

Climatography of the United States No. 20

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

Station: SPICKARD 7 W, MO

1971-2000

COOP ID: 237963

Climate Division: MO 1

NWS Call Sign:

Elevation: 875 Feet

Lat: 40°15N

Lon: 93°43W

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	32.8	9.1	21.0	67	1967	22	33.7	1989	-30	1974	12	6.1	1979	1367	0	.0	.0	3.2	13.7	30.0	6.2
Feb	39.6	14.5	27.1	76	1995	26	37.1	1998	-24	1996	3	12.9	1978	1062	0	.0	.0	6.9	9.0	25.1	3.0
Mar	52.3	25.5	38.9	88+	1986	31	44.2	1973	-15	1998	13	31.1	1978	809	0	.0	.0	17.1	2.4	19.2	.4
Apr	63.8	35.8	49.8	93	1989	26	56.9	1981	8	1975	3	43.3	1983	459	3	.0	.1	26.0	@	7.3	.0
May	74.3	46.8	60.6	94	1998	20	66.6	1977	29+	1992	6	55.1	1997	192	54	.0	.4	30.9	.0	.5	.0
Jun	84.0	56.3	70.2	103+	1988	26	74.7	1988	38+	2000	6	64.1	1982	24	178	.2	5.8	30.0	.0	.0	.0
Jul	89.1	60.7	74.9	107	1980	30	79.4	1980	43	1972	5	70.9	1971	2	308	1.0	13.0	31.0	.0	.0	.0
Aug	87.1	58.4	72.8	107+	1988	9	81.2	1983	37	1986	28	67.0	1992	21	260	1.0	9.9	31.0	.0	.0	.0
Sep	78.7	49.2	64.0	99+	2000	12	70.0	1998	27+	1999	21	57.6	1993	114	82	.0	3.4	30.0	.0	.6	.0
Oct	67.1	38.3	52.7	94	1963	5	59.6	1971	14	1972	19	46.8	1976	385	5	.0	.2	29.0	.0	6.1	.0
Nov	50.3	26.6	38.5	81	1980	8	46.8	1999	-10	1964	30	31.8	1991	798	0	.0	.0	15.7	2.2	19.0	.2
Dec	37.2	14.6	25.9	70	2001	6	33.3	1994	-28	1989	23	9.8	1983	1212	0	.0	.0	5.2	9.7	28.6	3.4
Ann	63.0	36.3	49.7	107+	Aug 1988	9	81.2	Aug 1983	-30	Jan 1974	12	6.1	Jan 1979	6445	890	2.2	32.8	256.0	37.0	136.4	13.2

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1957-2001

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

093-A

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Elevation: 875 Feet Lat: 40°15N

Lon: 93°43W

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	1.02	.87	2.22	1962	5	3.05	1973	.00	1986	6.0	2.5	.5	.1	.08	.19	.36	.51	.66	.83	1.03	1.26	1.58	2.10	2.59
Feb	1.06	.92	2.23	1997	21	3.14	1997	.07	1991	6.2	3.0	.5	.1	.24	.33	.49	.63	.77	.92	1.09	1.29	1.55	1.97	2.37
Mar	2.56	2.35	2.57	1976	4	8.35	1973	.00	1994	8.7	5.4	1.8	.5	.36	.69	1.12	1.48	1.84	2.22	2.64	3.15	3.81	4.86	5.85
Apr	3.41	3.31	2.60	1957	3	6.93	1991	.64	1985	10.8	6.4	2.6	.8	1.03	1.36	1.84	2.26	2.66	3.08	3.55	4.09	4.80	5.90	6.92
May	4.81	4.44	4.20	1960	6	14.63	1995	1.07	1992	12.2	8.1	3.2	1.3	1.36	1.82	2.51	3.11	3.69	4.31	4.98	5.78	6.82	8.45	9.97
Jun	4.33	4.19	6.55	1996	6	10.92	1996	.45	1988	10.2	6.8	2.8	1.3	1.42	1.83	2.43	2.95	3.44	3.95	4.51	5.17	6.01	7.33	8.54
Jul	4.97	3.62	5.41	1992	13	21.36	1993	.45	1983	9.4	6.4	3.1	1.7	.56	.94	1.64	2.33	3.07	3.90	4.87	6.07	7.71	10.41	13.04
Aug	3.76	3.13	4.05	1960	17	8.79	1977	.19	1984	9.6	5.6	2.5	1.1	.75	1.09	1.65	2.15	2.66	3.21	3.83	4.58	5.56	7.15	8.65
Sep	3.87	3.38	4.65	1959	26	7.21	1986	1.06	1979	8.9	6.4	2.6	1.0	1.42	1.78	2.31	2.74	3.16	3.59	4.05	4.59	5.27	6.33	7.30
Oct	3.10	2.96	3.80	1998	5	6.20	1998	.26	1975	8.7	5.2	2.1	.9	.55	.82	1.27	1.69	2.13	2.60	3.13	3.78	4.64	6.03	7.36
Nov	2.37	2.31	3.36	1961	2	4.61	1983	.00	1989	8.5	5.1	1.7	.5	.32	.63	1.03	1.36	1.70	2.05	2.44	2.92	3.53	4.52	5.45
Dec	1.59	1.39	2.77	1980	7	5.37	1982	.05	1996	6.6	3.5	.9	.3	.19	.32	.54	.76	1.00	1.26	1.57	1.95	2.46	3.31	4.13
Ann	36.85	35.65	6.55	Jun 1996	6	21.36	Jul 1993	.00+	Mar 1994	105.8	64.4	24.3	9.6	22.64	25.24	28.65	31.30	33.69	36.03	38.48	41.22	44.58	49.54	53.89

+ 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: 1957-2001

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

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Station: SPICKARD 7 W, MO

COOP ID: 237963

Climate Division: MO 1

NWS Call Sign:

Elevation: 875 Feet

Lat: 40° 15N

Lon: 93° 43W

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	7.4	6.2	2	#	12.0	1979	13	25.0	1979	24	1979	18	15	1979	3.0	2.0	.6	.2	@	9.6	7.6	5.4	1.7
Feb	3.8	2.3	2	#	11.0	1978	13	15.8	1978	20	1979	5	15	1979	2.0	1.5	.3	.1	@	9.8	7.2	5.6	3.0
Mar	3.2	.3	1	0	10.0	1978	2	17.0	1984	15	1978	5	8	1978	1.4	.8	.4	.2	@	2.1	1.0	.5	.0
Apr	.4	.0	#	0	6.0	1973	9	6.0	1973	2	1979	4	#+	1982	.2	.1	@	@	.0	.1	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	3.5	1991	7	5.0	1971	4	1991	8	1	1991	.4	.3	.1	.0	.0	.5	.2	.0	.0
Dec	3.8	2.4	1	0	8.0	1981	16	15.3	1983	9	1983	31	4	1983	1.9	1.3	.2	.1	.0	5.4	2.9	1.3	.0
Ann	19.2	11.2	N/A	N/A	12.0	Jan 1979	13	25.0	Jan 1979	24	Jan 1979	18	15+	Feb 1979	8.9	6.0	1.6	.6	@	27.5	18.9	12.8	4.7

+ 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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NWS Call Sign:

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Lon: 93° 43W

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	5/19	5/14	5/09	5/06	5/03	4/29	4/26	4/22	4/16
32	5/08	5/03	4/29	4/26	4/24	4/21	4/18	4/15	4/10
28	4/21	4/17	4/14	4/12	4/10	4/08	4/06	4/03	3/30
24	4/15	4/09	4/06	4/02	3/30	3/27	3/24	3/20	3/15
20	4/09	4/03	3/30	3/27	3/23	3/20	3/17	3/13	3/07
16	3/30	3/24	3/20	3/16	3/12	3/09	3/05	3/01	2/23
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	9/13	9/18	9/21	9/24	9/27	9/30	10/03	10/07	10/12
32	9/21	9/26	9/29	10/02	10/04	10/07	10/10	10/13	10/18
28	9/30	10/06	10/10	10/14	10/18	10/21	10/25	10/29	11/05
24	10/14	10/20	10/24	10/28	10/31	11/04	11/08	11/12	11/18
20	10/24	10/29	11/03	11/06	11/09	11/13	11/16	11/20	11/26
16	11/04	11/10	11/15	11/18	11/22	11/25	11/29	12/03	12/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	169	161	156	151	147	143	138	133	125
32	182	176	171	167	163	159	155	150	144
28	211	204	199	194	190	186	181	176	169
24	240	231	225	219	214	209	204	198	189
20	253	246	240	235	230	226	221	215	207
16	281	271	265	259	254	248	243	236	227

* 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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Climate Division: MO 1

NWS Call Sign:

Elevation: 875 Feet Lat: 40°15N Lon: 93°43W

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	1367	1062	809	459	192	24	2	21	114	385	798	1212	6445
60	1212	922	654	320	103	5	0	5	48	248	648	1057	5222
57	1119	838	565	244	65	2	0	1	24	178	559	964	4559
55	1057	787	508	199	45	1	0	0	14	138	502	902	4153
50	906	657	369	108	15	0	0	0	2	63	366	757	3243
32	421	264	62	1	0	0	0	0	0	0	58	300	1106

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	77	126	276	535	885	1144	1329	1262	958	643	251	111	7597
55	0	5	9	43	217	454	616	549	282	67	4	0	2246
57	0	0	4	28	175	395	554	489	232	46	1	0	1924
60	0	0	0	14	120	309	461	399	166	23	0	0	1492
65	0	0	0	3	54	178	308	260	82	5	0	0	890
70	0	0	0	0	18	80	170	147	32	0	0	0	447

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	5	38	158	379	691	960	1132	1067	773	448	132	19	5	43	201	580	1271	2231	3363	4430	5203	5651	5783	5802
45	0	13	90	254	536	810	977	912	624	308	68	5	0	13	103	357	893	1703	2680	3592	4216	4524	4592	4597
50	0	1	48	153	388	660	822	757	478	194	27	1	0	1	49	202	590	1250	2072	2829	3307	3501	3528	3529
55	0	1	17	83	254	510	667	602	339	106	9	0	0	1	18	101	355	865	1532	2134	2473	2579	2588	2588
60	0	0	5	39	140	361	512	447	218	48	2	0	0	0	5	44	184	545	1057	1504	1722	1770	1772	1772
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	6	34	108	237	429	638	764	713	500	285	83	13	6	40	148	385	814	1452	2216	2929	3429	3714	3797	3810

(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

093-E

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