

Climatology of the United States

No. 20

1971-2000

Station: PLAINFIELD, NJ

COOP ID: 287079

Climate Division: NJ 1

NWS Call Sign:

Elevation: 90 Feet

Lat: 40° 36N

Lon: 74° 24W

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	38.5	21.5	30.0	73	1950	26	38.8	1998	-8+	1935	28	19.6	1977	1086	0	.0	.0	3.9	9.3	26.1	.7
Feb	42.5	23.3	32.9	76+	1949	15	39.5	1998	-17	1934	9	21.9	1979	898	0	.0	.0	7.0	4.7	22.4	.3
Mar	52.4	30.7	41.6	91	1998	30	47.3	2000	1	1967	19	34.5	1984	727	0	.0	@	17.3	.7	17.0	.0
Apr	63.1	39.3	51.2	97	1976	18	55.3	1994	18	1982	7	45.8	1975	414	0	.0	.3	27.1	@	5.2	.0
May	73.8	49.1	61.5	99	1999	31	67.4	1991	29+	1931	1	57.4	1997	152	42	.0	1.6	30.9	.0	.2	.0
Jun	81.9	58.1	70.0	101+	1934	29	74.3	1994	37+	1938	1	66.1	1982	20	169	@	4.9	30.0	.0	.0	.0
Jul	86.6	63.1	74.9	106	1936	10	80.8	1999	34	1936	10	71.6	1978	2	307	.7	10.1	31.0	.0	.0	.0
Aug	84.8	61.6	73.2	106	1949	11	77.1	1988	40	1986	29	70.0	1982	1	256	@	7.2	31.0	.0	.0	.0
Sep	77.3	54.1	65.7	105	1953	2	68.8	1998	31	1957	27	62.1	1975	53	74	.1	1.6	30.0	.0	@	.0
Oct	66.0	42.2	54.1	94	1941	5	60.0	1971	22	1936	28	49.3	1972	344	6	.0	.0	30.5	.0	3.3	.0
Nov	54.0	34.4	44.2	86	1950	1	49.6	1999	9	1989	24	37.7	1976	625	0	.0	.0	20.0	.1	12.4	.0
Dec	42.8	26.4	34.6	87	1947	14	39.7	1998	-7	1933	30	21.7	1989	944	0	.0	.0	6.9	4.3	21.8	.1
Ann	63.6	42.0	52.8	106+	Aug 1949	11	80.8	Jul 1999	-17	Feb 1934	9	19.6	Jan 1977	5266	854	.8	25.7	265.6	19.1	108.4	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: 1931-2001

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

025-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: PLAINFIELD, NJ

COOP ID: 287079

Climate Division: NJ 1

NWS Call Sign:

Elevation: 90 Feet

Lat: 40°36N

Lon: 74°24W

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	4.02	3.71	2.75	1999	3	8.48	1979	.66	1981	9.7	7.1	2.9	1.1	1.26	1.64	2.21	2.69	3.16	3.65	4.18	4.81	5.62	6.88	8.05
Feb	3.02	2.90	2.96	1973	2	5.59	1972	1.06	1980	8.7	6.0	2.2	.7	1.18	1.46	1.86	2.19	2.50	2.82	3.16	3.56	4.06	4.84	5.54
Mar	4.10	3.91	2.81	1969	25	8.77	1980	1.39	1981	10.1	7.4	3.0	1.1	1.58	1.96	2.51	2.96	3.38	3.82	4.29	4.84	5.53	6.60	7.57
Apr	3.94	3.53	2.52	1987	4	9.13	1983	1.14	1985	10.6	7.0	2.6	1.0	1.39	1.76	2.30	2.76	3.19	3.63	4.12	4.68	5.40	6.52	7.54
May	4.71	4.11	5.75	1968	29	9.27	1984	.96	1993	11.1	8.1	3.4	1.2	1.54	1.99	2.65	3.21	3.75	4.30	4.91	5.63	6.54	7.97	9.28
Jun	3.97	3.73	3.70	1952	1	9.72	1972	.75	1971	10.0	6.8	2.7	1.2	1.20	1.58	2.15	2.63	3.10	3.59	4.13	4.76	5.58	6.86	8.05
Jul	5.39	4.65	5.95	1938	23	13.66	1975	.69	1999	9.3	7.1	3.6	1.6	1.33	1.84	2.62	3.32	4.01	4.74	5.55	6.52	7.79	9.79	11.67
Aug	4.34	4.04	7.09	1973	2	11.66	1971	.42	1980	9.0	6.6	2.8	1.3	.87	1.26	1.90	2.48	3.07	3.71	4.42	5.28	6.42	8.25	9.99
Sep	4.54	3.46	9.77	1999	16	14.20	1999	1.41	1972	8.6	6.1	3.2	1.2	1.21	1.64	2.30	2.87	3.44	4.03	4.69	5.48	6.50	8.10	9.59
Oct	3.80	3.77	5.65	1996	19	8.56	1996	.66	2000	7.9	5.6	2.5	1.1	1.00	1.36	1.91	2.39	2.87	3.37	3.92	4.58	5.44	6.79	8.05
Nov	4.04	3.43	4.20	1972	9	9.51	1972	.36	1976	9.3	6.2	2.7	1.1	.95	1.32	1.91	2.44	2.97	3.53	4.15	4.90	5.87	7.42	8.88
Dec	3.76	3.62	2.51	1983	13	9.89	1983	.51	1989	10.2	6.8	2.6	1.1	.75	1.09	1.64	2.14	2.66	3.20	3.82	4.57	5.56	7.15	8.65
Ann	49.63	48.08	9.77	Sep 1999	16	14.20	Sep 1999	.36	Nov 1976	114.5	80.8	34.2	13.7	35.87	38.55	41.98	44.57	46.87	49.09	51.37	53.90	56.96	61.38	65.21

+ 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: 1931-2001

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

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Station: PLAINFIELD, NJ

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Climate Division: NJ 1

NWS Call Sign:

Elevation: 90 Feet

Lat: 40°36N

Lon: 74°24W

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	9.8	7.8	2	1	19.0	1996	7	28.0	1978	22	1996	8	8	1996	3.5	2.8	1.1	.4	.1	10.8	7.1	4.0	.5
Feb	8.2	5.0	2	1	19.5	1983	12	25.6	1979	23	1983	12	9	1978	2.9	2.1	1.1	.6	.2	9.2	6.3	3.8	1.3
Mar	2.6	1.2	#	#	13.0	1993	13	13.0	1993	13	1993	15	3	1994	1.5	1.1	.5	.2	@	2.4	1.3	.6	.1
Apr	.6	.0	#	0	10.1	1982	6	10.6	1982	10	1982	6	1	1982	.3	.1	@	@	@	.2	.1	@	@
May	#	.0	0	0	#	1977	9	#	1977	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	.5	1972	19	.5	1972	#	1979	10	#	1979	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	5.0	1989	23	5.0	1989	5	1989	23	#+	1996	.3	.2	.1	@	.0	.2	.1	@	.0
Dec	3.0	2.5	#	#	8.0	1990	28	12.7	1995	8	1995	21	3	1995	1.8	1.0	.4	.1	.0	2.0	1.4	.6	.0
Ann	24.8	16.5	N/A	N/A	19.5	Feb 1983	12	28.0	Jan 1978	23	Feb 1983	12	9	Feb 1978	10.3	7.3	3.2	1.3	.3	24.8	16.3	9.0	1.9

+ 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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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	5/16	5/12	5/09	5/07	5/04	5/02	4/29	4/26	4/22
32	5/04	4/29	4/25	4/23	4/20	4/17	4/14	4/11	4/06
28	4/17	4/13	4/10	4/07	4/05	4/02	3/31	3/28	3/23
24	4/02	3/29	3/26	3/24	3/22	3/20	3/17	3/15	3/11
20	3/28	3/23	3/19	3/15	3/12	3/09	3/06	3/02	2/24
16	3/20	3/14	3/10	3/06	3/03	2/28	2/24	2/20	2/14
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	9/23	9/27	10/01	10/03	10/06	10/09	10/12	10/15	10/20
32	10/04	10/10	10/13	10/17	10/20	10/23	10/26	10/30	11/05
28	10/15	10/20	10/23	10/26	10/28	10/31	11/03	11/06	11/11
24	11/03	11/08	11/12	11/15	11/18	11/21	11/24	11/28	12/03
20	11/11	11/17	11/22	11/26	11/29	12/03	12/07	12/11	12/17
16	11/28	12/04	12/09	12/13	12/16	12/20	12/24	12/28	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	170	164	161	157	154	151	148	144	139
32	207	198	192	187	182	177	172	166	158
28	228	220	215	210	206	201	197	192	184
24	259	253	248	244	240	237	233	228	221
20	285	277	271	266	261	257	252	246	238
16	311	303	297	292	288	283	278	272	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	1086	898	727	414	152	20	2	1	53	344	625	944	5266
60	931	758	572	269	65	3	0	0	13	211	475	789	4086
57	838	674	479	191	33	0	0	0	4	146	387	696	3448
55	776	618	420	144	19	0	0	0	2	110	330	634	3053
50	628	482	280	58	3	0	0	0	0	46	202	490	2189
32	191	106	18	0	0	0	0	0	0	0	5	106	426

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	128	132	314	576	913	1139	1328	1278	1011	685	371	185	8060
55	0	0	3	30	219	449	615	565	323	81	5	0	2290
57	0	0	0	17	171	390	553	503	265	56	2	0	1957
60	0	0	0	5	110	302	460	410	184	28	0	0	1499
65	0	0	0	0	42	169	307	256	74	6	0	0	854
70	0	0	0	0	10	72	168	120	16	0	0	0	386

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	27	41	147	360	688	922	1107	1058	796	466	190	52	27	68	215	575	1263	2185	3292	4350	5146	5612	5802	5854
45	11	16	76	231	534	772	952	903	646	319	106	22	11	27	103	334	868	1640	2592	3495	4141	4460	4566	4588
50	0	4	35	124	380	622	797	748	496	189	46	4	0	4	39	163	543	1165	1962	2710	3206	3395	3441	3445
55	0	0	11	61	236	472	642	593	352	97	17	0	0	0	11	72	308	780	1422	2015	2367	2464	2481	2481
60	0	0	4	24	127	325	487	438	218	41	6	0	0	0	4	28	155	480	967	1405	1623	1664	1670	1670
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	16	29	92	215	416	611	748	720	509	278	101	26	16	45	137	352	768	1379	2127	2847	3356	3634	3735	3761

(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