

# Climatology of the United States

No. 20

1971-2000

Station: MONTICELLO, MS

COOP ID: 225987

Climate Division: MS 8

NWS Call Sign:

Elevation: 205 Feet

Lat: 31°36N

Lon: 90°08W

## 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	58.0	34.5	46.3	83+	1950	24	56.1	1974	5+	1962	12	36.7	1977	590	0	.0	.0	23.4	.5	15.0	.0
Feb	62.9	37.1	50.0	87	1956	20	56.2	1990	8+	1951	2	40.1	1978	421	1	.0	.0	23.8	.3	10.7	.0
Mar	70.9	44.4	57.7	90	1974	30	62.8	1974	10	1998	12	51.7	1998	252	25	.0	@	29.9	.0	4.2	.0
Apr	77.3	50.8	64.1	92+	1952	30	69.5	1981	28+	1987	4	58.4	1997	96	68	.0	.2	30.0	.0	.6	.0
May	84.2	59.5	71.9	101+	1951	30	75.5	1996	35	1960	13	67.0	1976	10	222	.0	5.4	31.0	.0	.0	.0
Jun	90.5	66.5	78.5	104+	1953	19	82.8	1998	45	1966	1	74.6	1997	0	404	.6	18.8	30.0	.0	.0	.0
Jul	92.7	69.7	81.2	105	2000	17	83.8	1995	54	1967	15	79.2	1984	0	502	1.2	24.8	31.0	.0	.0	.0
Aug	92.5	69.0	80.8	107	2000	31	86.0	1999	51	1968	30	78.1	1984	0	489	1.2	24.0	31.0	.0	.0	.0
Sep	87.8	63.8	75.8	106	2000	1	80.6	1972	36+	1967	29	72.2+	1981	4	328	.4	13.3	30.0	.0	.0	.0
Oct	78.4	50.6	64.5	98	1998	5	70.0	1984	17	1999	24	58.2	1987	111	95	.0	1.7	31.0	.0	.8	.0
Nov	68.6	42.2	55.4	88+	1952	1	62.2	1985	15	1976	30	46.8	1976	307	19	.0	.0	29.0	.0	6.9	.0
Dec	60.6	36.3	48.5	85+	1971	17	58.2	1971	5	1962	13	39.5	1989	523	10	.0	.0	25.4	.3	14.5	.0
Ann	77.0	52.0	64.6	107	Aug 2000	31	86.0	Aug 1999	5+	Dec 1962	13	36.7	Jan 1977	2314	2163	3.4	88.2	345.5	1.1	52.7	.0

+ 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: 1948-2001

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

**Climatography  
of the United States  
No. 20  
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National Climatic Data Center  
Federal Building  
151 Patton Avenue  
Asheville, North Carolina 28801  
www.ncdc.noaa.gov

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**Lon: 90°08W**

**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	6.42	5.88	6.25	1994	28	12.38	1990	1.40	1981	10.3	8.4	4.1	2.1	2.01	2.62	3.52	4.30	5.05	5.82	6.68	7.68	8.97	10.98	12.84	
Feb	5.48	5.00	5.10	1956	3	12.54	1987	1.39	2000	8.2	6.6	3.8	2.1	1.67	2.19	2.97	3.64	4.29	4.96	5.70	6.57	7.69	9.45	11.07	
Mar	6.75	5.83	5.38	1995	15	19.60	1973	1.68	1978	8.9	7.3	4.1	2.4	2.30	2.94	3.87	4.66	5.42	6.20	7.05	8.04	9.32	11.29	13.11	
Apr	6.15	5.20	10.75	1974	13	16.92	1974	.32	1976	7.5	5.9	3.3	2.2	1.07	1.61	2.51	3.35	4.21	5.14	6.21	7.50	9.22	12.00	14.66	
May	5.99	5.32	7.90	1990	13	14.26	1975	.28	1988	8.6	6.9	3.8	1.9	.90	1.41	2.27	3.10	3.96	4.90	5.99	7.32	9.10	12.00	14.78	
Jun	4.58	4.58	5.60	1956	14	9.98	1983	.56	1977	9.1	7.3	3.1	1.3	1.14	1.57	2.24	2.83	3.41	4.03	4.72	5.53	6.60	8.30	9.88	
Jul	4.68	4.50	3.84	1979	12	11.35	1979	1.33	1986	11.1	8.0	3.0	1.2	1.46	1.90	2.56	3.13	3.68	4.24	4.87	5.60	6.54	8.02	9.38	
Aug	3.99	3.81	6.18	1992	27	10.59	1987	.38	1976	8.7	6.4	2.5	1.1	.78	1.14	1.73	2.26	2.81	3.39	4.05	4.85	5.91	7.61	9.22	
Sep	3.76	3.60	4.20	1979	21	9.42	1971	.83	1990	7.7	5.8	2.7	1.1	1.04	1.40	1.94	2.41	2.88	3.36	3.90	4.53	5.35	6.65	7.85	
Oct	3.54	2.85	5.02	1964	5	10.53	1984	.12	1978	5.1	4.2	2.3	1.2	.35	.60	1.08	1.58	2.11	2.72	3.43	4.32	5.54	7.57	9.55	
Nov	4.97	4.52	5.80	1961	14	9.25	1993	1.03	1985	8.6	6.5	3.2	1.7	1.76	2.23	2.91	3.48	4.02	4.59	5.20	5.91	6.81	8.22	9.51	
Dec	5.74	4.83	8.10	1982	4	15.48	1982	1.81	1984	8.6	7.1	3.8	1.6	1.99	2.53	3.32	3.99	4.63	5.28	5.99	6.83	7.89	9.54	11.06	
Ann	62.05	60.86	10.75	Apr 1974	13	19.60	Mar 1973	.12	Oct 1978	102.4	80.4	39.7	19.9	45.53	48.77	52.89	56.01	58.77	61.43	64.16	67.18	70.83	76.11	80.66	

+ 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

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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	.0	#	0	3.5	1977	31	4.0	1977	1	1982	14	#	1982	.2	.1	.1	.0	.0	@	.0	.0	.0
Feb	#	.0	#	0	#	1989	7	#+	1989	#	1989	8	#	1989	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.3	.0	N/A	N/A	3.5	Jan 1977	31	4.0	Jan 1977	1	Jan 1982	14	#+	Feb 1989	.2	.1	.1	.0	.0	@	.0	.0	.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

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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	4/16	4/11	4/07	4/03	3/31	3/28	3/25	3/21	3/15
32	4/11	4/05	4/01	3/28	3/24	3/21	3/17	3/13	3/07
28	3/19	3/12	3/07	3/02	2/26	2/22	2/17	2/12	2/05
24	3/09	3/01	2/24	2/19	2/15	2/10	2/05	1/30	1/21
20	3/06	2/20	2/10	1/31	1/22	1/12	12/31	12/08	0/00
16	2/18	2/05	1/25	1/13	12/25	0/00	0/00	0/00	0/00
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	10/08	10/14	10/19	10/22	10/26	10/29	11/02	11/07	11/13
32	10/19	10/26	10/31	11/04	11/08	11/12	11/16	11/21	11/28
28	10/29	11/05	11/11	11/15	11/20	11/24	11/28	12/04	12/11
24	11/10	11/22	12/01	12/09	12/16	12/23	12/31	1/10	1/25
20	11/18	12/02	12/12	12/21	12/29	1/08	1/19	2/10	0/00
16	12/18	1/03	1/17	2/01	2/25	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	236	226	219	213	208	202	197	190	180
32	260	249	241	234	228	222	215	207	196
28	301	289	280	273	266	259	251	243	230
24	>365	332	319	309	301	292	284	274	261
20	>365	>365	>365	>365	337	322	309	296	280
16	>365	>365	>365	>365	>365	>365	>365	338	318

\* 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	590	421	252	96	10	0	0	0	4	111	307	523	2314
60	447	292	145	34	1	0	0	0	0	49	193	383	1544
57	368	221	95	15	0	0	0	0	0	25	139	308	1171
55	319	180	68	8	0	0	0	0	0	15	108	263	961
50	217	98	24	1	0	0	0	0	0	4	49	170	563
32	20	1	0	0	0	0	0	0	0	0	0	11	32

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	462	505	795	962	1234	1394	1525	1512	1314	1007	702	521	11933
55	48	40	151	279	521	704	812	799	624	309	119	60	4466
57	35	25	116	226	459	644	750	737	564	257	90	43	3946
60	21	12	72	156	367	554	657	644	474	188	54	26	3225
65	0	1	25	68	222	404	502	489	328	95	19	10	2163
70	0	0	6	18	105	257	347	334	196	37	5	0	1305

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	252	329	562	728	995	1164	1289	1274	1081	764	474	306	252	581	1143	1871	2866	4030	5319	6593	7674	8438	8912	9218
45	154	216	413	579	840	1014	1134	1119	931	609	339	193	154	370	783	1362	2202	3216	4350	5469	6400	7009	7348	7541
50	87	131	280	433	685	864	979	964	781	455	221	119	87	218	498	931	1616	2480	3459	4423	5204	5659	5880	5999
55	42	66	171	296	530	714	824	809	631	315	129	61	42	108	279	575	1105	1819	2643	3452	4083	4398	4527	4588
60	13	28	87	174	377	564	669	654	482	188	65	28	13	41	128	302	679	1243	1912	2566	3048	3236	3301	3329
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	170	227	369	481	670	789	866	858	729	513	319	207	170	397	766	1247	1917	2706	3572	4430	5159	5672	5991	6198

(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> |
|---|---|

## 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)