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: 283029

Lon: 74°53W

Station: FLEMINGTON 5 NNW, NJ

Climate Division: NJ 1 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 36.8 18.4 27.6 74 +1932 14 37.6 1998 -18 1984 22 16.6 1977 1159 0 .0 .0 3.5 9.8 28.0 1.9 Jan 39.9 20.0 30.0 77 1930 25 38.0 1998 -16+1934 9 19.6 1979 981 0 .0 .0 5.7 6.8 24.9 1.1 Feb Mar 49.8 28.1 39.0 88+ 1945 29 45.1 2000 -6 1984 10 32.7 1984 808 0 .0 .0 15.1 1.2 21.8 .1 37.0 52.3 14 1975 Apr 61.3 49.2 94 +1942 30 1994 1969 1 44.6 476 0 .0 .3 26.0 .1 9.1 0. May 72.0 46.9 59.5 99 1939 31 64.9 1991 25 1966 11 55.0 1973 197 25 .0 .8 30.9 .0 .6 .0 1934 71.4 34 15 63.8 3.1 80.2 56.0 68.1 102 29 1976 1978 1985 31 124 .0 30.0 .0 .0 .0 Jun Jul 85.1 73.4 10 78.6 1999 41 1957 3 70.4 2000 2 262 8.3 31.0 0. 61.7 106 1936 .4 .0 .0 1982 83.1 59.9 71.5 104 1955 2 75.5 1980 37 1965 31 67.4 8 209 @ 4.9 31.0 .0 .0 .0 Aug 2 85 Sep 75.6 52.0 63.8 105 1953 67.3 1980 27 +1951 30 60.7 1975 49 @ 1.3 30.0 .0 .1 .0 1941 5 57.7 47.9 404 Oct 64.4 40.0 52.2 97 1971 18 1952 26 1981 6 .0 .0 29.9 .0 6.7 .0 52.8 32.2 42.5 84+ 1950 1 47.4 1975 2 1938 26 36.7 1976 676 0 .0 .0 19.5 .2 .0 Nov 16.6 Dec 41.6 24.0 32.8 75 1984 30 38.5 1998 -14 1948 27 20.8 1989 999 0 .0 .0 6.6 4.7 25.7 .2 Jul Jul Jan Jan 61.9 39.7 50.8 106 1936 10 78.6 1999 -18 1984 22 1977 5826 675 .4 18.7 259.2 22.8 133.5 3.3 16.6 Ann

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

Issue Date: February 2004 009-A

(1) From the 1971-2000 Monthly Normals

Elevation: 260 Feet Lat: 40°34N

- (2) Derived from station's available digital record: 1926-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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COOP ID: 283029

Station: FLEMINGTON 5 NNW, NJ

Climate Division: NJ 1 NWS Call Sign: Elevation: 260 Feet Lat: 40°34N Lon: 74°53W

										Pı	recipi	tation	(incl	nes)										
	Ma	ans/	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 Monthly/Annual Precipitation vs Probability Levels										
		ans(1)				Extremes	s			Daily Precipitation				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	4.25	4.01	2.82	1936	3	11.33	1979	.77	1981	9.8	7.2	3.1	1.0	1.23	1.63	2.24	2.77	3.28	3.82	4.41	5.10	6.01	7.42	8.73
Feb	3.04	2.69	2.29	1961	4	5.96	1971	.93	1978	8.8	6.1	2.2	.7	1.10	1.39	1.80	2.15	2.47	2.81	3.18	3.61	4.15	4.99	5.76
Mar	4.03	3.79	2.51	1932	28	7.84	1983	1.13	1995	10.0	6.7	2.9	1.1	1.42	1.81	2.36	2.82	3.26	3.72	4.22	4.79	5.53	6.67	7.72
Apr	4.09	3.55	2.95	1983	16	10.41	1983	.88	1985	10.6	6.9	3.0	1.1	1.38	1.76	2.33	2.81	3.27	3.75	4.27	4.88	5.66	6.86	7.98
May	4.87	4.56	3.74	1985	3	9.46	1989	.95	1993	11.6	8.1	3.6	1.4	1.51	1.98	2.67	3.26	3.83	4.42	5.07	5.83	6.82	8.35	9.77
Jun	4.33	4.38	3.99	1946	2	9.60	1972	.72	1999	10.7	7.2	2.8	1.3	1.33	1.74	2.35	2.88	3.39	3.92	4.50	5.18	6.07	7.44	8.72
Jul	4.75	4.42	4.14	1927	23	10.87	1988	1.30	1998	9.5	6.9	3.2	1.6	1.59	2.04	2.69	3.25	3.79	4.34	4.95	5.66	6.57	7.97	9.27
Aug	3.98	3.56	7.20	1971	28	10.43	1971	.29	1995	9.3	6.5	2.2	1.2	.84	1.20	1.78	2.31	2.85	3.42	4.06	4.84	5.85	7.48	9.03
Sep	4.34	3.78	8.49	1999	17	12.42	1999	1.51	1994	8.2	6.2	2.6	1.3	1.21	1.62	2.25	2.79	3.33	3.88	4.50	5.23	6.17	7.65	9.04
Oct	3.84	3.64	4.19	1990	9	9.85	1995	.81	1985	7.9	5.5	2.4	1.2	1.05	1.41	1.97	2.45	2.93	3.42	3.97	4.63	5.48	6.81	8.06
Nov	3.90	3.32	3.34	1932	7	8.98	1972	.46	1976	9.1	6.2	2.7	1.3	1.04	1.41	1.97	2.46	2.95	3.46	4.03	4.70	5.58	6.96	8.24
Dec	3.92	3.88	2.71	1996	2	9.17	1996	.26	1989	10.1	6.6	2.6	1.4	.71	1.05	1.63	2.16	2.70	3.29	3.96	4.78	5.86	7.60	9.26
Ann	49.34	48.62	8.49	Sep 1999	17	12.42	Sep 1999	.26	Dec 1989	115.6	80.1	33.3	14.6	35.77	38.41	41.79	44.35	46.62	48.80	51.06	53.55	56.56	60.92	64.68

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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

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COOP ID: 283029

Station: FLEMINGTON 5 NNW, NJ

Climate Division: NJ 1 NWS Call Sign: Elevation: 260 Feet Lat: 40°34N Lon: 74°53W

										Snov	w (incl	hes)													
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)				
	Mean	s/Medi	ians (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	8.7	7.5	3	2	19.0	1996	8	19.0	1996	27	1996	9	15	1977	4.0	3.2	1.3	.5	@	10.4	6.6	4.8	1.6		
Feb	7.7	3.0	3	2	21.0	1983	12	26.0	1983	33	1979	20	13	1978	3.0	2.1	1.2	.6	.1	7.1	5.2	4.3	1.4		
Mar	5.0	2.1	1	#	8.0	1971	5	15.0	1993	17	1978	7	6	1978	1.9	1.2	.6	.4	.0	2.5	1.9	1.4	.8		
Apr	1.1	.0	#	0	9.0	1997	1	10.0	1982	9	1982	8	1	1982	.4	.3	.1	.1	.0	.3	.2	.1	.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	.1	.0	#	0	1.6	1972	19	1.6	1972	1	1979	11	#	1979	.1	.1	.0	.0	.0	@	.0	.0	.0		
Nov	.6	.0	#	#	4.0	1989	23	4.0	1989	4	1989	23	#+	2000	.4	.2	.1	.0	.0	.4	.1	.0	.0		
Dec	3.9	2.7	1	#	10.0	2000	31	16.0	2000	13	2000	31	5	1995	1.9	1.2	.5	.2	@	3.0	1.9	.8	.3		
Ann	27.1	15.3	N/A	N/A	21.0	Feb 1983	12	26.0	Feb 1983	33	Feb 1979	20	15	Jan 1977	11.7	8.3	3.8	1.8	.1	23.7	15.9	11.4	4.1		

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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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COOP ID: 283029

Lon: 74°53W

Lat: 40°34N

Station: FLEMINGTON 5 NNW, NJ

Climate Division: NJ 1

NWS Call Sign:

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/27	5/22	5/18	5/15	5/12	5/09	5/05	5/02	4/27
32	5/15	5/10	5/06	5/03	4/30	4/27	4/24	4/20	4/15
28	4/30	4/25	4/21	4/18	4/15	4/12	4/09	4/05	3/31
24	4/12	4/08	4/05	4/02	3/31	3/28	3/26	3/23	3/18
20	4/05	3/31	3/27	3/24	3/21	3/18	3/14	3/10	3/05
16	3/22	3/17	3/13	3/09	3/06	3/03	2/28	2/24	2/18
•			Fal	l Freeze Da	tes (Month/D	ay)	•	•	-
Probability of earlier date in fall (beginning Aug 1) than indicated(*)									
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/19	9/23	9/26	9/29	10/02	10/04	10/07	10/10	10/15
32	9/30	10/04	10/08	10/10	10/13	10/15	10/18	10/21	10/26
28	10/11	10/17	10/21	10/24	10/27	10/30	11/03	11/07	11/12
24	10/24	10/30	11/03	11/06	11/09	11/12	11/16	11/19	11/25
20	11/03	11/09	11/14	11/18	11/22	11/26	11/30	12/05	12/11
16	11/22	11/28	12/02	12/06	12/10	12/13	12/17	12/21	12/27
		•	•	Freeze F	ree Period			•	•
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	162	155	151	146	142	138	134	129	123
32	185	178	173	169	165	161	157	152	145
28	219	211	205	199	194	189	184	178	169
24	243	236	231	227	223	218	214	209	202
20	272	263	257	251	246	240	235	228	219
16	302	294	288	282	278	273	267	261	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.

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Climate Division: NJ 1 NWS Call Sign: Elevation: 260 Feet Lat: 40°34N Lon: 74°53W

	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	1159	981	808	476	197	31	2	8	85	404	676	999	5826		
60	1004	841	653	328	95	5	0	0	26	267	526	844	4589		
57	911	757	560	243	53	1	0	0	11	196	437	751	3920		
55	849	701	498	191	33	0	0	0	5	155	378	689	3499		
50	699	561	353	86	7	0	0	0	1	77	242	542	2568		
32	241	156	36	0	0	0	0	0	0	0	7	133	573		

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	105	99	251	514	851	1083	1283	1224	954	625	322	158	7469
55	0	0	0	15	171	394	570	511	269	67	3	0	2000
57	0	0	0	7	129	335	508	449	215	46	1	0	1690
60	0	0	0	2	78	249	415	356	141	23	0	0	1264
65	0	0	0	0	25	124	262	209	49	6	0	0	675
70	0	0	0	0	5	42	127	93	8	0	0	0	275

	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	21	26	101	300	616	856	1052	995	737	411	159	38	21	47	148	448	1064	1920	2972	3967	4704	5115	5274	5312
45	5	5	48	177	462	706	897	840	587	266	81	13	5	10	58	235	697	1403	2300	3140	3727	3993	4074	4087
50	0	0	20	90	312	556	742	685	438	153	34	3	0	0	20	110	422	978	1720	2405	2843	2996	3030	3033
55	0	0	3	42	184	408	587	530	296	75	11	1	0	0	3	45	229	637	1224	1754	2050	2125	2136	2137
60	0	0	2	14	92	268	432	378	174	25	3	0	0	0	2	16	108	376	808	1186	1360	1385	1388	1388
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	14	21	77	193	380	559	708	669	465	260	96	27	14	35	112	305	685	1244	1952	2621	3086	3346	3442	3469

(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.

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