

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: BELLEPLAIN ST FOREST, NJ

1971-2000

COOP ID: 280690

Climate Division: NJ 2

NWS Call Sign:

Elevation: 30 Feet

Lat: 39°15N

Lon: 74°52W

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	44.2	22.2	33.2	75+	1932	14	41.5	1998	-22	1942	11	22.3	1977	986	0	.0	.0	9.3	3.8	24.8	.7
Feb	46.9	23.4	35.2	79	1930	25	41.7	1998	-13	1934	9	24.1	1979	835	0	.0	.0	11.2	2.7	21.5	.3
Mar	55.3	30.1	42.7	88	1998	30	47.5	2000	-12	1934	1	36.9	1984	692	0	.0	.0	22.2	.2	17.7	.0
Apr	65.9	38.1	52.0	93	1990	26	57.1	1994	11	1943	7	46.9	1975	392	1	.0	.3	29.2	.0	7.6	.0
May	75.3	48.0	61.7	97+	1962	19	67.2	1991	24+	1943	2	58.5	1994	141	37	.0	1.3	31.0	.0	.7	.0
Jun	83.0	57.4	70.2	101	1943	21	73.8+	2000	30	1930	1	65.4	1979	19	175	.0	4.0	30.0	.0	.0	.0
Jul	87.5	63.2	75.4	103+	1930	21	79.4	1999	38	1927	5	72.6	1978	0	322	.3	9.6	31.0	.0	.0	.0
Aug	85.9	61.5	73.7	101	1948	27	76.6	1988	37+	1927	25	70.4	1982	0	269	.1	6.0	31.0	.0	.0	.0
Sep	79.8	54.4	67.1	98+	1931	11	70.9	1998	28	1957	28	63.9	1975	37	99	.0	1.6	30.0	.0	.0	.0
Oct	69.5	42.6	56.1	92	1941	5	62.2	1984	12	1930	23	48.9	1988	297	18	.0	.0	30.9	.0	4.8	.0
Nov	59.0	34.2	46.6	85	1950	1	52.5	1985	6+	1938	26	39.7	1976	553	0	.0	.0	24.8	.0	13.3	.0
Dec	48.8	26.3	37.6	78	1998	7	43.1	1982	-9	1980	26	25.1	1989	851	0	.0	.0	15.1	1.8	21.7	.1
Ann	66.8	41.8	54.3	103+	Jul 1930	21	79.4	Jul 1999	-22	Jan 1942	11	22.3	Jan 1977	4803	921	.4	22.8	295.7	8.5	112.1	1.1

+ 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: 1926-2001

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

003-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: BELLEPLAIN ST FOREST, NJ

COOP ID: 280690

Climate Division: NJ 2

NWS Call Sign:

Elevation: 30 Feet

Lat: 39°15N

Lon: 74°52W

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	3.86	3.32	4.50	1996	15	8.02	1996	.57	1981	10.0	7.1	2.7	.9	1.40	1.76	2.28	2.72	3.14	3.57	4.03	4.57	5.26	6.33	7.30
Feb	3.08	2.77	2.30	1979	25	6.61	1979	1.14	1978	8.6	5.7	2.1	.8	1.17	1.46	1.87	2.21	2.53	2.86	3.22	3.63	4.16	4.97	5.71
Mar	4.18	3.80	4.35	2000	22	9.32	1993	1.16	1995	9.9	6.9	3.0	1.1	1.12	1.52	2.12	2.65	3.17	3.72	4.32	5.04	5.98	7.45	8.83
Apr	3.61	3.65	2.74	1983	16	9.50	1983	.65	1985	10.6	7.1	2.8	.7	1.16	1.51	2.01	2.44	2.86	3.29	3.76	4.32	5.03	6.14	7.16
May	3.58	3.72	2.75+	1978	24	8.76	1978	.87	1991	10.4	7.0	2.5	.8	1.08	1.42	1.93	2.37	2.79	3.24	3.72	4.30	5.04	6.20	7.27
Jun	2.88	2.75	3.76	1980	16	7.33	1972	.70	1990	8.7	5.3	1.9	.8	.72	1.00	1.41	1.78	2.15	2.54	2.97	3.48	4.14	5.20	6.18
Jul	3.80	3.76	6.41	1959	10	6.28	1996	.43	1983	9.3	6.3	2.5	1.0	1.34	1.70	2.22	2.66	3.07	3.50	3.97	4.51	5.21	6.28	7.27
Aug	5.31	4.85	9.10	1997	21	14.18	1971	1.05	1972	8.8	6.4	3.0	1.8	1.48	1.98	2.75	3.41	4.07	4.75	5.50	6.40	7.56	9.38	11.08
Sep	3.76	3.69	6.53	1935	6	7.85	1996	.86	1990	8.3	5.2	2.4	1.1	1.02	1.37	1.91	2.39	2.85	3.34	3.89	4.53	5.37	6.67	7.90
Oct	3.62	3.22	4.16	1972	7	8.04	1976	.00	2000	7.8	4.8	2.3	1.3	.94	1.47	2.05	2.51	2.94	3.38	3.85	4.39	5.09	6.16	7.15
Nov	3.37	3.10	3.75	1950	25	9.45	1972	.85	1976	9.1	5.8	2.5	.9	.79	1.11	1.60	2.04	2.48	2.94	3.47	4.09	4.90	6.20	7.41
Dec	3.47	3.17	2.76	1971	7	6.88	1986	.04	1988	9.6	6.4	2.6	.9	.58	.88	1.39	1.86	2.35	2.89	3.50	4.24	5.23	6.83	8.37
Ann	44.52	42.24	9.10	Aug 1997	21	14.18	Aug 1971	.00	Oct 2000	111.1	74.0	30.3	12.1	34.11	36.18	38.81	40.78	42.52	44.19	45.90	47.77	50.04	53.29	56.08

+ 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: 1926-2001

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

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

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: BELLEPLAIN ST FOREST, NJ

COOP ID: 280690

Climate Division: NJ 2

NWS Call Sign:

Elevation: 30 Feet

Lat: 39°15N

Lon: 74°52W

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	2.2	1.0	1	#	5.0	1980	5	7.4	1984	15	1987	26	8	1987	1.3	1.1	.4	.1	.0	1.9	.8	.1	.0
Feb	3.2	1.1	1	#	12.0	1987	9	14.0	1983	20	1979	19	7	1978	1.2	1.0	.4	.3	@	1.4	.5	.3	.1
Mar	.8	.0	#	0	4.0	1978	3	6.0	1978	4	1980	2	4	1980	.4	.3	.1	.0	.0	.4	.1	.0	.0
Apr	.0	.0	#	0	.5	1972	8	.5	1972	1	1982	9	#	1982	.1	.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	#	1972	19	#	1972	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	4.0	1989	23	4.0	1989	#	1996	29	#	1996	.1	.1	@	.0	.0	.0	.0	.0	.0
Dec	.9	.0	#	0	5.5	1982	12	5.5	1982	5	1982	12	1	1989	.4	.3	.1	@	.0	.2	.1	.1	.0
Ann	7.3	2.1	N/A	N/A	12.0	Feb 1987	9	14.0	Feb 1983	20	Feb 1979	19	8	Jan 1987	3.5	2.8	1.0	.4	@	3.9	1.5	.5	.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:

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

Climatography of the United States

No. 20 1971-2000

Station: BELLEPLAIN ST FOREST, NJ

COOP ID: 280690

Climate Division: NJ 2

NWS Call Sign:

Elevation: 30 Feet

Lat: 39° 15N

Lon: 74° 52W

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	5/25	5/21	5/18	5/15	5/13	5/10	5/07	5/04	4/30
32	5/12	5/08	5/05	5/03	5/01	4/28	4/26	4/23	4/19
28	5/02	4/27	4/24	4/21	4/19	4/16	4/14	4/10	4/06
24	4/20	4/14	4/10	4/06	4/03	3/30	3/26	3/22	3/16
20	4/01	3/27	3/24	3/21	3/19	3/16	3/13	3/10	3/05
16	3/26	3/19	3/14	3/09	3/05	3/01	2/25	2/20	2/13
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	9/22	9/25	9/28	9/30	10/02	10/04	10/06	10/08	10/12
32	10/02	10/06	10/09	10/12	10/15	10/17	10/20	10/23	10/27
28	10/14	10/18	10/22	10/25	10/27	10/30	11/02	11/05	11/09
24	10/25	10/30	11/03	11/06	11/10	11/13	11/16	11/20	11/26
20	11/08	11/14	11/18	11/21	11/24	11/27	12/01	12/05	12/10
16	11/25	12/01	12/04	12/08	12/11	12/14	12/17	12/21	12/26
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	158	153	148	145	141	138	135	130	125
32	184	178	173	170	166	163	159	155	149
28	212	205	199	195	191	186	182	177	169
24	242	234	229	225	220	216	212	206	199
20	268	262	258	254	250	246	242	238	232
16	306	297	291	285	280	274	269	262	253

* 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:

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

**Climatography
of the United States
No. 20
1971-2000**

Station: BELLEPLAIN ST FOREST, NJ

COOP ID: 280690

Climate Division: NJ 2 NWS Call Sign: Elevation: 30 Feet Lat: 39°15N Lon: 74°52W

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	986	835	692	392	141	19	0	0	37	297	553	851	4803
60	831	695	537	250	55	3	0	0	8	180	406	696	3661
57	738	611	444	176	26	0	0	0	3	124	321	603	3046
55	676	555	384	133	14	0	0	0	1	94	268	547	2672
50	535	425	244	54	2	0	0	0	0	39	154	403	1856
32	142	83	9	0	0	0	0	0	0	0	2	65	301

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	179	172	341	599	919	1146	1344	1292	1052	744	439	236	8463
55	0	0	2	42	220	456	631	579	363	125	15	6	2439
57	0	0	0	25	170	396	569	517	305	93	8	0	2083
60	0	0	0	9	106	309	476	424	220	56	3	0	1603
65	0	0	0	1	37	175	322	269	99	18	0	0	921
70	0	0	0	0	7	75	175	129	25	4	0	0	415

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	54	69	170	388	694	922	1111	1056	828	520	249	94	54	123	293	681	1375	2297	3408	4464	5292	5812	6061	6155
45	25	32	90	253	539	772	956	901	678	369	147	44	25	57	147	400	939	1711	2667	3568	4246	4615	4762	4806
50	4	11	42	144	389	622	801	746	528	237	74	11	4	15	57	201	590	1212	2013	2759	3287	3524	3598	3609
55	0	1	16	69	246	474	646	591	382	129	33	2	0	1	17	86	332	806	1452	2043	2425	2554	2587	2589
60	0	0	4	25	135	327	491	437	249	60	9	0	0	0	4	29	164	491	982	1419	1668	1728	1737	1737
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	34	49	118	249	436	616	762	726	547	333	158	57	34	83	201	450	886	1502	2264	2990	3537	3870	4028	4085

(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