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: NEWTON EXP STN, MS **COOP ID: 226308**

Climate Division: MS 9 **NWS Call Sign:** **Elevation: 349 Feet** **Lat: 32˚20N** **Lon: 89˚05W**

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	55.4	32.5	44.0	81+	1949	10	53.8	1974	-4	1962	12	33.5	1977	659	0	.0	.0	21.7	.8	16.9	@
Feb	60.2	35.3	47.8	83+	1989	16	54.1	1976	4+	1951	2	37.9	1978	483	0	.0	.0	22.8	.5	12.0	.0
Mar	68.1	42.5	55.3	88	1974	31	60.8	1997	14	1980	3	50.4	1978	314	13	.0	.0	29.2	.0	5.2	.0
Apr	75.0	49.0	62.0	93	1987	22	68.0	1981	26	1987	4	57.8	1993	131	40	.0	.1	29.9	.0	.8	.0
May	82.0	58.3	70.2	97+	1950	27	74.2	1996	36	1952	12	65.3	1976	22	181	.0	2.3	31.0	.0	.0	.0
Jun	88.8	65.4	77.1	103+	1963	13	81.1	1998	40	1956	3	72.1	1974	0	363	.2	14.9	30.0	.0	.0	.0
Jul	91.8	69.0	80.4	104+	1980	15	83.0	1980	51	1950	1	77.7	1972	0	477	1.0	23.1	31.0	.0	.0	.0
Aug	91.3	67.9	79.6	107	2000	30	82.6	1995	49	1956	23	76.3	1992	0	453	1.0	21.5	31.0	.0	.0	.0
Sep	86.6	61.9	74.3	104	2000	5	79.6	1980	34+	1967	29	70.6	1975	7	284	.4	11.2	30.0	.0	.0	.0
Oct	77.0	48.8	62.9	94+	1954	5	68.9	1984	19	1952	30	57.3	1987	136	72	.0	.8	30.9	.0	1.1	.0
Nov	66.9	40.9	53.9	88	1998	1	60.7	1985	14	1950	25	44.9	1976	346	13	.0	.0	28.3	.0	7.5	.0
Dec	58.3	34.9	46.6	84	1955	25	55.1	1971	1	1989	23	38.1	1989	572	3	.0	.0	24.0	.5	14.7	.0
Ann	75.1	50.5	62.8	107	Aug 2000	30	83.0	Jul 1980	-4	Jan 1962	12	33.5	Jan 1977	2670	1899	2.6	73.9	339.8	1.8	58.2	@

+ 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

(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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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	5.85	5.49	6.68	1950	6	12.27	1998	1.29	1986
Feb	5.23	4.95	7.27	1990	16	12.71	1990	1.21	1976
Mar	6.44	5.83	4.77	1962	31	14.97	1976	2.32	1975
Apr	5.93	5.15	5.85	1969	13	15.38	1991	.42	1976
May	4.17	3.82	3.35	1980	17	8.97	1987	.43	1998
Jun	3.84	3.61	3.94	1992	12	7.77	1992	.58	1988
Jul	4.87	3.99	3.63	1993	15	9.75	1993	1.44	1990
Aug	3.84	3.13	4.33	1995	4	10.14	1975	.64	1989
Sep	3.55	2.81	3.59	1979	13	7.71	1977	.26	1984
Oct	3.47	3.07	5.42	1980	18	10.15	1985	.09	1987
Nov	5.16	4.17	5.30	1993	17	12.66	1992	.83	1999
Dec	5.16	4.77	4.75	1956	22	9.55	1973	1.07	1980
Ann	57.51	58.18	7.27	Feb 1990	16	15.38	Apr 1991	.09	Oct 1987

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.4	8.4	3.7	1.7
Feb	8.2	6.0	3.4	1.9
Mar	9.9	7.4	4.3	2.2
Apr	8.5	6.2	3.5	2.2
May	9.0	6.7	2.8	1.4
Jun	9.5	6.7	2.5	1.1
Jul	11.4	8.3	3.4	1.0
Aug	8.9	6.3	2.3	1.1
Sep	6.9	4.7	2.3	1.2
Oct	5.9	4.0	2.1	1.2
Nov	9.1	6.6	3.5	1.8
Dec	10.4	7.3	3.2	1.7
Ann	109.1	78.6	37.0	18.5

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	2.06	2.61	3.41	4.09	4.73	5.39	6.11	6.95	8.02	9.68	11.21
Feb	1.56	2.06	2.80	3.45	4.07	4.72	5.43	6.28	7.37	9.07	10.65
Mar	2.17	2.78	3.67	4.43	5.15	5.90	6.72	7.67	8.89	10.79	12.53
Apr	1.01	1.53	2.40	3.21	4.04	4.95	5.98	7.23	8.91	11.61	14.20
May	.94	1.32	1.93	2.48	3.03	3.62	4.27	5.05	6.08	7.72	9.27
Jun	1.22	1.58	2.12	2.58	3.03	3.49	4.00	4.59	5.36	6.55	7.65
Jul	1.29	1.75	2.45	3.07	3.68	4.32	5.03	5.87	6.97	8.70	10.31
Aug	.95	1.31	1.87	2.36	2.85	3.37	3.95	4.64	5.54	6.97	8.31
Sep	.66	.98	1.49	1.98	2.47	2.99	3.59	4.32	5.28	6.83	8.31
Oct	.29	.53	.99	1.47	2.00	2.61	3.32	4.23	5.48	7.57	9.62
Nov	1.36	1.85	2.60	3.25	3.90	4.58	5.33	6.22	7.38	9.21	10.92
Dec	1.97	2.45	3.14	3.71	4.25	4.80	5.40	6.09	6.97	8.32	9.56
Ann	41.67	44.75	48.69	51.67	54.32	56.87	59.50	62.40	65.92	71.00	75.39

\+ 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

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	.5	.0	#	0	3.0	1977	18	6.0	1977	3	1977	31	#	1977	.1	.1	.1	.0	.0	.1	.1	.0	.0
Feb	#	.0	0	0	#	1978	22	#+	1978	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	#	.0	0	0	#	1978	5	#	1978	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	.5	.0	N/A	N/A	3.0	Jan 1977	18	6.0	Jan 1977	3	Jan 1977	31	#	Jan 1977	.1	.1	.1	.0	.0	.1	.1	.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	4/22	4/18	4/15	4/13	4/11	4/08	4/06	4/03	3/30
32	4/12	4/07	4/03	3/31	3/28	3/25	3/21	3/17	3/12
28	3/28	3/21	3/16	3/12	3/08	3/04	2/28	2/23	2/16
24	3/14	3/06	3/01	2/24	2/19	2/15	2/10	2/04	1/27
20	3/04	2/23	2/17	2/12	2/07	2/01	1/26	1/19	1/05
16	2/24	2/12	2/04	1/26	1/17	1/04	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	10/05	10/10	10/14	10/17	10/20	10/22	10/25	10/29	11/03
32	10/17	10/22	10/26	10/29	11/01	11/04	11/07	11/11	11/16
28	10/30	11/06	11/10	11/14	11/18	11/22	11/25	11/30	12/06
24	11/11	11/20	11/26	12/01	12/06	12/11	12/16	12/22	12/31
20	11/23	12/03	12/11	12/18	12/25	12/31	1/08	1/17	2/04
16	12/11	12/25	1/05	1/16	1/28	2/14	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	209	203	199	195	191	188	184	180	173
32	240	233	227	222	218	213	208	203	195
28	283	273	266	260	254	248	242	235	225
24	315	304	298	292	287	282	277	270	262
20	>365	>365	333	323	314	307	300	292	281
16	>365	>365	>365	>365	>365	>365	>365	327	307

***** 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

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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	659	483	314	131	22	0	0	0	7	136	346	572	2670
60	514	350	190	53	3	0	0	0	1	64	223	430	1828
57	431	274	132	25	1	0	0	0	0	35	164	348	1410
55	379	228	99	14	0	0	0	0	0	22	130	298	1170
50	265	133	40	2	0	0	0	0	0	6	63	194	703
32	32	3	0	0	0	0	0	0	0	0	0	13	48

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	402	444	722	899	1182	1353	1500	1476	1268	959	657	466	11328
55	36	25	108	222	469	663	787	763	578	268	97	39	4055
57	26	16	79	174	408	603	725	701	518	219	71	27	3567
60	16	8	44	112	318	513	632	608	429	155	40	15	2890
65	0	0	13	40	181	363	477	453	284	72	13	3	1899
70	0	0	2	9	79	217	322	298	158	25	2	0	1112

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	211	286	508	679	953	1126	1264	1239	1043	730	441	270	211	497	1005	1684	2637	3763	5027	6266	7309	8039	8480	8750
45	125	182	366	529	798	976	1109	1084	893	575	308	168	125	307	673	1202	2000	2976	4085	5169	6062	6637	6945	7113
50	66	104	242	384	643	826	954	929	743	424	200	96	66	170	412	796	1439	2265	3219	4148	4891	5315	5515	5611
55	33	49	135	246	488	676	799	774	593	284	112	51	33	82	217	463	951	1627	2426	3200	3793	4077	4189	4240
60	11	17	65	140	337	526	644	619	445	163	50	26	11	28	93	233	570	1096	1740	2359	2804	2967	3017	3043
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	143	192	326	439	638	772	862	840	706	487	293	179	143	335	661	1100	1738	2510	3372	4212	4918	5405	5698	5877

(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.
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