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: MOUNT AIRY 2 W, NC **COOP ID: 315890**

Climate Division: NC 2 **NWS Call Sign:** **Elevation: 1,041 Feet** **Lat: 36˚30N** **Lon: 80˚39W**

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	45.5	23.9	34.7	79	1950	26	44.6	1974	-10	1985	21	23.6	1977	939	0	.0	.0	11.8	2.2	23.8	.4
Feb	50.2	25.4	37.8	82	1930	25	44.3	1990	-3+	1996	6	30.2	1978	761	0	.0	.0	15.7	1.1	20.7	.1
Mar	58.8	32.5	45.7	89	1907	23	50.1	1977	2+	1993	15	40.5	1996	599	0	.0	.0	26.8	.2	13.4	.0
Apr	68.0	40.1	54.1	94+	1930	12	57.8	1986	18	1909	11	50.7	1997	330	1	.0	.1	29.4	.0	4.6	.0
May	75.7	50.7	63.2	98	1911	26	69.2	1991	27	1909	3	57.8	1997	120	64	.0	.5	31.0	.0	.5	.0
Jun	82.4	59.5	71.0	102	1914	11	75.0	1981	32	1915	11	67.2	1972	10	188	.0	5.0	30.0	.0	.0	.0
Jul	86.3	64.0	75.2	105	1954	14	78.2	1986	43	1933	5	72.4	1979	0	315	.1	11.1	31.0	.0	.0	.0
Aug	85.0	62.3	73.7	103+	1930	5	77.0+	1988	38	1920	1	70.7	1992	0	269	.2	7.9	31.0	.0	.0	.0
Sep	79.0	55.6	67.3	101+	1954	6	70.6	1980	32+	1983	23	64.3	1984	37	106	.0	2.3	30.0	.0	@	.0
Oct	69.7	42.8	56.3	96	1919	1	63.7	1984	20+	1952	22	50.2	1988	292	19	.0	.1	31.0	.0	4.0	.0
Nov	58.9	33.5	46.2	86	1950	1	55.4	1985	3+	1950	26	39.1	1976	564	0	.0	.0	25.4	.1	13.4	.0
Dec	49.3	26.6	38.0	80	1924	17	45.1	1984	-1+	1983	25	29.8	2000	839	0	.0	.0	16.4	.8	22.0	@
Ann	67.4	43.1	55.3	105	Jul 1954	14	78.2	Jul 1986	-10	Jan 1985	21	23.6	Jan 1977	4491	962	.3	27.0	309.5	4.4	102.4	.5

\+ 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: 1893-2001

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Issue Date: February 2004

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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	4.00	3.92	2.60	1915	6	7.22	1978	.75	1981
Feb	3.36	3.48	3.12	1966	13	6.34	1990	.45	1978
Mar	4.44	4.06	4.00	1923	16	9.27	1975	1.50	1985
Apr	3.85	3.11	3.84	1983	10	8.42	1987	.65	1995
May	4.65	4.87	2.91	1913	23	7.78	1982	1.10	1977
Jun	4.02	3.62	9.45	1947	13	10.02	1989	.62	1986
Jul	4.40	4.18	4.79	1939	9	7.95	1989	1.41	1974
Aug	3.81	4.04	4.64	1939	18	9.24	1996	.69	1975
Sep	4.31	3.92	5.00	1979	22	10.55	1975	.19	1984
Oct	3.36	2.97	4.90	1929	2	9.44	1990	.00	2000
Nov	3.48	3.21	3.20	1993	28	8.66	1985	.64	1981
Dec	3.31	3.18	3.39	1958	28	7.72	1973	.68	1980
Ann	46.99	48.79	9.45	Jun 1947	13	10.55	Sep 1975	.00	Oct 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.5	7.4	2.9	1.1
Feb	9.9	6.5	2.5	.8
Mar	11.5	7.7	3.1	1.2
Apr	10.5	6.7	2.3	.9
May	12.5	8.4	3.5	1.3
Jun	10.7	7.2	2.5	1.1
Jul	12.5	7.5	3.0	1.1
Aug	10.5	6.6	2.4	1.1
Sep	10.4	6.5	3.2	1.2
Oct	8.3	5.2	2.6	1.0
Nov	9.7	5.9	2.7	.9
Dec	10.8	6.2	2.3	.9
Ann	128.8	81.8	33.0	12.6

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	1.36	1.74	2.29	2.76	3.21	3.67	4.18	4.77	5.52	6.69	7.77
Feb	1.03	1.35	1.82	2.23	2.63	3.04	3.50	4.03	4.72	5.79	6.79
Mar	1.65	2.07	2.66	3.16	3.64	4.12	4.65	5.26	6.03	7.23	8.33
Apr	1.21	1.58	2.12	2.58	3.03	3.50	4.01	4.61	5.38	6.58	7.69
May	1.85	2.28	2.89	3.39	3.87	4.35	4.87	5.48	6.24	7.42	8.49
Jun	.89	1.26	1.85	2.39	2.92	3.49	4.12	4.89	5.89	7.49	9.00
Jul	1.74	2.15	2.72	3.20	3.65	4.11	4.61	5.18	5.91	7.03	8.04
Aug	.74	1.08	1.64	2.15	2.67	3.24	3.87	4.64	5.66	7.29	8.84
Sep	.66	1.03	1.65	2.25	2.87	3.54	4.32	5.27	6.54	8.61	10.59
Oct	.39	.81	1.37	1.86	2.34	2.86	3.45	4.15	5.08	6.57	7.98
Nov	1.16	1.49	1.98	2.39	2.78	3.18	3.63	4.15	4.81	5.84	6.80
Dec	.85	1.16	1.64	2.07	2.48	2.92	3.41	3.99	4.75	5.95	7.07
Ann	35.54	37.81	40.69	42.86	44.78	46.62	48.51	50.59	53.09	56.70	59.80

\+ 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: 1893-2001
(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	4.9	2.8	#	#
Feb	3.5	.8	#	#
Mar	1.4	.0	#	0
Apr	.0	.0	#	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.0	.0	0	0
Nov	.0	.0	#	0
Dec	.9	.0	#	0
Ann	10.7	3.6	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	9.0	1977	10	23.4	1987	8+	2000	20	3	1977
Feb	12.0	1979	19	22.1	1979	12	1979	19	2	1983
Mar	7.0	1993	13	11.0	1993	5	1980	3	#+	1999
Apr	.5	1987	4	.5+	1987	2	1992	4	#+	1996
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	.0	0	0	.0	0	0	0	0	0	0
Nov	.5	1987	11	.5	1987	1	1987	11	#+	1987
Dec	8.0	1997	30	8.0	1997	3	1971	4	#+	2000
Ann	12.0	Feb 1979	19	23.4	Jan 1987	12	Feb 1979	19	3	Jan 1977

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	1.5	1.1	.5	.3	.0
Feb	1.4	1.0	.5	.2	@
Mar	.5	.3	.2	@	.0
Apr	@	.0	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	@	.0	.0	.0	.0
Dec	.7	.4	.1	.1	.0
Ann	4.1	2.8	1.3	.6	@

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	2.7	2.0	.7	.0
Feb	1.9	1.1	.5	.1
Mar	.3	.2	.1	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	@	.0	.0	.0
Dec	.3	@	.0	.0
Ann	5.2	3.3	1.3	.1

+ 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	5/15	5/11	5/08	5/06	5/04	5/02	4/30	4/27	4/24
32	5/11	5/05	4/30	4/27	4/23	4/20	4/16	4/12	4/06
28	4/20	4/15	4/12	4/09	4/06	4/03	3/31	3/28	3/23
24	4/03	3/29	3/25	3/22	3/19	3/16	3/13	3/09	3/04
20	3/24	3/17	3/12	3/08	3/03	2/27	2/23	2/18	2/11
16	3/07	3/01	2/24	2/20	2/17	2/13	2/09	2/05	1/30

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	9/28	10/02	10/04	10/07	10/09	10/10	10/13	10/15	10/19
32	10/04	10/08	10/12	10/15	10/17	10/20	10/23	10/27	10/31
28	10/14	10/19	10/23	10/26	10/29	11/01	11/04	11/08	11/13
24	10/26	11/01	11/05	11/08	11/12	11/15	11/18	11/22	11/28
20	11/10	11/16	11/20	11/24	11/27	11/30	12/04	12/08	12/14
16	11/21	11/30	12/06	12/12	12/17	12/22	12/27	1/03	1/12

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	172	167	163	160	157	154	150	146	141
32	197	190	185	180	176	172	168	163	155
28	222	216	212	209	205	202	198	194	188
24	259	251	246	241	237	232	228	222	215
20	291	283	277	272	268	263	258	253	245
16	327	317	311	306	301	296	291	285	278

***** 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	939	761	599	330	120	10	0	0	37	292	564	839	4491
60	784	621	444	191	48	1	0	0	8	176	418	684	3375
57	691	537	356	121	23	0	0	0	3	122	335	591	2779
55	633	481	300	83	12	0	0	0	1	92	283	530	2415
50	488	348	175	23	2	0	0	0	0	39	170	387	1632
32	111	35	3	0	0	0	0	0	0	0	4	51	204

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	195	198	427	661	967	1168	1338	1291	1059	750	430	235	8719
55	4	0	11	54	266	478	625	578	371	130	19	1	2537
57	0	0	5	32	214	418	563	516	312	97	11	0	2168
60	0	0	0	12	147	329	470	423	228	58	4	0	1671
65	0	0	0	1	64	188	315	269	106	19	0	0	962
70	0	0	0	0	19	77	167	128	30	4	0	0	425

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	62	108	271	488	766	970	1126	1082	859	545	264	96	62	170	441	929	1695	2665	3791	4873	5732	6277	6541	6637
45	26	51	155	345	611	820	971	927	709	392	154	43	26	77	232	577	1188	2008	2979	3906	4615	5007	5161	5204
50	7	18	76	217	457	670	816	772	559	254	79	16	7	25	101	318	775	1445	2261	3033	3592	3846	3925	3941
55	0	0	32	113	307	520	661	617	411	136	30	2	0	0	32	145	452	972	1633	2250	2661	2797	2827	2829
60	0	0	3	49	176	373	506	462	269	58	6	0	0	0	3	52	228	601	1107	1569	1838	1896	1902	1902
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	48	90	197	323	496	654	764	737	570	355	180	69	48	138	335	658	1154	1808	2572	3309	3879	4234	4414	4483

(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

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