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: ARCHBOLD BIO STATION, FL **COOP ID: 080236**

Climate Division: FL 4 **NWS Call Sign:** **Elevation: 140 Feet** **Lat: 27˚11N** **Lon: 81˚21W**

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	74.8	46.0	60.4	89	2001	20	68.6	1974	13+	2001	5	50.2	1981	205	46	.0	.0	30.8	.0	3.8	.0
Feb	76.8	46.4	61.6	92	2001	28	68.5	1982	21+	1996	17	54.6	1978	149	54	.0	.3	28.1	@	2.7	.0
Mar	81.5	50.5	66.0	94+	1994	29	72.6	1997	24	1980	3	61.8	1983	76	107	.0	2.2	31.0	.0	.9	.0
Apr	85.7	53.2	69.5	98+	1999	25	73.8	1991	27	1987	4	62.1	1987	30	164	.0	6.8	30.0	.0	.2	.0
May	90.4	59.8	75.1	100	1973	30	78.3	1991	36	1992	8	70.4	1992	1	315	@	17.7	31.0	.0	.0	.0
Jun	92.6	65.8	79.2	102	1985	5	82.2	1998	50	1971	1	76.9	1984	0	425	.2	23.6	30.0	.0	.0	.0
Jul	93.7	67.2	80.5	103+	1998	4	82.2	1998	58+	1985	16	78.6	1974	0	480	.1	28.0	31.0	.0	.0	.0
Aug	93.5	67.7	80.6	101+	1969	20	82.1	1998	60+	2000	19	79.3	1971	0	483	.0	28.2	31.0	.0	.0	.0
Sep	91.6	66.8	79.2	99	2000	3	80.7	2000	56	1991	27	77.8	1994	0	426	.0	23.2	30.0	.0	.0	.0
Oct	87.1	60.5	73.8	96	1985	4	77.2	1995	38	1977	18	70.4	1977	3	276	.0	8.2	31.0	.0	.0	.0
Nov	81.4	54.7	68.1	96	1972	5	74.3	1986	28+	1981	22	63.4	1981	36	127	.0	.5	30.0	.0	.3	.0
Dec	76.0	48.7	62.4	90	1972	9	67.9	1971	18+	1989	25	55.3	1989	140	57	.0	@	30.8	.0	2.3	.0
Ann	85.4	57.3	71.4	103+	Jul 1998	4	82.2+	Jul 1998	13+	Jan 2001	5	50.2	Jan 1981	640	2960	.3	138.7	364.7	@	10.2	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1969-2001

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

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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	2.32	1.97	3.98	1991	16	7.91	1979	.08	1976
Feb	2.38	1.82	4.29	1998	3	10.85	1983	.27	1999
Mar	3.25	2.69	4.68	1984	13	6.61	1987	.05	1974
Apr	2.33	1.96	4.40	1972	1	5.90	1972	.08	1971
May	3.98	3.92	2.58	1969	15	7.61	1996	1.01	1983
Jun	7.74	7.64	4.38	1982	18	15.85	1986	.90	1998
Jul	7.66	7.41	3.99	1986	6	16.89	1974	3.64	1994
Aug	7.42	7.52	4.22	1981	1	14.31	1999	1.94	2000
Sep	6.50	6.54	3.64	1987	4	14.15	1979	.70	1996
Oct	3.00	3.14	4.14	1985	4	7.15	1995	.13	1984
Nov	2.07	1.46	4.04	1998	5	5.94	1987	.08	1986
Dec	1.95	1.47	1.84	1969	11	7.60	1997	.22	1981
Ann	50.60	51.89	4.68	Mar 1984	13	16.89	Jul 1974	.05	Mar 1974

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	6.4	3.5	1.6	.6
Feb	6.2	3.9	1.5	.7
Mar	6.6	4.2	1.9	1.1
Apr	5.8	3.7	1.6	.6
May	8.3	6.0	2.9	1.5
Jun	14.2	10.7	4.8	2.7
Jul	15.5	11.2	5.0	2.6
Aug	16.0	10.8	4.8	2.2
Sep	14.4	9.6	4.3	2.1
Oct	8.0	4.9	1.8	.8
Nov	6.1	3.2	1.2	.6
Dec	6.1	3.4	1.4	.5
Ann	113.6	75.1	32.8	16.0

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	.12	.25	.52	.83	1.19	1.62	2.13	2.80	3.74	5.34	6.94
Feb	.24	.41	.73	1.06	1.42	1.83	2.31	2.90	3.72	5.07	6.40
Mar	.43	.69	1.15	1.60	2.08	2.61	3.22	3.98	5.00	6.67	8.28
Apr	.23	.39	.71	1.04	1.39	1.79	2.26	2.85	3.65	5.00	6.31
May	1.13	1.51	2.08	2.58	3.07	3.57	4.13	4.79	5.65	6.99	8.24
Jun	2.06	2.80	3.92	4.90	5.87	6.88	8.01	9.34	11.08	13.81	16.36
Jul	3.70	4.36	5.26	5.98	6.65	7.32	8.03	8.84	9.86	11.39	12.77
Aug	3.03	3.72	4.67	5.47	6.21	6.97	7.78	8.72	9.91	11.73	13.38
Sep	2.03	2.65	3.57	4.35	5.11	5.90	6.76	7.78	9.09	11.13	13.02
Oct	.41	.65	1.08	1.50	1.93	2.42	2.98	3.67	4.60	6.12	7.59
Nov	.13	.25	.51	.79	1.11	1.48	1.93	2.50	3.30	4.66	6.01
Dec	.27	.43	.71	.98	1.26	1.57	1.93	2.38	2.98	3.95	4.89
Ann	37.07	39.72	43.10	45.66	47.92	50.10	52.35	54.82	57.82	62.15	65.88

\+ 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: 1969-2001
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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	.0	.0	#	0	.1	1977	19	.1	1977	#	1977	19	#	1977	@	.0	.0	.0	.0	.0	.0	.0	.0
Feb	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	.0	.0	N/A	N/A	.1	Jan 1977	19	.1	Jan 1977	#	Jan 1977	19	#	Jan 1977	@	.0	.0	.0	.0	.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	4/17	4/07	3/31	3/25	3/20	3/14	3/08	3/02	2/20
32	3/31	3/20	3/12	3/05	2/27	2/21	2/14	2/06	1/26
28	3/15	3/03	2/23	2/16	2/09	2/02	1/24	1/13	0/00
24	2/20	2/08	1/30	1/20	1/03	0/00	0/00	0/00	0/00
20	1/19	1/05	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	11/08	11/18	11/25	12/01	12/07	12/12	12/18	12/25	1/04
32	11/20	11/29	12/06	12/12	12/17	12/23	12/28	1/04	1/13
28	12/09	12/19	12/26	1/02	1/08	1/14	1/21	1/31	0/00
24	12/24	1/06	1/17	1/29	2/17	0/00	0/00	0/00	0/00
20	1/01	1/16	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	293	282	274	267	261	255	248	240	228
32	326	315	306	299	293	286	279	271	259
28	>365	>365	351	335	326	318	311	303	293
24	>365	>365	>365	>365	>365	>365	>365	341	323
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)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	205	149	76	30	1	0	0	0	0	3	36	140	640
60	137	76	23	7	0	0	0	0	0	0	7	63	313
57	94	43	10	2	0	0	0	0	0	0	2	33	184
55	69	28	5	0	0	0	0	0	0	0	0	20	122
50	30	9	0	0	0	0	0	0	0	0	0	5	44
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	880	829	1054	1124	1337	1415	1503	1506	1416	1295	1081	940	14380
55	237	213	345	434	624	725	790	793	726	582	391	248	6108
57	199	172	289	376	562	665	728	731	666	520	332	198	5438
60	149	121	209	291	469	575	635	638	576	427	248	135	4473
65	46	54	107	164	315	425	480	483	426	276	127	57	2960
70	34	18	39	75	170	275	325	328	276	140	47	16	1743

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	668	657	840	916	1116	1198	1272	1278	1206	1087	877	726	668	1325	2165	3081	4197	5395	6667	7945	9151	10238	11115	11841
45	516	516	685	766	961	1048	1117	1123	1056	932	727	573	516	1032	1717	2483	3444	4492	5609	6732	7788	8720	9447	10020
50	372	378	535	616	806	898	962	968	906	777	578	427	372	750	1285	1901	2707	3605	4567	5535	6441	7218	7796	8223
55	248	253	388	468	651	748	807	813	756	622	428	293	248	501	889	1357	2008	2756	3563	4376	5132	5754	6182	6475
60	144	149	248	321	496	598	652	658	606	467	293	174	144	293	541	862	1358	1956	2608	3266	3872	4339	4632	4806
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	441	439	561	615	742	801	850	868	829	746	594	478	441	880	1441	2056	2798	3599	4449	5317	6146	6892	7486	7964

(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:
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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