

Climatography of the United States

No. 20

1971-2000

Station: MEXICO, MO

COOP ID: 235541

Climate Division: MO 2

NWS Call Sign:

Elevation: 802 Feet

Lat: 39° 11N

Lon: 91° 53W

Temperature (°F)

Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	35.3	15.9	25.6	77	1950	25	37.1	1990	-20+	1982	11	11.1	1977	1221	0	.0	.0	4.7	12.2	29.1	4.5
Feb	41.5	20.7	31.1	77	1954	15	40.3	1999	-18+	1988	12	17.4	1978	950	0	.0	.0	8.5	7.9	23.5	2.6
Mar	53.2	29.6	41.4	86	1986	30	46.2	1985	-12+	1960	6	33.0	1978	733	0	.0	.0	18.3	1.8	20.2	.2
Apr	65.1	40.4	52.8	93	1987	21	59.0	1981	18+	1987	5	44.6	1983	374	7	.0	.2	26.5	@	5.0	.0
May	74.5	50.7	62.6	94+	1996	18	68.7	1991	28	1976	3	56.5	1983	152	77	.0	.5	30.9	.0	.1	.0
Jun	83.8	60.4	72.1	103+	1988	24	76.5	1971	40	1966	1	65.5	1982	18	230	.2	6.3	30.0	.0	.0	.0
Jul	89.0	65.4	77.2	116	1954	15	82.6	1980	46+	1975	13	72.7	1971	0	378	1.6	14.9	31.0	.0	.0	.0
Aug	87.1	62.8	75.0	108	1980	2	81.5	1980	41	1986	29	70.2	1986	12	320	1.2	11.4	31.0	.0	.0	.0
Sep	79.2	54.2	66.7	104	1954	5	72.7	1998	30	1989	23	59.7	1974	73	124	@	4.0	30.0	.0	.1	.0
Oct	67.8	42.1	55.0	95	1953	3	62.2	1971	20+	1972	20	47.9	1976	327	15	.0	.2	29.7	.0	4.4	.0
Nov	52.7	32.2	42.5	88	1950	1	51.6+	1999	-3	1964	30	33.4	1976	677	0	.0	.0	17.5	1.6	16.1	.0
Dec	39.9	21.3	30.6	76	1948	14	37.1	1984	-25	1989	22	16.1	1983	1067	0	.0	.0	7.0	7.7	27.0	2.0
Ann	64.1	41.3	52.7	116	Jul 1954	15	82.6	Jul 1980	-25	Dec 1989	22	11.1	Jan 1977	5604	1151	3.0	37.5	265.1	31.2	125.5	9.3

+ Also occurred on an earlier date(s)

@ Denotes mean number of days greater than 0 but less than .05

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

(3) Derived from 1971-2000 serially complete daily data

064-A

Climatography of the United States

No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: MEXICO, MO

COOP ID: 235541

Climate Division: MO 2

NWS Call Sign:

Elevation: 802 Feet Lat: 39°11N

Lon: 91°53W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution										
Month	Mean	Med-ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.64	1.58	1.97	1959	21	3.72	1995	.01	1986	7.5	3.8	.8	.3	.15	.27	.49	.72	.97	1.25	1.59	2.00	2.58	3.53	4.46
Feb	1.95	1.80	2.12	1959	10	4.66	1997	.25	1991	7.6	4.3	1.3	.4	.43	.62	.90	1.16	1.42	1.69	2.00	2.37	2.85	3.62	4.35
Mar	3.20	2.81	2.43	1962	21	10.63	1973	.65	1995	10.5	6.7	2.1	.6	.88	1.19	1.65	2.05	2.45	2.86	3.32	3.86	4.56	5.66	6.69
Apr	3.76	3.64	3.90	2001	11	9.83	1994	.64	2000	11.1	7.3	2.6	.8	.95	1.31	1.86	2.34	2.82	3.32	3.88	4.55	5.42	6.80	8.09
May	5.04	4.46	4.48	1974	31	11.20	1974	.94	1992	12.6	9.1	3.2	1.3	1.41	1.89	2.61	3.25	3.86	4.51	5.23	6.07	7.17	8.89	10.49
Jun	4.42	4.07	4.80	1999	24	10.86	1981	.64	1991	10.4	6.8	2.8	1.2	.96	1.37	2.02	2.60	3.19	3.82	4.53	5.37	6.49	8.27	9.95
Jul	3.52	2.97	4.95	1961	1	11.74	1981	.37	1994	8.4	6.1	2.3	1.1	.63	.94	1.46	1.94	2.43	2.96	3.56	4.30	5.27	6.84	8.35
Aug	3.43	3.29	4.60	2000	24	9.73	1982	.55	1984	8.1	5.6	2.4	.9	.77	1.09	1.59	2.04	2.50	2.97	3.51	4.16	5.00	6.35	7.62
Sep	3.42	2.31	6.28	1993	23	15.71	1993	.69	1979	8.0	5.7	2.3	.8	.63	.93	1.43	1.90	2.37	2.88	3.47	4.17	5.11	6.62	8.06
Oct	2.99	2.46	4.26	1969	13	6.95	1983	.70+	1989	8.2	5.4	2.2	.7	.78	1.06	1.49	1.88	2.25	2.65	3.09	3.61	4.29	5.37	6.38
Nov	3.57	2.97	2.75	1984	1	11.70	1985	.15	1989	9.1	6.6	2.6	.9	.52	.82	1.33	1.83	2.34	2.91	3.56	4.36	5.43	7.18	8.86
Dec	2.53	2.10	4.18	1982	5	6.75	1982	.29	1996	8.5	5.3	1.7	.6	.64	.88	1.24	1.57	1.89	2.23	2.61	3.05	3.64	4.57	5.43
Ann	39.47	38.89	6.28	Sep 1993	23	15.71	Sep 1993	.01	Jan 1986	110.0	72.7	26.3	9.6	25.14	27.80	31.27	33.95	36.35	38.71	41.16	43.89	47.24	52.16	56.46

+ Also occurred on an earlier date(s)

Denotes amounts of a trace

@ Denotes mean number of days greater than 0 but less than .05

** Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

(3) Derived from 1971-2000 serially complete daily data

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Station: MEXICO, MO

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Climate Division: MO 2

NWS Call Sign:

Elevation: 802 Feet

Lat: 39° 11N

Lon: 91° 53W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					Snow Depth >= Thresholds			
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	7.0	4.0	1	#	9.0	1995	19	27.0	1979	14	1979	31	9	1977	3.4	2.8	.8	.3	.0	8.6	5.1	3.6	1.7
Feb	5.5	5.0	1	#	9.0	1975	24	15.8	1978	14	1979	10	6	1979	2.6	2.0	.8	.3	.0	7.3	4.5	2.4	.7
Mar	3.7	2.0	#	0	9.0	1990	23	24.0	1978	12	1978	8	3	1978	1.4	.9	.4	.3	.0	1.5	1.0	.7	.0
Apr	.4	.0	#	0	4.0	1971	6	4.0	1971	4	1971	6	#+	2000	.2	.2	.1	.0	.0	.2	.1	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	#	.0	0	0	#	1993	30	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.9	.1	#	0	7.0	1971	29	8.0	1975	8	1975	27	1	1977	.7	.5	.2	.2	.0	.9	.6	.4	.0
Dec	4.8	3.0	1	#	12.0	1973	31	21.0	1973	12	1973	31	5	2000	2.3	1.8	.6	.2	@	5.1	3.0	1.6	.1
Ann	23.3	14.1	N/A	N/A	12.0	Dec 1973	31	27.0	Jan 1979	14+	Feb 1979	10	9	Jan 1977	10.6	8.2	2.9	1.3	@	23.6	14.3	8.7	2.5

+ Also occurred on an earlier date(s) #Denotes trace amounts

@ Denotes mean number of days greater than 0 but less than .05

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

(1) Derived from Snow Climatology and 1971-2000 daily data

(2) Derived from 1971-2000 daily data

Complete documentation available from:

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Lat: 39° 11N

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Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/08	5/03	4/30	4/27	4/24	4/21	4/18	4/15	4/10
32	4/26	4/21	4/18	4/16	4/13	4/10	4/08	4/05	3/31
28	4/20	4/15	4/11	4/08	4/05	4/02	3/30	3/27	3/22
24	4/11	4/05	3/31	3/27	3/24	3/20	3/16	3/11	3/05
20	4/02	3/26	3/21	3/16	3/12	3/08	3/03	2/26	2/19
16	3/25	3/17	3/11	3/05	2/28	2/24	2/18	2/12	2/04
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/23	9/28	10/02	10/05	10/08	10/11	10/14	10/17	10/22
32	9/30	10/06	10/10	10/13	10/16	10/19	10/23	10/27	11/01
28	10/10	10/17	10/21	10/25	10/29	11/01	11/05	11/10	11/16
24	10/22	10/29	11/03	11/07	11/11	11/15	11/19	11/24	12/01
20	11/03	11/09	11/14	11/18	11/22	11/26	11/30	12/04	12/11
16	11/11	11/18	11/22	11/26	11/30	12/04	12/08	12/13	12/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	188	181	175	170	166	162	157	151	144
32	208	200	195	190	185	181	176	171	163
28	230	222	216	211	206	201	196	190	181
24	262	251	244	238	232	226	219	212	201
20	284	274	267	260	254	248	242	235	224
16	311	298	289	281	274	267	259	250	237

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

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Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1221	950	733	374	152	18	0	12	73	327	677	1067	5604
60	1066	810	578	243	75	4	0	2	26	204	531	912	4451
57	973	734	493	177	44	1	0	0	11	145	449	822	3849
55	912	682	435	138	29	0	0	0	6	112	395	764	3473
50	767	553	302	65	8	0	0	0	1	51	273	620	2640
32	306	199	38	0	0	0	0	0	0	0	33	213	789

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	108	172	328	623	948	1202	1401	1331	1041	712	346	169	8381
55	1	12	12	71	264	513	688	618	357	110	18	7	2671
57	0	8	8	49	217	454	626	556	303	81	12	3	2317
60	0	0	1	26	155	366	533	465	227	48	5	0	1826
65	0	0	0	7	77	230	378	320	124	15	0	0	1151
70	0	0	0	1	29	120	228	193	55	3	0	0	629

Growing Degree Units (2)																								
Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	11	62	170	421	728	985	1174	1106	821	490	178	38	11	73	243	664	1392	2377	3551	4657	5478	5968	6146	6184
45	2	26	93	291	575	835	1019	951	671	348	104	18	2	28	121	412	987	1822	2841	3792	4463	4811	4915	4933
50	0	8	50	186	422	685	864	796	522	223	52	5	0	8	58	244	666	1351	2215	3011	3533	3756	3808	3813
55	0	2	22	100	280	536	709	641	383	129	22	0	0	2	24	124	404	940	1649	2290	2673	2802	2824	2824
60	0	0	5	49	163	387	554	486	255	60	5	0	0	0	5	54	217	604	1158	1644	1899	1959	1964	1964
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	15	49	123	262	453	661	794	745	534	307	110	28	15	64	187	449	902	1563	2357	3102	3636	3943	4053	4081

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
- c. Only observed validated values were used to select the extreme daily values.
- d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.
Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.
- e. Degree Days were derived using the same techniques as the 1971-2000 normals.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html
- f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set.
Documentation of the serially complete data set is available from the link below:
- g. Snowfall and snow depth statistics were derived from the Snow Climatology.
Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html
Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,
www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf