

# Climatology of the United States

No. 20

1971-2000

Station: SALISBURY, MO

COOP ID: 237514

Climate Division: MO 1

NWS Call Sign:

Elevation: 730 Feet

Lat: 39°25N

Lon: 92°49W

## 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	34.4	15.1	24.8	75	1950	24	34.8	1989	-21+	1982	11	11.8	1979	1247	0	.0	.0	4.2	12.5	28.7	4.0
Feb	41.2	20.6	30.9	81	1972	29	40.5	1998	-21	1985	1	17.5	1978	954	0	.0	.0	8.6	7.1	23.0	2.3
Mar	53.3	30.7	42.0	86+	1988	23	47.1	1973	-12	1960	5	34.0	1984	713	0	.0	.0	19.3	1.5	16.6	.1
Apr	64.4	40.9	52.7	93	1989	25	60.0	1981	16	1975	3	45.4	1983	379	9	.0	.3	26.7	.0	4.9	.0
May	74.9	51.9	63.4	95+	1998	20	69.2	1977	29	1989	2	58.2	1997	139	89	.0	.5	31.0	.0	.2	.0
Jun	83.8	61.4	72.6	104	1988	25	76.4	1971	40	1988	10	66.2	1982	9	238	.2	6.1	30.0	.0	.0	.0
Jul	88.4	65.9	77.2	114	1954	14	84.8	1980	46	1972	6	73.7	1971	0	378	.8	14.1	31.0	.0	.0	.0
Aug	86.9	63.4	75.2	107	1980	1	80.9	1983	36	1986	28	69.1	1986	10	325	.8	11.3	31.0	.0	.0	.0
Sep	79.0	54.4	66.7	102	1953	28	73.0	1998	25	1984	30	60.6	1974	74	124	@	3.9	30.0	.0	.4	.0
Oct	67.7	42.9	55.3	95	1953	2	61.8	1971	20+	1972	19	48.4	1988	314	13	.0	.2	29.8	.0	4.4	.0
Nov	51.9	31.6	41.8	82+	1980	8	50.4	1999	-8+	1991	9	34.5	1976	699	0	.0	.0	17.5	1.5	14.9	.1
Dec	39.2	20.9	30.1	72	1949	11	36.8	1994	-28	1989	23	14.2	1983	1084	0	.0	.0	6.5	7.4	25.9	1.9
Ann	63.8	41.6	52.7	114	Jul 1954	14	84.8	Jul 1980	-28	Dec 1989	23	11.8	Jan 1979	5622	1176	1.8	36.4	265.6	30.0	119.0	8.4

+ 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](http://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: 1948-2001

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

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## No. 20

### 1971-2000

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

Station: SALISBURY, MO

COOP ID: 237514

Climate Division: MO 1

NWS Call Sign:

Elevation: 730 Feet Lat: 39°25N

Lon: 92°49W

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	1.56	1.32	2.75	1999	22	4.14	1999	.00	1986	6.2	3.9	.8	.2	.10	.26	.51	.74	.98	1.24	1.55	1.92	2.43	3.26	4.07
Feb	1.83	1.37	4.00	1997	21	6.31	1997	.30	1996	6.0	3.8	1.0	.2	.26	.41	.68	.93	1.19	1.49	1.82	2.23	2.79	3.69	4.56
Mar	2.88	2.65	3.52	1985	4	8.47	1973	.80	1981	8.6	6.2	1.8	.4	.80	1.08	1.49	1.85	2.20	2.57	2.98	3.46	4.09	5.07	5.98
Apr	3.71	3.21	3.98	1973	21	9.24	1973	.74	1971	10.5	7.1	2.3	.8	.88	1.22	1.77	2.25	2.73	3.24	3.81	4.49	5.38	6.80	8.13
May	5.16	4.50	3.34	1981	18	10.51	1995	.80	1992	11.6	8.7	3.5	1.3	1.64	2.14	2.86	3.48	4.08	4.70	5.37	6.17	7.20	8.79	10.26
Jun	4.58	3.71	5.10	1966	13	12.48	1981	1.02	1980	9.3	6.9	3.3	1.4	1.13	1.56	2.23	2.82	3.40	4.02	4.71	5.54	6.61	8.31	9.91
Jul	4.06	3.04	5.27	1969	10	13.81	1981	.34	1975	8.2	6.4	2.9	1.1	.79	1.16	1.75	2.30	2.86	3.45	4.13	4.94	6.02	7.76	9.40
Aug	3.96	3.53	4.94	1982	15	12.05	1982	.01	1984	7.7	5.7	2.3	1.2	.36	.64	1.17	1.72	2.32	3.00	3.81	4.82	6.22	8.54	10.82
Sep	4.49	3.77	6.12	1961	13	15.36	1986	.28	1979	8.0	5.9	2.8	1.4	.86	1.27	1.93	2.54	3.15	3.81	4.57	5.47	6.68	8.61	10.44
Oct	3.25	2.97	3.80	1986	3	8.03	1986	.69	1975	8.3	5.2	2.4	1.0	.81	1.11	1.59	2.01	2.42	2.86	3.35	3.93	4.69	5.89	7.01
Nov	3.15	2.79	3.07	1964	15	8.32	1992	.00	1989	7.8	5.8	2.4	.7	.42	.82	1.35	1.80	2.24	2.72	3.25	3.88	4.71	6.04	7.29
Dec	2.29	2.08	3.75	1982	2	7.09	1982	.16	1976	6.8	4.7	1.5	.5	.39	.59	.92	1.24	1.56	1.91	2.31	2.80	3.45	4.50	5.50
Ann	40.92	38.46	6.12	Sep 1961	13	15.36	Sep 1986	.00+	Nov 1989	99.0	70.3	27.0	10.2	27.13	29.72	33.09	35.67	37.98	40.23	42.56	45.16	48.32	52.95	56.99

+ 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

Complete documentation available from:  
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**Station: SALISBURY, MO**

**COOP ID: 237514**

**Climate Division: MO 1**

**NWS Call Sign:**

**Elevation: 730 Feet**

**Lat: 39°25N**

**Lon: 92°49W**

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	6.0	5.2	2	#	11.0	1979	13	20.3	1979	19	1979	15	12	1979	2.9	2.0	.7	.2	@	9.3	5.8	2.7	1.5
Feb	5.5	4.5	1	#	8.0	1978	13	13.1	1978	15	1979	10	12	1979	2.4	1.5	.6	.2	.0	6.6	4.3	2.6	.8
Mar	2.3	.8	#	#	6.5	1990	24	10.0	1980	14	1978	8	6	1978	1.4	1.0	.3	.2	.0	1.0	.3	.1	.0
Apr	.5	.0	#	0	3.7	1973	9	5.2	1973	2	1975	2	#+	1997	.2	.2	.1	.0	.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	.5	1997	27	.5	1997	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.7	.3	#	0	7.0	1975	26	8.3	1974	8	1974	30	1	1975	.7	.5	.2	.1	.0	.6	.3	.2	.0
Dec	4.9	3.5	#	#	12.0	1987	15	14.0	1987	12	1987	16	3	1989	2.2	1.5	.4	.2	@	3.5	1.7	.9	.0
Ann	20.9	14.3	N/A	N/A	12.0	Dec 1987	15	20.3	Jan 1979	19	Jan 1979	15	12+	Feb 1979	9.8	6.7	2.3	.9	@	21.1	12.4	6.5	2.3

+ 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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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	5/11	5/06	5/03	4/30	4/28	4/25	4/22	4/19	4/15
32	4/27	4/23	4/19	4/17	4/14	4/11	4/08	4/05	3/31
28	4/19	4/15	4/12	4/09	4/07	4/05	4/02	3/30	3/26
24	4/13	4/07	4/03	3/31	3/27	3/24	3/21	3/17	3/11
20	3/31	3/25	3/20	3/16	3/13	3/09	3/05	3/01	2/22
16	3/28	3/20	3/14	3/08	3/03	2/26	2/21	2/15	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	9/15	9/21	9/25	9/29	10/03	10/06	10/10	10/14	10/20
32	9/27	10/02	10/06	10/09	10/12	10/15	10/18	10/22	10/27
28	10/04	10/10	10/15	10/19	10/22	10/26	10/30	11/03	11/09
24	10/20	10/26	10/31	11/04	11/08	11/11	11/15	11/20	11/27
20	11/02	11/08	11/12	11/16	11/20	11/23	11/27	12/02	12/08
16	11/11	11/17	11/22	11/27	11/30	12/04	12/09	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	180	172	166	162	157	153	148	142	135
32	205	197	191	185	181	176	171	165	156
28	223	214	208	202	197	192	187	181	172
24	250	242	235	230	225	220	214	208	199
20	279	269	263	257	251	246	240	233	224
16	307	295	286	278	271	264	257	248	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	1247	954	713	379	139	9	0	10	74	314	699	1084	5622
60	1092	814	558	250	68	1	0	1	26	191	551	929	4481
57	999	738	472	184	40	0	0	0	12	132	468	838	3883
55	938	686	414	146	26	0	0	0	6	99	412	780	3507
50	792	557	282	71	8	0	0	0	0	42	286	636	2674
32	323	202	31	0	0	0	0	0	0	0	36	224	816

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	99	172	341	619	973	1218	1401	1338	1041	722	327	163	8414
55	1	12	12	75	287	528	688	625	357	108	14	7	2714
57	0	8	7	53	238	469	626	563	302	79	9	3	2357
60	0	0	1	29	173	380	533	472	227	46	2	0	1863
65	0	0	0	9	89	238	378	325	124	13	0	0	1176
70	0	0	0	2	35	120	231	196	55	2	0	0	641

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	13	66	196	425	743	986	1164	1100	823	506	179	38	13	79	275	700	1443	2429	3593	4693	5516	6022	6201	6239
45	3	31	113	297	588	836	1009	945	675	365	105	15	3	34	147	444	1032	1868	2877	3822	4497	4862	4967	4982
50	1	10	62	189	436	686	854	790	528	236	54	5	1	11	73	262	698	1384	2238	3028	3556	3792	3846	3851
55	0	2	33	105	290	536	699	635	387	138	25	1	0	2	35	140	430	966	1665	2300	2687	2825	2850	2851
60	0	0	9	54	168	389	544	480	256	68	6	0	0	0	9	63	231	620	1164	1644	1900	1968	1974	1974
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	13	47	129	261	461	667	791	745	536	318	108	28	13	60	189	450	911	1578	2369	3114	3650	3968	4076	4104

(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:

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## 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> |
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## 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)