

# Climatology of the United States

No. 20

1971-2000

Station: LEXINGTON 3 NE, MO

COOP ID: 234904

Climate Division: MO 1

NWS Call Sign:

Elevation: 825 Feet

Lat: 39° 12N

Lon: 93° 52W

## 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	36.7	16.4	26.6	74	1950	25	38.0	1990	-19	1918	12	13.0	1979	1193	0	.0	.0	4.9	11.6	28.6	3.4
Feb	43.1	21.5	32.3	80	1930	25	41.8	1976	-14	1988	12	18.2	1978	916	0	.0	.0	9.3	7.7	22.6	1.9
Mar	55.0	30.8	42.9	88	1929	24	48.3	1991	-8	1960	5	35.0	1978	684	0	.0	.0	19.0	1.5	16.7	.1
Apr	66.3	41.3	53.8	92	1965	23	61.6	1981	14	1920	5	46.6	1983	345	10	.0	.2	26.8	.1	4.1	.0
May	76.0	51.6	63.8	105	1934	30	69.2	1987	30	1976	3	59.0	1995	127	90	.0	.6	30.9	.0	.2	.0
Jun	85.1	61.1	73.1	107+	1936	28	77.1	1971	42+	1993	5	68.7	1982	9	252	.1	6.7	30.0	.0	.0	.0
Jul	90.1	65.8	78.0	113+	1954	15	85.9	1980	49	1997	5	74.3	1971	0	401	1.3	14.8	31.0	.0	.0	.0
Aug	88.6	63.5	76.1	111	1934	10	82.7	1983	41	1986	28	69.7	1992	8	350	.9	12.9	31.0	.0	.0	.0
Sep	80.8	54.5	67.7	106	1947	3	72.6	1978	30	1989	24	62.2	1974	59	139	.1	4.5	30.0	.0	.2	.0
Oct	69.0	43.3	56.2	96	1939	7	62.3	1971	18	1925	28	49.9	1976	286	13	.0	.2	29.7	.0	2.9	.0
Nov	53.3	31.7	42.5	88	1950	1	50.2	1990	-5	1991	8	34.6	1976	675	0	.0	.0	17.7	1.5	15.1	.1
Dec	40.8	20.8	30.8	74+	2001	6	37.4	1999	-22	1989	22	13.7	1983	1060	0	.0	.0	7.4	7.5	26.6	2.0
Ann	65.4	41.9	53.7	113+	Jul 1954	15	85.9	Jul 1980	-22	Dec 1989	22	13.0	Jan 1979	5362	1255	2.4	39.9	267.7	29.9	117.0	7.5

+ 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](http://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: 1918-2001

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

054-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: LEXINGTON 3 NE, MO**

**COOP ID: 234904**

**Climate Division: MO 1**

**NWS Call Sign:**

**Elevation: 825 Feet Lat: 39°12N**

**Lon: 93°52W**

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	1.47	1.37	2.41	1982	30	3.82	1973	.02	1986	5.9	3.7	.9	.1	.16	.27	.47	.68	.90	1.14	1.44	1.80	2.29	3.11	3.91
Feb	1.58	1.48	2.28	2001	9	3.97	1997	.23	1991	6.0	4.1	1.0	.2	.44	.59	.81	1.01	1.21	1.41	1.64	1.91	2.25	2.80	3.31
Mar	2.81	2.30	3.25	1920	25	8.86	1973	.94	1971	8.4	5.9	1.9	.4	.87	1.14	1.54	1.88	2.21	2.55	2.93	3.37	3.94	4.82	5.65
Apr	3.71	3.40	3.48	1944	22	10.22	1994	.63	1980	9.1	6.3	2.4	.8	.98	1.34	1.87	2.34	2.81	3.29	3.83	4.47	5.31	6.62	7.85
May	4.85	4.17	4.36	1969	31	12.99	1995	.98	1992	10.5	7.7	3.1	1.2	1.33	1.79	2.49	3.10	3.70	4.33	5.02	5.85	6.92	8.60	10.17
Jun	4.29	3.73	4.50	1947	21	8.94	1981	.76	1991	8.5	6.4	2.8	1.2	1.36	1.77	2.37	2.89	3.38	3.90	4.46	5.13	5.98	7.31	8.54
Jul	4.52	4.12	4.62	1979	25	11.90	1992	.19	1975	7.8	5.9	3.1	1.4	.69	1.08	1.73	2.36	3.00	3.71	4.53	5.52	6.86	9.03	11.11
Aug	3.75	3.90	3.60	1969	16	10.05	1982	.22	1984	7.9	5.7	2.3	.9	.68	1.01	1.56	2.07	2.59	3.16	3.80	4.58	5.61	7.28	8.87
Sep	4.55	3.93	6.17	1998	14	11.73	1993	.74	1982	7.5	5.9	3.0	1.5	.88	1.29	1.96	2.57	3.20	3.86	4.62	5.54	6.75	8.70	10.55
Oct	3.49	3.43	5.64	1998	5	7.95	1984	.44	1999	7.3	5.2	2.4	.9	.73	1.05	1.56	2.03	2.50	3.00	3.57	4.24	5.14	6.57	7.93
Nov	3.04	2.94	5.54	1928	17	7.31	1992	.05	1989	7.0	5.1	2.2	.8	.52	.79	1.23	1.65	2.07	2.54	3.07	3.71	4.56	5.94	7.26
Dec	1.99	1.98	2.53	1971	15	4.99	1971	.02	1976	6.2	4.1	1.2	.5	.20	.34	.61	.89	1.19	1.53	1.93	2.43	3.12	4.26	5.38
Ann	40.05	38.44	6.17	Sep 1998	14	12.99	May 1995	.02+	Jan 1986	92.1	66.0	26.3	9.9	26.03	28.65	32.07	34.69	37.04	39.34	41.72	44.38	47.63	52.39	56.55

+ 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: 1918-2001

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**NWS Call Sign:**

**Elevation: 825 Feet**

**Lat: 39°12N**

**Lon: 93°52W**

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	6.6	4.3	1	1	8.0	1982	4	20.0	1979	14	1979	31	11	1979	3.5	2.4	.9	.3	.0	9.7	5.0	2.9	.8
Feb	5.4	4.7	1	1	12.0	1978	13	17.7	1978	14	1979	2	8	1979	2.4	1.5	.7	.2	.1	6.5	3.6	2.0	1.0
Mar	2.7	1.0	#	#	8.0	1990	24	13.2	1978	9	1978	5	4	1978	1.2	.8	.3	.1	.0	1.9	.8	.4	.0
Apr	.5	.0	#	0	4.0	1972	1	4.0	1972	2	1994	6	#+	1997	.2	.2	@	.0	.0	.2	.0	.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	.2	1976	19	.2	1976	#+	1997	27	#+	1997	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.1	.0	#	0	4.0	1975	27	7.0	1975	7	1975	27	1	1975	.5	.5	.1	.0	.0	.6	.3	.1	.0
Dec	3.6	2.0	#	#	7.0	2000	14	13.0	2000	11	1987	15	2+	2000	1.9	1.0	.4	.1	.0	3.5	1.2	.2	.0
Ann	19.9	12.0	N/A	N/A	12.0	Feb 1978	13	20.0	Jan 1979	14+	Feb 1979	2	11	Jan 1979	9.7	6.4	2.4	.7	.1	22.4	10.9	5.6	1.8

+ 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

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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	5/09	5/03	4/29	4/26	4/22	4/19	4/16	4/12	4/06
32	4/27	4/22	4/18	4/15	4/12	4/09	4/06	4/02	3/28
28	4/15	4/11	4/08	4/05	4/02	3/31	3/28	3/25	3/21
24	4/08	4/03	3/30	3/27	3/24	3/21	3/18	3/14	3/09
20	4/02	3/26	3/21	3/16	3/12	3/08	3/03	2/26	2/18
16	3/29	3/21	3/15	3/09	3/04	2/28	2/22	2/16	2/07
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	10/15	10/19	10/24
32	10/01	10/07	10/12	10/17	10/21	10/24	10/29	11/03	11/09
28	10/15	10/20	10/23	10/26	10/29	11/01	11/04	11/07	11/12
24	10/26	10/31	11/05	11/08	11/12	11/15	11/19	11/23	11/29
20	11/03	11/09	11/14	11/18	11/21	11/25	11/29	12/03	12/09
16	11/09	11/15	11/20	11/24	11/28	12/02	12/06	12/11	12/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	194	185	179	173	168	163	158	151	142
32	219	209	202	196	191	185	179	172	163
28	228	222	217	213	209	205	201	196	189
24	256	248	242	237	232	228	223	217	209
20	279	270	264	258	253	248	243	237	228
16	300	289	281	274	268	262	255	247	236

\* 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

Complete documentation available from:

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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	1193	916	684	345	127	9	0	8	59	286	675	1060	5362
60	1038	781	535	220	59	1	0	1	18	166	528	905	4252
57	946	702	448	158	33	0	0	0	7	110	445	813	3662
55	885	650	392	123	21	0	0	0	3	80	390	755	3299
50	742	523	267	56	5	0	0	0	0	31	267	611	2502
32	293	181	31	0	0	0	0	0	0	0	30	203	738

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	122	189	370	655	986	1233	1424	1366	1070	750	345	166	8676
55	2	14	18	87	294	543	711	653	383	116	15	5	2841
57	0	10	12	63	244	483	649	591	327	84	10	1	2474
60	0	5	7	35	177	394	556	498	248	48	3	0	1971
65	0	0	0	10	90	252	401	350	139	13	0	0	1255
70	0	0	0	2	35	132	255	217	64	2	0	0	707

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	18	72	200	441	750	1006	1184	1123	836	518	184	37	18	90	290	731	1481	2487	3671	4794	5630	6148	6332	6369
45	4	31	118	306	595	856	1029	968	686	375	105	15	4	35	153	459	1054	1910	2939	3907	4593	4968	5073	5088
50	0	10	63	197	444	706	874	813	537	243	53	6	0	10	73	270	714	1420	2294	3107	3644	3887	3940	3946
55	0	3	28	111	300	556	719	658	398	143	21	0	0	3	31	142	442	998	1717	2375	2773	2916	2937	2937
60	0	0	9	55	175	410	564	504	266	69	4	0	0	0	9	64	239	649	1213	1717	1983	2052	2056	2056
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	17	51	133	265	469	682	809	755	544	316	110	30	17	68	201	466	935	1617	2426	3181	3725	4041	4151	4181

(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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)