

Climatology of the United States

No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: STATESVILLE 2 NNE, NC

1971-2000

COOP ID: 318292

Climate Division: NC 4

NWS Call Sign:

Elevation: 950 Feet

Lat: 35°49N

Lon: 80°53W

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	50.0	27.4	38.7	81	1944	28	48.5	1974	-8	1966	31	27.4	1977	816	0	.0	.0	15.5	1.3	21.6	.2
Feb	54.9	29.3	42.1	83	1944	22	47.8	1990	-7	1958	18	33.2	1978	642	0	.0	.0	18.7	.5	18.9	.0
Mar	63.5	36.6	50.1	93	1907	30	55.2	1997	5	1960	6	46.1	1975	463	0	.0	.0	28.3	.1	11.8	.0
Apr	72.9	43.4	58.2	95	1915	26	63.1	1994	17+	1982	7	53.7	1983	219	13	.0	.5	29.9	.0	5.1	.0
May	79.4	53.5	66.5	99+	1941	23	71.0	1991	25	1907	12	62.6	1992	61	106	.0	1.6	31.0	.0	.4	.0
Jun	85.7	61.7	73.7	105	1954	27	78.1	1986	36	1966	1	69.8	1974	4	265	.1	8.2	30.0	.0	.0	.0
Jul	89.0	66.2	77.6	105	1954	14	81.3	1986	29	1922	11	74.8	1979	0	391	.7	14.6	31.0	.0	.0	.0
Aug	87.2	65.0	76.1	106	1988	18	78.9	1987	44+	1986	30	73.0	1992	0	344	.4	10.3	31.0	.0	.0	.0
Sep	81.4	58.2	69.8	104	1939	9	74.5	1998	31	1967	30	66.6	1984	20	163	.0	3.6	30.0	.0	.0	.0
Oct	72.2	45.4	58.8	96+	1954	5	66.1	1984	16	1962	27	52.9	1988	225	32	.0	.2	31.0	.0	3.8	.0
Nov	61.9	36.4	49.2	85+	1974	2	57.1	1985	6	1970	25	42.0	1976	476	1	.0	.0	26.7	.0	13.3	.0
Dec	52.6	29.6	41.1	80	1931	20	48.9	1984	-3	1962	13	32.3	2000	741	0	.0	.0	18.9	.4	20.3	.0
Ann	70.9	46.1	58.5	106	Aug 1988	18	81.3	Jul 1986	-8	Jan 1966	31	27.4	Jan 1977	3667	1315	1.2	39.0	322.0	2.3	95.2	.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/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1901-2001

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

085-A

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Elevation: 950 Feet Lat: 35°49N

Lon: 80°53W

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	3.83	3.86	3.72	1978	25	9.31	1978	.77	1986	10.7	7.0	2.7	.9	1.17	1.53	2.07	2.54	3.00	3.47	3.98	4.59	5.38	6.61	7.74
Feb	3.55	3.53	2.90	1910	28	6.08	1984	.96	1977	9.5	6.2	2.7	.9	1.30	1.63	2.11	2.51	2.89	3.29	3.71	4.21	4.84	5.81	6.71
Mar	4.45	4.13	4.64	1912	15	8.56	1975	1.24	1985	11.0	7.7	3.0	1.1	1.71	2.12	2.71	3.20	3.67	4.15	4.66	5.26	6.02	7.18	8.25
Apr	3.42	3.38	3.73	1992	21	8.55	1997	.35	1976	9.2	6.4	2.2	.9	.67	.98	1.48	1.94	2.41	2.91	3.48	4.17	5.07	6.53	7.91
May	4.15	3.84	3.66	1950	14	8.38	1990	.87	1986	10.6	6.9	2.7	1.2	1.13	1.52	2.12	2.64	3.16	3.70	4.30	5.00	5.93	7.37	8.72
Jun	4.49	3.93	7.68	1972	21	10.22	1972	.80	1986	10.4	7.0	2.8	1.1	1.32	1.75	2.39	2.95	3.48	4.04	4.66	5.39	6.33	7.81	9.17
Jul	3.95	4.03	7.70	1913	9	7.76	1985	.77	1976	10.7	7.0	2.4	1.1	1.02	1.40	1.97	2.47	2.97	3.49	4.08	4.77	5.67	7.09	8.41
Aug	3.67	3.80	6.39	1970	10	7.21	1996	.58	1982	9.5	6.1	2.3	.9	1.11	1.46	1.98	2.43	2.86	3.32	3.81	4.40	5.15	6.33	7.42
Sep	4.07	4.14	9.74	1924	29	10.95	1979	.05	1985	8.4	5.5	2.6	1.3	.47	.78	1.35	1.91	2.52	3.20	3.99	4.97	6.30	8.50	10.65
Oct	3.45	3.09	5.21	1929	1	12.64	1990	.00	2000	7.1	4.7	2.4	1.2	.46	.90	1.48	1.97	2.46	2.98	3.56	4.25	5.16	6.61	7.98
Nov	3.30	3.08	3.82	1962	9	6.35	1977	1.11	1981	8.9	5.9	2.6	1.0	1.37	1.67	2.09	2.44	2.77	3.10	3.45	3.87	4.39	5.18	5.90
Dec	3.64	3.86	4.53	1958	28	7.25	1973	.92	1980	10.0	6.6	2.7	.9	1.17	1.52	2.02	2.46	2.88	3.31	3.79	4.34	5.06	6.17	7.20
Ann	45.97	46.60	9.74	Sep 1924	29	12.64	Oct 1990	.00	Oct 2000	116.0	77.0	31.1	12.5	34.79	37.01	39.82	41.93	43.79	45.58	47.42	49.44	51.88	55.39	58.40

+ 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: 1901-2001

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

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NWS Call Sign:

Elevation: 950 Feet

Lat: 35°49N

Lon: 80°53W

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	2.1	.0	#	0	11.0	1987	22	11.0	1987	8	1988	8	2	1973	.9	.7	.3	.1	@	1.0	.4	.2	.0
Feb	1.7	.0	#	0	9.0	1979	18	16.0	1979	9	1979	18	3	1979	.7	.5	.2	.1	.0	.7	.4	.2	.0
Mar	1.4	.0	#	0	6.0	1993	13	6.4	1978	4+	1980	2	#+	1980	.4	.4	.2	@	.0	.1	@	.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	#	2000	19	#	2000	#	2000	19	#	2000	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.4	.0	#	0	6.5	1971	3	6.6	1971	7	1971	3	#+	1998	.2	.1	.1	@	.0	.1	.1	@	.0
Ann	5.6	.0	N/A	N/A	11.0	Jan 1987	22	16.0	Feb 1979	9	Feb 1979	18	3	Feb 1979	2.2	1.7	.8	.2	@	1.9	.9	.4	.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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Lat: 35° 49N

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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	5/17	5/12	5/08	5/05	5/02	4/29	4/26	4/22	4/17
32	5/09	5/04	4/30	4/27	4/24	4/21	4/18	4/14	4/09
28	4/24	4/19	4/15	4/11	4/08	4/05	4/02	3/29	3/23
24	4/12	4/05	4/01	3/28	3/24	3/20	3/16	3/12	3/05
20	4/02	3/26	3/20	3/16	3/12	3/07	3/03	2/26	2/18
16	3/13	3/06	2/28	2/24	2/20	2/15	2/11	2/06	1/29
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	9/27	10/01	10/04	10/06	10/08	10/10	10/13	10/15	10/19
32	10/03	10/08	10/12	10/15	10/18	10/21	10/24	10/27	11/01
28	10/12	10/17	10/22	10/25	10/29	11/01	11/05	11/09	11/15
24	10/25	10/31	11/05	11/08	11/12	11/15	11/19	11/23	11/29
20	11/07	11/14	11/18	11/22	11/26	11/29	12/03	12/07	12/14
16	11/21	11/28	12/03	12/07	12/12	12/16	12/20	12/25	1/01
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	171	167	162	158	155	150	145	139
32	200	191	186	181	176	171	166	160	152
28	226	218	212	207	203	198	193	187	179
24	260	251	244	238	232	226	220	213	203
20	286	276	270	264	258	253	247	240	231
16	324	314	306	300	294	288	282	275	265

* 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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NWS Call Sign:

Elevation: 950 Feet Lat: 35°49N Lon: 80°53W

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	816	642	463	219	61	4	0	0	20	225	476	741	3667
60	661	502	316	109	16	0	0	0	4	124	332	586	2650
57	577	418	234	62	5	0	0	0	1	79	253	501	2130
55	518	367	186	39	2	0	0	0	0	56	205	443	1816
50	380	240	91	9	0	0	0	0	0	19	108	308	1155
32	63	12	0	0	0	0	0	0	0	0	1	34	110

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	270	295	560	784	1068	1252	1414	1367	1134	830	515	316	9805
55	12	5	33	134	357	562	701	654	444	173	30	12	3117
57	9	0	19	96	298	502	639	592	385	134	18	8	2700
60	0	0	7	53	216	412	546	499	297	86	7	0	2123
65	0	0	0	13	106	265	391	344	163	32	1	0	1315
70	0	0	0	1	37	137	238	193	62	8	0	0	676

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	99	146	327	546	821	1014	1163	1122	894	583	290	134	99	245	572	1118	1939	2953	4116	5238	6132	6715	7005	7139
45	46	77	207	398	666	864	1008	967	744	429	180	69	46	123	330	728	1394	2258	3266	4233	4977	5406	5586	5655
50	16	30	114	266	511	714	853	812	594	286	93	34	16	46	160	426	937	1651	2504	3316	3910	4196	4289	4323
55	2	9	50	153	362	564	698	657	444	166	43	10	2	11	61	214	576	1140	1838	2495	2939	3105	3148	3158
60	0	0	16	75	220	414	543	502	300	80	10	0	0	0	16	91	311	725	1268	1770	2070	2150	2160	2160
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	70	117	235	374	538	684	793	765	596	385	199	99	70	187	422	796	1334	2018	2811	3576	4172	4557	4756	4855

(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