

# 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: YUMA CITRUS STATION, AZ

1971-2000

COOP ID: 029652

Climate Division: AZ 5

NWS Call Sign:

Elevation: 191 Feet

Lat: 32° 37N

Lon: 114° 38W

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	67.9	40.7	54.3	88	1971	20	59.8	1986	19+	1937	24	48.6	1979	334	2	.0	.0	30.9	.0	2.9	.0
Feb	73.0	42.6	57.8	93	1986	27	63.8	1995	21	1948	13	53.7	1979	211	8	.0	.2	28.0	.0	1.0	.0
Mar	78.4	46.9	62.7	98+	1969	31	68.6	1972	27	1956	13	57.7	1977	133	60	.0	2.6	31.0	.0	.1	.0
Apr	85.7	51.8	68.8	106+	1989	8	75.1	1989	34+	1929	8	62.2	1975	51	162	1.0	10.9	30.0	.0	.0	.0
May	93.2	59.0	76.1	115	1983	29	83.3	1997	35	1970	1	70.0	1977	10	353	6.7	22.4	31.0	.0	.0	.0
Jun	102.5	66.9	84.7	122	1990	27	88.7	1981	50+	1971	4	80.7	1982	0	591	21.2	28.9	30.0	.0	.0	.0
Jul	105.6	75.9	90.8	124	1995	29	93.9	1996	56	1979	3	88.0	1991	0	797	28.3	30.8	31.0	.0	.0	.0
Aug	104.8	76.4	90.6	119+	1993	2	94.5	1992	52	1968	23	85.7	1979	0	793	27.1	30.6	31.0	.0	.0	.0
Sep	100.2	70.3	85.3	118	1950	2	89.7	1995	43	1970	25	79.2	1985	0	608	18.2	28.1	30.0	.0	.0	.0
Oct	89.5	57.8	73.7	110	1980	2	79.6	1988	33+	1979	31	68.1	1971	18	287	4.0	16.7	31.0	.0	.0	.0
Nov	76.4	45.9	61.2	98	1924	4	66.9	1995	26	1979	21	56.3	2000	158	42	.0	.7	30.0	.0	.2	.0
Dec	67.6	40.6	54.1	89	1958	3	58.0	1980	23	1968	21	49.1	1978	339	1	.0	.0	30.8	.0	2.7	.0
Ann	87.1	56.2	71.7	124	Jul 1995	29	94.5	Aug 1992	19+	Jan 1937	24	48.6	Jan 1979	1254	3704	106.5	171.9	364.7	.0	6.9	.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/normal/usnormals.html](http://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: 1920-2001

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

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**Station: YUMA CITRUS STATION, AZ**

**COOP ID: 029652**

**Climate Division: AZ 5**

**NWS Call Sign:**

**Elevation: 191 Feet Lat: 32°37N**

**Lon: 114°38W**

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	.45	.27	1.48	1979	17	2.44	1979	.00+	2000	3.0	1.3	.3	@	.00	.00	.01	.06	.14	.23	.36	.53	.78	1.21	1.67
Feb	.35	.14	1.26	1945	28	2.08	1976	.00+	1997	2.7	1.0	@	.0	.00	.00	.01	.04	.09	.17	.26	.39	.59	.94	1.31
Mar	.36	.23	.85	1930	15	1.61	1992	.00+	1990	2.4	1.1	.1	.0	.00	.00	.02	.07	.14	.21	.30	.43	.61	.91	1.22
Apr	.15	.02	.98	1965	4	1.08	1999	.00+	2000	1.0	.4	.0	.0	.00	.00	.00	.00	.00	.01	.05	.13	.25	.48	.71
May	.05	.00	.41	1979	20	.42	1979	.00+	2000	.4	.1	.0	.0	.00	.00	.00	.00	.00	.00	.00	.00	.06	.18	.29
Jun	.03	.00	.32	1988	18	.37	1988	.00+	2000	.3	.1	.0	.0	**	**	**	**	**	**	**	**	**	**	**
Jul	.31	.00	3.51	1989	28	3.51	1989	.00+	2000	1.0	.5	.1	.1	.00	.00	.00	.00	.00	.00	.01	.12	.39	1.02	1.74
Aug	.70	.23	4.29	1977	16	5.47	1977	.00+	1997	2.4	1.3	.4	.1	.00	.00	.00	.04	.13	.27	.47	.75	1.18	1.99	2.83
Sep	.50	.11	2.99	1921	29	5.08	1997	.00+	2000	1.5	.8	.2	.2	.00	.00	.00	.00	.02	.10	.24	.47	.84	1.54	2.29
Oct	.31	.04	2.50	1957	28	3.86	1972	.00+	1999	1.5	.7	.1	.1	.00	.00	.00	.00	.00	.03	.11	.26	.50	.98	1.50
Nov	.17	.05	1.39	1969	10	1.09	1993	.00+	2000	1.3	.4	.1	@	.00	.00	.00	.00	.00	.04	.11	.19	.31	.53	.75
Dec	.51	.17	1.95	1926	10	2.12	1994	.00+	2000	2.7	1.1	.4	@	.00	.00	.00	.00	.06	.16	.32	.54	.88	1.51	2.16
Ann	3.89	3.38	4.29	Aug 1977	16	5.47	Aug 1977	.00+	Dec 2000	20.2	8.8	1.7	.5	1.03	1.40	1.96	2.45	2.94	3.45	4.01	4.68	5.56	6.93	8.22

+ 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: 1920-2001

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

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

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**Station: YUMA CITRUS STATION, AZ**

**COOP ID: 029652**

**Climate Division: AZ 5**

**NWS Call Sign:**

**Elevation: 191 Feet**

**Lat: 32° 37N**

**Lon: 114° 38W**

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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.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	.0	0	0	.0	0	0	0	0	0	0	.0	.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

Complete documentation available from:

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**Station: YUMA CITRUS STATION, AZ**

**COOP ID: 029652**

**Climate Division: AZ 5**

**NWS Call Sign:**

**Elevation: 191 Feet**

**Lat: 32° 37N**

**Lon: 114° 38W**

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	3/24	3/13	3/05	2/26	2/19	2/13	2/06	1/29	1/18
32	3/01	2/17	2/08	1/31	1/24	1/17	1/09	12/31	12/16
28	1/23	1/09	12/27	12/10	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	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	11/10	11/15	11/19	11/23	11/26	11/29	12/03	12/06	12/12
32	11/25	12/04	12/10	12/15	12/20	12/24	12/30	1/05	1/15
28	12/11	12/27	1/11	2/03	0/00	0/00	0/00	0/00	0/00
24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
20	0/00	0/00	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	321	304	294	285	277	269	261	251	238
32	>365	360	341	331	322	315	307	298	286
28	>365	>365	>365	>365	>365	>365	>365	>365	335
24	>365	>365	>365	>365	>365	>365	>365	>365	>365
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

Complete documentation available from:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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**1971-2000**

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**Climate Division: AZ 5      NWS Call Sign:      Elevation: 191 Feet    Lat: 32°37N    Lon: 114°38W**

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	334	211	133	51	10	0	0	0	0	18	158	339	1254
60	194	103	56	15	2	0	0	0	0	4	71	195	640
57	125	58	27	6	0	0	0	0	0	1	38	124	379
55	90	35	15	3	0	0	0	0	0	0	22	86	251
50	26	7	2	0	0	0	0	0	0	0	4	22	61
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	691	721	950	1102	1366	1581	1820	1816	1598	1292	874	685	14496
55	68	112	253	414	653	891	1107	1103	908	579	207	58	6353
57	41	79	202	358	591	831	1045	1041	848	518	162	33	5749
60	17	40	138	277	500	741	952	948	758	428	106	12	4917
65	2	8	60	162	353	591	797	793	608	287	42	1	3704
70	0	0	18	80	223	442	642	638	459	169	12	0	2683

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	449	525	711	872	1125	1345	1577	1568	1360	1050	641	444	449	974	1685	2557	3682	5027	6604	8172	9532	10582	11223	11667
45	295	382	556	722	970	1195	1422	1413	1210	895	491	293	295	677	1233	1955	2925	4120	5542	6955	8165	9060	9551	9844
50	156	242	402	572	815	1045	1267	1258	1060	740	344	151	156	398	800	1372	2187	3232	4499	5757	6817	7557	7901	8052
55	58	118	252	423	660	895	1112	1103	910	587	204	48	58	176	428	851	1511	2406	3518	4621	5531	6118	6322	6370
60	6	41	129	282	505	745	957	948	760	434	92	2	6	47	176	458	963	1708	2665	3613	4373	4807	4899	4901
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	290	350	457	546	693	795	959	965	843	658	416	288	290	640	1097	1643	2336	3131	4090	5055	5898	6556	6972	7260

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)