

WEEKLY WEATHER AND CROP BULLETIN

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

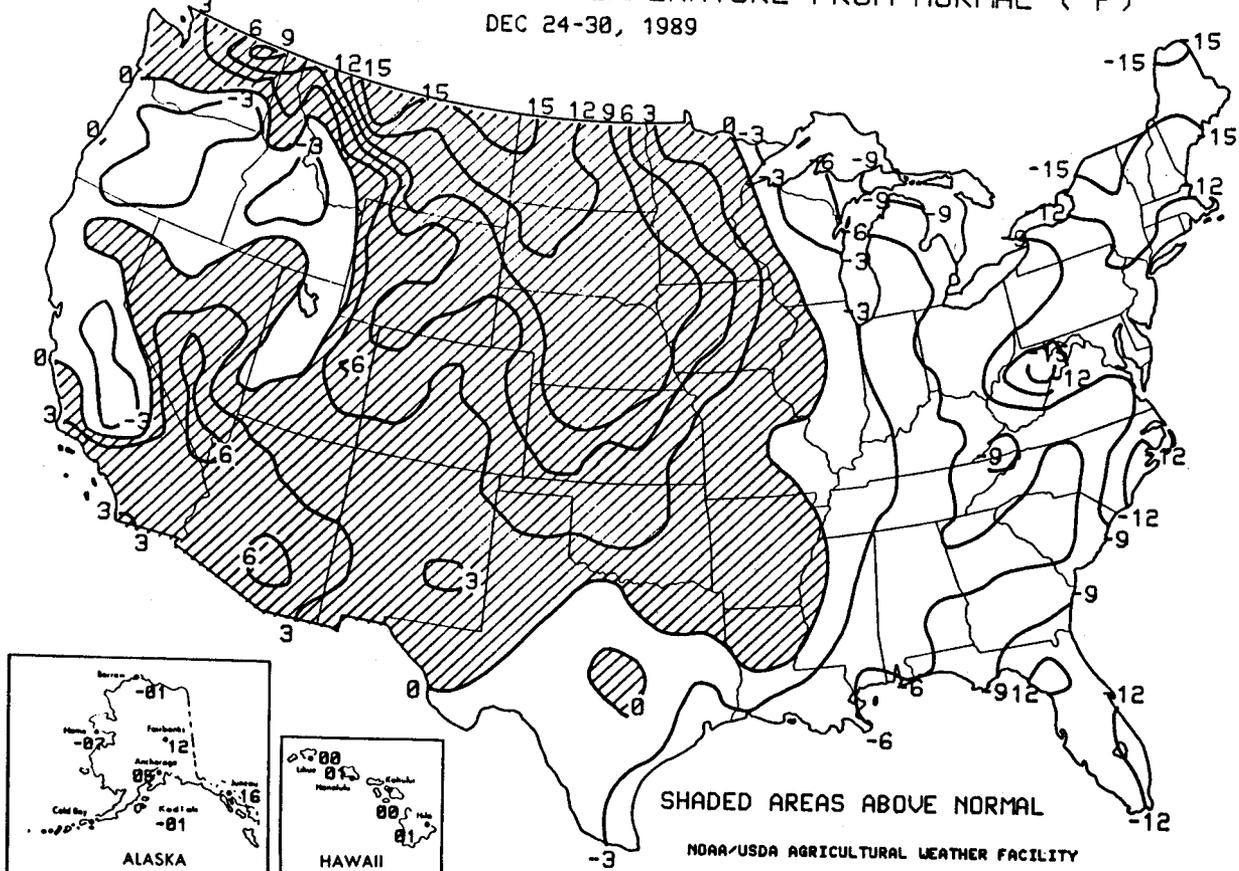
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DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
DEC 24-30, 1989



HIGHLIGHTS

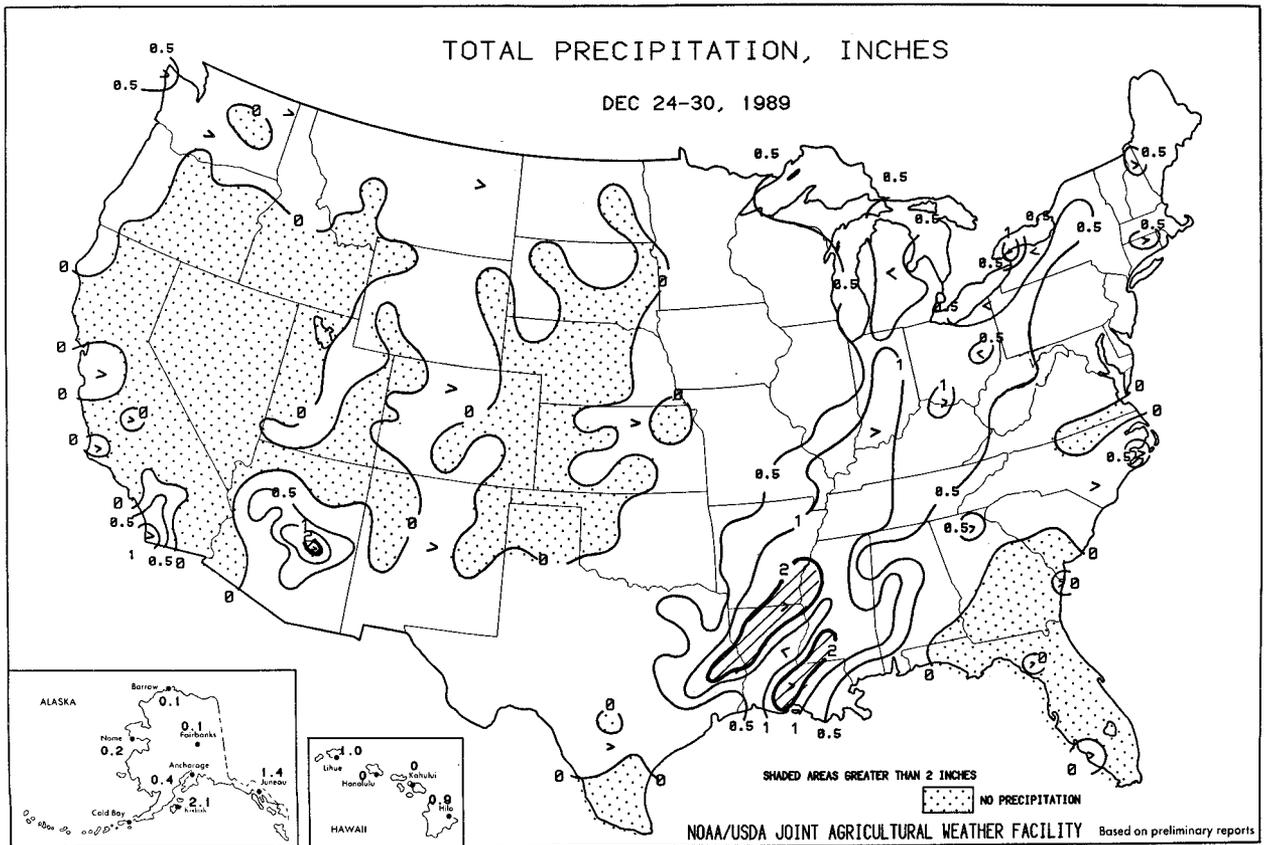
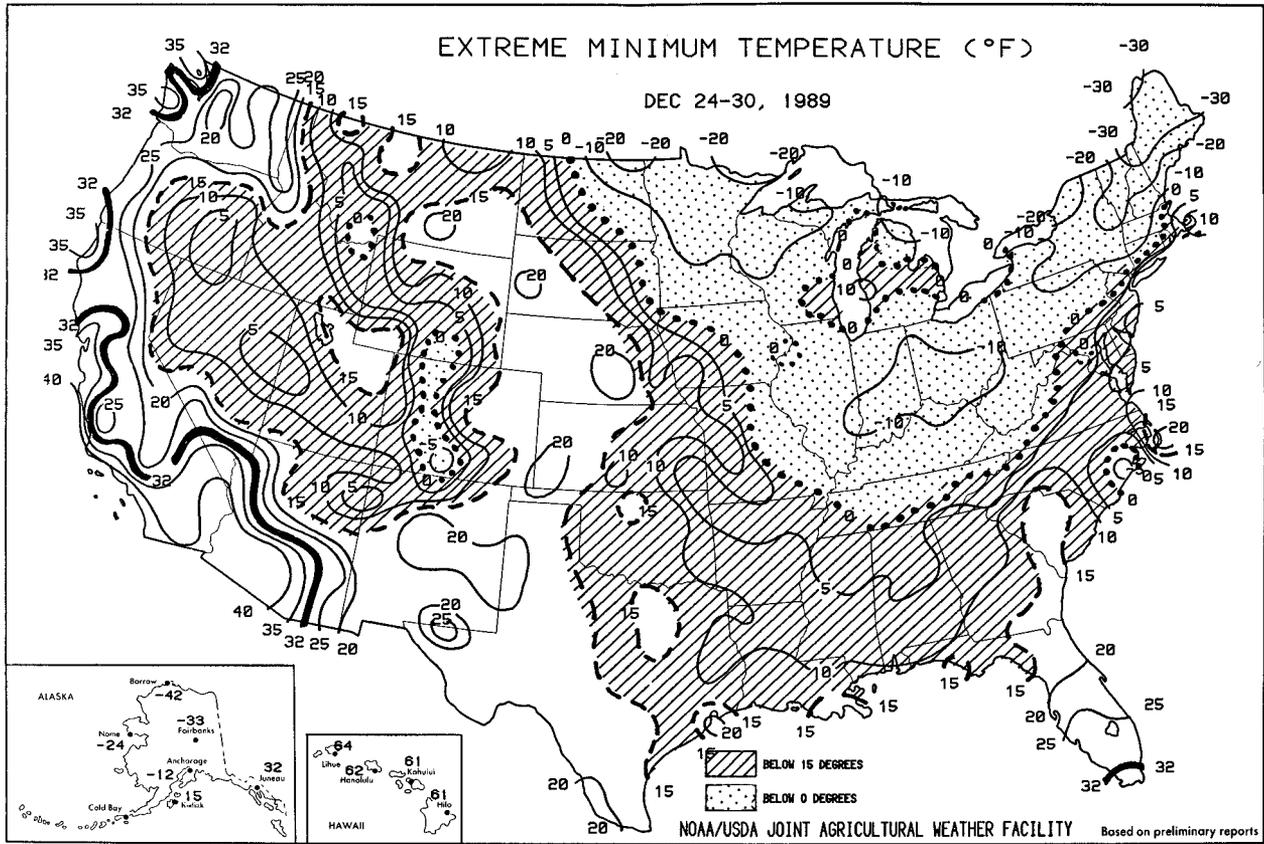
December 24-30, 1989

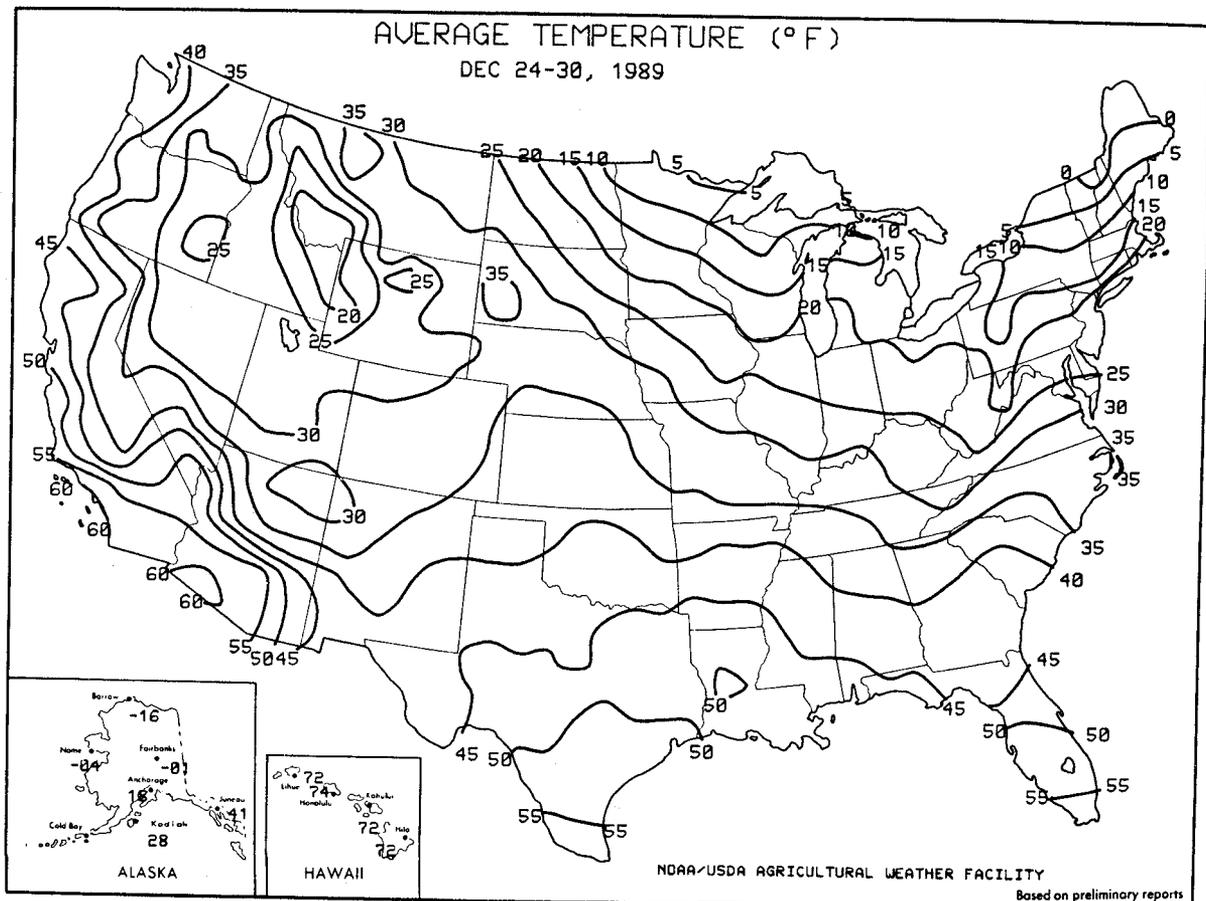
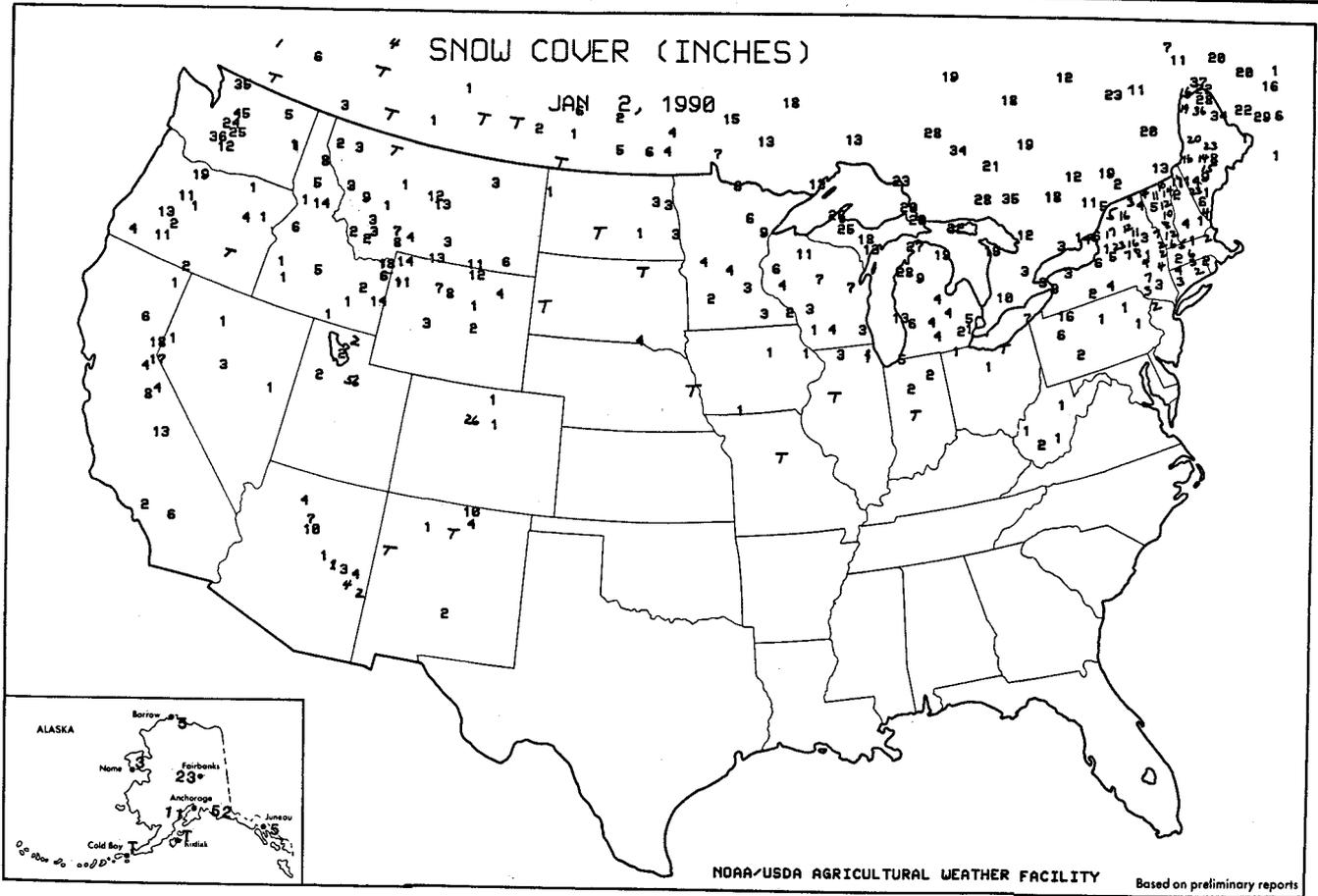
Record-breaking low temperatures continued over the eastern half of the country on Sunday and Monday, although temperatures rose rapidly as the week progressed. The warm weather following freezing temperatures raised concerns of spoilage for the freeze-damaged citrus crop in Florida and Texas. Snow cover across the winter wheat regions in the Great Plains decreased as maximum temperatures rose into the 40s and 50s. In addition, little or no rain fell in the Plains, continuing a drier-than-normal trend since fall. Most of California was dry, with only extreme southern California receiving significant rainfall. A low-pressure system brought a white Christmas to the eastern Carolinas as 8-15 inches of snow fell. Snow persisted all week around the Great Lakes. Late in the week, a frontal system brought significant rain to the lower and

middle Mississippi Valley and freezing rain and sleet from the Great Lakes to the Mid-Atlantic States.

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National Weather Data for Selected Cities

Weather Data for the Week Ending December 30, 1989

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	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	52	27	65	4	40	-4	.5	-.7	.4	2.9	60	60.7	112	88	41	0	5	2	0
MOBILE	59	34	69	9	46	-5	.2	-1.1	.2	4.5	86	61.3	95	87	46	0	3	2	0
MONTGOMERY	57	27	71	7	42	-6	.1	-1.0	.1	7.2	156	72.7	149	92	37	0	5	2	0
AK ANCHORAGE	25	11	35	-12	18	5	-.4	.1	.2	1.6	158	27.9	189	92	66	0	7	5	0
BARROW	-8	-24	2	-42	-16	-1	.1	.1	.1	2	154	7.3	161	84	70	0	7	3	0
FAIRBANKS	9	-10	21	-53	-1	12	.1	.1	.1	6	80	10.4	100	86	72	0	7	1	0
JUNEAU	43	39	48	32	41	16	2.0	1.0	.8	6.2	137	51.9	98	98	86	0	1	6	2
KODIAK	35	21	44	15	28	-1	2.1	.9	1.3	12.2	229	61.5	102	88	57	0	7	2	2
NCME	4	-12	16	-24	-4	-7	.2	0	.1	.7	120	20.6	142	83	63	0	7	3	0
AZ PHOENIX	70	47	76	42	59	7	.2	0	.2	.2	24	4.8	70	60	25	0	0	1	0
PRESCOTT	54	27	63	23	40	4	.3	-.1	.3	.3	20	9.7	52	63	32	0	7	2	0
TUCSON	68	42	78	36	55	5	.2	0	.2	.2	21	6.5	59	59	27	0	0	3	0
YUMA	71	50	76	44	60	5	0	-.1	0	0	0	7.2	297	47	21	0	0	0	0
AR FORT SMITH	56	25	66	6	40	1	.6	0	.4	.7	27	47.4	120	91	40	0	5	3	0
LITTLE ROCK	55	34	63	8	45	3	1.2	.3	1.2	1.5	37	48.8	100	67	48	0	2	2	1
CA BAKERSFIELD	52	31	65	27	41	-6	0	-.2	0	0	0	2.9	52	98	60	0	5	0	0
EUREKA	54	40	58	37	47	0	T	-1.4	T	.6	11	25.4	67	97	82	0	0	2	0
FRESNO	49	32	59	27	41	-4	0	-.4	0	0	0	8.9	67	100	70	0	4	0	0
LOS ANGELES	71	52	81	44	62	6	0	-.4	0	0	0	4.2	36	75	34	0	0	0	0
REDDING	62	32	71	26	47	1	0	-1.7	0	0	0	29.6	73	90	33	0	4	0	0
SACRAMENTO	50	37	72	34	43	-1	0	-.7	0	0	0	15.1	90	95	70	0	0	0	0
SAN DIEGO	69	51	79	45	60	3	1.0	.5	1.0	1.0	55	3.7	38	86	39	0	0	1	1
SAN FRANCISCO	57	41	65	38	49	0	T	-.9	T	0	0	11.4	59	95	57	0	0	1	0
CO DENVER	47	22	56	15	35	4	.1	0	.1	.8	160	15.5	103	81	35	0	7	1	0
GRAND JUNCTION	44	17	48	13	31	5	T	-.1	T	.1	14	5.6	71	72	33	0	7	0	0
PUEBLO	47	17	54	10	32	1	T	0	T	.5	182	7.4	68	94	39	0	7	1	0
CT BRIDGEPORT	28	13	32	6	21	-11	.2	-.6	.2	.5	13	50.1	122	82	50	0	7	1	0
HARTFORD	24	6	31	-5	15	-11	.5	-.4	.4	1.3	31	54.4	124	79	46	0	7	3	0
DC WASHINGTON	33	18	43	10	26	-11	.1	-.6	.1	.9	29	49.1	127	84	51	0	7	2	0
FL APALACHICOLA	58	33	67	14	46	-8	0	-.8	0	5.6	165	56.9	104	93	50	0	3	0	0
DAYTONA BEACH	62	33	77	20	47	-11	0	-.5	0	3.9	183	44.6	92	95	39	0	3	0	0
JACKSONVILLE	60	30	75	20	45	-9	0	-.6	0	3.3	139	51.3	100	93	36	0	4	0	0
KEY WEST	67	52	78	44	60	-11	T	-.3	T	1.9	110	31.4	80	92	57	0	0	1	0
MIAMI	67	43	81	30	55	-12	8	-.4	0	.6	34	42.6	74	90	41	0	2	0	0
ORLANDO	62	37	79	22	50	-11	0	-.4	0	4.5	245	45.6	93	92	38	0	2	0	0
TALLAHASSEE	61	26	74	13	44	-8	0	-1.1	0	3.6	82	62.6	97	96	33	0	5	0	0
TAMPA	63	40	80	24	52	-9	0	-.5	0	4.7	228	43.6	94	93	41	0	2	0	0
WEST PALM BEACH	65	41	79	28	53	-13	0	-.5	0	1.9	89	38.6	65	89	39	0	2	0	0
GA ATLANTA	52	29	67	6	40	-3	.1	-.9	.1	3.8	93	62.6	130	83	39	0	4	2	0
AUGUSTA	56	26	72	17	41	-4	0	-.8	0	4.0	130	48.5	114	83	29	0	6	0	0
MACON	56	27	72	10	41	-6	0	-1.0	0	7.2	185	49.8	112	84	31	0	6	0	0
SAVANNAH	57	28	72	16	42	-7	T	-.7	T	5.0	188	46.5	94	86	30	0	5	1	0
HI HILO	81	63	84	61	72	1	.9	-1.7	.5	2.3	18	162.9	128	91	57	0	0	2	1
HONOLULU	84	64	86	62	74	1	0	-.8	0	1.3	41	22.9	99	90	52	0	0	0	0
KAHULUI	81	63	83	61	72	0	0	-.7	0	4.2	160	39.9	221	93	63	0	0	0	0
LIHUE	78	66	80	64	72	0	1.0	-.3	1.0	2.8	54	55.7	128	92	66	0	0	2	1
ID BOISE	37	17	45	13	27	-4	T	-.3	T	.1	8	10.5	92	96	65	0	7	0	0
LEWISTON	41	32	44	27	36	2	T	-.3	T	.2	14	13.5	106	84	66	0	5	1	0
POCATELLO	35	12	39	9	23	-2	T	-.2	T	.1	8	9.5	90	93	58	0	7	0	0
IL CHICAGO	29	15	38	-6	22	-2	.2	-.3	.1	.4	19	29.4	86	91	69	0	7	5	0
MOLINE	33	18	41	1	25	2	.2	-.2	.2	.7	39	31.9	86	96	68	0	7	4	0
PEORIA	33	19	40	-6	26	1	.2	-.3	.1	.9	44	22.5	65	96	78	0	6	3	0
QUINCY	36	20	45	-6	28	2	.3	0	.3	.7	41	18.3	49	94	64	0	6	3	0
ROCKFORD	28	12	37	-6	20	-1	.2	-.2	.1	.5	24	26.2	72	97	71	0	7	6	0
SPRINGFIELD	36	21	43	-3	28	1	.3	-.2	.2	.5	25	28.0	82	99	77	0	5	5	0
IN EVANSVILLE	39	22	54	-9	31	-2	1.1	.3	.6	1.3	40	47.3	114	92	70	0	5	4	1
FORT WAYNE	28	13	36	-12	20	-6	.7	.2	.4	1.0	43	35.2	102	92	74	0	7	4	0
INDIANAPOLIS	33	16	42	-11	25	-4	1.3	.7	.8	2.0	70	50.7	131	92	72	0	6	5	1
SOUTH BEND	28	15	35	-8	22	-5	.5	-.2	.3	1.7	60	36.0	95	94	76	0	7	5	0
IA DES MOINES	37	20	50	2	28	6	.1	-.2	.1	.6	56	29.2	95	91	71	0	6	2	0
SIOUX CITY	38	20	47	6	29	9	.1	-.1	.1	.4	58	19.3	76	91	68	0	7	2	0
WATERLOO	32	14	44	-4	23	5	.1	-.1	.1	.2	18	19.6	60	94	69	0	7	2	0
KS CONCORDIA	47	28	61	16	37	9	T	-.1	T	.4	62	24.7	91	89	57	0	6	2	0
DODGE CITY	52	26	61	17	39	8	.1	-.1	.1	.5	92	20.6	101	82	41	0	6	1	0
GOODLAND	48	26	58	19	37	9	0	-.1	0	.3	70	18.1	112	88	41	0	7	0	0
TOPEKA	44	23	53	12	33	4	T	-.3	T	.6	50	38.4	115	95	56	0	7	0	0
WICHITA	49	24	60	11	37	5	T	-.2	T	.4	46	34.7	121	92	50	0	7	0	0
KY BOWLING GREEN	41	22	55	-6	32	-4	1.0	-.1	.6	2.2	50	59.4	121	94	68	0	6	2	1
LEXINGTON	35	20	53	-10	28	-6	.7	-.2	.4	1.1	29	52.4	115	91	67	0	6	5	0
LOUISVILLE	39	22	56	-6	31	-4	.9	.1	.4	1.3	38	50.8	117	89	61	0	6	5	0
LA ALEXANDRIA	65	38	74	11	51	2	.5	-.6	.3	1.9	40	57.0	109	81	43	0	3	2	0
BATON ROUGE	63	35	74	10	49	-3	1.2	0	.8	4.7	98	85.8	154	91	51	0	4	3	1
LAKE CHARLES	62	37	71	12	49	-3	1.0	-.2	.4	2.0	41	60.4	112	95	56	0	3	3	0
NEW ORLEANS	61	36	73	15	49	-5	.4	-.8	.4	5.9	116	67.1	113	89	50	0	2	2	0

Based on 1951-80 normals

Weather Data for the Week Ending December 30, 1989

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	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	64	31	73	8	48	1	1.5	-.6	1.2	1.8	49	59.4	136	85	45	0	4	3	1
ME CARIBOU	8	-11	19	-31	-2	-14	.2	-.5	.1	2.4	78	32.8	90	81	56	0	7	4	0
PORTLAND	21	-1	29	-13	10	-13	.1	-.9	0	1.4	32	40.7	94	74	42	0	7	3	0
MD BALTIMORE	32	16	40	7	24	-10	.1	-.7	.1	1.3	40	50.9	123	92	63	0	7	2	0
SALISBURY	35	16	48	4	26	-11	T	-.8	T	2.4	67	53.2	117	89	47	0	6	2	0
MA BOSTON	25	11	32	6	18	-13	.2	-.8	.2	.5	12	42.0	97	78	47	0	7	3	0
CHATHAM	28	19	37	10	22	-10	.3	-.8	.2	1.0	20	46.1	99	76	56	0	6	4	0
MI ALPENA	21	6	30	-11	13	-8	.4	0	.2	1.4	76	21.8	76	91	68	0	7	5	0
DETROIT	27	12	34	-8	19	-7	.6	0	.3	1.0	41	29.0	95	91	70	0	7	5	0
FLINT	25	12	33	1	18	-6	.3	-.1	.1	.6	29	30.8	107	86	65	0	7	4	0
GRAND RAPIDS	25	14	33	0	20	-5	.3	-.2	.1	.9	36	33.9	101	87	62	0	7	4	0
HOUGHTON LAKE	20	8	25	-8	14	-6	.2	-.2	.1	.5	29	19.8	71	91	76	0	7	2	0
LANSING	25	11	32	-1	18	-6	.2	-.3	.1	.5	21	30.3	102	89	67	0	7	4	0
MARQUETTE	16	2	24	-10	9	-6	.7	-.2	.4	2.5	106	29.6	80	95	81	0	7	7	0
MUSKOGON	27	18	35	11	23	-3	.5	0	.2	1.8	70	25.8	83	93	75	0	7	5	0
SAULT ST. MARIE	15	-5	22	-14	5	-11	.5	0	.2	1.6	66	25.8	78	87	62	0	7	5	0
MN ALEXANDRIA	26	7	31	-13	16	7	.1	-.1	.1	.2	25	21.0	86	95	76	0	7	1	0
DULUTH	19	3	33	-12	11	1	.4	-.1	.2	.6	50	26.2	89	92	64	0	7	6	0
INT'L FALLS	18	-7	33	-21	5	1	.1	-.1	0	.3	31	20.8	86	88	62	0	7	2	0
MINNEAPOLIS	27	11	37	-8	19	4	.2	0	.1	.4	50	23.3	89	88	64	0	7	4	0
ROCHESTER	28	11	37	-9	19	6	.2	0	.1	.4	45	23.4	83	93	71	0	7	4	0
MS GREENWOOD	55	33	69	5	44	0	1.4	.1	1.3	2.2	41	62.7	118	89	40	0	5	2	1
JACKSON	59	31	70	6	45	-2	1.2	0	1.0	4.1	79	52.5	102	92	42	0	5	2	1
MERIDIAN	57	28	71	6	43	-4	1.1	-.2	.8	6.5	118	70.1	132	90	45	0	5	2	1
MO CAPE GIRARDEAU	43	23	54	-1	33	1	1.5	.7	.7	1.6	43	49.8	112	93	62	0	5	3	2
COLUMBIA	41	22	54	-5	31	1	.4	0	.4	.7	37	34.6	94	97	62	0	6	2	0
KANSAS CITY	42	24	55	10	33	3	T	-.3	T	.6	39	37.6	104	94	60	0	7	1	0
SAINT LOUIS	40	24	49	1	32	1	.3	-.2	.2	.7	32	28.6	85	90	64	0	6	3	0
SPRINGFIELD	45	26	57	10	36	2	.2	-.3	.2	.8	33	31.5	80	94	52	0	5	1	0
MT BILLINGS	41	28	50	20	34	10	.1	-.1	.1	1.3	180	15.4	104	81	50	0	7	3	0
GLASGOW	36	19	45	7	27	15	.2	-.1	.1	.4	116	10.3	96	94	69	0	7	2	0
GREAT FALLS	45	31	55	19	38	15	.4	.2	.4	1.1	148	22.5	150	72	45	0	3	1	0
HAVRE	36	24	41	15	30	14	.3	.2	.3	1.0	200	12.2	104	92	71	0	7	1	0
HELENA	37	17	45	13	27	6	T	-.1	T	.5	81	12.4	108	92	59	0	7	0	0
KALISPELL	32	26	35	18	29	6	.1	-.3	0	2.2	144	22.1	141	97	85	0	7	2	0
MILES CITY	38	23	42	16	30	12	T	-.1	T	.7	122	14.4	102	88	67	0	7	1	0
MISSOULA	27	16	33	8	21	-2	.1	-.3	0	.6	53	13.6	104	97	88	0	7	2	0
NE GRAND ISLAND	46	27	55	21	37	13	T	-.1	T	.4	63	21.9	95	89	54	0	7	0	0
LINCOLN	43	23	57	9	33	10	T	-.1	T	.6	92	23.8	88	93	62	0	7	1	0
NORFOLK	40	23	48	15	32	11	.1	-.1	.1	.7	125	16.6	70	92	71	0	7	2	0
NORTH PLATTE	48	22	55	16	35	11	T	-.1	T	.3	74	14.1	73	92	43	0	7	0	0
OMAHA	40	23	54	10	31	7	.1	-.1	.1	.5	67	22.3	74	91	68	0	5	2	0
SCOTTSBLUFF	41	20	48	18	30	5	T	-.1	T	.6	134	10.0	69	90	57	0	7	0	0
VALENTINE	42	24	55	17	33	12	T	-.1	T	.2	49	12.3	72	70	46	0	7	0	0
NV ELY	45	10	51	2	28	3	T	-.2	T	T	3	6.7	75	78	31	0	7	0	0
LAS VEGAS	63	39	67	36	51	7	T	-.1	T	T	0	2.2	55	39	17	0	0	0	0
RENO	49	19	54	15	34	3	T	-.3	T	T	0	7.3	103	87	35	0	7	0	0
WINNEMUCCA	47	11	53	7	29	0	T	-.2	T	.1	17	5.6	73	88	39	0	7	0	0
NH CONCORD	20	-2	28	-20	9	-12	.1	-.6	.1	.6	19	38.0	104	81	46	0	7	2	0
NJ ATLANTIC CITY	32	12	42	4	22	-12	.1	-.8	0	1.0	29	49.9	120	87	47	0	7	3	0
NM ALBUQUERQUE	48	24	53	22	36	2	T	-.1	T	.3	60	5.0	64	71	34	0	7	2	0
CLOVIS	56	30	61	23	43	5	T	-.1	T	.5	93	14.6	86	67	31	0	5	1	0
ROSWELL	59	27	65	19	43	4	T	0	T	T	11	6.3	59	63	27	0	6	1	0
NY ALBANY	20	1	28	-15	11	-12	.3	-.4	.2	.7	24	39.7	112	85	53	0	7	3	0
BINGHAMTON	20	5	28	-11	12	-11	.4	-.2	.2	1.3	46	38.4	105	88	62	0	7	6	0
BUFFALO	23	10	34	-4	17	-9	.5	-.3	.2	1.9	59	40.8	110	92	67	0	7	7	0
NEW YORK	29	17	34	9	23	-11	.1	-.7	.1	.3	9	54.2	128	76	45	0	7	3	0
ROCHESTER	23	9	33	-3	16	-10	.3	-.2	.2	1.4	55	32.6	104	89	63	0	7	6	0
SYRACUSE	21	4	26	-14	13	-12	.5	-.2	.2	1.4	46	36.3	94	91	67	0	7	7	0
NC ASHEVILLE	43	19	54	2	31	-7	.7	-.7	T	2.5	83	59.8	137	91	39	0	6	2	0
CHARLOTTE	48	25	59	15	36	-5	.1	-.7	.1	2.5	78	48.7	114	80	34	0	6	2	0
GREENSBORO	43	21	55	8	32	-6	T	-.8	T	2.6	79	49.6	118	81	35	0	6	1	0
HATTERAS	44	28	62	21	36	-11	.4	-.6	.4	6.0	139	90.1	162	94	59	0	6	1	0
NEW BERN	44	18	65	-4	31	-13	.6	-.3	.6	6.0	167	63.7	120	95	45	0	6	1	0
RALEIGH	45	22	63	7	34	-7	T	-.7	T	2.5	84	53.3	128	77	33	0	6	1	0
WILMINGTON	48	19	68	0	34	-13	.2	-.6	.2	6.8	204	66.3	125	95	41	0	6	1	0
ND BISMARCK	34	14	43	3	24	13	.1	0	.1	.3	66	11.4	75	91	72	0	7	3	0
FARGO	27	4	36	-10	15	7	.2	0	.1	.2	41	19.2	99	95	78	0	7	4	0
GRAND FORKS	25	-4	39	-17	10	4	.1	-.1	.1	.2	27	11.6	64	91	71	0	7	2	0
WILLISTON	35	19	43	12	27	16	.1	0	.1	.4	87	11.5	86	94	73	0	7	3	0
OH AKRON-CANTON	27	13	42	-6	20	-8	.9	.3	.5	1.6	63	38.9	109	93	67	0	7	4	1
CINCINNATI	35	17	52	-11	26	-5	.9	.2	.6	1.5	51	49.2	124	90	64	0	6	5	1
CLEVELAND	29	13	43	-7	21	-8	.5	-.1	.2	1.4	54	43.6	124	89	63	0	7	5	0
COLUMBUS	31	16	47	-11	23	-6	.7	-.2	.4	1.3	53	43.3	118	94	69	0	6	5	0

Weather Data for the Week Ending December 30, 1989

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	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	32	15	48	-7	23	.6	.8	.2	.5	1.6	65	49.1	143	97	73	0	6	5	1
TOLEDO	28	12	35	-6.9	20	.6	.7	.1	.6	1.2	46	37.4	119	90	69	0	7	4	1
YOUNGSTOWN	27	13	43	-6	20	.7	.4	.1	.2	1.0	39	42.9	116	89	60	0	6	5	0
OK OKLAHOMA CITY	54	30	82	13	42	.4	.1	.2	.1	.3	29	40.9	133	80	42	0	3	2	0
TULSA	50	29	82	13	40	.3	.1	.3	.1	.3	16	29.7	77	82	42	0	6	3	0
OR ASTORIA	55	36	53	30	43	0	T	-2.6	T	7.0	63	54.9	79	99	76	0	2	1	0
BURNS	40	9	48	4	24	.2	0	.4	0	.1	4	9.4	93	100	55	0	7	0	0
MEDFORD	42	23	51	20	32	.2	T	-1.8	T	.7	20	14.8	76	100	70	0	7	0	0
PENDLETON	32	25	39	21	28	.6	.1	-1.3	.1	.2	13	12.4	104	95	82	0	7	1	0
PORTLAND	44	32	50	25	38	.2	.1	-1.4	.1	2.7	44	28.9	78	99	73	0	3	1	0
SALEM	43	31	50	23	37	.3	T	-1.6	T	3.7	54	27.6	69	100	83	0	5	2	0
PA ALLENTOWN	27	10	33	-5	19	-10	.2	-1.7	.1	.5	13	44.1	100	88	49	0	7	2	0
ERIE	28	15	43	0	21	-7	.4	-3	.1	2.6	82	41.8	105	87	64	0	7	5	0
HARRISBURG	28	13	36	2	20	-11	.1	-6	.1	.5	16	45.8	117	86	52	0	7	2	0
PHILADELPHIA	30	15	37	8	22	-11	T	-7	T	.6	18	48.1	117	85	49	0	7	2	0
PITTSBURGH	28	12	43	-6	20	-9	.8	.2	.4	1.9	77	42.0	116	89	59	0	6	6	0
SCRANTON	24	8	30	-9	16	-11	.2	-3	.2	.5	19	38.4	111	88	54	0	7	4	0
RI PROVIDENCE	27	11	34	3	19	-11	.3	-7	.2	1.1	25	55.4	123	79	44	0	7	4	0
SC CHARLESTON	54	29	71	14	42	-7	T	-7	T	4.7	158	55.4	108	93	38	0	4	1	0
COLUMBIA	55	27	72	18	41	-5	T	-9	T	4.9	145	51.4	105	91	39	0	6	1	0
FLORENCE	52	24	71	11	38	-7	T	-7	T	4.2	146	51.0	116	91	34	0	6	1	0
GREENVILLE	48	24	58	11	36	-6	.1	-9	.1	3.6	93	49.4	97	81	38	0	6	1	0
SD ABERDEEN	34	11	42	2	22	10	T	-1	T	.2	32	18.5	105	95	77	0	7	1	0
HURON	36	18	43	6	27	11	T	-1	T	.2	39	14.5	79	90	71	0	7	0	0
RAPID CITY	44	27	51	20	36	12	.1	0	.1	.8	195	13.6	85	91	53	0	6	2	0
STOUX FALLS	36	17	45	-1	27	11	T	-1	T	.3	39	15.8	66	95	74	0	7	2	0
TN CHATTANOOGA	47	24	57	8	35	.4	.5	-7	.4	2.3	45	70.4	134	92	47	0	6	3	0
KNOXVILLE	40	22	53	3	31	-8	.4	-7	.4	1.7	38	55.1	117	92	52	0	6	2	0
MEMPHIS	52	30	64	4	41	0	1.5	.4	1.2	1.8	39	58.7	115	86	49	0	5	2	1
TX NASHVILLE	45	26	60	-1	36	-3	.8	-3	.7	1.3	29	56.3	117	91	57	0	5	3	1
ABIENE	58	31	70	22	45	0	.1	-1	.1	.2	25	27.7	119	73	34	0	3	1	0
AMARILLO	53	25	63	18	39	3	T	-1	T	.5	104	19.5	103	80	35	0	6	0	0
AUSTIN	66	38	74	14	52	2	.1	-4	0	.2	8	25.9	83	77	42	0	2	2	0
BEAUMONT	65	36	74	13	51	-2	.2	-9	.2	3.2	67	66.2	120	97	52	0	3	1	0
BROWNSVILLE	71	42	78	18	56	-5	0	-3	0	1.8	161	21.2	84	99	45	0	3	0	0
CORPUS CHRISTI	69	37	77	15	53	-4	T	-3	T	1.5	129	18.9	61	95	43	0	3	0	0
DEL RIO	62	36	70	18	49	-2	.1	-1	0	.3	57	9.1	53	73	38	0	3	2	0
EL PASO	57	31	63	18	44	1	.2	-1	.2	.2	46	7.3	96	72	36	0	3	1	0
FORT WORTH	60	29	73	13	45	0	.3	-1	.3	.3	20	39.8	128	74	36	0	4	3	0
GALVESTON	60	40	67	20	50	-5	T	-8	T	.6	18	41.5	103	95	67	0	2	1	0
HOUSTON	66	34	75	11	50	-3	.4	-4	.2	.8	22	57.3	124	93	46	0	3	3	0
LUBBOCK	59	25	67	19	42	2	.2	.1	.1	.3	91	15.0	86	74	34	0	6	3	0
MIDLAND	62	29	69	17	46	1	.1	0	.1	.1	26	8.1	60	74	28	0	4	2	0
SAN ANGELO	61	29	72	20	45	-1	.1	0	.1	.2	33	17.6	98	79	31	0	4	2	0
SAN ANTONIO	65	35	72	16	50	-2	T	-3	T	.4	27	22.1	77	82	43	0	3	0	0
VICTORIA	67	37	74	16	52	-2	.2	-3	.2	1.1	54	25.8	70	90	47	0	2	1	0
WACO	64	30	76	17	47	-1	.4	-1	.3	.4	23	28.3	92	75	36	0	5	2	0
WICHITA FALLS	57	27	69	12	42	0	.3	0	.3	.3	24	36.6	138	74	35	0	6	2	0
UT CEDAR CITY	45	18	50	11	31	2	0	-1	0	T	0	6.4	62	89	37	0	7	0	0
SALT LAKE CITY	34	20	43	18	27	-2	T	-3	T	.1	10	10.7	71	99	75	0	7	1	0
VT BURLINGTON	15	-9	25	-18	3	-16	.1	-4	0	1.0	42	35.7	107	85	54	0	7	4	0
VA NORFOLK	41	24	59	11	33	-9	T	-8	T	3.7	122	57.3	128	84	45	0	6	0	0
RICHMOND	40	20	51	7	30	-8	.1	-7	.1	2.3	69	49.4	113	79	43	0	6	2	0
ROANOKE	38	18	55	0	28	-8	.1	-6	.1	1.7	60	53.4	138	84	41	0	6	2	0
WA QUILLAYUTE	48	38	54	32	43	3	.5	-3.4	.4	7.8	46	84.2	80	100	88	0	1	4	0
SEATTLE-TACOMA	45	38	51	30	42	2	.3	-1.1	.3	4.4	73	34.5	90	99	86	0	1	2	0
SPOKANE	33	28	37	25	30	3	T	-6	T	.2	39	14.0	85	99	90	0	7	1	0
YAKIMA	32	28	35	21	30	0	T	-3	T	.9	18	5.5	71	99	89	0	7	2	0
WV BECKLEY	32	13	51	-8	23	-9	.4	-4	.2	1.5	50	42.7	101	91	55	0	6	3	0
CHARLESTON	37	14	55	-5	25	-10	.3	-5	.2	.9	27	57.0	135	94	57	0	6	5	0
HUNTINGTON	37	15	55	-9	26	-9	.6	-1	.4	1.3	43	59.0	145	91	56	0	6	5	0
PARKERSBURG	33	9	50	-11	21	-12	.6	-1	.4	1.1	41	52.5	139	94	60	0	7	5	0
WI GREEN BAY	21	6	35	-1	14	-4	.1	-2	0	.5	33	20.3	73	85	62	0	7	6	0
LACROSSE	28	11	40	-4	19	2	.2	-1	.1	.4	41	23.0	77	94	64	0	7	3	0
MADISON	27	9	38	0	18	-1	.2	-2	0	.2	14	24.3	80	93	68	0	7	5	0
MILWAUKEE	27	14	35	2	21	-1	.3	-1	.2	.5	23	30.5	99	93	66	0	7	5	0
WAUSAU	21	2	35	-5	11	-3	.2	-1	.1	.3	27	22.5	71	92	66	0	7	4	0
WY CASPER	40	23	50	9	32	8	.2	.1	.1	.7	68	13.8	123	79	44	0	7	2	0
CHEYENNE	43	22	53	14	33	4	.1	0	.1	.7	194	12.7	96	85	45	0	7	1	0
LANDER	37	16	46	9	26	5	.1	0	.1	.4	70	15.4	119	85	53	0	7	1	0
SHERIDAN	39	21	48	18	30	7	.1	-1	.1	1.7	237	14.6	97	83	47	0	7	1	0

Heating Degree Days (Base 65°) For December 1989

States and Stations	TOTAL Depart		States and Stations	TOTAL Depart		States and Stations	TOTAL Depart	
AL. Birmingham . . .	857	256	MD. Baltimore . . .	1221	337	OK. Okla. City . . .	993	215
AL. Mobile . . .	630	248	MA. Boston . . .	1336	366	OR. Tulsa . . .	1029	248
AL. Montgomery . . .	729	230	MA. Chatham . . .	1231	310	OR. Astoria . . .	643	-36
AK. Anchorage . . .	1255	-332	MI. Alpena . . .	1621	334	OR. Burns . . .	1165	2
AK. Barrow . . .	2311	-104	MI. Detroit . . .	1451	319	OR. Medford . . .	906	60
AK. Fairbanks . . .	1875	-453	MI. Flint . . .	1507	335	OR. Pendleton . . .	978	79
AK. Nome . . .	1623	-256	MI. Grand Rapids . . .	1477	308	OR. Portland . . .	759	12
AZ. Flagstaff . . .	1030	-61	MI. Houghton Lake . . .	1607	317	OR. Salem . . .	779	26
AZ. Phoenix . . .	243	-125	MI. Lansing . . .	1520	342	PA. Allentown . . .	1350	311
AZ. Tucson . . .	361	-42	MI. Marquette . . .	1727	267	PA. Erie . . .	1335	250
AZ. Winslow . . .	964	-37	MI. S. Ste. Marie . . .	1785	381	PA. Harrisburg . . .	1306	326
AZ. Yuma . . .	198	-78	MN. Duluth . . .	1887	300	PA. Philadelphia . . .	1219	304
AR. Fort Smith . . .	982	244	MN. Internatl Falls . . .	2062	301	PA. Pittsburg . . .	1414	372
AR. Little Rock . . .	914	238	MN. Minneapolis . . .	1683	263	PA. Scranton . . .	1433	339
CA. Bakersfield . . .	636	115	MN. Rochester . . .	1700	258	RI. Providence . . .	1329	315
CA. Eureka . . .	482	-36	MI. St. Cloud . . .	1773	229	SC. Charleston . . .	669	198
CA. Fresno . . .	649	38	MS. Jackson . . .	754	241	SC. Columbia . . .	738	171
CA. Los Angeles . . .	152	-103	MS. Meridian . . .	765	238	SC. Greenville . . .	863	193
CA. Redding . . .	569	-5	MO. Columbia . . .	1338	343	SD. Aberdeen . . .	1724	220
CA. Stockton . . .	699	94	MO. Kansas City . . .	1360	334	SD. Huron . . .	1674	248
CA. San Diego . . .	188	-52	MO. St. Louis . . .	1261	306	SD. Rapid City . . .	1410	204
CA. San Francisco . . .	454	-36	MO. Springfield . . .	1214	321	SD. Sioux Falls . . .	1655	251
CO. Denver . . .	1162	158	MT. Billings . . .	1235	60	TN. Chattanooga . . .	924	195
CO. Pueblo . . .	1204	206	MT. Glasgow . . .	1569	78	TN. Knoxville . . .	1011	270
CO. Bridgeport . . .	1285	330	MT. Great Falls . . .	1155	-63	TN. Memphis . . .	964	291
CO. Hartford . . .	1444	331	MT. Havre . . .	1456	24	TN. Nashville . . .	1095	348
DC. Washington . . .	1144	335	MT. Helena . . .	1268	-19	TX. Abilene . . .	820	243
FL. Apalachicola . . .	501	181	MT. Kalispell . . .	1177	-88	TX. Amarillo . . .	1037	209
FL. Jacksonville . . .	531	199	MT. Miles City . . .	1461	137	TX. Austin . . .	638	232
FL. Key West . . .	61	39	MT. Missoula . . .	1262	19	TX. Beaumont . . .	592	265
FL. Miami . . .	110	88	NE. Grand Island . . .	1368	181	TX. Brownsville . . .	415	265
FL. Orlando . . .	308	95	NE. Lincoln . . .	1424	234	TX. Corpus Christi . . .	521	301
FL. W. Palm Beach . . .	146	89	NE. Norfolk . . .	1531	257	TX. Del Rio . . .	634	246
FL. Tallahassee . . .	599	216	NE. North Platte . . .	1374	162	TX. El Paso . . .	708	69
FL. Tampa . . .	285	112	NE. Omaha . . .	1470	252	TX. Fort Worth . . .	799	266
GA. Atlanta . . .	797	161	NE. Valentine . . .	1517	361	TX. Galveston . . .	526	259
GA. Augusta . . .	722	161	NV. Ely . . .	1124	-85	TX. Houston . . .	637	288
GA. Macon . . .	724	219	NV. Las Vegas . . .	519	-89	TX. Lubbock . . .	912	183
GA. Savannah . . .	653	209	NV. Reno . . .	895	-113	TX. Midland . . .	806	421
ID. Boise . . .	1064	41	NH. Winnemucca . . .	1071	-2	TX. San Angelo . . .	784	257
ID. Lewiston . . .	833	-100	NH. Concord . . .	1639	383	TX. San Antonio . . .	663	285
ID. Pocatello . . .	1183	-7	NJ. Atlantic City . . .	1239	414	TX. Victoria . . .	584	293
IL. Chicago . . .	1471	315	NM. Albuquerque . . .	918	7	TX. Waco . . .	753	272
IL. Moline . . .	1527	330	NY. Albany . . .	1584	390	TX. Wichita Falls . . .	923	269
IL. Peoria . . .	1509	356	NY. Binghamton . . .	1576	373	UT. Salt Lake City . . .	1036	-40
IL. Rockford . . .	1570	721	NY. Buffalo . . .	1466	344	VT. Burlington . . .	1776	462
IL. Springfield . . .	1431	368	NY. New York . . .	1198	305	VA. Lynchburg . . .	1100	272
IL. Fort Wayne . . .	1488	372	NY. Rochester . . .	1478	362	VA. Norfolk . . .	928	261
IL. Indianapolis . . .	1426	387	NY. Syracuse . . .	1554	416	VA. Richmond . . .	1036	258
IL. South Bend . . .	1462	349	NC. Asheville . . .	1028	231	VA. Roanoke . . .	1091	263
IA. Des Moines . . .	1489	271	NC. Charlotte . . .	877	183	WA. Quillayute . . .	659	-91
IA. Dubuque . . .	1602	291	NC. Greensboro . . .	994	225	WA. Seattle-Tacoma . . .	678	-16
IA. Sioux City . . .	1567	274	NC. Hatteras . . .	728	242	WA. Spokane . . .	1048	-68
KS. Concordia . . .	1293	233	NC. Raleigh . . .	934	221	WA. Walla Walla . . .	952	90
KS. Dodge City . . .	1165	195	NC. Wilmington . . .	810	289	WA. Yakima . . .	1035	-4
KS. Goodland . . .	1203	127	ND. Bismark . . .	1761	223	WV Beckley . . .	1299	329
KS. Topeka . . .	1360	331	ND. Fargo . . .	1881	260	WV Charleston . . .	1203	332
KS. Wichita . . .	1228	279	ND. Williston . . .	1690	135	WV Huntington . . .	1217	346
KY. Lexington . . .	1297	401	OH. Akron-Canton . . .	1444	368	WI. Green Bay . . .	1666	296
KY. Louisville . . .	1222	360	OH. Cincinnati . . .	1335	402	WI. La Crosse . . .	1630	281
LA. Baton Rouge . . .	626	246	OH. Cleveland . . .	1416	365	WI. Madison . . .	1568	219
LA. Lake Charles . . .	618	267	OH. Columbus . . .	1394	374	WI. Milwaukee . . .	1493	256
LA. New Orleans . . .	559	223	OH. Dayton . . .	1419	390	WY Casper . . .	1261	43
LA. Shreveport . . .	743	238	OH. Toledo . . .	1488	344	WY Cheyenne . . .	1257	150
ME. Caribou . . .	1905	377	OH. Youngstown . . .	1446	342	WY Lander . . .	1329	33
ME. Portland . . .	1573	358				WY Sheridan . . .	1358	106

National Agricultural Summary

December 25-31, 1989

HIGHLIGHTS: Warmer weather melted snow cover in the central and northern Great Plains and portions of the Corn Belt, leaving winter wheat vulnerable to freezing temperatures. The rapid warmup after last week's freeze caused additional problems for fruit and vegetable producers in Texas. Livestock stress eased in the Great Plains and the Corn Belt.

SMALL GRAIN: Snow cover was needed in the central and northern Great Plains and portions of the Corn Belt. Moisture was also needed in the southern Great Plains. Winter wheat was fair in Nebraska and fair to poor in Oklahoma. In Texas and Oklahoma, last week's cold weather damaged some poorly rooted fields. In Montana and South Dakota, condition was good to fair but snow cover was inadequate. Winter wheat was good in the Corn Belt but lacked snow cover in most areas. In Michigan, the amount of snow cover increased. Condition was good to fair in Washington and fair to good in Oregon. Planting continued in California. Dryland fields needed moisture. In Georgia, winter wheat was fair to good and planting was virtually complete. In Arkansas, condition was fair to good.

OTHER FIELD CROPS: Cotton harvest was virtually complete in Texas. Stalk shredding and disking continued in Arizona and California. In Florida, harvest of freeze damaged sugarcane was very active, with condition deteriorating at higher temperatures. Tobacco bed preparation was 60 percent complete in Georgia. In Kentucky, tobacco stripping conditions improved with precipitation and fog. Peanut harvest was virtually complete in Texas.

FRUIT AND NUTS: In Florida, citrus trees were still recovering from last week's freeze. Soil moisture was adequate, but rain was needed to minimize tree fruit dehydration. Leaf drop started on damaged trees, but it was still too early for wood damage to show. Early and midseason orange harvest was active in all areas. Grapefruit, temple orange,

tangerine, and tangelo harvests were slow due to last week's freeze damage. Pecan harvest was complete in Georgia. In the Rio Grande Valley, Texas, warm weather damaged frozen citrus before it could all be harvested for processing use. It was still too early to assess tree damage from last week's freeze. In Arizona, harvest and packing of lemons, oranges, grapefruit, and tangerines continued. In California, lemon, navel orange, tangerine, and grapefruit harvests continued. Deglet Noor date harvest was nearly complete in Riverside County. Mandarin harvest was nearly complete in Merced County.

VEGETABLES: In Florida, vegetable harvest was active. Last week's freeze reduced the supplies on all crops, especially cucumbers, eggplant, peppers, and squash. Planting and replanting were active in all areas. In Georgia, freeze damage to onions was minimal. In the Rio Grande Valley, Texas, damage from last week's freeze was worse than originally expected. The rapid warmup after Christmas caused additional problems. Heavy losses are expected for lettuce, broccoli, cauliflower, celery, and other greens. In the San Antonio-Winter Garden area, spinach and cabbage supplies will be limited for several weeks as fields recover from the freeze damage. Vegetable harvest continued in Arizona and California. Asparagus harvest was underway in the Riverside area of California.

PASTURES AND LIVESTOCK: Warmer weather eased livestock stress in the Great Plains and the Corn Belt. Pastures in the Delta and Southeast showed signs of damage from last week's freeze.

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 over 0.50 in.; 2.00 to 4.00 in. local areas south. Temperatures 2° below normal.

Wet conditions limited all field activities. Small grains, catfish ponds experienced freeze damage from previous weeks record cold weather; extent of losses unknown. Primary activities: General care of livestock, poultry including providing supplemental feed; storing harvest equipment.

ARIZONA: Cloudy skies, mild temperatures 24th, 25th, 26th. Light showers, increased cloudiness 27th. Showers, thunderstorms dominated weather statewide 28th, 29th. Clear skies, cooler conditions 30th. Temperatures 2 to 7° above normal.

Wheat, barley crops 85% seeded, 60% stands established. Stands mostly good. Cotton harvest complete in most areas. Stalk shredding, disking, plow down activities progressing normally. Harvest, packing lemons, oranges, grapefruit, tangerines, sweets central, west. Boston, leaf, romaine, head lettuce, broccoli, cauliflower, bok choy, napa, escarole, kale, endive, cabbage, parsley, leeks, mixed greens, carrots, beets, green onions, rapini, spinach harvested west, central. Fall lettuce tapering off Parker Poston, Marana Eloy areas. Pecan harvest continued statewide.

ARKANSAS: Temperatures above normal with scattered showers latter part of week, heavier southeast. Extremes 7°; 70°. Rainfall 0.18 to 3.60 in.

Shortage of water northwest affecting milk production. Some calving problems, otherwise livestock fair to good. Wheat crop fair to good, too early to determine any cold weather damage.

CALIFORNIA: High pressure dominated the State with a weak storm bringing light rain to southern areas late in the week. Temperatures were near or below normal in the north, above in the south.

Field activities slowed, cool, heavy fog. Small grain seeding continued. Irrigated some earlier seeded fields. Dryland crop stress, moisture shortage, lighter soils. Broadleaf weed control active. Sugarbeet seeding continued. Land preparation spring crops active. Sheep grazing dormant alfalfa fields. Cotton harvest southern areas approached completion. Pruning, weed control major activity in orchards, vineyards. Deglet Noor date harvest neared completion, Riverside County. Mandarin harvest neared completion, Merced County. Lemons, navels, tangerines, grapefruit harvests continue. Asparagus harvest started Riverside area. Broccoli moderate supply, variable quality central coast. Cauliflower light supply, variable quality Santa Maria. Celery moderate supply, generally good quality Santa Maria. Desert lettuce harvest continued steady. Potato, carrot harvests continued, Riverside County. Livestock good. Range, pasture fair to good, north, central; very poor to fair, south. Slight deterioration from previous week. Livestock steady to feedlots, winter ranges. Supplemental feeding. Water supplies low.

COLORADO: Began with fair skies, mostly seasonal temperatures statewide. Clouds began to

move in mid week, covered most of the State by 29th. Some mountain areas received 1.00 to 3.00 in. of new snow, little new snow elsewhere. Cold front 30th brought 1.00 to 4.00 in. of snow to the Denver foothills area, dense fog to northeastern areas. Temperatures 2 to 5° above normal, except northeast 1 to 3° below normal.

FLORIDA: Temperatures 5° below normal for week. Extremes 18°; 85°. Rainfall between 1.00 to 3.00 in. west, up to 0.67 in. north, mostly under 0.10 in. elsewhere. Greatest weekly total 3.05 in. at Jay.

Soil moisture, Panhandle mostly adequate; Peninsula varied short to adequate. Harvest of portion of sugarcane crop most heavily damaged by freeze very active. Frozen cane deteriorating with warmer weather. Winter wheat suffered leaf burn most areas. Cold temperatures adversely affected many pastures. Panhandle, northern Peninsula pastures fair to excellent. Many pastures central Peninsula unable to withstand extreme cold, variable, severe to good. Southern Peninsula pastures poor to good. Cattle fair to good. Some layers molted, reducing egg production as result of cold, damaged water lines, power outages contributing to disruption of feed supplies. Citrus trees post freeze recovery. Soil moisture adequate; however, rain needed to help minimize tree, fruit dehydration. Leaf drop started on damaged trees. Too early for twig or wood damage to show. Early mid season orange harvest active all areas. Grapefruit movement slow. Temple, tangerine, tangelo harvest slow due to freeze damage. Temperatures warmed over major vegetable producing areas following Christmas freeze. Harvest active on surviving crops. Supplies reduced all crops. Available supplies include: Cabbage, carrots, celery, tomatoes. Also very limited supplies cucumbers, eggplant, peppers, squash. Planting, replanting active all areas. Freeze damage significant to foliage plants for indoor use. Damage heaviest southeastern producing area of Dade, Broward, Palm Beach counties. Plants grown in open with limited protection severely hit. Damage central area not as heavy as southeast, power outages, equipment failure resulted in losses for several growers. Tropical plants, including field planted trees for landscaping grown mostly in southern areas especially hard hit, reducing supply saleable plants. More time will be needed to determine extent of damage to woody ornamentals. Cut greens, especially important leather leaf fern production, will be reduced through heavy Valentine Day marketing period as young fern cannot survive heavy icing from water used for freeze protection.

GEORGIA: Temperatures varied. Extremes 13°; 76°. Rain generally 1.00 to 2.00 in. except east under 1.00 in. Greatest 3.70 in. Camilla.

Soil moisture adequate to surplus. Cold, wet soils limited fieldwork. Tobacco bed preparation over 60% complete, good. Final seeding small grains isolated areas only, planting virtually complete, fair to good. Onions escaped appreciable cold damage. Cotton, soybean harvest virtually complete. Pecan harvest nearing completion. Livestock and poultry came through cold temperatures generally good.

HAWAII: Conditions mostly fair. Light variable winds beginning week shifting to trades 10 to 20 mph weekend. Light scattered showers. Temperatures lower 60s to mid 80s. Rainfall none to 5.89 in.

Days suitable for fieldwork 7.0. Weather mostly fair for crop development. Water use restrictions some areas, more rainfall would be welcomed others. Papaya production lower. Pineapple harvesting continues. Vegetable crops mostly fair.

IDAHO: Temperatures above normal north. Near to below normal south. Light amounts of precipitation fell in Panhandle while south remained dry.

Soil moisture levels below normal several parts of State. Some lambing north, southwest, farm flock lambing east. Some calving north, southwest. Livestock on partial or full feed most areas; good across State. Bangs disease vaccinations completed; trichomoniasis testing continued. Hay supplies mostly adequate. Other farm activities: Marketing of grain, potatoes, shopwork, financial planning.

ILLINOIS: Temperatures 2 to 6° above normal north, central; near average south. Precipitation less than 0.30 in. north, central; generally 1.00 in. more south.

Winter wheat mostly good. Livestock good.

INDIANA: Temperatures up to 4° above normal. Lows mostly in the 20s, highs low 30s to near 40°. Precipitation 0.20 to 1.50 in. Late period rain most areas.

Minimal field activities. Other activities: Moving grain to market, spreading fertilizer, hauling manure, moving hay, processing tobacco, tax preparation, cutting wood, machinery repair, care of livestock. Hay supplies adequate. Wheat covered by snow during cold weather.

IOWA: Temperatures 5 to 11° above normal. Extremes -8°; 54°. Precipitation trace to 0.24 in.; average 0.04 in. Warmer temperatures bring relief to livestock.

Major activities: Book work, repairing machinery, tending livestock.

KANSAS: Temperatures 4 to 10° above normal. No precipitation western two thirds; one fourth in. or less eastern third.

Snow cover melted leaving wheat vulnerable freeze damage. More moisture needed over State.

KENTUCKY: Temperatures slightly above normal. Normal lows mid 20s, normal highs mid 40s. Cold temperatures early, temperatures well above normal late. Precipitation above normal, heavy rains 29th, 30th. Light snow early. Precipitation generally 1.00 to 2.00 in.

Soil moisture ample, some ponding, flooding. Snow mostly gone. Little or no field activity. Livestock benefitted from moderating temperatures. Some calf losses to coldest December on record, there is concern about fall seeded grains, legumes. Burley market reopen January 8th, stripping conditions improved with precipitation, fog.

LOUISIANA: Temperatures 20 to 30° below normal for the first of the week. However, on the last day, temperatures 10 to 15° above normal. Extremes 1°; 76°. Rainfall 0.88 to 3.19 in.

Main activities: Crawfishing; livestock care; routine chores.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.03 in. Temperature 20°, normal 35°. Extremes -22°; 44°.

DELAWARE: Precipitation 0.03. Temperature 21°, normal 36°. Extremes 2°; 38°.

MICHIGAN: Temperatures 1 to 9° below normal. Extremes -13°; 35°. Precipitation 0.22 to 1.23 in. across State. Precipitation occurred as snow or freezing rain. Snow depth increased most areas protecting winter wheat, alfalfa.

Major activities: Farm activities centered on caring for livestock, routine chores, pruning orchards, snow plowing. Livestock remained good. Feed, roughage supplies abundant.

MINNESOTA: Extremes -21° low; 42° high. Precipitation 0.07 to 0.24 in. Greatest weekly total 0.33 in. at Grand Rapids.

MISSISSIPPI: Soil moisture adequate to surplus. Wheat fair to poor. Hay, feed grain supplies adequate. Pastures, livestock fair to poor. Activities: Livestock feeding.

MISSOURI: Temperatures 6° below normal west central plains, near normal elsewhere. Rainfall nearly nonexistent.

Topsoil 86% short, 14% adequate. Subsoil 77% short, 23% adequate. Wheat 2% very poor, 23% poor, 57% fair, 18% good. Pasture 9% very poor, 36% poor, 42% fair, 12% good, 1% excellent. Hay supply 1% very short, 14% short, 72% adequate, 13% surplus. Livestock water 18% critically short, 46% short, 36% adequate. Livestock 16% fair, 80% good, 4% excellent.

MONTANA: Temperatures 2 to 15° above normal most areas. Most of State received some snow.

Winter wheat mostly good. Snow cover protection poor to fair. Most livestock on supplemental feed.

NEBRASKA: Temperatures 5° above normal northwest, 12° above normal over the remainder of State. Extremes 6°; 58°. Only trace amounts of precipitation.

Winter wheat 1% very poor, 17% poor, 71% fair, 11% good. Most areas reported some snow cover during extremely cold weather, most has melted. Most remaining snow in northern portion of State. Much concern about lack of soil moisture. Feed grain supplies average; hay, forage average. Livestock on crop residues where conditions permit. Snow cover, cold weather required supplement feeding which caused concern about short hay supplies. Some losses due to cold weather, generally losses were considered minimal. Main activities: Livestock care, equipment maintenance, ordering supplies, routine chores, book work, limited fieldwork in some areas.

NEVADA: Strong high pressure ridge continued to dominate early, weakened mid week to allow trace amounts precipitation, lowering temperatures from above normal to near normal. Extremes 2°; 73°.

Mild weather favorable all livestock activities. Dry roads allowed excellent progress moving potatoes, hay to markets.

NEW ENGLAND: Precipitation (rainfall and water equivalent of snow) 0.25 to 0.50 in. south, less than 0.25 in. north. Temperatures near zero along the Canadian border to near 20° south coast. Temperatures below normal.

Major farm activities: Tending livestock, machinery repair, enjoying the holiday season.

NEW JERSEY: Temperatures below normal; 22° north, 27° south, 29° coastal. Extremes -2°; 55°. Precipitation near normal north; above normal south, coastal; 0.69 in. north, 1.02 in. south, 0.97 in. coastal. Heaviest 24 hour total 1.26 in.

on 31st. Heaviest 24 hour snowfall 1.00 in. on 27th, 28th.

More seasonable temperatures welcome. Farmers performed machinery maintenance, repair; livestock tending; normal winter chores.

NEW MEXICO: Winter weather disturbance moved through State late in week. Heaviest rain, snow fell over the mountains, south.

NEW YORK: Temperatures 5 to 15° below normal. Extremes -37°; 42°. Precipitation below normal except for a small snowstorm across south eastern part of the State, frequent lake effects snow in western part of the State.

Caring for livestock. Grading, packing fruit, vegetables. Normal winter chores.

NORTH CAROLINA: Temperatures 6 to 13° below normal across the State.

Days suitable for fieldwork 1.3. Soil moisture 58% adequate, 42% surplus. Pasture 6% very poor, 12% poor, 50% fair, 32% good. Livestock feed from pasture 38%. Crop condition: Wheat, 2% very poor, 9% poor, 53% fair, 36% good; oats 2% very poor, 7% poor, 55% fair, 36% good; barley 7% poor, 55% fair, 38% good; rye 4% poor, 47% fair, 49% good. Hay, roughage supplies 2% short, 87% adequate, 11% surplus. Feed grain supplies 2% short, 94% adequate, 4% surplus. Soybean harvest is nearing completion. Activities: Cutting wood; tending livestock, general farm maintenance.

NORTH DAKOTA: Temperatures 8° above normal northeast, east central to 15° above normal northwest. Extremes -21° northeast, 29th; 49° south central, 26th. Precipitation 0.07 in. central, east central to 0.12 in. northwest, west central.

Soil moisture below normal. Snow depth averaged 1.00 in. Snow cover protection: Winter wheat 6% sufficient, rye 8%, alfalfa 11%. Livestock mostly good, receiving supplemental forages. Hay, roughage supplies 21% short, 79% adequate. Pastures open for grazing 49%.

OHIO: Warmer weather prevailed. Temperatures close to normal; highs in 30s, lows in teens, 20s. Coldest temperatures in single digits on the 27th. Highs over the New Years weekend were in the 40s to low 50s. Some precipitation statewide first as snow, then as rain, freezing rain, or snow. Liquid equivalent precipitation 0.75 up to 1.50 in. As much as 4.00 to 7.00 in. snow accumulated. Most snow cover melted by end of period. Snow cover prevented much diurnal variation in soil temperatures; averages in upper 20s to low 30s.

Winter wheat had snow cover during coldest period. Snow, rain or cold prevented much field activity.

OKLAHOMA: Temperatures 1° above normal south central to 3° above normal east central. Precipitation none northwest third to 0.67 in. southeast.

Topsoil 100% short. Subsoil 50% short, 50% adequate. Wheat 7% very poor, 10% poor, 80% fair, 3% good. Dry weather lowered condition rating. Mid December freeze threatened small, poorly rooted stands. Pastures fair. Cattle good; marketings average, prices up slightly from early December.

OREGON: Temperatures above normal on coast, some portions of north, south central region. Elsewhere temperatures generally below normal with greatest departures 8° below normal Grants Pass, 6° below normal Pendleton. Precipitation 0.10 in. along coast, Willamette Valley; less than 0.10 elsewhere. High plateau, extreme east received no precipitation.

Soil moisture mostly short. Minimal snow cover east of Cascades. Winter wheat fair to good. Orchard pruning, caneberry training continued. Potato, onion packing continued. Livestock mostly good. Limited supplemental feed required so far this winter. Range, pasture fair to good. Mild temperatures have been a plus, dry weather a minus.

PENNSYLVANIA: Overall cold, fairly dry week. Temperature 18°, 11° below normal. Extremes -20°; 46°. Precipitation 0.42 in., 0.27 in. below normal.

Activities: Spreading manure, caring for livestock, maintaining machinery.

PUERTO RICO: Rainfall 0.78 in. was 0.12 in. below normal. Rainfall 4.10 in. Borinquen Airport, 2.18 in. Toa Baja, 1.93 in. Rio Piedras Aes, Trujillo alto. Highest 24 hour total 4.10 in. Borinquen Airport. Temperature 77 to 79° coasts, 70 to 74° interior, mean station temperatures 84°, San Juan city 64° Pico Del Este Luquillo. Extremes 54°; 94°.

SOUTH CAROLINA: Temperatures varied near normal in central south Carolina to 1 to 2° below normal elsewhere. Precipitation less than 0.10 in. to more than 1.00 in. upper Piedmont.

SOUTH DAKOTA: Temperatures 6 to 15° above normal. Extremes -28°; 57°. Precipitation mostly below normal statewide. Maximum melted precipitation 0.45 in. Precipitation for the year above normal northeast, northwest, Black Hills below normal elsewhere. Range 3.74 in. above normal to 8.31 in. below. Snow cover from 14.0 in. northern Black Hills to only patches south. Subsoil mostly short. Winter wheat good to fair, little wind damage.

TENNESSEE: Frontal system early week brought substantial rains. High pressure dominated mid week. Cold front late week brought additional rain. Precipitation above normal statewide. Temperatures quite cold early week. Warming trend by late week. Temperatures normal east, above normal west.

Primary activities: Feeding, watering livestock; maintenance, repairs.

TEXAS: Temperature moderate Christmas day following late December arctic freeze. Dry weather, mild days, cool nights prevailed through mid week. Upper air disturbances, cold front spread overrunning rains over much State. Some heavy amounts extreme eastern counties. Temperatures mostly near normal, slightly warmer High Plains, east; little below normal Lower Valley. Precipitation recorded all districts, below normal except southern High Plains.

Crops: Cotton harvest virtually completed Plains, Trans Pecos. Some gins finishing up. Cotton 100% harvested, 99% 1988, 86% avg. Small grains continued suffer from dry conditions, recent cold weather. Although most fields dormant, some losses. Oats hit hardest, highest losses. Many wheat, rye fields frozen back to ground, should come back with some help from Mother Nature. Irrigation steady Plains. Grazing very short Plains, Cross Timbers. Increase greenbug populations some Blacklands fields. Wheat emerged 100%, 100% 1988, 99% avg. Peanut, soybean harvest completed last week with return milder conditions. Yields dropped off later fields. Other crops: Peanuts harvested 100%, 100% 1988, 98% avg. Pecans 95%, 95% 1988, 92% avg. Soybeans harvested 100%, 100% 1988, 99% avg. Sunflowers harvested 100%, 100% 1988, 99% avg. Oats planted 100%, 99% 1988, 98% avg.

Commercial Vegetables: Rio Grande Valley, vegetable damage worse than originally expected. Rapid warmup after Christmas added to problem. Producers now expect heavy losses lettuce, broccoli, cauliflower, celery, other greens. Limited supplies cabbage, carrots available four to six weeks. Losses very young fields heavy. Rapid warmup hurt frozen citrus left on trees, not all fruit available for juice plant. Tree damage still being assessed. San Antonio-Winter Garden, supplies spinach, cabbage limited for several weeks, fields try to grow out of freeze damage. Very young fields heavy losses. Onions knocked down; coming back up. Pecan harvest winding down most areas with milder weather. Prices improving some. Quality varied throughout State.

Range and Livestock: Decline range, pasture conditions continued across State. Dry conditions, recent cold snap further shortened grasses. Small grains continued provide little grazing. Supplemental feeding activities very active. Young stockers sickness with recent cold. Producers busy repairing water pipes, breaking ice early this week.

UTAH: Temperatures 3° below normal in north western third, 5° above normal in south eastern two third. Precipitation was mostly zero.

Fall seeded crops fair condition. Monitoring of Russian Wheat aphids continued. Farmyard cleanup, repair, improvement progressed normally. Hay, grain supplies average for this time of year. Desert winter range conditions below average.

VIRGINIA: Extreme cold, temperatures 15 to 17° below normal. Warming trend late in period. Precipitation light, 0.10 in. to trace.

Days suitable for fieldwork 0.1. Topsoil 67% adequate, 33% surplus. Winter grains, grazing crops 3% excellent, 26% good, 54% fair, 17% poor. Forage from pastures, beef cattle 4%, sheep 4%. Calving, lambing, pruning fruit trees.

WASHINGTON: Temperatures 7° above normal to 5° below normal, east; normal to 4° above normal, west. Precipitation none to 0.09 in., east; 0.17 to 0.42 in., west.

Days suitable for fieldwork 3.2. Soil moisture 55% short, 44% adequate, 1% surplus. Range, pasture 85% short, 15% adequate. Hay, other roughage 25% short, 75% adequate. Pruning of caneberries, blueberries continued. Christmas tree growers were busy with post harvest clean up. Orchard, vineyard pruning activities continued. Some livestock were still on late pasture due to mild weather. Winter wheat 40% fair, 60% good.

WEST VIRGINIA: Temperature 26°, 0 to 7° below normal. Extremes -17°; 57°. Precipitation avg. above normal, at 1.41 in.. Some minor flooding as rain melted snow.

Days suitable for fieldwork 0.9. Soil moisture 5% short, 79% adequate, 16% surplus. Wheat, barley good. Livestock good to fair. Feed supplies adequate. Farm activities: Feeding livestock, general farm maintenance, tobacco stripping.

WISCONSIN: Temperature 18°. Extremes -17°; 41°. Precipitation 0.10 to 0.30 in. Snow 1.00 to 4.00 in., except 1 foot near Lake Superior.

Record frost 24.3 in., 1961 to 88 average 7.0. Snow depth 4.3 in., 6.4 in. average. Subsoil dry.

WYOMING: Temperatures mostly above normal. Precipitation below normal.

Winter wheat fair to good. Snow cover helping to protect winter wheat, improving moisture. Livestock mostly good. Livestock producers continue to market livestock. Colder weather, snow cover increasing stress, feed requirements. Supplemental feeding continues most areas.

December 1989

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

International Weather and Crop Summary

HIGHLIGHTS

December 24-30, 1989

USSR ... Continued unseasonably warm weather causes considerable snow melt, leaving major winter wheat producing areas without a protective snow cover.

NORTHWESTERN AFRICA ... Widespread, substantial rain over Morocco maintains ample moisture for vegetative winter grains. Insufficient moisture continues to delay planting in Algeria and Tunisia.

EUROPE ... Heavy rain returns to Portugal and Spain. Moderate to heavy snow and rain cover sections of the Balkans.

SOUTH ASIA ... Unseasonable rain benefits rainfed and irrigated wheat in central India.

EASTERN ASIA ... Rain covers much of southern China. Moderate to heavy snow falls in Manchuria and northern Japan.

SOUTHEAST ASIA ... Widespread showers cover Malaysia and Indonesia.

SOUTH AFRICA ... Showers benefit vegetative corn in the eastern Maize Triangle, but unfavorable growing conditions continue to the west.

SOUTH AMERICA ... Widespread, locally heavy rain falls on newly planted soybeans in south-central Brazil. Warm, dry weather favors wheat harvesting and soybean planting in central Argentina.

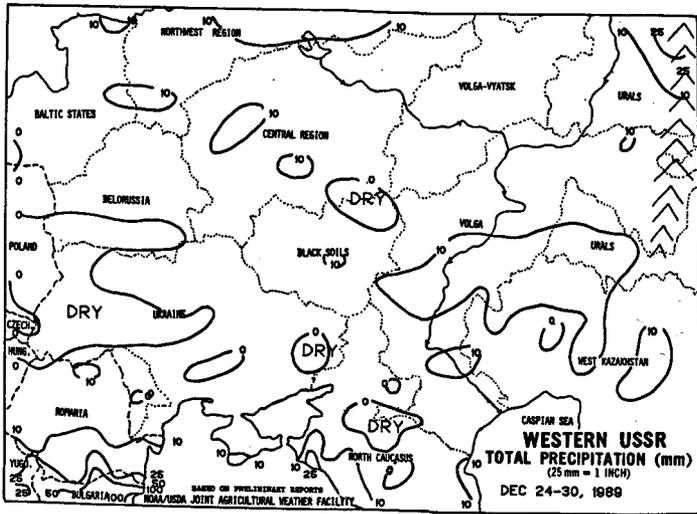
AUSTRALIA ... Scattered rain benefits vegetative summer crops in the east.

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG MAX	AVG MIN	HI	LO	AVG	DPART F/NRM	DPART F/NRM	
NORWAY OSLO	-3	-9	8	-22	-6	-0.8	54.4	-13.9
SWEDEN STOCKHOLM	-1	-6	5	-25	-3	-2.9	29.9	-16.8
FINLND HELSINKI	-3	-8	5	-26	-5	-2.1	54.4	-1.8
U KING GLASGOW	4	0	13	-8	2	-2.7	73.4	-43.9
EDINBURGH	5	0	12	-7	3	-1.4	67.4	9.0
BIRMINGHAM	7	3	13	-4	5	0.4	127.2	62.5
LONDON	8	4	13	-4	6	1.7	139.4	62.7
IRELND DUBLIN	8	5	14	-1	6	0.4	51.4	-27.5
ICELND REYKJAVIK	2	-1	9	-12	1	0.5	65.5	-10.6
DENMRK COPENHAGEN	4	0	10	-9	2	-0.4	40.7	-8.3
LUXEMB LUXEMBOURG	6	1	14	-6	4	2.2	140.0	63.6
SWITZL ZURICH	5	1	16	-4	3	2.1	61.6	-13.5
GENEVA	7	2	19	-3	4	2.0	72.1	-8.3
FRANCE PARIS	7	2	17	-7	5	0.4	71.5	20.7
STRASBOURG	5	0	16	-10	3	0.8	65.8	32.9
BOURGES	9	2	20	-6	5	1.4	65.1	4.2
BORDEAUX	14	6	23	-1	10	4.2	31.4	-72.5
TOULOUSE	14	6	19	-1	10	4.3	6.4	-52.4
MARSEILLE	15	7	20	-1	11	3.5	34.8	-28.2
SPAIN VALLADOLID	12	7	16	1	9	5.3	163.9	123.1
MADRID	12	8	16	0	10	4.1	97.4	51.5
SEVILLE	18	12	21	5	15	3.6	199.8	122.0
E GRMY LEIPZIG	5	1	14	-8	3	1.8	38.3	1.1
DRESDEN	6	1	14	-7	3	2.9	49.0	12.0
W GRMY HAMBURG	5	1	14	-8	3	0.6	79.7	9.0
BERLIN	5	1	15	-6	3	1.4	49.5	0.5
DUSSELDORF	8	3	16	-5	6	2.6	86.4	28.5
STUTTGART	6	-2	16	-10	2	1.6	62.9	16.6
NURNBERG	5	-1	15	-12	2	1.4	66.4	17.0
MUNICH	5	-2	20	-10	2	1.9	33.2	-18.7
AUSTRI VIENNA	5	-2	18	-11	2	0.8	9.1	-28.0
INNSBRUCK	6	-5	17	-13	0	1.4	30.2	-21.7
CZECH PRAGUE	3	-2	15	-12	1	1.1	18.2	-6.1
POLAND WARSAW	3	-1	14	-14	1	1.7	40.3	8.0
LODZ	3	-1	15	-12	1	2.0	41.0	-0.9
KATOWICE	5	-1	18	-11	2	2.7	19.7	-24.2
PRZEMYSL	4	0	18	-11	2	2.4	15.1	-24.8
HUNGAR BUDAPEST	5	-2	19	-11	2	1.2	3.6	-36.7
YUGOSL SARAJEVO	5	-5	20	-19	0	0.7	17.1	-86.8
ROMANI BUCHAREST	6	-3	18	-17	1	0.7	31.0	-15.5
BULGAR SOFIA	3	-5	17	-16	-1	-1.1	29.7	-32.7
ITALY MILAN	5	0	15	-7	3	0.4	8.2	-58.0
VERONA	7	0	19	-6	4	2.1	6.8	-44.5
VENICE	8	1	15	-5	5	1.1	7.6	-58.5
GENOA	12	8	18	1	10	0.9	24.0	-83.4
ROME	15	6	20	-2	10	1.3	88.8	2.4
NAPLES	15	7	22	0	11	1.7	39.8	-78.9
GREECE THESSALONIKA	9	2	12	-5	5	-1.9	49.1	-5.6
LARISSA	9	1	17	-7	5	-1.7	43.2	-13.5
ATHENS	14	8	20	1	11	-1.3	14.9	-53.0
TURKEY ISTANBUL	9	5	16	-2	7	-0.9	108.1	17.1
ANKARA	2	-3	12	-12	-1	-2.1	53.8	24.8
CYPRUS LARNACA	18	9	22	2	14	-0.3	31.5	-71.6
USSR TALLINN	-1	-5	5	-18	-3	-0.4	47.2	-0.3
LENINGRAD	-3	-7	5	-21	-5	-0.7	38.8	-4.8
KAUNAS	1	-4	8	-15	-2	0.7	57.1	12.6
MINSK	0	-4	7	-16	-2	1.5	63.0	20.3
KAZAN	-6	-10	2	-23	-8	1.1	61.9	28.5
MOSCOW	-4	-7	5	-23	-6	0.5	70.5	26.7
SVERDLOVSK	-8	-15	2	-27	-12	0.0	17.9	-3.9
OMSK	-9	-15	1	-24	-12	2.6	43.7	27.1
KUSTANAY	-8	-15	1	-27	-12	1.3	39.6	21.9
KRASNOYARSK	-9	-16	5	-29	-12	2.3	21.8	-2.3
NOVOSIBIRSK	-8	-15	2	-27	-12	4.7	41.2	18.3
BARNAUL	-5	-11	5	-21	-8	6.2	51.0	18.8
KHABAROVSK	-14	-23	-1	-33	-18	-0.4	27.8	9.2
VLADIVOSTOK	-7	-12	5	-19	-9	0.3	14.1	-2.3
KIEV	2	-3	11	-16	0	1.7	34.4	-10.1
LVOV	3	-3	17	-16	0	1.9	46.5	-7.0
KIROVOGRAD	2	-3	10	-17	-1	1.4	28.1	-9.3

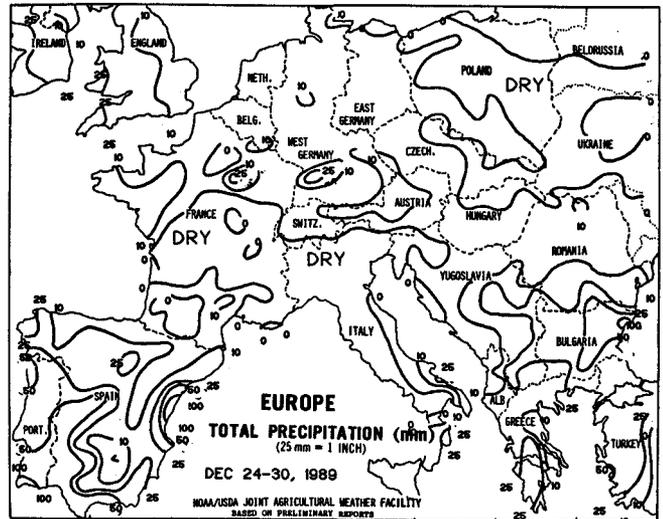
BASED ON PRELIMINARY REPORTS

COUNTRY CITY		TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY CITY		TEMPERATURE (C)					PRECIPITATION (MM)		
December 1989		AVG	AVG	HI	LO	DPART	DPART	DPART	DPART	December 1989		AVG	AVG	HI	LO	DPART	DPART	DPART	DPART
		MAX	MIN	MAX	MIN	AVG	F/NRM	TOTAL	F/NRM			MAX	MIN	MAX	MIN	AVG	F/NRM	TOTAL	F/NRM
USSR	ODESSA	5	0	15	-12	3	1.4	9.5	-35.3	TANZAN	DAR ES SALAAM	32	24	33	21	28	0.5	44.4	-56.4
	YALTA	9	4	18	-3	6	0.2	21.1	-58.9	GABON	LIBREVILLE	29	25	31	22	27	0.4	58.4	-277.3
	VORONEZH	-2	-6	7	-24	-4	1.0	48.4	0.2	TOGO	LOME	32	24	34	20	28	1.2	0.1	-8.9
	SARATOV	-4	-7	4	-21	-5	2.0	63.2	32.1	B FASO	OUAGADOUGOU	33	18	36	15	25	0.0	2.0	2.0
	KHARKOV	0	-4	9	-19	-2	1.5	31.9	-13.1	IVRY C	ABIDJAN	31	25	33	22	28	0.8	52.9	-48.4
	VOLGOGRAD	-2	-6	6	-23	-4	1.2	37.7	-7.3	MOZAMB	MAPUTO	30	22	39	15	26	0.6	182.6	91.2
	ROSTOV	1	-3	13	-20	-1	0.6	45.3	-17.8	ZAMBIA	KABWE	27	18	31	17	22	1.3	174.6	-76.5
	ASTRAKHAN	2	-2	10	-12	0	2.3	15.6	0.1	ZIMBAB	HARARE	28	17	33	15	22	1.6	89.4	-95.7
	KRASNODAR	6	0	16	-16	3	0.9	32.0	-43.0	S AFRI	PRETORIA	28	17	33	12	23	1.2	140.7	29.5
	ORENBURG	-6	-11	2	-26	-8	1.6	46.8	15.4		KROONSTAD	30	15	34	12	22	0.5	51.5	-22.5
	TSELINOGRAD	-4	-11	4	-20	-8	7.4	41.4	31.7		JOHANNESBURG	26	13	30	10	20	0.7	81.1	-26.8
	KARAGANDA	-3	-9	12	-19	-6	6.1	41.2	23.4		BETHAL	25	12	29	8	19	-0.3	152.5	32.5
	TBILISI	7	1	14	-6	4	0.4	13.7	-10.0		DURBAN	28	21	33	16	24	1.7	37.4	-67.6
	TASHKENT	11	4	26	-3	7	4.8	70.2	17.8	CANADA	CAPE TOWN	24	15	35	11	20	0.1	4.2	-11.8
	ASHKHABAD	10	4	24	-1	7	2.9	53.6	31.9		TORONTO	-5	-15	5	-25	-10	-6.8	24.6	-40.1
SYRIA	DAMASCUS	16	0	20	-10	8	-0.3	5.5	-40.9		MONTREAL	-11	-20	4	-27	-16	-9.0	44.2	-42.4
ISRAEL	JERUSALEM	15	6	19	2	10	-0.6	52.2	-58.7		WINNIPEG	-14	-25	4	-37	-20	-6.0	17.8	-1.4
PAKIST	KARACHI	26	14	30	6	20	0.5	1.0	-6.7		REGINA	-10	-21	7	-39	-15	-2.6	9.2	-7.5
INDIA	AMRITSAR	20	5	24	-1	12	-0.9	17.8	2.9		SASKATOON	-10	-22	4	-42	-16	-2.0	26.7	7.2
	NEW DELHI	21	8	25	4	15	-1.0	5.7	-1.8		LETHBRIDGE	2	-9	13	-38	-4	1.7	32.3	10.5
	AHMEDABAD	29	14	32	11	22	0.2	0.1	-1.8		CALGARY	1	-10	13	-35	-5	3.2	21.5	5.0
	INDORE	27	11	29	7	19	0.0	4.6	-4.6		EDMONTON	-3	-10	9	-33	-6	3.8	15.3	-9.4
	CALCUTTA	26	14	29	8	20	-0.3	2.0	-1.0	MEXICO	VANCOUVER	8	3	13	-2	5	1.2	134.4	-48.0
	VERAVAL	31	16	35	12	23	0.0	0.1	-1.2		GUADALAJARA	18	9	22	4	13	-2.3	85.6	69.0
	BOMBAY	32	19	34	16	26	0.8	0.1	-0.8		MEXICO CITY	21	8	24	2	14	1.9	31.2	14.9
	POONA	28	12	32	7	20	-0.9	0.3	-4.2		ACAPULCO	31	22	33	19	27	-0.3	0.4	-7.0
	BEGAMPET	28	16	29	11	22	0.8	1.4	-4.2		BERMUD ST. GEORGES	22	17	25	14	20	0.8	138.3	22.2
	MADRAS	29	21	30	20	25	0.2	154.4	15.0	BAHAMA	NASSAU	26	17	29	9	22	-0.1	12.2	-35.7
	MANGALORE	33	22	35	20	28	0.7	0.1	-17.9	CUBA	HAVANA	25	19	31	13	22	0.1	83.3	33.7
H KONG	HONG KONG	20	16	23	14	18	0.4	42.4	16.7	JAMAIC	KINGSTON	32	24	34	22	28	1.5	2.1	-35.8
N KREA	PYONGYANG	2	-6	9	-17	-2	2.3	6.8	-15.3	P RICO	SAN JUAN	32	24	32	22	27	1.5	15.2	-96.4
S KREA	SEOUL	5	-1	15	-9	2	3.0	15.1	-16.9	GUADEL	RAIZET	30	22	31	19	26	1.8	10.6	-90.7
JAPAN	SAPORO	3	-3	15	-10	0	1.0	121.0	16.1	MARTINQ	LAMENTIN	29	22	30	22	26	1.5	45.4	-100.5
	NAGOYA	12	3	18	0	8	1.5	27.0	-21.1	BARBAD	BRIDGETOWN	29	23	29	20	26	-0.2	21.6	-81.2
	TOKYO	13	6	20	2	9	2.0	30.0	-26.4	TRINID	PORT OF SPAIN	31	22	33	20	26	1.1	19.4	-115.9
	YOKOHAMA	13	5	20	2	9	1.4	28.0	-30.7	COLOMB	BOGOTA	20	7	22	2	13	0.5	66.8	7.9
	KYOTO	12	4	17	1	8	1.9	20.4	-32.6	VENEZU	CARACAS	30	23	32	20	27	1.4	1.6	-57.7
	OSAKA	13	5	19	1	9	1.2	20.0	-22.1	F GUIA	CAYENNE	30	24	31	20	27	1.1	265.4	-71.7
THAILN	PHETCHABUN	31	16	35	12	23	-0.9	0.1	-2.4	BRAZIL	FORTALEZA	30	25	34	22	27	-0.4	76.7	39.0
	BANGKOK	31	20	34	17	26	-0.2	0.1	-10.8		RECIFE	29	24	31	21	26	-0.2	178.0	125.1
MALAYS	KUALA LUMPUR	31	23	34	21	27	1.4	409.0	179.1	BELO HORIZONTE	26	19	30	17	22	-0.3	466.1	185.2	
VIETNM	HANOI	22	16	29	10	19	0.7	25.0	4.7	CAMPO GRANDE	30	21	34	16	26	1.1	184.4	-6.6	
CHINA	HARBIN	-9	-19	9	-26	-14	3.3	10.5	4.7	FRANCA		26	17	29	14	21	0.2	346.0	76.0
	HAMI	3	-8	8	-13	-2	5.6	1.2	0.7	RIO DE JANEIRO	27	22	34	20	25	-0.3	63.2	-73.7	
	LANCHOW	5	-6	14	-11	-1	4.6	7.5	6.3	LONDRINA	29	19	33	16	24	0.8	406.6	170.3	
	BEIJING	5	-5	20	-10	0	2.5	1.9	-0.7	SANTA MARIA	30	20	35	13	25	1.5	52.9	-70.0	
	TIENTSIN	4	-3	15	-8	1	2.3	0.7	-3.0	PERU	LIMA	25	18	27	10	22	1.3	0.1	-0.7
	LHASA	6	-9	11	-13	-2	-0.8	0.1	0.1	BOLIVI	LA PAZ	16	4	20	2	10	0.0	60.6	-40.8
	KUNMING	14	2	18	-1	8	-0.1	134.3	121.2	CHILE	SANTIAGO	30	10	33	6	20	0.3	0.1	-2.3
	CHENGCHOW	7	-1	24	-5	3	2.2	32.2	22.7	ARGENT	IGUAZU	32	20	36	13	26	***	148.7	***
	YEHCHANG	11	5	24	0	8	1.4	30.1	7.0		FORMOSA	34	23	39	16	28	1.5	48.2	-70.8
	HANKOW	12	4	21	0	8	2.6	24.1	-6.9		CERES	33	20	36	8	26	1.4	78.5	-46.5
	CHIHKIANG	12	4	24	-2	8	1.0	31.3	-4.5		CORDOBA	30	18	34	12	24	1.6	158.2	19.9
	SHANGHAI	12	4	20	-2	8	1.4	39.0	-2.0		RIO CUARTO	29	19	35	14	24	2.3	89.6	-51.7
	NANCHANG	14	5	23	-6	9	1.6	30.2	-17.0		ROSARIO	30	20	35	12	25	2.3	167.6	58.8
	TAIPEI	20	16	25	13	18	1.3	115.9	42.0		BUENOS AIRES	29	19	34	13	24	2.4	183.1	98.3
	CANTON	21	11	26	7	16	0.5	44.1	17.8		SANTA ROSA	31	17	36	10	24	1.7	183.5	108.9
	NANNING	21	12	27	9	16	1.0	13.4	-13.1		TRES ARROYOS	29	16	35	10	23	3.4	120.5	50.8
CNRY I	LAS PALMAS	23	16	27	14	20	1.7	5.2	-24.7	MIDW I	MIDWAY ISLAND	23	19	26	16	21	0.7	120.1	-83.5
MOROCC	CASABLANCA	20	13	27	7	17	3.6	114.8	17.2	N CALD	NOUMEA	30	22	34	13	26	1.0	116.9	52.5
	MARRAKECH	21	11	29	6	16	4.4	16.4	-16.2	FIJI	NAUSORI	29	23	32	19	26	0.0	165.1	-192.0
ALGERI	ALGER	22	11	30	6	17	4.9	15.2	-106.6	SAMOA	PAGO PAGO	30	24	31	21	27	0.0	354.0	-12.7
	BATNA	16	6	25	-1	11	4.8	6.7	-23.3	TAHITI	PAPEETE	29	23	31	22	26	-0.1	596.0	341.1
TUNISI	TUNIS	19	10	25	4	15	2.6	76.5	24.1	N ZEAL	AUCKLAND	22	15	26	11	18	0.5	73.7	-13.9
NIGER	NIAMEY	33	18	36	8	25	0.6	0.1	0.1	PA N G	PORT MORESBY	31	23	33	23	27	-0.7	137.4	-6.8
MALI	TIMBUKTU	31	15	35	8	23	0.8	0.1	0.1	AUSTRAL	DARWIN	32	25	34	22	29	-0.1	220.8	-16.3
	BAMAKO	33	21	37	15	27	2.4	0.1	0.1		MOREE	32	18	37	12	25	-0.6	53.8	-7.1
MAURIT	NOUAKCHOTT	32	18	38	13	25	3.2	0.1	-6.4		BRISBANE	27	19	31	16	23	-1.3	70.2	-75.5
SENEGL	DAKAR	28	21	36	19	24	1.7	0.1	0.1		PERTH	26	14	37	11	20	-2.1	13.1	1.2
CHAG A	DIEGO GARCIA	30	26	31	20	28	0.5	224.8	-39.8		CEDUNA	28	15	41	6	22	1.0	1.2	-15.8
LIBYA	TRIPOLI	23	10	28	5	17	2.9	1.0	-65.3		ADELAIDE	26	15	37	11	20	0.3	6.1	-20.1
	BENGHAZI	20	11	25	8	16	1.5	16.7	-48.5		MELBOURNE	24	11	35	8	18	-0.6	15.0	-32.9
EGYPT	CAIRO	20	11	23	9	16	0.4	0.1	-6.9		WAGGA	29	13	38	6	21	-0.2	27.5	-21.5
	ASWAN	23	11	31	1	17	-0.8	0.1	0.1		CANBERRA	24	12	31	6	18	-0.3	46.2	-8.2
ETHIOP	ADDIS ABABA	22	10	24	7	16	0.1	4.7	-13.6	PHILIP	MANILA	31	22	33	20	27	0.8	1.0	-60.7
KENYA	NAIROBI	25	14	28	11	20	0.5	107.2	35.9										

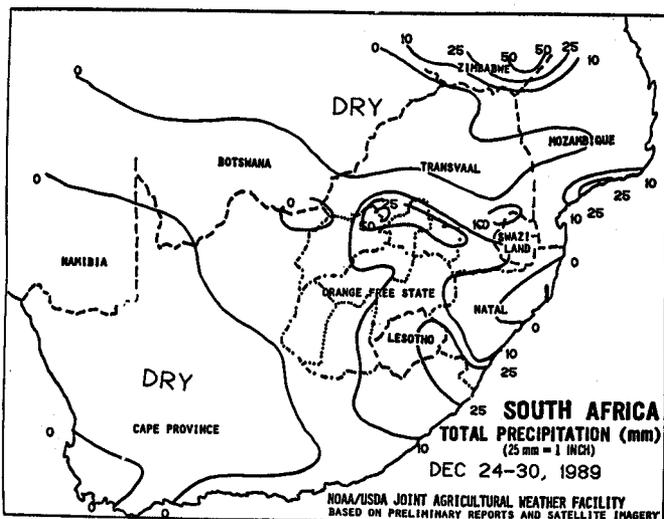
BASED ON PRELIMINARY REPORTS



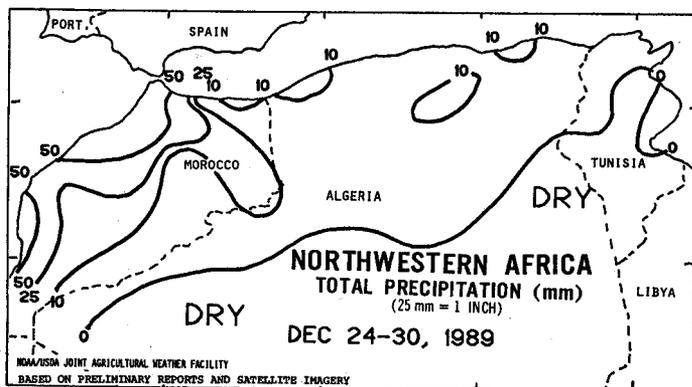
WESTERN USSR ... Unseasonably warm weather continued, with weekly average temperatures ranging from 4 to 8 degrees Celsius (C) above normal over most of the region. The mild weather pattern, which has persisted for the past 2 weeks, has caused considerable melting of snow cover. As a result, major winter grain producing areas of the Baltic States, Belorussia, the Ukraine, Black Soils Region, and the North Caucasus lack a protective snow cover, leaving crops vulnerable to potential winterkill conditions. A protective snow cover remained over winter grain areas in the Central Region, the Volga Vyatsk Region, and the Volga. Precipitation during the week was generally light (less than 10mm). Greatest amounts of precipitation (10-25mm) covered the extreme western North Caucasus along the Black Sea Coast, the middle Volga, and scattered locations in the Central Region.



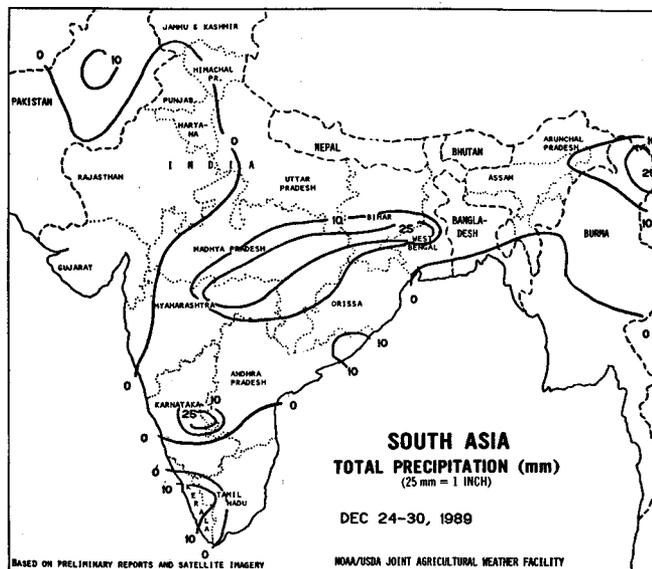
EUROPE ... Heavy rain (25-75mm, with isolated amounts in excess of 75mm) returned to sections of Portugal and Spain, causing renewed flooding and late-season fieldwork delays. Following a drier-than-normal late summer and early fall across most of the Iberian Peninsula, up to seven consecutive weeks of above-normal rainfall has saturated topsoils and caused extensive delays in winter wheat planting, which normally concludes by mid-January. Elsewhere, light to moderate rain (5-20mm, with isolated rainfall in excess of 20mm) continued across northwestern Europe, while the northeast turned mostly dry. Cooler, more seasonable temperatures returned to northern and eastern crop areas, with weekly mean temperatures near normal to slightly above normal. In the southeast, a slow moving area of low pressure brought widespread moderate to heavy snow and rain (15-60mm, with scattered amounts in excess of 60mm) to much of the central and southern Balkans.



SOUTH AFRICA ... Beneficial showers (10-25mm or more) maintained generally favorable growing conditions across the eastern half of the Maize Triangle. Below-normal rainfall (10mm or less) persisted over all but local areas in the west, maintaining unfavorably dry conditions for corn nearing reproduction. Temperatures across the Maize Triangle averaged 1-3 degrees C above normal, with highs in the west reaching the mid 30's C, maintaining high evapotranspiration rates. Variable rain (3-30mm) fell over crop regions of the Cape Province and Natal.

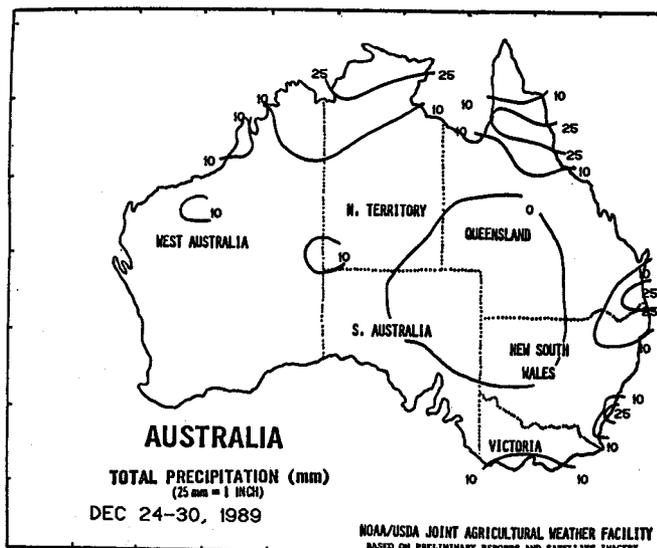


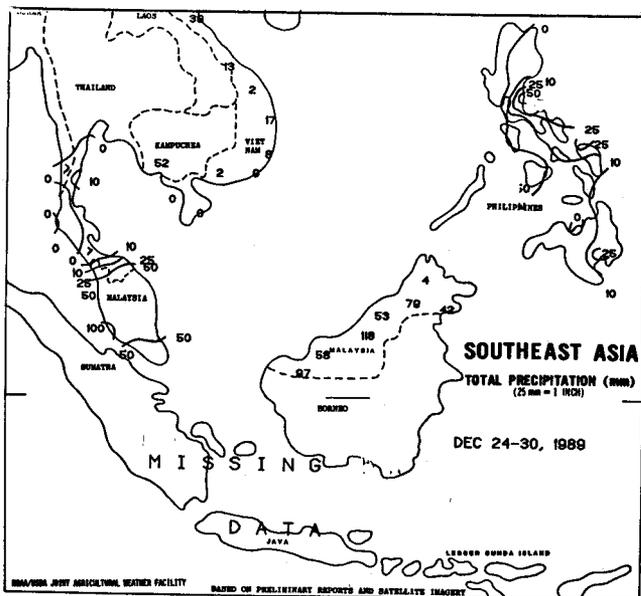
NORTHWESTERN AFRICA ... Widespread substantial rain (25-70mm) covered Moroccan winter grain areas, maintaining ample moisture for crop establishment and early growth. Although light scattered showers (1-6mm, with scattered amounts in excess of 10mm) covered winter grain areas in Algeria and Tunisia, topsoil moisture remained insufficient for winter grain planting in most areas. The meager precipitation pattern in Algeria and southernmost crop areas in Tunisia since the beginning of the growing season has likely caused considerable delays in planting. In addition, weekly average temperatures in Algeria and Tunisia were around 3 degrees C above normal, further drying topsoils.



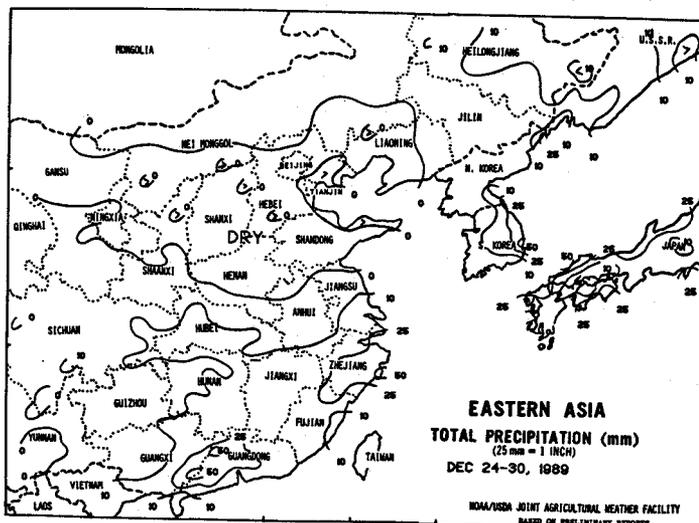
SOUTH ASIA ... Unseasonable showers swept across the winter wheat areas of Pakistan and central India, improving moisture conditions for both rainfed and irrigated crops. Rainfall totaled 3-35mm over Maharashtra, Madhya Pradesh, and Bihar, with isolated areas receiving more than 50mm. Dry weather returned to wheat regions from India's Punjab state to eastern Uttar Pradesh. Scattered, mostly light showers (1-13mm) fell over southern and eastern India. Temperatures averaged 1-3 degrees C below normal across India's northern half with minimum temperatures dipping below freezing from northern Punjab northward.

AUSTRALIA ... Scattered light to moderate rain (5-15mm, with isolated amounts in excess of 15mm) fell across crop areas of southeastern Queensland and eastern New South Wales, favoring vegetative summer crops. Early week maximum temperatures in the 32-37 degrees C range may have stressed unirrigated crops in some areas due to below-normal rainfall since late November, although subsoil reserve moisture remains mostly adequate. Elsewhere, scattered, mostly light rain (less than 10mm) caused only minor delays in late winter grain harvest across sections of southern Western Australia and Victoria. South Australia remained seasonably dry.

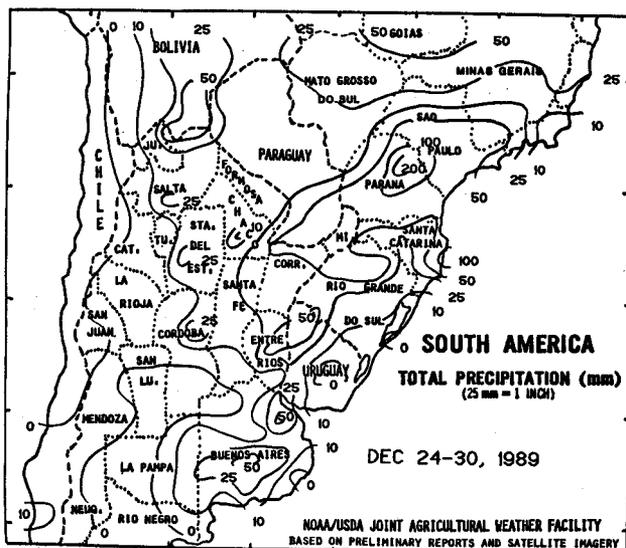




SOUTHEAST ASIA ... Widespread, heavy rain (50-100mm or more) covered Malaysia, including areas in the west that had been trending dry in recent weeks. Most data were missing from Indonesia, but satellite imagery depicted widespread, moderate to heavy rainfall, especially frequent over Java. Irrigation reserves are favorable across the region for rice planting and vegetative growth. In the Philippines, scattered showers continued over the eastern half of the islands, but rainfall was less than in recent weeks, with only local areas receiving 25-62mm.



EASTERN ASIA ... Widespread light to moderate rain (5-20mm) fell over middle and upper sections of the Yangtze Valley, while moderate to heavy rain (10-50mm, with isolated rainfall in excess of 50mm) fell in the lower Yangtze Valley, coastal southeastern China, and Taiwan. While the rain was the heaviest to fall in interior sections of southeastern China since mid autumn, soil moisture remains below normal in many areas. Elsewhere, moderate to heavy snow (5-40mm) covered northern sections of Manchuria and Hokkaido in Japan, while rain (5-40mm, with isolated amounts in excess of 40mm) fell across the Korean Peninsula and the remainder of Japan. Below-normal mean temperatures kept winter crops dormant and semidormant in most growing areas.



SOUTH AMERICA ... In south-central Brazil, widespread locally heavy rain covered most soybean areas. Weekly rainfall amounts generally averaged 20-50mm throughout the region, except in eastern Rio Grande do Sul, where rainfall diminished to less than 10mm. Heavier rain (50-85mm) fell late in the week from northwestern Rio Grande do Sul through much of Parana and Sao Paulo. Inundating rain (279mm) fell at Londrina, Parana. Brazil's soybean planting had reportedly advanced to 87 percent completion, down from the 97 percent average for late December. In Argentina, mostly dry weather favored wheat harvesting in southern Cordoba, southern Santa Fe, and northwestern Buenos Aires. Variable rain (5-50mm) in southern and eastern Buenos Aires caused some harvest delays, but Argentina's total wheat harvest reached 65 percent complete. Soybean planting progressed to 75 percent completion by late December. Maximum temperatures reached 34-36 degrees C late in the week, promoting growth of summer crops and increasing crop moisture demand.

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