

Climatography of the United States

No. 20

1971-2000

Station: PLYMOUTH, NH

COOP ID: 276945

Climate Division: NH 2

NWS Call Sign:

Elevation: 660 Feet

Lat: 43°47N

Lon: 71°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	28.6	4.7	16.7	64	1957	23	23.8	1990	-35	1994	21	6.7	1994	1499	0	.0	.0	.5	20.3	30.8	12.4
Feb	32.7	6.7	19.7	63	1957	27	28.4	1984	-28+	1993	8	10.7	1993	1269	0	.0	.0	1.3	14.6	28.0	10.2
Mar	41.8	17.7	29.8	79	1998	31	36.7	1977	-20	1972	10	25.1	1992	1093	0	.0	.0	5.7	6.1	29.7	3.0
Apr	54.1	29.1	41.6	92	1976	20	45.8	1986	3	1969	1	37.0	1975	702	0	.0	.1	17.7	.3	20.8	.0
May	67.5	39.0	53.3	93+	1977	23	58.6	1975	20+	1966	3	47.7	1997	369	4	.0	.4	29.6	.0	7.0	.0
Jun	75.5	48.4	62.0	96	1952	26	67.7	1976	26	1988	9	58.2	1986	125	33	.0	.9	30.0	.0	.7	.0
Jul	80.4	53.2	66.8	98+	1952	23	70.0	1994	33	1957	3	61.5	1992	43	99	.0	2.2	31.0	.0	.0	.0
Aug	78.5	51.3	64.9	98	1975	2	69.7	1973	29	1965	31	60.7	1987	64	60	.0	.9	31.0	.0	.2	.0
Sep	69.6	42.7	56.2	94+	1960	9	60.9	1999	22+	2000	30	51.3	1978	271	5	.0	.1	29.9	.0	4.5	.0
Oct	58.6	31.9	45.3	88	1963	8	52.7	1971	15+	1993	14	40.9	1992	612	0	.0	.0	24.6	.0	17.7	.0
Nov	45.5	24.6	35.1	73+	1974	2	40.5	1979	-5	1989	25	31.0	1992	899	0	.0	.0	8.5	2.8	24.8	.1
Dec	33.4	12.3	22.9	65	1982	5	29.3	1982	-23+	1989	25	7.2	1989	1307	0	.0	.0	1.0	14.7	30.4	6.2
Ann	55.5	30.1	42.9	98+	Aug 1975	2	70.0	Jul 1994	-35	Jan 1994	21	6.7	Jan 1994	8253	201	.0	4.6	210.8	58.8	194.6	31.9

+ 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: 1951-2001

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

020-A

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: PLYMOUTH, NH

COOP ID: 276945

Climate Division: NH 2

NWS Call Sign:

Elevation: 660 Feet Lat: 43°47N

Lon: 71°39W

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	3.78	3.93	2.62	1986	27	7.28	1979	.59	1981	10.8	7.4	2.5	1.0	1.11	1.47	2.01	2.48	2.93	3.41	3.93	4.54	5.34	6.59	7.75
Feb	2.87	2.65	2.31	1981	25	10.16	1981	.27	1987	8.8	5.9	1.8	.6	.71	.98	1.40	1.77	2.14	2.53	2.96	3.47	4.14	5.20	6.20
Mar	3.56	3.47	2.32	1977	14	6.56	1983	1.03	1981	9.9	7.3	2.5	.9	1.52	1.84	2.29	2.66	3.00	3.35	3.73	4.16	4.70	5.53	6.28
Apr	3.37	3.16	3.74	1988	29	6.72	1996	.55	1999	10.3	6.9	2.2	.5	1.21	1.53	1.99	2.37	2.74	3.11	3.52	3.99	4.60	5.54	6.40
May	3.85	3.47	2.55	1999	20	9.93	1984	.90	1977	12.7	8.1	2.7	.8	1.05	1.42	1.97	2.46	2.93	3.43	3.98	4.64	5.48	6.82	8.06
Jun	3.83	3.61	2.29	2001	3	9.57	1998	.76	1988	12.7	8.3	2.7	.7	1.15	1.51	2.05	2.52	2.98	3.45	3.98	4.59	5.38	6.62	7.78
Jul	4.27	4.42	3.40	1973	5	9.03	1972	.47	1985	12.0	7.4	2.5	1.0	1.28	1.68	2.29	2.81	3.32	3.85	4.43	5.12	6.01	7.39	8.68
Aug	4.05	3.75	3.92	1990	8	11.04	1990	.49	1996	11.3	6.9	2.4	1.0	1.30	1.69	2.25	2.74	3.20	3.69	4.22	4.84	5.64	6.88	8.02
Sep	3.37	3.15	4.02	1999	17	8.25	1999	1.07	1984	11.4	6.7	2.2	.7	1.20	1.52	1.98	2.36	2.73	3.11	3.53	4.01	4.62	5.57	6.44
Oct	4.09	3.92	3.45	1962	7	11.03	1995	1.07	1994	11.1	6.8	2.5	1.1	1.27	1.66	2.23	2.73	3.21	3.71	4.25	4.90	5.72	7.02	8.21
Nov	4.12	3.85	2.50	1963	8	8.70	1983	2.04	1976	11.2	7.7	3.1	.9	2.01	2.36	2.84	3.23	3.58	3.94	4.32	4.75	5.29	6.10	6.83
Dec	3.51	3.17	2.67	1952	12	9.96	1973	1.47	1989	10.4	7.1	2.6	.7	1.15	1.49	1.98	2.39	2.79	3.21	3.66	4.19	4.87	5.93	6.90
Ann	44.67	44.29	4.02	Sep 1999	17	11.04	Aug 1990	.27	Feb 1987	132.6	86.5	29.7	9.9	34.60	36.61	39.15	41.06	42.74	44.34	45.99	47.80	49.97	53.10	55.77

+ 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: 1951-2001

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

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

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Station: PLYMOUTH, NH

COOP ID: 276945

Climate Division: NH 2

NWS Call Sign:

Elevation: 660 Feet

Lat: 43°47N

Lon: 71°39W

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	22.9	23.6	11	11	16.0	1994	18	43.0	1979	33	1982	24	27	1982	8.0	6.1	3.1	1.4	.2	27.0	25.2	20.9	16.0
Feb	14.6	14.6	15	15	12.0	1988	13	33.5	1993	38	1971	25	31+	1982	6.0	4.8	2.1	.8	.1	27.4	24.4	22.2	18.4
Mar	12.9	13.0	10	6	18.0	1984	14	30.0	1976	41	1971	12	34	1971	4.4	3.6	2.0	.8	.2	22.1	18.9	14.9	9.2
Apr	4.0	2.1	3	1	11.0	1982	7	13.0	1982	30	1982	7	15	1978	1.7	1.3	.5	.3	.1	6.4	4.2	3.2	1.7
May	#	.0	#	0	#	1978	2	#	1978	#	1975	5	#	1975	.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	.1	.0	#	0	1.5	1976	25	1.5	1976	1+	1993	31	#+	1993	.1	@	.0	.0	.0	.1	.0	.0	.0
Nov	4.9	2.3	1	#	10.0	1971	26	21.5	1971	13	1971	30	4	1997	1.9	1.3	.4	.3	.1	4.5	2.4	1.5	.2
Dec	17.2	19.2	5	4	13.2	1996	8	43.0	1972	22	1971	31	16	1972	6.2	5.1	2.6	.9	.1	20.0	15.8	11.1	6.3
Ann	76.6	74.8	N/A	N/A	18.0	Mar 1984	14	43.0+	Jan 1979	41	Mar 1971	12	34	Mar 1971	28.3	22.2	10.7	4.5	.8	107.5	90.9	73.8	51.8

+ 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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Climate Division: NH 2

NWS Call Sign:

Elevation: 660 Feet

Lat: 43° 47N

Lon: 71° 39W

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	6/29	6/22	6/17	6/13	6/09	6/05	5/31	5/26	5/19
32	6/12	6/06	6/02	5/29	5/26	5/22	5/19	5/15	5/09
28	5/27	5/22	5/19	5/16	5/13	5/10	5/08	5/04	4/30
24	5/05	5/01	4/28	4/26	4/23	4/21	4/18	4/16	4/11
20	4/21	4/17	4/14	4/12	4/10	4/07	4/05	4/02	3/29
16	4/12	4/08	4/05	4/02	3/31	3/29	3/26	3/23	3/19
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	8/27	8/30	9/02	9/05	9/07	9/09	9/12	9/15	9/19
32	9/03	9/08	9/11	9/14	9/16	9/19	9/22	9/25	9/30
28	9/15	9/20	9/24	9/28	10/01	10/04	10/08	10/12	10/17
24	9/29	10/04	10/08	10/11	10/14	10/17	10/20	10/24	10/29
20	10/09	10/15	10/19	10/22	10/26	10/29	11/02	11/06	11/12
16	10/25	10/31	11/05	11/09	11/12	11/16	11/20	11/25	12/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	113	105	99	94	90	85	80	74	66
32	135	128	122	117	113	108	104	98	90
28	161	154	149	144	140	136	132	126	119
24	193	186	181	177	173	169	165	160	153
20	219	212	207	202	198	194	190	185	178
16	249	241	235	230	226	221	216	210	202

* 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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Climate Division: NH 2

NWS Call Sign:

Elevation: 660 Feet Lat: 43° 47N Lon: 71° 39W

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	1499	1269	1093	702	369	125	43	64	271	612	899	1307	8253
60	1344	1129	938	552	232	46	7	13	147	458	749	1152	6767
57	1251	1045	845	463	163	20	1	3	91	368	659	1059	5968
55	1189	989	783	404	123	10	0	1	62	311	599	997	5468
50	1034	849	628	266	52	1	0	0	19	184	449	842	4324
32	487	361	154	10	0	0	0	0	0	2	58	338	1410

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	11	16	84	298	658	898	1079	1019	724	414	150	54	5405
55	0	0	0	2	69	218	366	307	97	9	0	0	1068
57	0	0	0	1	46	168	305	247	65	5	0	0	837
60	0	0	0	0	22	104	218	164	31	1	0	0	540
65	0	0	0	0	4	33	99	60	5	0	0	0	201
70	0	0	0	0	0	5	28	11	0	0	0	0	44

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	0	0	14	113	411	660	832	767	476	186	39	1	0	0	14	127	538	1198	2030	2797	3273	3459	3498	3499
45	0	0	3	54	271	510	677	612	334	93	15	0	0	0	3	57	328	838	1515	2127	2461	2554	2569	2569
50	0	0	1	21	154	364	522	457	205	34	3	0	0	0	1	22	176	540	1062	1519	1724	1758	1761	1761
55	0	0	0	8	74	226	369	308	109	13	0	0	0	0	0	8	82	308	677	985	1094	1107	1107	1107
60	0	0	0	1	25	116	220	170	45	0	0	0	0	0	0	1	26	142	362	532	577	577	577	577
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	15	97	275	415	539	491	306	139	27	1	0	0	15	112	387	802	1341	1832	2138	2277	2304	2305

(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