U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: FARMINGTON, MO **COOP ID: 232809**

Climate Division: MO 5 **NWS Call Sign:** **Elevation: 900 Feet** **Lat: 37˚48N** **Lon: 90˚25W**

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	39.1	18.0	28.6	79	1943	24	40.1	1990	-23	1977	11	13.7	1977	1130	0	.0	.0	7.2	9.8	26.9	2.0
Feb	45.3	22.0	33.7	88	1962	13	41.7	1992	-22	1934	27	20.4	1978	878	0	.0	.0	10.7	5.5	21.6	1.4
Mar	55.6	31.9	43.8	94	1929	24	49.7	1973	-11	1960	6	36.5	1980	659	0	.0	.0	20.6	1.1	15.7	.1
Apr	66.6	42.7	54.7	92+	1989	26	59.2	1985	16	1960	10	48.7	1983	320	8	.0	.2	27.6	.0	4.5	.0
May	74.9	51.8	63.4	97+	1926	29	69.5	1987	27+	1969	10	56.1	1981	140	88	.0	.3	31.0	.0	.3	.0
Jun	83.1	61.1	72.1	106	1930	22	76.5	1971	39+	1988	11	67.6	1974	12	225	.1	4.9	30.0	.0	.0	.0
Jul	87.8	66.0	76.9	111	1934	25	80.7	1986	42	1947	23	74.5	1971	0	368	.6	13.1	31.0	.0	.0	.0
Aug	86.8	63.7	75.3	114	1934	9	81.5	1980	38	1986	29	69.9	1992	8	325	.7	10.2	31.0	.0	.0	.0
Sep	79.1	55.5	67.3	107	1925	6	72.6	1998	27+	1995	23	61.6	1974	70	138	@	3.4	30.0	.0	.3	.0
Oct	68.6	43.6	56.1	96	1953	2	62.2	1971	16	1980	30	49.6	1976	294	18	.0	.1	30.1	.0	5.3	.0
Nov	54.5	33.3	43.9	84	1989	11	50.3	1999	-7	1986	14	36.3	1976	632	0	.0	.0	18.9	.7	15.1	.1
Dec	43.1	23.0	33.1	76+	1970	3	41.2	1982	-17	1983	24	21.7	2000	991	0	.0	.0	9.6	5.4	24.1	1.0
Ann	65.4	42.7	54.1	114	Aug 1934	9	81.5	Aug 1980	-23	Jan 1977	11	13.7	Jan 1977	5134	1170	1.4	32.2	277.7	22.5	113.8	4.6

\+ 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/normals/usnormals.html

(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

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: FARMINGTON, MO **COOP ID: 232809**

Climate Division: MO 5 **NWS Call Sign:** **Elevation: 900 Feet** **Lat: 37°48N** **Lon: 90°25W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	2.24	2.02	3.89	1950	4	6.39	1982	.14	1986
Feb	2.49	2.33	2.71	1945	26	5.20	1990	.00	1993
Mar	3.94	3.51	3.83	1977	28	8.67	1977	1.13	1972
Apr	4.19	3.65	3.86	1921	26	12.32	1994	1.01	1971
May	4.31	3.69	4.40	1935	13	8.58	1995	1.73	1977
Jun	3.64	3.00	4.95	1957	30	10.87	1985	1.10	1991
Jul	3.79	3.47	4.21	1979	28	8.99	1979	.54	1974
Aug	4.03	3.75	3.32+	1974	29	8.93	1975	.75	1988
Sep	3.28	3.34	6.47	1934	12	12.22	1993	.43	1978
Oct	2.90	2.66	4.97	1942	30	6.84	1984	.75	1971
Nov	4.48	4.26	3.43	1993	14	11.29	1985	.44	1976
Dec	3.49	2.58	3.90	1982	3	13.02	1982	.53	1989
Ann	42.78	42.95	6.47	Sep 1934	12	13.02	Dec 1982	.00	Feb 1993

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	8.4	4.9	1.4	.5
Feb	7.6	5.0	1.7	.6
Mar	11.4	7.4	2.8	.8
Apr	11.4	7.2	2.4	1.2
May	10.4	7.6	2.9	.9
Jun	9.8	6.3	2.6	1.0
Jul	8.5	5.8	2.3	1.3
Aug	8.0	5.7	2.7	1.2
Sep	7.5	5.0	1.9	.9
Oct	8.2	5.0	2.1	.7
Nov	9.9	6.5	3.0	1.3
Dec	8.7	5.2	2.4	1.0
Ann	109.8	71.6	28.2	11.4

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.35	.54	.86	1.17	1.49	1.84	2.25	2.74	3.40	4.47	5.50
Feb	.53	.88	1.30	1.63	1.95	2.27	2.63	3.04	3.58	4.41	5.18
Mar	1.35	1.72	2.26	2.72	3.16	3.62	4.11	4.69	5.43	6.57	7.63
Apr	.98	1.37	1.99	2.54	3.08	3.66	4.31	5.08	6.09	7.70	9.22
May	1.65	2.05	2.62	3.10	3.55	4.01	4.51	5.08	5.82	6.95	7.98
Jun	1.04	1.39	1.91	2.36	2.80	3.26	3.77	4.37	5.15	6.37	7.51
Jul	1.02	1.37	1.92	2.40	2.88	3.37	3.92	4.57	5.43	6.76	8.01
Aug	1.17	1.56	2.13	2.63	3.12	3.63	4.19	4.85	5.70	7.04	8.29
Sep	.50	.78	1.26	1.71	2.18	2.70	3.29	4.01	4.98	6.56	8.07
Oct	.82	1.10	1.52	1.88	2.23	2.60	3.01	3.49	4.12	5.10	6.01
Nov	.89	1.30	1.96	2.56	3.17	3.82	4.56	5.45	6.63	8.52	10.32
Dec	.60	.90	1.41	1.89	2.38	2.91	3.52	4.26	5.25	6.84	8.36
Ann	29.52	32.06	35.33	37.82	40.04	42.20	44.43	46.90	49.91	54.28	58.08

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

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: FARMINGTON, MO **COOP ID: 232809**

Climate Division: MO 5 **NWS Call Sign:** **Elevation: 900 Feet** **Lat: 37°48N** **Lon: 90°25W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	3.2	2.3	1	#
Feb	2.5	1.1	1	#
Mar	1.8	.7	#	#
Apr	.1	.0	0	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.0	.0	#	0
Nov	1.0	.0	#	0
Dec	1.8	.0	#	#
Ann	10.4	4.1	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	6.5	1996	3	14.8	1977	10	1978	24	5	1977
Feb	9.0	1979	25	12.0	1979	22	1982	13	10	1982
Mar	8.5	1975	10	9.0	1975	9	1975	10	2	1978
Apr	3.0	1980	14	3.0	1980	11	1971	6	1	1971
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	.0	0	0	.0	0	2	1993	29	#	1993
Nov	8.0	1975	27	9.0	1980	8	1975	27	#+	1997
Dec	6.5	2000	14	9.7	2000	10	1990	27	4	2000
Ann	9.0	Feb 1979	25	14.8	Jan 1977	22	Feb 1982	13	10	Feb 1982

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	1.9	1.0	.3	@	.0
Feb	1.4	.9	.4	.2	.0
Mar	.9	.6	.2	@	.0
Apr	@	@	@	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.4	.3	.1	.1	.0
Dec	.9	.5	.1	.1	.0
Ann	5.5	3.3	1.1	.4	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	3.1	2.0	1.2	.0
Feb	1.9	1.0	.6	.0
Mar	.9	.3	.1	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.4	.1	@	.0
Dec	1.8	1.1	.9	.0
Ann	8.1	4.5	2.8	.0

+ 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: FARMINGTON, MO **COOP ID: 232809**

Climate Division: MO 5 **NWS Call Sign:** **Elevation: 900 Feet** **Lat: 37˚48N** **Lon: 90˚25W**

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	5/20	5/14	5/10	5/06	5/03	4/29	4/26	4/21	4/16
32	5/05	4/29	4/25	4/21	4/18	4/14	4/11	4/06	4/01
28	4/23	4/18	4/14	4/11	4/08	4/05	4/02	3/30	3/25
24	4/11	4/05	4/02	3/29	3/26	3/23	3/20	3/16	3/11
20	4/03	3/28	3/24	3/21	3/17	3/14	3/10	3/06	2/28
16	3/22	3/14	3/09	3/04	2/28	2/24	2/19	2/14	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	9/19	9/24	9/28	10/01	10/04	10/06	10/10	10/13	10/18
32	9/26	10/01	10/04	10/07	10/09	10/12	10/14	10/18	10/22
28	9/30	10/06	10/10	10/13	10/17	10/20	10/23	10/27	11/02
24	10/23	10/29	11/03	11/06	11/10	11/13	11/17	11/22	11/28
20	10/29	11/04	11/09	11/13	11/16	11/20	11/24	11/28	12/05
16	11/06	11/14	11/19	11/23	11/27	12/01	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	177	169	163	158	153	149	143	138	129
32	197	189	183	178	174	169	164	159	151
28	211	204	199	195	191	186	182	177	170
24	251	243	237	232	228	223	218	213	205
20	265	258	252	248	243	239	234	229	221
16	301	291	283	277	271	266	259	252	242

***** 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: FARMINGTON, MO **COOP ID: 232809**

Climate Division: MO 5 **NWS Call Sign:** **Elevation: 900 Feet** **Lat: 37˚48N** **Lon: 90˚25W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1130	878	659	320	140	12	0	8	70	294	632	991	5134
60	975	738	510	194	68	2	0	1	25	177	487	836	4013
57	882	658	424	134	38	1	0	0	11	121	405	744	3418
55	822	606	369	100	25	0	0	0	6	90	351	686	3055
50	679	477	248	39	7	0	0	0	0	37	233	543	2263
32	248	136	24	0	0	0	0	0	0	0	19	153	580

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	141	182	388	679	971	1203	1391	1340	1058	747	377	185	8662
55	2	9	20	89	282	513	678	627	374	124	19	5	2742
57	0	4	13	63	234	454	616	565	319	93	12	1	2374
60	0	0	6	33	170	365	523	473	243	56	5	0	1874
65	0	0	0	8	88	225	368	325	138	18	0	0	1170
70	0	0	0	1	35	109	216	193	65	4	0	0	623

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	39	87	223	460	730	959	1138	1082	810	502	206	55	39	126	349	809	1539	2498	3636	4718	5528	6030	6236	6291
45	14	45	135	325	575	809	983	927	660	361	127	26	14	59	194	519	1094	1903	2886	3813	4473	4834	4961	4987
50	4	17	73	209	421	659	828	772	512	233	68	8	4	21	94	303	724	1383	2211	2983	3495	3728	3796	3804
55	0	7	33	120	281	509	673	617	369	132	32	1	0	7	40	160	441	950	1623	2240	2609	2741	2773	2774
60	0	1	11	60	158	362	518	462	243	63	8	0	0	1	12	72	230	592	1110	1572	1815	1878	1886	1886
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	28	60	145	291	461	647	777	731	529	324	128	40	28	88	233	524	985	1632	2409	3140	3669	3993	4121	4161

(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

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.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/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 are 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.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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