U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: BUSHNELL 2 E, FL **COOP ID: 081163**

Climate Division: FL 3 **NWS Call Sign:** **Elevation: 75 Feet** **Lat: 28˚40N** **Lon: 82˚05W**

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	71.2	46.8	59.0	89	1976	26	70.1	1974	12+	1985	21	49.1	1981	248	47	.0	.0	30.6	.0	4.5	.0
Feb	74.2	48.4	61.3	90+	1971	26	67.8	1990	19	1967	26	53.3	1978	158	54	.0	@	27.9	.1	3.0	.0
Mar	79.7	53.4	66.6	93+	1949	28	71.6	1997	22	1980	4	61.4	1996	77	124	.0	.2	30.9	.0	.6	.0
Apr	83.6	57.3	70.5	98	1991	29	74.7	1991	31	1962	17	66.6	1987	14	177	.0	3.3	30.0	.0	.0	.0
May	88.7	63.7	76.2	100+	1967	14	80.1	1995	41	1971	4	72.7	1988	0	347	.0	12.2	31.0	.0	.0	.0
Jun	91.0	69.5	80.3	104	1985	4	83.9	1998	49	1984	1	77.4	1984	0	458	.4	20.6	30.0	.0	.0	.0
Jul	92.0	71.3	81.7	100+	1998	3	83.5	1992	60+	1981	3	80.1	1974	0	515	.1	25.4	31.0	.0	.0	.0
Aug	91.7	71.3	81.5	100	1997	12	83.1	1983	59	1982	18	79.5	1994	0	511	@	24.7	31.0	.0	.0	.0
Sep	90.2	69.6	79.9	98	1997	22	81.5	1974	52	1956	27	77.1	1981	0	446	.0	19.5	30.0	.0	.0	.0
Oct	85.0	61.5	73.3	97	1975	6	78.4	1985	35+	1989	21	68.1	1987	10	265	.0	4.3	31.0	.0	.0	.0
Nov	78.5	54.5	66.5	93	1981	17	74.5	1986	22	1956	28	61.7	1976	74	119	.0	.6	30.0	.0	.3	.0
Dec	72.4	49.0	60.7	89	1990	19	68.0	1971	15	1962	13	52.7	1989	199	66	.0	.0	30.6	.0	2.5	.0
Ann	83.2	59.7	71.5	104	Jun 1985	4	83.9	Jun 1998	12+	Jan 1985	21	49.1	Jan 1981	780	3129	.5	110.8	364.0	.1	10.9	.0

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1944-2001

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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	3.43	3.38	3.81	1998	15	7.43	1994	.24	1974
Feb	3.02	2.42	6.00	1982	16	8.55	1982	.15	2000
Mar	3.93	2.74	6.65	1972	31	9.97+	1987	.59	1994
Apr	2.34	1.94	4.50	1983	23	8.45	1983	.00	1981
May	3.79	3.45	4.16	1968	25	11.49	1976	.35	1990
Jun	6.18	4.87	6.90	1974	25	16.85	1974	.66	1998
Jul	6.43	6.31	5.27	1960	29	11.30	1984	2.21	1992
Aug	7.24	7.18	4.40	1992	9	20.25	1992	3.32	1976
Sep	6.00	5.89	9.08	1950	6	11.72	1997	1.44	1984
Oct	2.14	1.70	4.16	1992	3	7.09	1995	.09	1984
Nov	2.18	1.80	3.10+	1988	23	5.96	1972	.02	1978
Dec	2.52	1.74	4.70	1957	26	11.72	1997	.00	1984
Ann	49.20	48.92	9.08	Sep 1950	6	20.25	Aug 1992	.00+	Dec 1984

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	6.3	4.7	2.3	1.1
Feb	5.0	4.2	1.8	.8
Mar	6.2	4.8	2.7	1.4
Apr	3.7	2.8	1.4	.8
May	6.3	5.3	2.8	1.2
Jun	10.4	8.2	4.1	1.5
Jul	13.2	9.8	4.2	1.8
Aug	12.8	10.0	4.9	2.0
Sep	10.5	8.2	3.3	1.7
Oct	5.1	3.5	1.4	.5
Nov	4.9	3.4	1.5	.6
Dec	5.6	3.6	1.5	.6
Ann	90.0	68.5	31.9	14.0

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
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.83	1.15	1.65	2.10	2.54	3.01	3.53	4.15	4.97	6.26	7.48
Feb	.33	.56	.98	1.40	1.85	2.36	2.95	3.69	4.70	6.36	7.98
Mar	.64	.98	1.55	2.09	2.65	3.25	3.95	4.79	5.92	7.76	9.51
Apr	.07	.23	.54	.88	1.25	1.68	2.20	2.85	3.77	5.30	6.82
May	.56	.87	1.42	1.95	2.49	3.10	3.79	4.63	5.77	7.63	9.41
Jun	1.59	2.17	3.07	3.86	4.65	5.47	6.38	7.47	8.89	11.12	13.21
Jul	3.00	3.56	4.33	4.96	5.54	6.12	6.74	7.45	8.34	9.69	10.90
Aug	3.19	3.84	4.74	5.47	6.16	6.85	7.59	8.44	9.51	11.14	12.61
Sep	2.31	2.87	3.66	4.32	4.95	5.59	6.28	7.08	8.10	9.66	11.09
Oct	.13	.26	.53	.82	1.15	1.54	2.00	2.60	3.43	4.83	6.23
Nov	.19	.34	.63	.93	1.26	1.64	2.09	2.66	3.44	4.75	6.04
Dec	.13	.37	.75	1.12	1.51	1.95	2.47	3.10	3.97	5.40	6.79
Ann	37.26	39.63	42.63	44.89	46.89	48.80	50.77	52.93	55.54	59.29	62.51

\+ 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: 1944-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	.0	.0	0	0
Feb	.0	.0	0	0
Mar	.0	.0	0	0
Apr	.0	.0	0	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.0	.0	0	0
Nov	.0	.0	0	0
Dec	.0	.0	0	0
Ann	.0	.0	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	.0	0	0	.0	0	0	0	0	0	0
Feb	.0	0	0	.0	0	0	0	0	0	0
Mar	.0	0	0	.0	0	0	0	0	0	0
Apr	.0	0	0	.0	0	0	0	0	0	0
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	.0	0	0	.0	0	0	0	0	0	0
Nov	.0	0	0	.0	0	0	0	0	0	0
Dec	.0	0	0	.0	0	0	0	0	0	0
Ann	.0	0	0	.0	0	0	0	0	0	0

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	.0	.0	.0	.0	.0
Feb	.0	.0	.0	.0	.0
Mar	.0	.0	.0	.0	.0
Apr	.0	.0	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.0	.0	.0	.0	.0
Dec	.0	.0	.0	.0	.0
Ann	.0	.0	.0	.0	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	.0	.0	.0	.0
Feb	.0	.0	.0	.0
Mar	.0	.0	.0	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.0	.0	.0	.0
Dec	.0	.0	.0	.0
Ann	.0	.0	.0	.0

+ 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

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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	3/29	3/21	3/16	3/11	3/07	3/02	2/26	2/20	2/12
32	3/19	3/10	3/03	2/25	2/19	2/14	2/08	2/01	1/23
28	3/03	2/22	2/15	2/09	2/04	1/29	1/23	1/16	1/04
24	2/10	1/30	1/20	1/10	12/24	0/00	0/00	0/00	0/00
20	1/14	12/29	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00

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	11/03	11/12	11/18	11/24	11/29	12/03	12/09	12/15	12/24
32	11/19	11/28	12/05	12/10	12/15	12/21	12/26	1/02	1/11
28	12/03	12/15	12/24	12/31	1/07	1/14	1/21	1/30	2/14
24	12/21	1/05	1/17	1/30	2/21	0/00	0/00	0/00	0/00
20	1/03	1/21	0/00	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	300	288	280	273	266	259	252	244	233
32	334	320	311	303	296	289	282	273	262
28	>365	>365	355	340	330	321	313	303	291
24	>365	>365	>365	>365	>365	>365	>365	356	330
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

***** 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

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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	248	158	77	14	0	0	0	0	0	10	74	199	780
60	169	83	26	2	0	0	0	0	0	2	25	115	422
57	124	49	12	0	0	0	0	0	0	0	12	74	271
55	96	33	7	0	0	0	0	0	0	0	6	53	195
50	45	11	0	0	0	0	0	0	0	0	1	20	77
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	838	821	1070	1153	1370	1448	1538	1534	1436	1278	1035	890	14411
55	221	209	364	463	657	758	825	821	746	565	351	229	6209
57	187	170	308	403	595	698	763	759	686	503	297	189	5558
60	139	120	229	315	502	608	670	666	596	411	221	136	4613
65	47	54	124	177	347	458	515	511	446	265	119	66	3129
70	33	18	52	74	198	308	360	356	296	141	49	25	1910

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	588	608	802	896	1113	1211	1288	1286	1200	1039	803	645	588	1196	1998	2894	4007	5218	6506	7792	8992	10031	10834	11479
45	441	465	648	746	958	1061	1133	1131	1050	884	653	499	441	906	1554	2300	3258	4319	5452	6583	7633	8517	9170	9669
50	304	335	494	597	803	911	978	976	900	729	503	353	304	639	1133	1730	2533	3444	4422	5398	6298	7027	7530	7883
55	192	215	350	448	648	761	823	821	750	575	362	226	192	407	757	1205	1853	2614	3437	4258	5008	5583	5945	6171
60	105	117	216	303	493	611	668	666	600	422	234	128	105	222	438	741	1234	1845	2513	3179	3779	4201	4435	4563
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	383	401	534	601	760	835	890	895	834	714	534	414	383	784	1318	1919	2679	3514	4404	5299	6133	6847	7381	7795

(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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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