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: LENOIR, NC **COOP ID: 314938**

Climate Division: NC 2 **NWS Call Sign:** **Elevation: 1,200 Feet** **Lat: 35˚55N** **Lon: 81˚32W**

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	48.2	25.6	36.9	80	1974	17	45.9	1974	-7	1985	21	26.0	1977	872	0	.0	.0	15.6	1.3	21.7	.1
Feb	52.6	27.6	40.1	83	1977	26	46.1	1990	-2+	1996	6	32.8	1978	697	0	.0	.0	18.1	.6	18.6	.1
Mar	60.9	34.8	47.9	88+	1995	23	54.1	1997	6	1993	15	42.9	1996	533	0	.0	.0	27.6	.1	10.5	.0
Apr	69.9	42.3	56.1	92+	1989	27	60.6	1999	20	1972	9	51.6	1973	272	5	.0	.3	29.5	.0	2.9	.0
May	77.3	52.5	64.9	96	1996	20	70.5	1991	29	1973	18	60.8	1972	88	85	.0	1.1	30.9	.0	.1	.0
Jun	83.7	60.9	72.3	102	1954	27	76.6	1981	37	1972	12	66.5	1972	11	230	.0	6.5	30.0	.0	.0	.0
Jul	87.6	65.4	76.5	104	1954	14	80.5	1993	47	1961	10	72.6	1975	0	356	.2	13.4	31.0	.0	.0	.0
Aug	86.0	63.9	75.0	105	1983	21	78.7	1988	46	1986	29	71.3	1972	1	308	.2	9.1	31.0	.0	.0	.0
Sep	80.1	57.2	68.7	101	1954	6	72.6	1998	32	1967	30	63.6	1974	27	137	.0	3.2	30.0	.0	.0	.0
Oct	70.9	44.4	57.7	96	1954	5	64.9	1984	21	1962	27	52.5	1988	250	22	.0	.1	30.9	.0	2.2	.0
Nov	60.8	35.4	48.1	85+	1974	2	56.5	1985	8	1970	25	41.0	1976	509	1	.0	.0	26.7	.0	11.6	.0
Dec	51.8	28.0	39.9	78+	1998	8	47.6	1984	-4	1962	13	32.6	2000	779	0	.0	.0	19.5	.4	20.2	@
Ann	69.2	44.8	57.0	105	Aug 1983	21	80.5	Jul 1993	-7	Jan 1985	21	26.0	Jan 1977	4039	1144	.4	33.7	320.8	2.4	87.8	.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

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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	3.99	4.01	4.00	2000	18	7.39	1998	.76	1981
Feb	3.79	3.89	2.87	1966	13	7.76	1998	.55	1978
Mar	4.76	4.03	4.08	1963	12	12.64	1975	1.00	1988
Apr	4.08	3.78	4.20	1998	17	8.38	1983	.27	1986
May	4.69	4.66	2.83	1984	28	10.67	1975	1.07	1997
Jun	4.45	4.32	4.07	1969	2	10.44	1982	.60	1990
Jul	4.40	4.66	4.30	2001	3	8.27	1979	.87	1983
Aug	3.85	3.64	5.22	1994	17	9.86	1994	.75	1997
Sep	4.46	3.92	4.50	1959	30	10.04	2000	.78	1984
Oct	3.63	3.03	4.71	1964	16	12.83	1990	.00	2000
Nov	3.57	3.10	5.01	1977	7	11.85	1977	.86	1981
Dec	3.53	3.60	4.80	1958	28	8.77	1973	.40	1980
Ann	49.20	48.57	5.22	Aug 1994	17	12.83	Oct 1990	.00	Oct 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	9.9	7.0	2.9	1.0
Feb	8.9	6.3	2.8	1.1
Mar	11.1	7.5	3.5	1.5
Apr	8.9	6.3	2.6	1.2
May	11.8	7.8	3.1	1.5
Jun	11.6	7.4	3.0	1.0
Jul	12.1	7.5	2.9	1.2
Aug	10.7	6.7	2.5	1.0
Sep	9.4	6.2	3.1	1.5
Oct	7.2	5.0	2.4	1.1
Nov	8.8	6.1	2.5	.9
Dec	9.9	5.9	2.2	1.1
Ann	120.3	79.7	33.5	14.1

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	1.44	1.81	2.36	2.81	3.25	3.69	4.18	4.74	5.46	6.57	7.59
Feb	1.05	1.41	1.95	2.43	2.90	3.39	3.93	4.57	5.40	6.70	7.92
Mar	1.50	1.95	2.62	3.19	3.75	4.32	4.95	5.69	6.64	8.12	9.50
Apr	.72	1.08	1.68	2.23	2.80	3.42	4.12	4.97	6.10	7.93	9.67
May	1.46	1.91	2.57	3.14	3.69	4.26	4.88	5.61	6.56	8.03	9.39
Jun	1.21	1.63	2.27	2.83	3.39	3.96	4.60	5.36	6.35	7.90	9.34
Jul	1.29	1.71	2.33	2.88	3.41	3.96	4.57	5.28	6.21	7.66	9.01
Aug	.95	1.32	1.88	2.38	2.87	3.39	3.97	4.66	5.57	7.00	8.34
Sep	.98	1.39	2.05	2.64	3.23	3.86	4.57	5.42	6.53	8.31	9.99
Oct	.29	.68	1.27	1.80	2.36	2.96	3.65	4.49	5.62	7.45	9.22
Nov	1.06	1.40	1.91	2.35	2.78	3.22	3.71	4.29	5.03	6.20	7.28
Dec	.75	1.08	1.60	2.07	2.54	3.04	3.61	4.29	5.19	6.63	7.99
Ann	36.31	38.84	42.07	44.50	46.66	48.73	50.87	53.22	56.07	60.18	63.72

\+ 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

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(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)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	3.1	.0	#	0
Feb	3.2	2.3	#	0
Mar	1.6	.0	#	0
Apr	.1	.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	.6	.0	#	0
Ann	8.6	2.3	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	15.0	1987	22	22.5	1987	9	1996	8	2	1996
Feb	10.4	1979	18	19.1	1979	11	1979	18	1	1989
Mar	13.0	1993	14	14.5	1981	6+	1993	13	1	1993
Apr	2.0	1983	17	2.0	1983	#	1983	17	#	1983
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	#	1987	11	#+	1987	0	0	0	0	0
Dec	5.0	1997	30	5.0	1997	9	1993	22	1	1993
Ann	15.0	Jan 1987	22	22.5	Jan 1987	11	Feb 1979	18	2	Jan 1996

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	1.0	.8	.3	.2	@
Feb	1.0	.7	.2	.2	@
Mar	.4	.4	.3	.2	.1
Apr	.1	.1	.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	.0
Dec	.3	.2	@	@	.0
Ann	2.8	2.2	.8	.6	.1

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	1.2	.6	.2	.0
Feb	.6	.3	.2	@
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	.0
Dec	.1	.1	@	.0
Ann	2.2	1.2	.5	@

+ 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	5/12	5/07	5/03	4/30	4/27	4/24	4/21	4/17	4/12
32	4/30	4/24	4/20	4/17	4/14	4/10	4/07	4/03	3/28
28	4/09	4/03	3/30	3/27	3/24	3/20	3/17	3/13	3/07
24	3/28	3/22	3/18	3/14	3/11	3/07	3/04	2/27	2/22
20	3/19	3/12	3/07	3/02	2/26	2/22	2/18	2/12	2/05
16	3/06	2/25	2/18	2/12	2/07	2/01	1/27	1/20	1/10

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

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	189	182	177	172	168	164	160	155	148
32	214	206	201	196	192	188	183	178	170
28	251	243	237	232	228	223	218	212	204
24	281	272	265	259	254	249	243	236	227
20	310	301	294	289	283	278	272	266	257
16	>365	340	329	321	314	307	300	292	282

***** 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)

Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	872	697	533	272	88	11	0	1	27	250	509	779	4039
60	717	557	383	147	29	1	0	0	5	140	366	624	2969
57	626	473	299	89	12	0	0	0	1	92	286	532	2410
55	570	418	247	60	6	0	0	0	0	66	237	476	2080
50	427	289	140	16	0	0	0	0	0	24	136	334	1366
32	79	21	2	0	0	0	0	0	0	0	2	35	139

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	231	249	493	723	1021	1209	1379	1331	1100	796	484	279	9295
55	8	1	24	93	313	519	666	618	410	149	29	7	2837
57	2	0	14	62	257	459	604	556	351	112	18	1	2436
60	0	0	6	30	182	370	511	463	265	68	8	0	1903
65	0	0	0	5	85	230	356	308	137	22	1	0	1144
70	0	0	0	0	29	116	211	168	49	4	0	0	577

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	95	149	326	545	810	998	1154	1110	897	593	301	135	95	244	570	1115	1925	2923	4077	5187	6084	6677	6978	7113
45	36	77	204	396	655	848	999	955	747	439	188	66	36	113	317	713	1368	2216	3215	4170	4917	5356	5544	5610
50	9	34	110	263	500	698	844	800	597	295	97	30	9	43	153	416	916	1614	2458	3258	3855	4150	4247	4277
55	0	6	49	152	349	548	689	645	447	170	43	5	0	6	55	207	556	1104	1793	2438	2885	3055	3098	3103
60	0	0	14	70	209	398	534	490	302	78	9	0	0	0	14	84	293	691	1225	1715	2017	2095	2104	2104
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	69	110	221	354	527	678	785	763	592	384	201	96	69	179	400	754	1281	1959	2744	3507	4099	4483	4684	4780

(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