

Climatography of the United States

No. 20

1971-2000

Station: NORTH WILKESBORO, NC

COOP ID: 316256

Climate Division: NC 3

NWS Call Sign:

Elevation: 1,120 Feet Lat: 36°10N

Lon: 81°09W

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	47.1	23.8	35.5	78	1957	29	44.2	1974	-9	1985	21	24.0	1977	915	0	.0	.0	13.0	2.0	25.8	.4
Feb	51.6	25.0	38.3	83	1977	27	44.1	1976	-6+	1996	6	28.9	1978	747	0	.0	.0	15.6	1.1	22.6	.1
Mar	60.7	32.5	46.6	88	1985	30	50.7	1990	2	1993	15	41.8	1975	571	0	.0	.0	25.3	.2	15.9	.0
Apr	70.8	39.7	55.3	94	1989	28	59.9	1986	18	1972	9	50.8	1997	298	5	.0	.4	28.9	.0	5.6	.0
May	78.3	49.5	63.9	96	1996	20	69.2	1991	28	1963	2	58.3	1997	113	78	.0	.9	30.9	.0	.5	.0
Jun	85.2	58.7	72.0	102	1999	8	76.5	1981	37+	1966	2	67.2	1997	12	221	@	6.3	30.0	.0	.0	.0
Jul	88.5	63.0	75.8	101	1998	21	79.6	1986	44	1961	10	72.1	1979	0	334	.1	11.9	31.0	.0	.0	.0
Aug	87.0	61.4	74.2	102	1983	22	77.5	1980	42+	1986	30	71.0	1997	1	285	.2	8.6	31.0	.0	.0	.0
Sep	80.6	54.2	67.4	95+	1998	7	72.3	1998	30	1963	24	63.2	1976	45	116	.0	2.5	30.0	.0	.0	.0
Oct	71.0	40.9	56.0	90	1986	5	63.9	1984	16	1962	27	50.4	1976	302	22	.0	@	30.7	.0	5.7	.0
Nov	60.6	32.7	46.7	85	1974	3	56.0	1985	7	1970	25	39.3	1976	550	0	.0	.0	25.2	@	16.0	.0
Dec	50.6	25.7	38.2	81	1998	8	45.9	1984	-3	1962	13	30.3	2000	833	0	.0	.0	16.5	.8	23.8	.1
Ann	69.3	42.3	55.8	102+	Jun 1999	8	79.6	Jul 1986	-9	Jan 1985	21	24.0	Jan 1977	4387	1061	.3	30.6	308.1	4.1	115.9	.6

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1933-2001

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

071-A

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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: NORTH WILKESBORO, NC

COOP ID: 316256

Climate Division: NC 3

NWS Call Sign:

Elevation: 1,120 Feet Lat: 36°10N

Lon: 81°09W

Precipitation (inches)

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	4.42	4.29	3.33	1954	22	9.57	1998	.63	1981	10.7	7.4	3.3	1.3	1.46	1.88	2.49	3.02	3.52	4.04	4.61	5.27	6.13	7.46	8.68
Feb	3.93	3.61	3.25	1984	14	7.19	1971	.46	1978	9.5	6.9	2.8	1.1	1.04	1.41	1.98	2.48	2.97	3.49	4.06	4.74	5.62	7.01	8.31
Mar	4.85	4.31	3.13	1963	12	10.87	1975	1.41	1985	11.8	8.0	3.6	1.4	1.79	2.25	2.90	3.45	3.97	4.50	5.08	5.75	6.60	7.92	9.13
Apr	4.40	4.73	5.20	1983	10	9.74	1983	.53	1986	10.1	7.0	2.8	1.3	.95	1.35	2.00	2.58	3.17	3.80	4.50	5.35	6.46	8.24	9.93
May	4.68	4.76	2.91	1949	2	7.40	1975	1.37	1997	12.3	8.5	3.1	1.3	2.39	2.78	3.31	3.73	4.11	4.50	4.91	5.37	5.95	6.82	7.60
Jun	4.44	3.96	8.55	1967	20	7.95	1972	.27	1986	11.5	7.2	3.0	1.2	1.15	1.57	2.21	2.78	3.34	3.93	4.59	5.37	6.38	7.99	9.49
Jul	4.29	3.71	4.60	1941	19	10.84	1984	1.13	1983	12.5	7.9	3.1	1.0	1.32	1.73	2.34	2.86	3.36	3.89	4.46	5.14	6.01	7.37	8.64
Aug	4.24	3.30	6.09	1970	10	13.14	1994	1.07	1997	11.2	7.1	2.7	.9	.80	1.18	1.80	2.37	2.96	3.59	4.30	5.16	6.31	8.14	9.89
Sep	4.45	4.41	5.07	1977	8	9.92	1979	.57	1991	10.6	6.6	3.2	1.5	.98	1.39	2.05	2.64	3.23	3.85	4.56	5.40	6.52	8.29	9.96
Oct	3.82	3.22	5.10	1975	18	12.24	1976	.01	2000	8.1	5.3	2.4	1.1	.33	.60	1.11	1.64	2.22	2.88	3.67	4.66	6.02	8.29	10.53
Nov	3.54	3.27	2.93	1964	25	7.80	1985	.58	1981	10.0	6.5	2.6	.9	1.17	1.50	2.00	2.42	2.82	3.24	3.69	4.23	4.91	5.98	6.96
Dec	3.62	3.43	4.24	1958	28	7.70	1983	.73	1980	10.6	6.5	2.3	1.1	1.00	1.34	1.87	2.32	2.77	3.23	3.75	4.36	5.16	6.41	7.57
Ann	50.68	50.49	8.55	Jun 1967	20	13.14	Aug 1994	.01	Oct 2000	128.9	84.9	34.9	14.1	38.47	40.89	43.97	46.28	48.32	50.28	52.30	54.51	57.18	61.01	64.31

+ 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: 1933-2001

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

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Climate Division: NC 3

NWS Call Sign:

Elevation: 1,120 Feet

Lat: 36°10N

Lon: 81°09W

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	1	#	10.0	1977	10	16.5	1977	12	1987	26	3+	2000	1.3	1.0	.6	.2	@	2.4	1.4	.4	.0
Feb	3.1	.0	#	#	10.0	1987	27	22.0	1979	14	1979	19	3	1979	1.0	.8	.3	.2	@	2.0	1.0	.6	.1
Mar	1.9	.0	#	0	14.0	1981	23	17.0	1993	12	1981	23	1	1981	.5	.4	.3	.1	.1	.7	.4	.1	@
Apr	#	.0	#	0	#	1989	11	#+	1989	#	1983	19	#	1983	.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	.1	.0	#	0	1.0	1971	24	2.0	1971	2	1971	25	#+	1987	.1	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.9	.0	#	#	10.5	1993	21	10.5	1993	7	1971	4	1	1989	.7	.4	.2	.1	@	1.1	.2	.1	.0
Ann	9.0	.0	N/A	N/A	14.0	Mar 1981	23	22.0	Feb 1979	14	Feb 1979	19	3+	Jan 2000	3.6	2.7	1.4	.6	.1	6.3	3.0	1.2	.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

Complete documentation available from:

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Lon: 81° 09W

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	5/19	5/14	5/10	5/06	5/03	4/30	4/26	4/22	4/17
32	5/09	5/04	4/30	4/27	4/24	4/22	4/19	4/15	4/10
28	4/19	4/15	4/12	4/10	4/08	4/05	4/03	3/31	3/27
24	4/04	3/30	3/26	3/23	3/20	3/17	3/14	3/10	3/05
20	3/26	3/20	3/15	3/11	3/08	3/04	2/28	2/24	2/18
16	3/10	3/03	2/27	2/23	2/19	2/15	2/11	2/06	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	9/26	9/30	10/02	10/04	10/06	10/08	10/11	10/13	10/17
32	10/04	10/09	10/12	10/15	10/18	10/21	10/24	10/28	11/02
28	10/14	10/19	10/22	10/25	10/28	10/31	11/03	11/07	11/12
24	10/24	10/30	11/04	11/08	11/11	11/15	11/19	11/24	11/30
20	11/09	11/15	11/19	11/22	11/25	11/29	12/02	12/06	12/12
16	11/18	11/26	12/02	12/07	12/11	12/16	12/21	12/27	1/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	178	170	165	160	156	152	147	142	134
32	195	189	184	180	176	172	168	164	157
28	220	214	210	206	203	200	196	192	186
24	261	252	246	241	236	231	225	219	210
20	285	277	271	267	262	257	253	247	239
16	326	315	307	301	295	289	282	275	264

* 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	915	747	571	298	113	12	0	1	45	302	550	833	4387
60	760	607	418	169	45	2	0	0	12	186	404	678	3281
57	667	523	330	108	21	0	0	0	5	131	321	585	2691
55	613	467	275	75	12	0	0	0	2	101	268	529	2342
50	469	338	157	22	2	0	0	0	0	44	156	384	1572
32	103	37	3	0	0	0	0	0	0	0	2	53	198

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	211	214	455	697	989	1198	1357	1307	1061	742	443	243	8917
55	8	0	14	82	288	508	644	594	373	130	19	6	2666
57	0	0	7	54	235	448	582	532	316	99	11	0	2284
60	0	0	2	26	166	360	489	439	233	61	4	0	1780
65	0	0	0	5	78	221	334	285	116	22	0	0	1061
70	0	0	0	0	27	109	188	144	39	5	0	0	512

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	59	98	254	476	743	958	1108	1063	830	501	241	91	59	157	411	887	1630	2588	3696	4759	5589	6090	6331	6422
45	24	45	146	336	588	808	953	908	680	354	142	44	24	69	215	551	1139	1947	2900	3808	4488	4842	4984	5028
50	3	12	67	210	433	658	798	753	531	220	70	16	3	15	82	292	725	1383	2181	2934	3465	3685	3755	3771
55	0	1	31	116	289	508	643	598	381	120	28	2	0	1	32	148	437	945	1588	2186	2567	2687	2715	2717
60	0	0	4	54	167	362	488	443	245	45	4	0	0	0	4	58	225	587	1075	1518	1763	1808	1812	1812
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	55	92	193	321	480	638	746	722	542	344	181	79	55	147	340	661	1141	1779	2525	3247	3789	4133	4314	4393

(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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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