

Climatography of the United States

No. 20

1971-2000

Station: GEARY, OK

COOP ID: 343497

Climate Division: OK 4

NWS Call Sign:

Elevation: 1,595 Feet Lat: 35° 38N

Lon: 98° 19W

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	45.7	26.4	36.1	81	1950	25	44.8	1990	-10	1988	8	22.8	1979	897	0	.0	.0	14.9	4.4	23.3	.3
Feb	51.5	30.5	41.0	90	1996	22	49.8	1976	-4+	1951	1	27.7	1978	677	0	.0	@	17.4	2.7	15.8	.2
Mar	60.3	37.8	49.1	91+	1967	11	53.4+	1990	0	1960	3	43.1	1996	495	0	.0	.1	26.3	.3	7.9	.0
Apr	69.4	47.3	58.4	100	1972	12	63.4	1981	20	1957	13	52.8	1973	223	23	@	.4	29.5	.0	1.0	.0
May	78.1	58.5	68.3	103	1985	30	73.6	1998	30	1954	3	63.0	1976	41	144	.1	3.0	31.0	.0	.0	.0
Jun	86.7	67.1	76.9	111	1953	14	81.5	1990	47+	1964	1	71.7	2000	3	359	.6	13.0	30.0	.0	.0	.0
Jul	92.6	71.8	82.2	112+	1954	12	89.3	1980	51	1970	21	79.0	1975	0	534	4.4	22.8	31.0	.0	.0	.0
Aug	91.8	69.8	80.8	114	1969	13	85.9	1980	51	1988	29	74.8	1992	1	490	4.3	22.6	31.0	.0	.0	.0
Sep	83.4	61.7	72.6	108	1951	1	77.3	1983	33	1984	30	64.7	1974	22	249	1.4	9.2	30.0	.0	.0	.0
Oct	72.3	50.1	61.2	98+	1953	1	65.7	1979	21	1993	30	55.0	1976	152	34	.0	.9	30.6	.0	.9	.0
Nov	58.2	37.6	47.9	89	1980	9	55.5	1999	9	1991	3	42.2	1972	514	0	.0	.0	23.8	.4	9.2	.0
Dec	48.1	29.1	38.6	90	1955	24	43.7	1988	-12	1989	23	25.0	1983	819	0	.0	.0	16.5	2.5	20.1	.4
Ann	69.8	49.0	59.4	114	Aug 1969	13	89.3	Jul 1980	-12	Dec 1989	23	22.8	Jan 1979	3844	1833	10.8	72.0	312.0	10.3	78.2	.9

+ 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

040-A

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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: GEARY, OK

COOP ID: 343497

Climate Division: OK 4

NWS Call Sign:

Elevation: 1,595 Feet Lat: 35°38N

Lon: 98°19W

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	.81	.66	2.10	1982	30	2.15	1982	.00+	1996	2.5	1.6	.6	.2	.00	.00	.13	.28	.43	.60	.79	1.03	1.36	1.88	2.40
Feb	1.20	.99	2.40	1997	21	4.14	1997	.00+	1999	3.2	2.3	.8	.3	.00	.00	.20	.48	.72	.97	1.24	1.57	2.00	2.66	3.35
Mar	2.39	1.92	2.62	1989	28	7.80	1973	.00+	1997	4.3	3.9	1.9	.7	.00	.00	.77	1.25	1.67	2.10	2.55	3.09	3.81	4.86	5.89
Apr	2.75	2.15	2.80	1997	11	9.25	1997	.00	1987	4.9	4.3	2.1	.9	.26	.58	1.04	1.44	1.85	2.29	2.79	3.40	4.21	5.52	6.77
May	4.77	4.22	5.79	1982	17	12.99	1982	.76+	1985	7.1	6.2	3.1	1.6	.78	1.20	1.89	2.55	3.22	3.96	4.80	5.82	7.18	9.40	11.52
Jun	4.12	4.23	11.25	1948	23	9.92	1989	.63	1998	5.9	5.3	2.7	1.4	.99	1.37	1.97	2.51	3.04	3.61	4.24	4.99	5.98	7.54	9.01
Jul	2.00	1.85	3.02	1950	20	4.94	1979	.00+	1999	3.4	3.0	1.5	.8	.00	.00	.27	.61	.98	1.40	1.88	2.50	3.36	4.75	6.14
Aug	2.30	1.97	3.75	1950	16	5.50	1997	.00+	2000	4.1	3.4	1.6	.8	.00	.34	.78	1.15	1.52	1.91	2.36	2.88	3.59	4.73	5.82
Sep	3.09	2.42	6.98	1961	13	13.43	1986	.00+	2000	4.5	3.9	2.2	1.0	.00	.22	.71	1.19	1.70	2.29	2.97	3.82	5.00	6.97	8.90
Oct	2.61	1.91	5.24	1955	3	8.85	2000	.22	1978	4.1	3.8	1.8	.9	.26	.44	.80	1.16	1.56	2.00	2.53	3.18	4.08	5.58	7.04
Nov	1.94	1.60	5.30	1994	20	7.06	1994	.00+	1999	3.2	2.9	1.4	.6	.00	.00	.47	.81	1.14	1.51	1.93	2.45	3.13	4.27	5.37
Dec	1.30	.88	2.00	1971	15	4.90	1999	.00+	1989	2.8	2.4	1.0	.4	.00	.00	.17	.39	.63	.90	1.22	1.62	2.19	3.11	4.03
Ann	29.28	29.61	11.25	Jun 1948	23	13.43	Sep 1986	.00+	Sep 2000	50.0	43.0	20.7	9.6	19.44	21.30	23.70	25.54	27.19	28.80	30.46	32.32	34.58	37.88	40.76

+ 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

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

Complete documentation available from:

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Station: GEARY, OK

COOP ID: 343497

Climate Division: OK 4

NWS Call Sign:

Elevation: 1,595 Feet

Lat: 35° 38N

Lon: 98° 19W

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	1.9	.8	#	0	6.0	1988	7	10.0	1988	6	1988	7	#+	2000	.8	.7	.2	.1	.0	.4	.2	.1	.0
Feb	1.4	.0	#	0	4.5	1979	7	11.4	1978	4+	1997	7	#+	1997	.9	.5	.2	.0	.0	.1	.1	.0	.0
Mar	.0	.0	#	0	.2	1999	13	.2+	1999	3	1995	2	#+	1999	.1	.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	.1	.0	#	0	1.0	1991	31	1.0	1991	1	1991	31	#	1991	.1	.1	.0	.0	.0	@	.0	.0	.0
Nov	.6	.0	#	0	4.0	1980	17	4.8	1980	3	1991	2	#+	2000	.3	.2	.1	.0	.0	.1	.0	.0	.0
Dec	1.2	.0	#	0	7.2	1974	11	7.3	2000	5	1987	15	1	1987	.3	.3	.2	.1	.0	.1	.1	.0	.0
Ann	5.2	.8	N/A	N/A	7.2	Dec 1974	11	11.4	Feb 1978	6	Jan 1988	7	1	Dec 1987	2.5	1.8	.7	.2	.0	.7	.4	.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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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	4/28	4/23	4/20	4/17	4/14	4/11	4/08	4/04	3/30
32	4/13	4/08	4/05	4/02	3/30	3/27	3/24	3/21	3/16
28	4/10	4/03	3/30	3/26	3/22	3/19	3/15	3/10	3/04
24	3/26	3/19	3/15	3/11	3/07	3/03	2/27	2/22	2/15
20	3/23	3/13	3/07	3/01	2/23	2/17	2/11	2/03	1/19
16	3/06	2/26	2/20	2/15	2/11	2/06	1/31	1/24	1/11
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	10/08	10/14	10/18	10/23	10/27	11/01	11/06	11/14
32	10/14	10/21	10/26	10/31	11/04	11/08	11/13	11/18	11/26
28	10/25	11/01	11/05	11/09	11/13	11/17	11/21	11/26	12/02
24	10/29	11/09	11/16	11/23	11/29	12/05	12/12	12/19	12/30
20	11/13	11/21	11/27	12/02	12/06	12/11	12/17	12/23	1/05
16	11/16	11/28	12/08	12/15	12/23	12/30	1/08	1/19	2/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	220	210	203	197	191	185	179	172	163
32	246	237	230	224	219	213	207	200	191
28	256	249	244	239	235	231	227	222	214
24	293	281	274	268	263	257	252	245	236
20	>365	315	302	292	284	276	267	258	244
16	>365	345	326	316	308	300	293	284	273

* 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	897	677	495	223	41	3	0	1	22	152	514	819	3844
60	745	547	347	120	10	0	0	0	5	62	374	665	2875
57	658	471	263	74	3	0	0	0	1	31	295	579	2375
55	601	422	212	50	1	0	0	0	0	18	247	521	2072
50	461	313	113	14	0	0	0	0	0	3	148	383	1435
32	112	63	3	0	0	0	0	0	0	0	7	64	249

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	238	315	531	790	1126	1346	1557	1513	1217	905	483	268	10289
55	14	31	28	150	414	656	844	800	527	210	33	12	3719
57	9	23	16	113	354	596	782	738	468	162	21	8	3290
60	3	15	7	69	267	506	689	645	382	99	10	1	2693
65	0	0	0	23	144	359	534	490	249	34	0	0	1833
70	0	0	0	5	59	223	379	341	143	7	0	0	1157

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	89	176	353	591	881	1114	1303	1276	989	681	288	113	89	265	618	1209	2090	3204	4507	5783	6772	7453	7741	7854
45	38	96	231	442	726	964	1148	1121	839	530	177	50	38	134	365	807	1533	2497	3645	4766	5605	6135	6312	6362
50	8	46	132	304	571	814	993	966	690	384	93	18	8	54	186	490	1061	1875	2868	3834	4524	4908	5001	5019
55	0	14	65	185	419	664	838	811	543	248	41	2	0	14	79	264	683	1347	2185	2996	3539	3787	3828	3830
60	0	2	29	92	276	514	683	656	399	138	12	0	0	2	31	123	399	913	1596	2252	2651	2789	2801	2801
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	65	121	226	364	571	755	875	852	656	423	175	78	65	186	412	776	1347	2102	2977	3829	4485	4908	5083	5161

(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