

Climatology of the United States

No. 20

1971-2000

Station: BIXBY, OK

COOP ID: 340782

Climate Division: OK 3

NWS Call Sign:

Elevation: 605 Feet Lat: 35° 59N Lon: 95° 53W

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	46.0	23.5	34.8	79	1950	24	42.6	1990	-14	1979	31	20.7	1979	937	0	.0	.0	12.8	5.4	26.4	.8
Feb	52.6	27.7	40.2	92	1996	23	49.6	1976	-11	1979	9	26.9	1979	698	0	.0	@	16.8	2.7	19.7	.5
Mar	61.9	36.8	49.4	95	1995	23	53.3	1985	-11	1948	12	42.7	1975	487	0	.0	@	25.7	.4	10.3	.0
Apr	71.6	46.0	58.8	100	1972	12	64.9	1981	21	1975	3	53.4	1983	209	23	@	.4	29.4	.0	1.7	.0
May	78.8	56.0	67.4	101	1953	31	72.5	1987	34+	1963	1	62.5	1976	60	134	.0	1.5	31.0	.0	.0	.0
Jun	87.1	65.1	76.1	104+	1953	21	79.8	1990	47+	1954	4	72.5	1974	2	336	.2	11.4	30.0	.0	.0	.0
Jul	92.9	69.7	81.3	112+	1954	13	87.5	1980	50+	1970	5	78.3	1972	0	505	3.9	23.2	31.0	.0	.0	.0
Aug	92.4	67.7	80.1	111	1956	16	86.5	1980	49+	1949	22	73.9	1992	2	468	4.5	21.4	31.0	.0	.0	.0
Sep	83.9	59.9	71.9	108	2000	1	79.1	1998	29	1984	30	64.6	1974	28	235	.7	8.3	30.0	.0	@	.0
Oct	74.3	47.2	60.8	98	1953	1	65.2	1973	19+	1952	29	54.7	1976	174	42	.0	1.1	30.7	.0	2.4	.0
Nov	60.2	36.3	48.3	88+	1951	12	57.3	1999	4	1976	29	41.4	1976	505	3	.0	.0	23.7	.4	12.5	.0
Dec	49.7	27.7	38.7	81+	1948	13	45.5	1984	-10	1989	24	26.0	1983	815	0	.0	.0	16.5	2.7	22.4	.3
Ann	71.0	47.0	59.0	112+	Jul 1954	13	87.5	Jul 1980	-14	Jan 1979	31	20.7	Jan 1979	3917	1746	9.3	67.3	308.6	11.6	95.4	1.6

+ 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: 1948-2001

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

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No. 20

1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: BIXBY, OK

COOP ID: 340782

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NWS Call Sign:

Elevation: 605 Feet Lat: 35°59N

Lon: 95°53W

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	1.46	1.40	2.55	1985	1	3.67	1985	.00+	1997	3.7	2.8	.9	.5	.00	.00	.34	.70	.98	1.27	1.57	1.92	2.38	3.07	3.79
Feb	1.97	1.96	2.00+	1984	27	4.34	1997	.00	1996	4.5	3.2	1.3	.5	.34	.60	.94	1.20	1.47	1.74	2.05	2.41	2.88	3.62	4.31
Mar	3.53	2.86	4.00	1999	14	9.70	1973	.00	1971	6.2	5.3	2.6	1.1	.49	.94	1.54	2.04	2.54	3.06	3.64	4.34	5.26	6.72	8.09
Apr	3.63	3.21	4.54	1957	18	7.87	1999	.22	1987	6.5	5.6	2.5	1.1	.78	1.11	1.64	2.12	2.61	3.13	3.71	4.41	5.33	6.80	8.19
May	5.56	5.37	5.20	1984	27	9.79	1987	1.11	1988	8.3	6.9	4.1	1.9	2.18	2.69	3.42	4.03	4.60	5.19	5.82	6.55	7.48	8.90	10.20
Jun	4.53	4.06	5.90	1948	23	9.96	1999	1.11	1988	7.0	6.1	3.2	1.6	1.33	1.76	2.40	2.96	3.51	4.07	4.70	5.44	6.39	7.88	9.27
Jul	2.78	2.45	3.77	1960	22	8.53	1994	.00+	1984	4.2	3.5	1.9	1.0	.00	.15	.55	.97	1.43	1.97	2.61	3.41	4.54	6.44	8.33
Aug	2.39	2.11	4.20	1989	20	5.50	1997	.00+	2000	4.1	3.2	1.7	.9	.00	.00	1.03	1.50	1.88	2.25	2.65	3.09	3.66	4.54	5.34
Sep	4.71	4.37	6.18	1986	30	14.03	1971	.45	2000	6.8	5.8	2.9	1.5	.80	1.22	1.90	2.55	3.21	3.93	4.75	5.74	7.07	9.22	11.28
Oct	3.84	2.90	4.25	1986	1	9.81	1983	.33	1982	5.7	4.8	2.5	1.3	.56	.88	1.44	1.97	2.52	3.13	3.83	4.69	5.85	7.73	9.55
Nov	3.67	3.34	3.90	1979	21	6.85	1994	.04	1989	5.6	4.8	2.5	1.3	.43	.71	1.22	1.74	2.28	2.89	3.60	4.48	5.68	7.65	9.57
Dec	2.39	1.93	2.75	1965	24	7.67	1984	.00	1996	4.6	3.5	1.7	.8	.07	.25	.58	.92	1.30	1.74	2.26	2.92	3.83	5.37	6.88
Ann	40.46	40.48	6.18	Sep 1986	30	14.03	Sep 1971	.00+	Aug 2000	67.2	55.5	27.8	13.5	29.86	31.94	34.59	36.59	38.35	40.05	41.81	43.74	46.07	49.44	52.34

+ 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: 1948-2001

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Station: BIXBY, OK

COOP ID: 340782

Climate Division: OK 3

NWS Call Sign:

Elevation: 605 Feet

Lat: 35° 59N

Lon: 95° 53W

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	.1	.0	#	0	1.0	1972	28	1.5	1972	8	2000	28	#+	2000	.1	.1	.0	.0	.0	.1	.0	.0	.0
Feb	1.4	.0	#	0	5.0	1980	8	5.0	1980	5	1980	8	#+	1980	.5	.4	.2	.1	.0	.3	.1	.1	.0
Mar	.6	.0	#	0	6.0	1994	9	6.0	1994	6	1994	9	#	1994	.1	.1	.1	.1	.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	.2	.0	#	0	2.5	1971	23	2.5	1971	2	1971	23	#	1971	.1	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.2	.0	#	0	1.7	1971	3	1.7	1971	5	2000	13	1	2000	.1	.1	.0	.0	.0	.1	.0	.0	.0
Ann	2.5	.0	N/A	N/A	6.0	Mar 1994	9	6.0	Mar 1994	8	Jan 2000	28	1	Dec 2000	.9	.8	.3	.2	.0	.6	.1	.1	.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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Elevation: 605 Feet

Lat: 35° 59N

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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	4/29	4/24	4/21	4/18	4/16	4/13	4/11	4/08	4/03
32	4/16	4/11	4/08	4/05	4/02	3/30	3/27	3/24	3/19
28	4/07	4/02	3/29	3/26	3/22	3/19	3/16	3/12	3/07
24	4/01	3/24	3/18	3/13	3/09	3/04	2/27	2/21	2/13
20	3/18	3/10	3/04	2/27	2/23	2/18	2/13	2/07	1/30
16	3/08	2/28	2/23	2/18	2/13	2/09	2/04	1/30	1/22
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	10/01	10/06	10/10	10/13	10/16	10/19	10/23	10/26	11/01
32	10/10	10/15	10/19	10/23	10/26	10/29	11/02	11/06	11/11
28	10/21	10/27	11/01	11/06	11/10	11/13	11/18	11/23	11/29
24	10/29	11/06	11/12	11/16	11/21	11/25	11/30	12/06	12/13
20	11/10	11/17	11/22	11/27	12/01	12/05	12/10	12/15	12/22
16	11/13	11/25	12/04	12/11	12/18	12/25	1/02	1/10	1/22
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	205	197	192	187	183	178	174	168	160
32	225	219	214	210	206	203	199	194	187
28	257	248	242	236	231	226	221	215	206
24	291	279	270	263	256	250	242	234	222
20	313	302	294	287	281	274	267	259	248
16	>365	327	316	308	301	294	287	279	268

* 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	937	698	487	209	60	2	0	2	28	174	505	815	3917
60	783	568	342	107	18	0	0	0	7	83	367	663	2938
57	692	491	262	63	7	0	0	0	2	48	291	576	2432
55	636	441	215	41	3	0	0	0	0	31	245	519	2131
50	492	328	120	10	0	0	0	0	0	8	150	383	1491
32	122	68	4	0	0	0	0	0	0	0	7	67	268

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	207	297	541	804	1098	1323	1528	1489	1197	891	495	275	10145
55	9	26	39	155	388	633	815	776	508	209	43	14	3615
57	3	20	24	117	330	573	753	714	450	164	29	9	3186
60	1	13	11	71	248	483	660	621	365	106	15	3	2597
65	0	0	0	23	134	336	505	468	235	42	3	0	1746
70	0	0	0	5	57	199	350	321	134	11	0	0	1077

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	67	153	336	580	859	1093	1286	1246	956	647	282	104	67	220	556	1136	1995	3088	4374	5620	6576	7223	7505	7609
45	28	81	221	431	704	943	1131	1091	806	494	179	50	28	109	330	761	1465	2408	3539	4630	5436	5930	6109	6159
50	5	38	127	297	549	793	976	936	656	349	99	23	5	43	170	467	1016	1809	2785	3721	4377	4726	4825	4848
55	1	11	62	183	397	643	821	781	510	222	45	6	1	12	74	257	654	1297	2118	2899	3409	3631	3676	3682
60	0	3	23	97	257	493	666	626	372	119	14	1	0	3	26	123	380	873	1539	2165	2537	2656	2670	2671
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	63	119	221	370	560	747	864	826	633	420	191	84	63	182	403	773	1333	2080	2944	3770	4403	4823	5014	5098

(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