## 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

**COOP ID: 271647** 

Station: COLEBROOK, NH

**Climate Division: NH 1** 

**NWS Call Sign:** 

Elevation: 1,040 Feet Lat: 44°54N Lon: 71°29W

									ŗ	Гетр	eratur	e (°F)											
	Mea	<b>n</b> (1)						Extr	emes					Degree Base To	·	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	23.8	.2	12.0	61	1996	19	22.5	1990	-40	1968	12	.9	1982	1643	0	.0	.0	.7	22.2	30.5	14.4		
Feb	26.9	1.2	14.1	63	2000	28	25.7	1981	-42	1962	2	3.4	1979	1427	0	.0	.0	.9	17.7	27.4	12.4		
Mar	37.1	14.7	25.9	79	1998	31	33.6	1973	-29+	1982	1	19.6	1984	1212	0	.0	.0	4.8	9.0	28.6	5.2		
Apr	50.0	28.3	39.2	86+	1990	27	45.3	1986	-8	1969	3	33.0	1975	776	0	.0	.0	15.2	.8	21.8	.2		
May	64.5	39.5	52.0	90	1977	23	57.5	1998	17	1968	7	46.2	1997	405	2	.0	@	29.0	@	9.4	.0		
Jun	72.7	49.3	61.0	93+	2001	16	65.0	1976	27+	1986	3	57.6	1985	139	18	.0	.2	30.0	.0	1.2	.0		
Jul	77.3	53.7	65.5	94	1979	23	69.3	1994	31+	1992	2	61.3	1992	55	71	.0	.5	31.0	.0	.2	.0		
Aug	74.8	51.7	63.3	95	1975	3	67.5	1973	29+	1982	30	61.0	1987	85	31	.0	.1	31.0	.0	.4	.0		
Sep	66.1	44.1	55.1	94	1999	4	60.7	1999	18	1980	29	50.6	1978	300	3	.0	@	29.3	.0	4.4	.0		
Oct	54.2	32.5	43.4	81	1970	9	49.1	1971	7	1972	20	37.9	1974	672	0	.0	.0	21.2	.2	14.9	.0		
Nov	40.9	23.2	32.1	71+	2001	3	37.5	1979	-13	1989	24	28.0	1976	988	0	.0	.0	6.6	5.9	23.9	.5		
Dec	28.6	8.9	18.8	65	1964	25	27.2	1996	-38	1980	26	.5	1989	1434	0	.0	.0	.8	17.8	29.9	8.1		
Ann	51.4	28.9	40.2	95	Aug 1975	3	69.3	Jul 1994	-42	Feb 1962	2	.5	Dec 1989	9136	125	.0	.8	200.5	73.6	192.6	40.8		

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 003-A

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1960-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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Station: COLEBROOK, NH

COOP ID: 271647

Climate Division: NH 1 NWS Call Sign: Elevation: 1,040 Feet Lat: 44°54N Lon: 71°29W

										Pı	recipi	tation	(incl	nes)													
			P	recip	itatio	on Total	S			M	ean N	Numbo Pays (3		Precipitation Probabilities (1)  Probability that the monthly/annual precipitation will be equal to or less than the indicated amount													
		ans/				Extremes	5			D	aily Pre	cipitatio	n	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	2.85	2.42	1.95	1994	28	6.04	1979	.54	1981	12.0	6.2	1.8	.4	.88	1.15	1.55	1.90	2.24	2.58	2.97	3.42	4.00	4.91	5.75			
Feb	1.96	1.77	1.35	1981	12	4.18	1981	.47	1978	9.1	5.5	1.1	.1	.59	.78	1.05	1.29	1.53	1.77	2.03	2.35	2.75	3.38	3.97			
Mar	2.64	2.66	1.50	1987	31	4.92	1992	.58	1996	10.3	6.5	1.6	.4	1.04	1.29	1.63	1.92	2.19	2.47	2.76	3.11	3.54	4.21	4.82			
Apr	2.63	2.29	1.57	1969	19	5.11	2000	.89	1986	10.3	7.5	1.6	.1	1.12	1.36	1.69	1.96	2.22	2.48	2.76	3.08	3.48	4.10	4.66			
May	3.84	3.83	2.80	1999	19	8.48	1984	1.03	1977	11.8	8.4	2.6	.7	1.46	1.82	2.33	2.76	3.16	3.57	4.02	4.54	5.20	6.21	7.13			
Jun	4.13	3.62	3.45	1978	9	11.08	1978	.50	1995	12.1	8.8	2.7	.6	1.26	1.65	2.24	2.74	3.23	3.73	4.29	4.95	5.79	7.11	8.33			
Jul	4.15	4.31	2.50	1997	9	7.64	1975	1.48	1989	11.7	8.4	2.9	1.0	1.86	2.23	2.74	3.16	3.55	3.94	4.35	4.83	5.43	6.35	7.17			
Aug	4.45	4.31	2.77	1977	17	8.22	1976	.70	1996	11.2	8.4	3.3	1.0	1.41	1.83	2.46	2.99	3.51	4.04	4.63	5.32	6.20	7.58	8.86			
Sep	3.72	3.72	2.00	1999	17	6.48	1999	.75	1988	10.5	7.5	2.7	.9	1.37	1.72	2.22	2.64	3.04	3.45	3.89	4.41	5.06	6.07	6.99			
Oct	3.40	3.32	2.51	1991	6	7.49	1990	1.18	1994	10.9	7.4	2.5	.6	1.33	1.64	2.09	2.46	2.81	3.17	3.56	4.01	4.58	5.45	6.24			
Nov	3.42	3.34	1.80	1983	25	7.00	1983	1.09	1991	12.3	8.0	2.3	.5	1.58	1.88	2.29	2.63	2.94	3.25	3.59	3.97	4.45	5.17	5.83			
Dec	2.80	2.50	2.40	2000	18	7.67	1973	.60	1988	12.4	7.4	1.7	.3	.85	1.11	1.51	1.85	2.19	2.53	2.91	3.36	3.94	4.84	5.68			
Ann	39.99	39.45	3.45	Jun 1978	9	11.08	Jun 1978	.47	Feb 1978	134.6	90.0	26.8	6.6	31.87	33.51	35.58	37.12	38.47	39.76	41.08	42.53	44.26	46.74	48.86			

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1960-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 271647** 

Station: COLEBROOK, NH

Climate Division: NH 1 NWS Call Sign: Elevation: 1,040 Feet Lat: 44°54N Lon: 71°29W

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (1)	)					Extre	mes (2)			ow Fa		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	21.2	18.8	11	12	16.0	1990	30	36.5	1994	32	1971	27	24	1971	8.7	7.2	2.8	1.1	.2	27.3	22.6	17.8	9.2		
Feb	17.8	16.3	12	8	9.0	2000	17	37.5	1993	40	1971	24	31	1971	6.6	5.7	2.2	1.0	.0	26.9	24.8	18.2	9.5		
Mar	13.8	14.2	9	7	17.0	1984	14	30.2	1971	42	1971	9	34	1971	5.2	4.6	1.8	.9	.1	22.2	15.9	11.6	5.7		
Apr	4.9	2.0	2	1	12.0	1987	1	20.0	1987	29	1971	8	15	1971	1.8	1.7	.6	.3	.1	4.6	2.8	2.0	1.2		
May	#	.0	#	0	#	1997	11	#+	1997	#+	1997	11	#+	1997	.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	#	1992	30	#	1992	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Oct	.6	.0	#	0	4.2	1979	9	5.2	1979	4	1979	9	#+	2000	.4	.2	.1	.0	.0	.3	.1	.0	.0		
Nov	8.7	5.8	1	1	8.2	1980	18	26.5	1971	13+	1990	13	3	1997	4.3	3.6	.8	.4	.0	8.0	3.2	1.5	.2		
Dec	23.1	22.5	6	4	12.0	1989	16	47.6	1981	23+	1995	28	14+	1995	8.7	7.4	2.5	.8	@	23.2	17.2	12.9	5.8		
Ann	90.1	79.6	N/A	N/A	17.0	Mar 1984	14	47.6	Dec 1981	42	Mar 1971	9	34	Mar 1971	35.7	30.4	10.8	4.5	.4	112.5	86.6	64.0	31.6		

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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Lon: 71°29W

Lat: 44°54N

Elevation: 1.040 Feet

Station: COLEBROOK, NH

**Climate Division: NH 1 NWS Call Sign:** 

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Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(\*) Temp (F) .10 .20 .30 .40 .70 .80 .90 36 7/20 7/12 7/06 7/01 6/26 6/21 6/16 6/10 6/02 32 6/27 6/21 6/16 6/12 6/09 6/05 6/01 5/28 5/21 28 6/01 5/28 5/25 5/22 5/19 5/16 5/13 5/08 6/06 5/05 4/24 24 5/16 5/12 5/09 5/07 5/03 4/30 4/28 20 5/01 4/27 4/24 4/22 4/19 4/17 4/14 4/11 4/07 16 4/22 4/18 4/15 4/13 4/10 4/08 4/05 4/02 3/29 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(\*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 8/10 8/16 8/20 8/24 8/28 8/31 9/04 9/08 9/14 32 8/20 8/26 8/31 9/04 9/07 9/11 9/15 9/20 9/26 28 9/16 9/20 9/23 9/26 9/28 10/01 10/04 10/07 10/11 24 9/26 9/30 10/04 10/07 10/10 10/12 10/15 10/19 10/24 20 10/02 10/08 10/12 10/16 10/20 10/23 10/27 10/31 11/06 10/21 10/29 11/01 11/03 16 10/26 11/06 11/09 11/12 11/16 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 77 99 86 69 62 55 47 38 25 36 32 110 102 90 84 77 70 59 121 96 28 149 142 137 133 129 124 120 108 115 24 176 169 165 161 157 153 149 145 138 197 192 20 205 187 183 178 173 168 160

211

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

215

220

227

198

194

187

207

203

<sup>\*</sup> Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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Climate Division: NH 1 NWS Call Sign: Elevation: 1,040 Feet Lat: 44°54N Lon: 71°29W

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1643	1427	1212	776	405	139	55	85	300	672	988	1434	9136		
60	1488	1287	1057	626	262	49	9	18	170	517	838	1279	7600		
57	1395	1203	964	536	188	20	1	4	109	427	748	1186	6781		
55	1333	1147	902	477	146	9	0	1	77	368	688	1124	6272		
50	1178	1007	747	336	66	1	0	0	26	232	538	969	5100		
32	631	516	244	29	0	0	0	0	0	5	88	451	1964		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	11	13	55	243	619	869	1039	969	693	356	90	40	4997		
55	0	0	0	2	52	188	326	257	80	6	0	0	911		
57	0	0	0	1	33	139	266	198	52	3	0	0	692		
60	0	0	0	0	14	78	180	119	23	1	0	0	415		
65	0	0	0	0	2	18	71	31	3	0	0	0	125		
70	0	0	0	0	0	1	13	3	0	0	0	0	17		

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 J													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec					
40	1	0	15	97	384	628	777	723	457	183	42	2	1	1	16	113	497	1125	1902	2625	3082	3265	3307	3309					
45	0	0	4	43	246	478	622	568	315	97	13	0	0	0	4	47	293	771	1393	1961	2276	2373	2386	2386					
50	0	0	0	19	140	331	468	415	193	39	3	0	0	0	0	19	159	490	958	1373	1566	1605	1608	1608					
55	0	0	0	7	67	197	318	268	100	9	0	0	0	0	0	7	74	271	589	857	957	966	966	966					
60	0	0	0	0	28	99	181	142	39	0	0	0	0	0	0	0	28	127	308	450	489	489	489	489					
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)																
50/86	<b>86</b> 0 0 17 80 256 395 506 454 280 117 26 0										0	0	0	17	97	353	748	1254	1708	1988	2105	2131	2131						

(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

#### 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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### 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