwork 2.9 Soil moisture 25% short, 74% adequate, 1% surplus. Range, pasture 3% very poor, 27% poor, 45% fair, 25% good. Hay, other roughage 1% short, 95% adequate, 4% surplus. Winter wheat emerged 99%, 100% 1989, 100% avg. Corn for grain harvested 93%, 90% 1989, 95% avg. Winter wheat 15% fair, 85% good. Barley condition 35% fair, 65% good. Heavy rains and flooding continued in Western Washington with the State capital receiving 7.44 inches of rain during

the week. Cropland, dairy animals were lost in large numbers in the hardest hit areas of Skagit, Snohomish Counties. Pruning activities continued in eastern areas, cattle were moved to fall, winter pastures, while calves were marketed.

WEST VIRGINIA: Temperature 47°, 7 to 13° above normal. Extremes 10°; 84°. Precipitation 0.32 in.

Days suitable for fieldwork 5.5. Soil moisture 4% very short, 14% short, 82% adequate. Pasture 17% poor, 39% fair, 42% good, 2% excellent. Cattle, sheep good. Corn 12% fair, 88% good; 91% harvested. Farm activities: Corn, soybean harvesting, livestock care, farm maintenance, stripping tobacco.

WISCONSIN: Due To Inclement Weather No Data Available.

WYOMING: Temperatures mostly above normal. Scattered precipitation across State. Above normal north central, southeast, below normal elsewhere.

Corn harvest continues. Winter wheat fair to good. Some wind damage reported, dry conditions hampering development. Livestock mostly good condition. Marketing, preparation for winter continuing.

NOVEMBER 1990
MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
 *** = DATA NOT AVAILABLE

International Weather and Crop Summary
HIGHLIGHTS

November 25 - December 1, 1990

WESTERN USSR ... Unseasonably mild weather continues over most winter grain areas, accompanied by widespread, light precipitation.

NORTHWESTERN AFRICA ... Soaking rain provides abundant topsoil moisture for winter grain planting in northern Morocco. Southernmost crop areas around Marrakech continue too dry for planting.

EUROPE ... Heavy rains continue to alleviate dryness in Italy and Yugoslavia. Light to moderate rain and mild temperatures favor winter grains in the eastern Balkans.

EASTERN ASIA ... Tropical Storm Page brings high winds, heavy rain, and flooding to sections of Japan.

SOUTH ASIA ... Dry, warm weather covers most of the region, favoring summer crop harvesting and fall grain planting.

SOUTHEAST ASIA ... Seasonably drier weather prevails over Thailand, while tropical showers cover Malaysia, Indonesia, and the Philippines.

SOUTH AFRICA ... Persistent dryness hampers corn planting in the Maize Triangle.

SOUTH AMERICA ... In Argentina, variable rainfall allows summer crop planting and wheat harvesting. In south-central Brazil, mostly light rain promotes soybean planting.

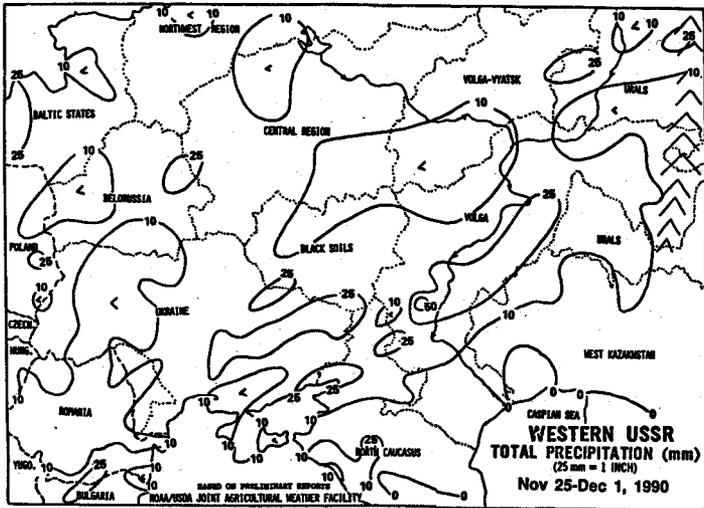
AUSTRALIA ... Dryness favors winter grains harvest in the south, but stresses nonirrigated summer crops in the east.

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI	LO	DPART AVG	F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	1	-5	10	-17	-2	-0.9	43	-50
SWEDEN	STOCKHOLM	3	-1	10	-11	1	-1.4	58	6
FINLND	HELSINKI	1	-3	7	-18	-1	-1.7	62	-6
U KING	GLASGOW	9	3	14	-5	6	-0.9	53	-60
	EDINBURGH	9	3	15	-3	6	0.0	48	-17
	BIRMINGHAM	9	5	15	-5	7	0.6	38	-24
	LONDON	10	5	15	-1	8	1.2	42	-41
IRELND	DUBLIN	10	5	18	-1	8	0.6	64	-6
ICELND	REYKJAVIK	5	2	10	-5	4	2.0	71	-8
DENMRK	COPENHAGEN	7	3	11	-2	5	-0.5	43	-5
LUXEMB	LUXEMBOURG	7	3	11	-4	5	0.6	112	39
SWITZL	ZURICH	7	3	15	-2	5	0.9	141	61
	GENEVA	8	4	15	-1	6	0.8	108	11
FRANCE	PARIS	10	5	16	-2	7	0.8	25	-29
	STRASBOURG	8	4	14	-2	6	0.9	35	-12
	BOURGES	10	5	15	-1	8	1.1	31	-30
	BORDEAUX	13	8	18	1	10	1.8	83	-14
	TOULOUSE	12	7	16	0	10	1.6	31	-24
	MARSEILLE	14	7	18	0	10	0.0	27	-36
SPAIN	VALLADOLID	10	3	16	-1	7	-0.3	46	-4
	MADRID	14	4	22	-2	9	0.1	30	-36
	SEVILLE	20	10	25	3	14	0.0	51	-27
GERMNY	LEIPZIG	8	4	13	-2	6	1.3	62	26
	DRESDEN	7	4	14	-1	5	1.1	67	25
	HAMBURG	7	4	12	-2	5	0.4	134	70
	BERLIN	7	4	12	-1	6	0.8	54	7
	DUSSELDORF	9	5	14	-1	7	0.7	74	11
	STUTTGART	7	2	13	-5	4	0.1	82	34
	NURNBERG	7	3	13	-4	5	1.3	97	56
	MUNICH	7	2	14	-6	4	1.1	82	24
AUSTRI	VIENNA	9	4	16	-3	6	1.7	42	0
	INNSBRUCK	8	1	18	-5	4	1.0	77	18
CZECH	PRAGUE	6	2	12	-5	4	0.9	61	33
POLAND	WARSAW	7	3	12	-3	5	1.3	48	8
	LODZ	6	2	12	-3	4	1.9	79	40
	KATOWICE	7	2	14	-3	5	2.4	69	28
	PRZEMYSL	8	3	16	-2	5	1.8	37	-8
HUNGAR	BUDAPEST	8	4	13	-3	6	0.8	48	-7
YUGOSL	SARAJEVO	11	5	22	-6	8	1.6	68	-43
ROMANI	BUCHAREST	13	2	23	-5	8	1.9	13	-34
BULGAR	SOFIA	12	4	23	-4	8	2.1	23	-27
ITALY	MILAN	10	2	18	-3	6	-0.6	31	-81
	VERONA	12	2	18	-6	7	-0.1	43	-37
	VENICE	13	6	18	1	9	1.0	43	-54
	GENOA	16	10	19	6	13	0.1	64	-95
	ROME	17	9	23	2	13	0.8	93	-13
	NAPLES	18	10	22	6	14	1.8	110	-44
GREECE	THESSALONIKA	17	9	27	1	13	1.8	39	-13
	LARISSA	18	7	29	-2	13	1.3	71	17
	ATHENS	20	14	25	7	17	1.3	42	-15
TURKEY	ISTANBUL	17	12	23	5	14	2.8	104	16
	ANKARA	14	1	21	-5	8	1.8	16	-9
CYPRUS	LARNACA	24	13	29	8	19	0.9	15	-23
USSR	TALLINN	3	-1	7	-8	1	0.1	109	52
	LENINGRAD	1	-2	9	-11	-1	-0.7	56	4
	KAUNAS	5	2	10	-2	4	1.6	60	10
	MINSK	5	2	9	-2	3	2.5	76	28
	KAZAN	-2	-5	3	-17	-4	0.3	82	45
	MOSCOW	2	-1	6	-10	0	1.9	90	41
	SVERDLOVSK	-3	-8	5	-18	-5	-0.2	30	3
	OMSK	-5	-10	2	-21	-8	0.5	36	13
	KUSTANAY	-1	-6	6	-16	-4	2.4	29	7
	KRASNOYARSK	-4	-10	10	-28	-7	1.6	41	6
	NOVOSIBIRSK	-6	-11	4	-26	-8	1.3	18	-10
	BARNAUL	-5	-11	4	-25	-8	-0.8	35	-2
	KHABAROVSK	0	-9	7	-18	-4	3.7	25	9
	VLADIVOSTOK	5	-1	12	-14	2	3.2	24	-10
	KIEV	7	4	12	1	6	3.7	43	-9
	LVOV	7	2	14	-3	5	2.1	42	-6
	KIROVOGRAD	8	4	14	-2	6	4.1	25	-10

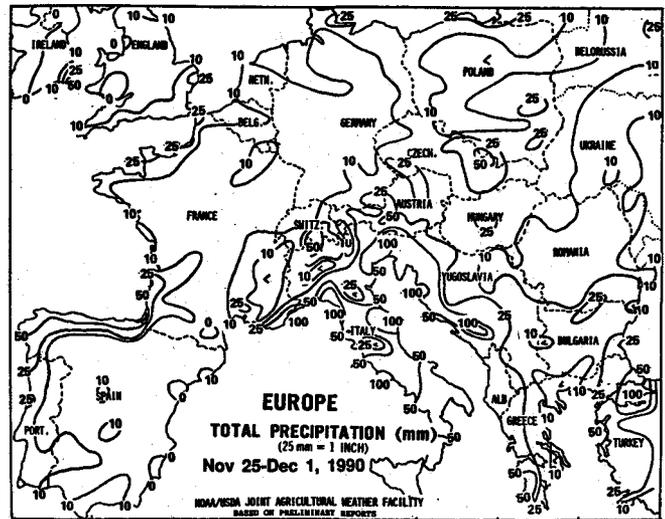
Based on Preliminary Reports

NOVEMBER 1990

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)			
		AVG MAX	AVG MIN	HI MAX	LO MIN	DPART AVG	F/NRM	TOTAL	F/NRM			AVG MAX	AVG MIN	HI MAX	LO MIN	DPART AVG	F/NRM	TOTAL	F/NRM	
USSR	ODESSA	12	7	19	2	9	3.5	6	-43	TANZAN	DAR ES SALAAM	31	22	33	21	27	0.3	166	51	
	YALTA	15	9	25	3	12	2.5	43	-18	GABON	LIBREVILLE	29	24	30	21	26	0.2	226	-297	
	VORONEZH	4	1	11	-7	2	2.8	106	62	TOGO	LOME	32	25	33	22	28	1.3	56	34	
	SARATOV	2	-1	11	-9	1	2.7	103	73	B FASO	OJAGADOUGOU	37	21	39	19	29	1.3	0	-1	
	KHARKOV	6	3	13	-3	4	3.1	76	35	IVRY C	ABIDJAN	32	25	32	22	28	1.3	170	11	
	VOLGOGRAD	6	1	13	-8	4	3.8	62	28	MOZAMB	MAPUTO	28	20	36	15	24	0.2	3	-63	
	ROSTOV	9	5	20	-1	7	3.6	64	16	ZAMBIA	KABWE	31	18	36	15	25	2.2	118	16	
	ASTRAKHAN	10	5	16	-1	7	4.7	30	16	ZIMBAB	HARARE	28	16	32	12	22	1.4	71	-40	
	KRASNODAR	13	5	25	-1	9	2.8	42	-19	S AFRI	PRETORIA	30	17	36	11	24	3.1	31	-78	
	ORENBURG	1	-5	8	-19	-2	0.7	76	37		KROONSTAD	31	14	36	10	23	2.1	17	-57	
	TSELINOGRAD	-4	-11	2	-24	-8	0.5	26	15		JOHANNESBURG	27	13	33	4	20	2.0	39	-80	
	KARAGANDA	-3	-10	10	-24	-6	-0.1	47	25		BETHAL	26	12	31	5	19	0.6	135	7	
	TBILISI	15	6	25	-1	11	2.9	57	28		DURBAN	25	19	30	13	22	0.5	53	-51	
	TASHKENT	17	5	28	-1	11	4.2	21	-27		CAPE TOWN	23	12	31	5	17	-0.4	10	-7	
	ASHKHABAD	19	6	31	-1	12	3.6	16	-5	CANADA	TORONTO	9	0	22	-7	5	1.2	40	-22	
SYRIA	DAMASCUS	24	5	30	-2	15	1.5	2	-25		MONTREAL	7	-2	19	-7	3	0.5	88	6	
ISRAEL	JERUSALEM	22	12	27	7	17	1.5	22	-37		WINNIPEG	1	-10	15	-22	-4	-0.1	19	-6	
PAKIST	KARACHI	32	15	35	9	24	-0.4	0	-6		REGINA	2	-12	18	-24	-5	-0.2	4	-10	
INDIA	AMRITSAR	27	10	30	3	19	0.6	0	-6		SASKATOON	-3	-13	11	-28	-8	-2.3	21	7	
	NEW DELHI	28	14	31	10	20	-0.1	37	32		LETHBRIDGE	6	-7	19	-22	-1	0.0	30	13	
	AHMEDABAD	33	17	35	10	25	0.1	0	-9		CALGARY	1	-9	14	-23	-4	-1.4	21	8	
	INDORE	29	14	33	12	22	0.3	0	-20		EDMONTON	-2	-11	11	-24	-7	-3.1	27	12	
	CALCUTTA	30	20	32	15	25	1.6	20	4		VANCOUVER	10	4	15	-1	7	1.1	248	98	
	VERAVAL	34	19	36	17	26	0.3	0	-6	MEXICO	GUADALAJARA	25	10	28	2	17	-0.1	0	-13	
	BOMBAY	34	22	36	19	28	1.3	0	-7		MEXICO CITY	24	10	28	3	17	3.1	3	-11	
	POONA	30	17	32	11	23	0.6	26	-4		ACAPULCO	32	24	35	22	28	0.5	1	-52	
	BEGAMPET	29	19	31	16	24	1.5	2	-14		BERMUD	ST. GEORGES	24	20	28	16	22	0.5	76	-43
	MADRAS	30	23	33	20	27	0.9	212	-137		BAHAMA	NASSAU	28	21	31	13	24	0.8	32	-33
	MANGALORE	32	23	34	16	27	-0.2	21	-50		CUBA	HAVANA	27	22	31	19	24	0.4	63	-8
H KONG	HONG KONG	24	21	28	16	23	1.2	38	4		JAMAIC	KINGSTON	31	24	33	23	28	0.8	96	23
N KREA	PYONGYANG	11	2	17	-9	7	2.9	48	-1		P RICO	SAN JUAN	31	23	33	21	27	0.6	134	-21
S KREA	SEOUL	15	7	22	-5	11	4.4	78	42		GUADEL	RAIZET	31	23	33	21	27	1.7	77	-61
JAPAN	SAPPORO	11	4	19	-2	8	3.6	76	-28		MARTINQ	LAMENTIN	31	24	33	22	27	2.2	39	-136
	NAGOYA	19	10	23	3	15	3.2	152	78		BARBAD	BRIDGETOWN	30	25	30	17	27	0.4	48	-98
	TOKYO	19	12	26	6	15	3.0	237	143		TRINID	PORT OF SPAIN	32	23	34	21	28	1.8	129	-79
	YOKOHAMA	19	11	24	5	15	2.7	189	85		COLOMB	BOGOTA	19	9	20	4	14	0.6	25	-84
	KYOTO	19	10	23	4	14	3.3	112	29		VENEZU	CARACAS	33	25	35	16	29	2.0	85	34
	OSAKA	19	11	23	6	15	2.7	143	70		F GUIA	FAYENNE	31	23	33	22	27	1.4	133	-20
THAILN	PHETCHABUN	32	21	34	17	26	0.4	1	-12		BRAZIL	FORTEALEZA	30	25	32	24	28	0.0	13	0
	BANGKOK	32	23	34	20	28	0.5	23	-25		RECIFE	29	23	30	19	26	0.0	15	-18	
MALAYS	KUALA LUMPUR	31	24	33	23	28	1.4	233	-46		BELO HORIZONTE	30	20	33	17	25	3.2	115	-132	
VIETNM	HANOI	27	21	31	15	24	1.8	69	25		CAMPO GRANDE	31	21	36	15	26	2.3	164	0	
CHINA	HARBIN	3	-6	13	-16	-2	5.5	3	-4		FRANCA	29	19	31	17	24	3.0	110	-96	
	HAMI	8	-4	16	-21	2	2.1	6	5		RIO DE JANEIRO	27	24	31	19	26	1.8	41	-68	
	LANCHOW	11	0	17	-12	6	3.8	1	-4		LONDRINA	30	20	36	16	25	3.1	178	34	
	BEIJING	12	2	19	-7	7	3.0	4	-2		SANTA MARIA	28	18	36	11	22	1.1	291	180	
	TIENTSIN	11	3	18	-4	7	1.9	22	12		PORTO ALEGRE	28	19	38	10	24	2.2	167	93	
	LHASA	13	-4	21	-7	5	1.5	0	-2		PERU	LIMA	22	16	27	14	19	0.9	0	-1
	KUNMING	20	8	32	0	14	3.1	9	-30		BOLIVI	LA PAZ	15	4	18	1	9	-1.4	78	28
	CHENGCHOW	16	5	26	-4	10	2.6	50	20		CHILE	SANTIAGO	27	8	35	4	17	0.0	0	-7
	YEHCHANG	19	11	27	7	15	2.8	87	42		ARGENT	IGUAZU	31	21	38	13	26	***	53	***
	HANKOW	18	10	27	2	14	2.9	99	48		FORMOSA	31	22	39	15	27	2.5	115	-23	
	CHIHKIANG	19	11	28	4	15	2.9	91	22		CERES	29	18	37	6	23	0.4	33	-73	
	SHANGHAI	19	11	25	3	15	2.5	94	45		CORDOBA	28	16	37	5	22	1.6	80	-29	
	NANCHANG	19	12	27	6	15	2.2	117	65		RIO CUARTO	28	16	35	8	22	2.0	142	26	
	TAIPEI	25	21	32	13	23	3.2	72	8		ROSARIO	26	17	32	4	21	1.3	174	69	
	CANTON	25	17	30	13	21	2.1	107	70		BUENOS AIRES	26	14	32	5	20	1.7	206	120	
	NANNING	25	18	31	12	21	2.8	105	67		SANTA ROSA	28	14	36	4	21	1.5	66	-21	
CNRY I	LAS PALMAS	25	19	28	16	22	2.0	22	-7		TRES ARROYOS	23	9	29	-1	16	-0.7	17	-51	
MOROCC	CASABLANCA	20	12	26	8	16	0.6	69	5		MIDW I	MIDWAY ISLAND	25	21	28	17	23	0.4	114	-5
	MARRAKECH	23	11	30	5	17	1.5	2	-32		N CALD	NOUMEA	27	21	30	18	24	0.0	225	168
ALGERI	ALGER	20	10	26	4	15	0.4	53	-48		FIJI	NAUSORI	28	24	31	20	26	1.4	352	93
	BATNA	16	6	24	-2	11	1.4	25	-11		SAMOA	PAGO PAGO	30	26	31	23	28	0.8	308	23
TUNISI	TUNIS	21	12	28	6	17	1.1	106	42		TAHITI	PAPEETE	30	23	33	21	27	0.5	142	-3
NIGER	NIAMEY	38	20	41	17	29	1.6	0	0		N ZEAL	AUCKLAND	20	14	23	10	17	1.0	108	24
MALI	TIMBUKTU	36	19	40	13	27	0.5	0	0		PA N G	PORT MORESBY	31	24	34	22	28	0.0	31	-37
	BAMAKO	36	22	39	18	29	2.6	0	-7		AUSTRAL	DARWIN	33	25	34	22	29	-0.4	158	22
MAURIT	NOUAKCHOTT	33	20	40	16	27	1.0	0	-5		MOREE	32	16	37	9	24	1.3	10	-39	
SENEGL	DAKAR	30	24	38	20	27	1.1	0	-3		BRISBANE	26	18	32	15	22	-0.5	55	-42	
CHAG A	DIEGO GARCIA	29	26	32	23	27	0.4	370	159		PERTH	25	13	37	7	19	-0.5	16	-4	
LIBYA	TRIPOLI	24	14	34	6	19	1.1	53	5		CEDUNA	26	13	37	8	19	0.1	5	-16	
	BENGAZI	24	16	34</																

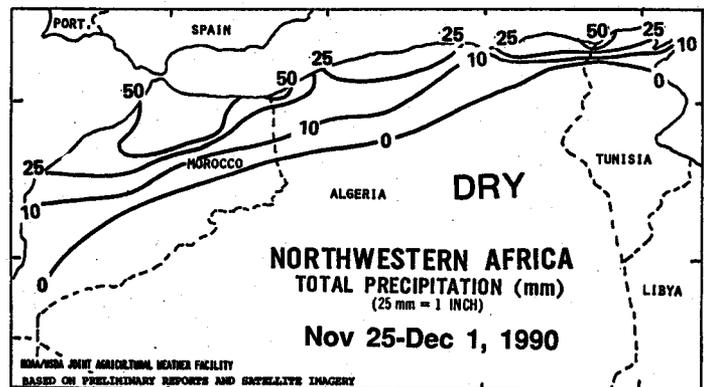


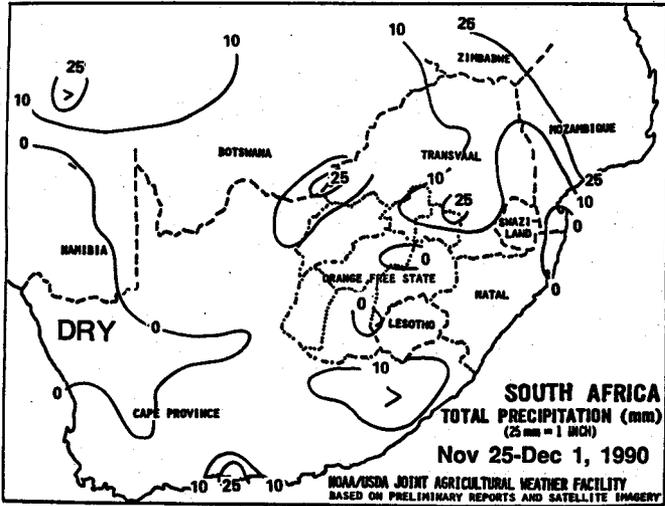
WESTERN USSR ... Unseasonably warm weather was accompanied by widespread precipitation, favoring winter grains. Greatest amounts of precipitation (15-41mm) fell in a narrow band that stretched northeastward from Moldavia, through the eastern Ukraine and the northern tip of the North Caucasus, into the eastern Volga Valley. Light rain (10-25mm) over the southern Ukraine was especially beneficial, helping to boost low soil moisture reserves. Unseasonably warm weather continued over the region with weekly average temperatures ranging from 2 to 4 degrees Celsius (C) above normal in the north, and 6 to 8 degrees C above normal in the south. Winter grains over the southern Ukraine and western North Caucasus have not yet entered dormancy. Usually, crops in these areas begin entering dormancy in mid-November. Most winter grain areas continued to lack a protective snow cover.



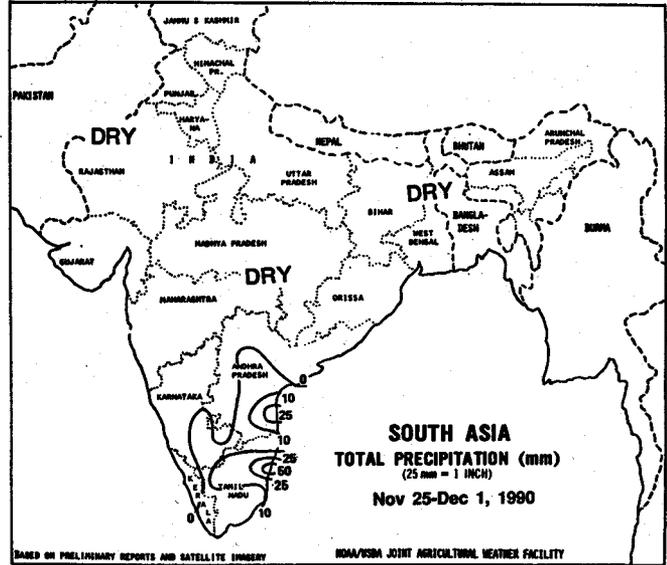
EUROPE ... An area of low pressure brought continued moderate to heavy rain (15-60mm) to much of Italy and western Yugoslavia, replenishing depleted soil moisture and irrigation reservoirs. Scattered very heavy rains (100-170mm) in coastal western Italy may have caused flooding. Elsewhere in the Balkans, light to moderate rain (5-20mm) and above-normal temperatures (3-5 degrees C above normal) favored late-season vegetative growth of winter crops. In the north, light to moderate rain (5-15mm) fell from England eastward to Poland. Cooler-than-normal temperatures (1-3 degrees C above normal) across the northwest rapidly hardened most winter crops.

NORTHWESTERN AFRICA ... Soaking rain (25-50mm) covered winter grain areas in northern Morocco, providing abundant topsoil moisture for winter grain planting. However, southernmost crop areas around Marrakech continued dry and significant rain is needed before planting can begin. Northern Morocco's wet weather extended as far east as central Algeria (10-37mm), boosting topsoil moisture for planting. Although coastal crop areas of eastern Algeria and Tunisia received widespread rain (25-50mm), southernmost crop areas were mostly dry. The dry weather allowed winter grain planting to progress rapidly. Weekly average temperatures were 1-5 degrees C below normal over the region.

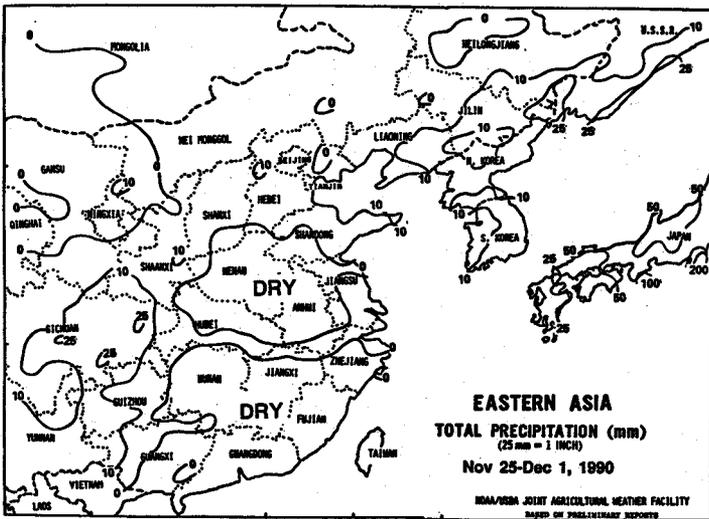




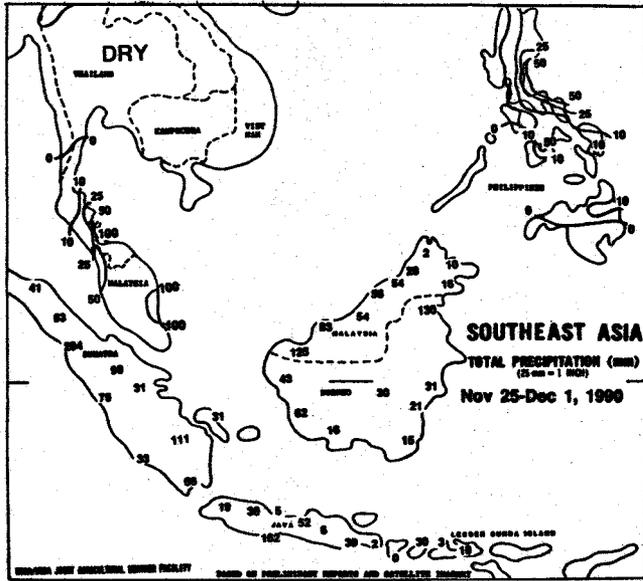
SOUTH AFRICA ... Light rain covered the Maize Triangle, with weekly rainfall averaging less than 10mm in all but extreme northeastern and northwestern areas, where 10-25mm benefited corn planting. Persistent dryness over central and western portions of the Maize Triangle continued to hamper planting and emergence of corn. Weekly temperatures averaged 1-2 degrees C above normal, aggravating the dry soil conditions for crop planting. Unfavorable early-season conditions prevail throughout much of the Orange Free State. The most favorable topsoil moisture for planting is found in the eastern Transvaal, where periodic showers have provided near-normal amounts recently.



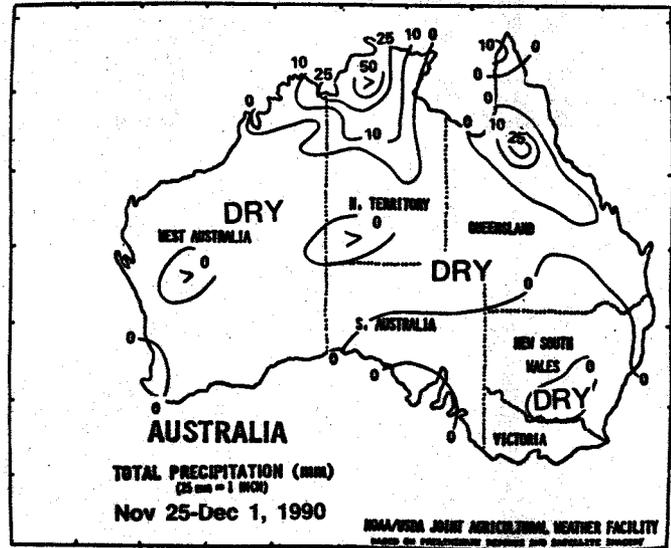
SOUTH ASIA ... Dry weather covered most of the region, helping winter wheat planting and summer crop harvests. Summer rice planting progressed in southern coastal areas of India. Light to moderate showers (10-71mm) fell along the east coasts of Andhra Pradesh and Tamil Nadu, boosting irrigation supplies.



EASTERN ASIA ... Tropical Storm Page moved into eastern Honshu Island of Japan on the 30th, bringing 75-90 km/hr winds and heavy rains (30-60mm) to much of the island. Torrential rains (100-225mm) in extreme southeastern Honshu likely caused flooding. Light to moderate rain (5-15mm) and snow also fell over neighboring areas of the Korean Peninsula and southern Manchuria. In China, light to moderate rain (5-20mm) fell in sections of Sichuan, Yunnan, and Guizhou, while the lower Yangtze Valley and North China Plain remained mostly dry. Temperatures in China continued above normal, especially in Manchuria (mean weekly temperatures 5-9 degrees C above normal), where warmer-than-normal temperatures have persisted since early October.

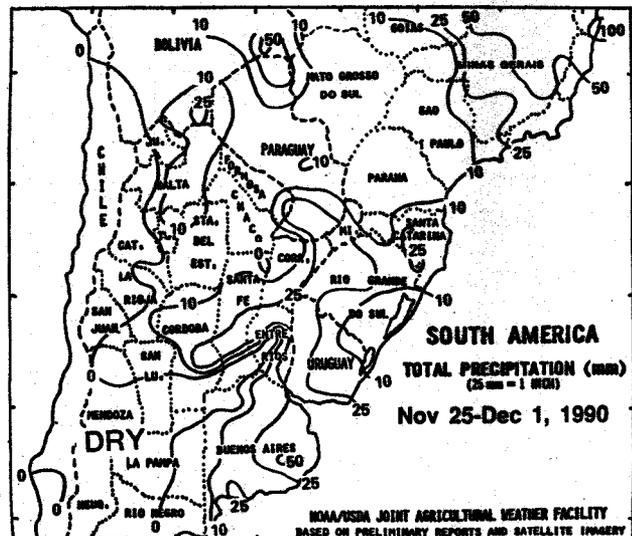


SOUTHEAST ASIA ... Significant rainfall (25-92mm) continued over southeastern Luzon in the Philippines, while dry weather prevailed in western Luzon and southern Mindanao. The generally drier weather eased local flooding from the previous week's rain. Seasonably dry weather covered Thailand. Mostly light showers fell in Vietnam, also easing saturated field conditions along the central coast. Tropical shower activity increased further south, with isolated heavy downpours of 100-200mm scattered throughout Malaysia and Indonesia. In Java, where early rice planting is underway, variable rainfall covered the crop areas.



AUSTRALIA ... Mostly dry and warm weather (mean temperatures 1-4 degrees C above normal) provided near optimal conditions for winter grain harvest across Western Australia, South Australia, Victoria, and southern New South Wales. Dryness also continued across summer crop areas of northern New South Wales and southern Queensland, stressing nonirrigated vegetative crops. Dryness in much of eastern Australia has persisted since October. Seasonal rain in the east normally increases in November and December before peaking in January or February.

SOUTH AMERICA ... In Argentina, substantial rain (25-50mm or more) was confined to the eastern third of Buenos Aires, southeastern Cordoba, and southern Santa Fe. In contrast, dry weather prevailed over northwestern Buenos Aires and extreme southern Cordoba. The variable shower pattern throughout the primary growing areas allowed summer crop plantings and early wheat harvesting to progress after earlier rain delays. Soil moisture is ample in most primary growing areas for crop establishment. In south-central Brazil, showers (25-40mm) kept southwestern Rio Grande do Sul's soybean areas wet, but light rain (less than 10mm) from northwestern Rio Grande do Sul through Parana to western Sao Paulo promoted soybean planting. Dryness has hampered planting from Mato Grosso do Sul to Goias, but a recent increase in rainfall (10-50mm or more) in the northeast helped soybean areas of Goias, as well as the coffee areas of Minas Gerais.



DROUGHT DELAYS CORN CROP IN SOUTH AFRICA

Feeble spring rainfall has hurt the recently harvested wheat crop in South Africa and seriously delayed planting of the corn crop. Last year, dry weather in September and October also reduced winter wheat yields, but this year the drought has persisted into early December, affecting the start of the summer growing season. Cumulative rainfall since October 1 (fig. 1) has totaled under 50mm in western areas of the Orange Free State (OFS) and in western Transvaal. Three-quarters of the corn crop is normally grown in just three areas: northwestern OFS, northeastern OFS, and western Transvaal. Cumulative rainfall this season has been under 50 percent of the long-term mean in all three areas, with several locations reporting under 25 percent of normal (fig. 2). As a result of the drought, planting has been greatly delayed. Normally, most of the corn crop has been sown by early December.

Figure 1

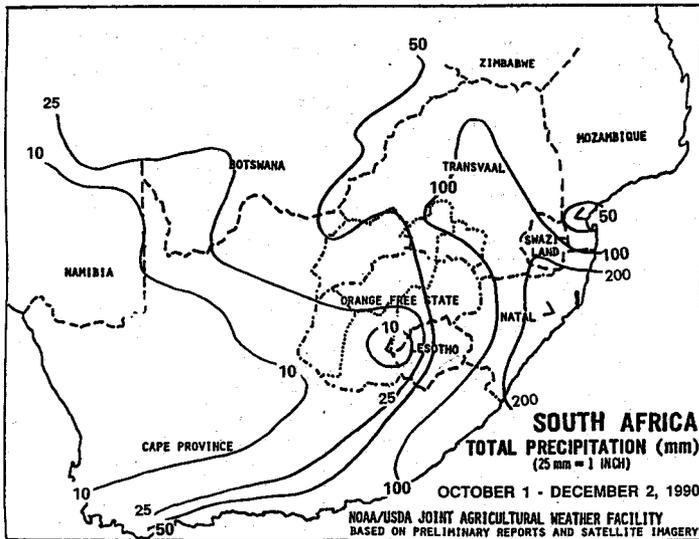
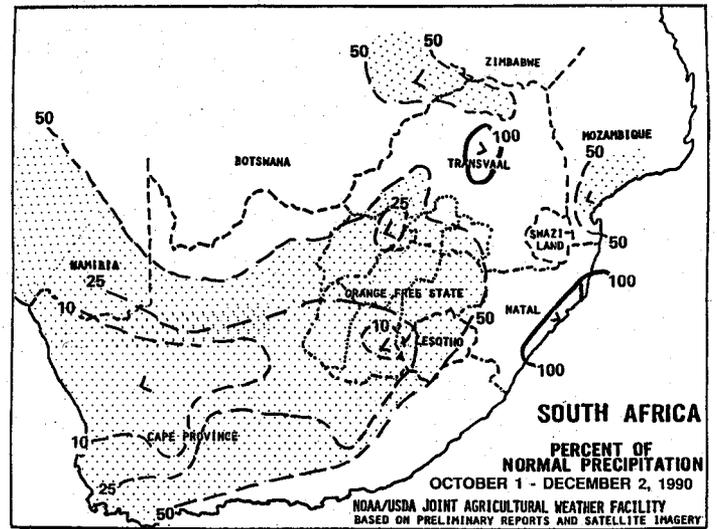


Figure 2



Douglas Le Comte

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Crop Progress

FOR WEEK ENDING DECEMBER 2, 1990

(Continued from front cover)

Nation as the week progressed. A portion of the lower Mississippi Valley had its first freeze of the season on Friday morning. Two fast-moving fronts dropped unneeded moisture on the Pacific Northwest during the latter half of the week. By week's end, a developing storm in the southern Plains spread light rain into the central Mississippi Valley and the Ohio Valley.

**COTTON
% HARVESTED**

	1990	1989	AVG.
AL	100	96	97
AZ	98	88	88
AR	100	99	98
CA	99	99	97
GA	97	94	92
LA	100	100	99
MS	100	98	98
MO	99	100	99
NM	72	92	72
NC	98	90	88
OK	80	80	40
SC	98	94	93
TN	100	100	100
TX	73	88	66

14 STATES 88 93 82

THESE 14 STATES PRODUCED 99%
OF THE 1989 COTTON CROP.

NA - NOT AVAILABLE VP - VERY POOR
P - POOR F - FAIR G - GOOD EX - EXCELLENT

THIS IS THE FINAL CROP PROGRESS REPORT FOR 1990. THIS REPORT WILL RESUME IN APRIL 1991.

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