

# Climatology of the United States

## No. 20

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

Station: **OLDFIELD, MO**

**1971-2000**

**COOP ID: 236302**

Climate Division: **MO 4**

NWS Call Sign:

Elevation: **1,240 Feet** Lat: **36° 59N**

Lon: **93° 01W**

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	40.1	19.6	29.9	79	1964	23	39.2	1990	-15	1997	17	17.3	1977	1090	0	.0	.0	8.3	8.2	27.4	2.0
Feb	46.3	23.9	35.1	82	1972	29	44.7	1976	-17+	1996	5	24.3	1978	838	0	.0	.0	12.2	4.7	23.3	.9
Mar	55.7	32.6	44.2	85+	1995	23	49.6	1974	1+	1996	10	35.8	1996	646	0	.0	.0	22.1	1.1	16.5	.0
Apr	65.9	41.7	53.8	89+	1972	13	63.2	1981	19+	1994	8	47.3	1997	350	13	.0	.1	28.0	.0	6.2	.0
May	73.6	51.4	62.5	89+	1998	31	68.2	1977	29	1997	16	58.0	1976	142	64	.0	@	30.9	.0	.7	.0
Jun	81.5	60.1	70.8	99	1977	12	75.6	1971	40+	2000	7	67.1+	1997	20	195	.0	3.2	30.0	.0	.0	.0
Jul	87.4	64.7	76.1	105	1980	31	83.9	1980	47+	1997	6	71.7	1996	5	347	.7	11.5	31.0	.0	.0	.0
Aug	86.8	63.0	74.9	103	1980	1	82.5	1980	46+	1997	7	69.1	1997	12	319	.6	11.9	31.0	.0	.0	.0
Sep	79.0	55.0	67.0	100	2000	1	73.6	1980	27+	1995	24	61.8	1994	83	142	@	3.5	30.0	.0	.4	.0
Oct	68.7	43.8	56.3	93+	1980	10	63.1	1971	19+	2000	10	51.6	1988	288	16	.0	.2	30.2	.0	2.8	.0
Nov	54.9	32.8	43.9	80+	1980	8	50.1	1990	4	1976	29	36.2	1996	636	0	.0	.0	19.8	1.0	16.5	.0
Dec	44.4	23.1	33.8	75+	1978	20	41.3	1971	-13	2000	23	20.0	1983	970	0	.0	.0	10.6	5.5	26.2	1.0
Ann	65.4	42.6	54.0	105	Jul 1980	31	83.9	Jul 1980	-17+	Feb 1996	5	17.3	Jan 1977	5080	1096	1.3	30.4	284.1	20.5	120.0	3.9

+ 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: 1955-2001

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

**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: OLDFIELD, MO**

**COOP ID: 236302**

**Climate Division: MO 4**

**NWS Call Sign:**

**Elevation: 1,240 Feet Lat: 36°59N**

**Lon: 93°01W**

**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	2.12	1.91	3.28	1969	29	6.32	1995	.00	1972	7.7	4.3	1.2	.7	.13	.34	.67	.98	1.31	1.67	2.09	2.61	3.32	4.48	5.60	
Feb	2.38	2.39	4.18	1966	9	4.93	1997	.22	1982	7.0	4.4	1.7	.7	.47	.68	1.03	1.35	1.68	2.03	2.42	2.90	3.53	4.54	5.50	
Mar	4.39	4.25	3.07	1978	24	11.07	1973	1.00	1971	9.5	7.0	3.3	1.1	1.41	1.82	2.44	2.96	3.47	4.00	4.57	5.25	6.11	7.46	8.71	
Apr	4.55	4.51	2.69	1957	3	9.23	1983	.64	2000	10.1	7.1	3.3	1.1	1.55	1.98	2.61	3.14	3.65	4.18	4.75	5.42	6.28	7.61	8.84	
May	5.15	5.02	4.05	1979	20	12.72	1990	1.98	1988	11.9	8.4	3.1	1.0	2.12	2.59	3.26	3.80	4.31	4.83	5.39	6.04	6.86	8.11	9.24	
Jun	4.54	4.50	3.38	1956	25	10.89	1993	.51	1971	10.6	7.2	2.8	1.1	1.29	1.72	2.37	2.94	3.49	4.07	4.71	5.46	6.44	7.97	9.40	
Jul	4.15	3.86	4.00	1979	28	9.96	1979	.95	1999	7.9	5.4	2.5	1.0	.99	1.37	1.98	2.52	3.06	3.63	4.26	5.02	6.02	7.60	9.08	
Aug	3.49	3.18	3.18	1982	14	9.32	1982	.36	2000	7.7	5.3	2.1	1.0	.77	1.10	1.61	2.07	2.53	3.02	3.57	4.23	5.10	6.48	7.79	
Sep	4.47	3.57	7.40	1993	25	17.15	1993	.60	1976	8.0	5.7	3.0	1.7	.67	1.04	1.69	2.31	2.95	3.66	4.47	5.46	6.80	8.98	11.07	
Oct	4.13	3.76	4.16	1967	30	9.11	1984	.97	1992	7.8	5.7	2.8	1.0	1.23	1.63	2.22	2.72	3.22	3.73	4.30	4.96	5.82	7.17	8.42	
Nov	4.93	5.21	4.07	1993	14	10.62	1994	.62	1989	8.7	6.3	3.4	1.6	.94	1.39	2.11	2.78	3.45	4.18	5.01	6.00	7.33	9.45	11.47	
Dec	3.37	2.83	2.80	1971	10	9.82	1982	.47	1989	8.3	5.4	2.5	1.1	.63	.93	1.43	1.88	2.35	2.85	3.42	4.11	5.02	6.49	7.89	
Ann	47.67	47.12	7.40	Sep 1993	25	17.15	Sep 1993	.00	Jan 1972	105.2	72.2	31.7	13.1	33.12	35.91	39.50	42.23	44.67	47.03	49.47	52.17	55.46	60.24	64.38	

+ 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: 1955-2001

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

Complete documentation available from:  
[www.ncdc.noaa.gov/oa/climate/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

# 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](http://www.ncdc.noaa.gov)

**Station: OLDFIELD, MO**

**COOP ID: 236302**

**Climate Division: MO 4**

**NWS Call Sign:**

**Elevation: 1,240 Feet**

**Lat: 36°59N**

**Lon: 93°01W**

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	3.8	2.9	1	#	8.2	1996	2	12.9	1996	8	1996	2	2	1997	2.9	1.8	.5	.3	.0	4.8	2.4	.5	.0
Feb	4.2	1.9	#	#	16.0	1980	8	19.0	1980	7	1993	16	1	1993	1.6	.8	.4	.2	.1	1.8	.5	.2	.0
Mar	3.0	1.4	#	0	11.1	1999	14	11.5+	1999	11	1999	14	1	1999	1.0	.5	.2	.1	.1	.9	.3	.2	.2
Apr	.1	.0	#	0	1.0	1980	14	1.0	1980	#+	1999	18	#+	1999	.2	.1	.0	.0	.0	.0	.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	.1	.0	#	0	1.1	1993	30	1.1	1993	1	1993	30	#	1993	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	1.4	.0	#	0	6.0	1972	19	6.0+	1975	6	1975	26	#+	1997	.7	.3	.2	.2	.0	.3	.1	.1	.0
Dec	1.7	.0	#	#	8.0	2000	13	8.0	2000	9	2000	14	4	2000	2.0	.6	.2	.1	.0	2.6	1.6	1.1	.0
Ann	14.3	6.2	N/A	N/A	16.0	Feb 1980	8	19.0	Feb 1980	11	Mar 1999	14	4	Dec 2000	8.5	4.2	1.5	.9	.2	10.5	4.9	2.1	.2

+ 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](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: OLDFIELD, MO**

**COOP ID: 236302**

**Climate Division: MO 4**

**NWS Call Sign:**

**Elevation: 1,240 Feet**

**Lat: 36°59N**

**Lon: 93°01W**

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	5/09	5/05	5/02	4/28	4/24	4/20	4/14
32	5/08	5/02	4/28	4/24	4/21	4/17	4/14	4/09	4/04
28	4/27	4/22	4/18	4/14	4/11	4/08	4/05	4/01	3/27
24	4/18	4/11	4/06	4/02	3/29	3/25	3/21	3/16	3/09
20	4/02	3/27	3/23	3/19	3/15	3/12	3/08	3/04	2/25
16	3/21	3/13	3/08	3/03	2/27	2/23	2/19	2/13	2/06
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	9/26	10/03	10/08	10/12	10/16	10/20	10/24	10/29	11/05
32	10/02	10/09	10/14	10/19	10/23	10/27	10/31	11/06	11/13
28	10/14	10/19	10/24	10/27	10/30	11/03	11/06	11/10	11/16
24	10/23	10/28	11/01	11/05	11/08	11/11	11/15	11/19	11/25
20	10/26	11/03	11/08	11/13	11/17	11/22	11/26	12/02	12/09
16	11/07	11/14	11/19	11/23	11/27	12/01	12/06	12/11	12/17
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	178	172	167	161	156	149	140
32	216	205	198	191	184	178	171	163	153
28	226	217	211	206	201	196	191	185	176
24	250	241	234	229	223	218	212	206	197
20	277	266	259	252	246	240	234	226	215
16	300	290	284	278	272	267	261	254	245

\* 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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

**Climatography  
of the United States  
No. 20  
1971-2000**

**Station: OLDFIELD, MO**

**COOP ID: 236302**

**Climate Division: MO 4**

**NWS Call Sign:**

**Elevation: 1,240 Feet    Lat: 36°59N    Lon: 93°01W**

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	1090	838	646	350	142	20	5	12	83	288	636	970	5080
60	935	698	495	226	66	3	0	2	33	168	491	815	3932
57	842	615	410	166	36	1	0	0	17	112	409	724	3332
55	780	562	355	131	23	0	0	0	10	82	356	667	2966
50	636	433	233	63	6	0	0	0	1	31	238	524	2165
32	208	98	16	0	0	0	0	0	0	0	22	143	487

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	141	184	393	653	945	1165	1365	1330	1050	751	376	197	8550
55	0	4	19	94	255	475	652	617	369	120	20	7	2632
57	0	0	12	69	206	415	590	555	316	88	13	3	2267
60	0	0	5	39	143	328	497	464	242	51	5	0	1774
65	0	0	0	13	64	195	347	319	142	16	0	0	1096
70	0	0	0	2	20	94	208	191	71	3	0	0	589

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	40	80	221	437	687	937	1111	1093	833	527	194	53	40	120	341	778	1465	2402	3513	4606	5439	5966	6160	6213
45	11	37	132	302	532	787	956	938	683	379	112	26	11	48	180	482	1014	1801	2757	3695	4378	4757	4869	4895
50	1	14	67	191	386	637	801	783	533	241	53	9	1	15	82	273	659	1296	2097	2880	3413	3654	3707	3716
55	0	4	32	103	243	487	646	628	389	134	21	0	0	4	36	139	382	869	1515	2143	2532	2666	2687	2687
60	0	1	7	51	130	340	491	473	252	52	3	0	0	1	8	59	189	529	1020	1493	1745	1797	1800	1800
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	33	73	158	285	434	628	750	735	535	329	131	50	33	106	264	549	983	1611	2361	3096	3631	3960	4091	4141

(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)