

Climatography of the United States

No. 20

1971-2000

Station: SUBLETTE, KS

COOP ID: 147922

Climate Division: KS 7

NWS Call Sign:

Elevation: 2,920 Feet Lat: 37° 29N

Lon: 100° 50W

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	42.9	16.1	29.5	80+	1989	31	39.9	1986	-24	1984	19	15.1	1979	1101	0	.0	.0	12.9	6.8	30.2	1.8
Feb	49.3	20.3	34.8	88	1981	20	41.5	1976	-16	1982	5	20.6	1978	845	0	.0	.0	16.2	3.8	24.5	1.1
Mar	57.8	27.8	42.8	92	1989	10	48.9	1972	-11	1960	3	36.9	1998	689	0	.0	.1	23.9	1.4	18.6	.1
Apr	66.8	37.2	52.0	98	1989	22	59.8	1981	13+	1997	12	45.5	1983	396	6	.0	.6	27.7	.2	6.9	.0
May	75.0	48.4	61.7	105	1953	26	67.0	1974	24	1953	14	55.6	1995	159	56	.2	2.5	30.6	.0	.5	.0
Jun	86.2	59.3	72.8	112	1953	24	77.9	1981	39+	1954	3	67.9+	1992	20	252	2.6	13.4	30.0	.0	.0	.0
Jul	91.0	63.6	77.3	108+	1954	12	83.1	1980	49+	1990	16	74.5	1989	0	381	4.5	21.6	31.0	.0	.0	.0
Aug	89.0	62.6	75.8	108	1952	16	81.2	1983	46	1976	28	70.3	1992	4	339	2.4	19.3	31.0	.0	.0	.0
Sep	81.2	53.8	67.5	103	2000	7	73.5	1998	25	1985	30	61.2	1974	56	131	.5	9.0	29.7	.0	.3	.0
Oct	70.4	40.6	55.5	96	1968	14	58.6	1979	13+	1993	31	50.0	1976	299	5	.0	1.1	29.9	.1	4.4	.0
Nov	54.5	27.4	41.0	88	1980	8	49.0	1999	-3	1991	3	34.9	1972	722	0	.0	.0	20.9	1.2	20.6	@
Dec	44.8	19.1	32.0	86	1955	24	37.8	1980	-14	1989	22	18.4	1983	1024	0	.0	.0	14.2	4.8	29.1	1.2
Ann	67.4	39.7	53.6	112	Jun 1953	24	83.1	Jul 1980	-24	Jan 1984	19	15.1	Jan 1979	5315	1170	10.2	67.6	298.0	18.3	135.1	4.2

+ 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: SUBLETTE, KS

COOP ID: 147922

Climate Division: KS 7

NWS Call Sign:

Elevation: 2,920 Feet Lat: 37°29N

Lon: 100°50W

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	.46	.24	1.48	1990	19	1.88	1990	.00	1986	3.3	1.3	.2	@	.01	.03	.08	.15	.22	.30	.41	.55	.74	1.08	1.41
Feb	.44	.27	1.19	1969	14	1.84	1993	.00+	1977	3.2	1.3	.2	.0	.00	.01	.05	.11	.18	.27	.38	.52	.74	1.11	1.48
Mar	1.44	.84	1.95	1973	24	9.71	1973	.00	1997	5.5	3.3	.9	.3	.02	.08	.24	.43	.66	.93	1.27	1.72	2.36	3.47	4.59
Apr	1.50	1.17	1.85	1970	18	4.41	1976	.12	1992	6.4	3.7	.8	.3	.16	.27	.47	.68	.91	1.16	1.46	1.83	2.34	3.18	4.00
May	3.19	3.08	4.21	1955	16	5.55	1979	.82	1992	9.0	5.7	2.2	.8	.95	1.26	1.71	2.10	2.48	2.87	3.31	3.82	4.48	5.52	6.48
Jun	2.94	2.69	2.54	1977	25	8.40	1989	.26	1980	8.5	5.5	2.1	.8	.56	.82	1.25	1.65	2.05	2.49	2.98	3.58	4.37	5.63	6.84
Jul	2.59	2.06	3.20	1949	22	7.84	1990	.56+	1987	6.8	4.4	1.7	.9	.45	.68	1.06	1.41	1.78	2.17	2.62	3.16	3.88	5.05	6.16
Aug	2.32	2.10	3.50	1958	20	6.07	1997	.18	1983	7.0	4.2	1.7	.6	.36	.56	.90	1.22	1.55	1.91	2.33	2.83	3.51	4.62	5.67
Sep	1.71	1.29	4.81	1981	4	5.49	1981	.00	1980	5.6	3.0	1.1	.3	.05	.18	.41	.66	.93	1.24	1.62	2.09	2.75	3.86	4.95
Oct	1.27	.92	2.30	1950	2	3.91	1998	.00+	1987	4.0	2.1	.9	.4	.00	.02	.14	.29	.49	.74	1.07	1.49	2.12	3.22	4.34
Nov	.94	.62	1.21	1974	3	3.44	1972	.00+	1999	4.2	2.4	.6	.1	.00	.03	.14	.27	.42	.61	.84	1.14	1.56	2.29	3.03
Dec	.42	.34	.91	1953	3	1.48	1997	.00+	2000	3.4	1.4	.1	.0	.00	.00	.07	.14	.21	.29	.39	.52	.69	.97	1.26
Ann	19.22	18.40	4.81	Sep 1981	4	9.71	Mar 1973	.00+	Dec 2000	66.9	38.3	12.5	4.5	12.73	13.95	15.53	16.74	17.83	18.89	19.99	21.21	22.70	24.88	26.78

+ 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:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Station: SUBLETTE, KS

COOP ID: 147922

Climate Division: KS 7

NWS Call Sign:

Elevation: 2,920 Feet

Lat: 37° 29N

Lon: 100° 50W

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	4.0	3.5	1	#	13.0	1990	19	15.3	1990	13	1990	21	4	1993	2.4	1.6	.3	.1	@	7.0	2.8	1.6	.2
Feb	3.2	1.0	1	#	9.0	1990	21	15.0	1993	11	1993	16	4	1978	2.0	1.5	.4	.1	.0	3.8	1.8	.8	.1
Mar	4.7	3.0	#	#	10.0	1987	24	15.5	1987	11	1984	24	1	1999	2.0	1.7	.6	.3	@	2.8	1.2	.5	.1
Apr	1.0	.0	#	0	10.0	1983	4	11.0	1983	10	1983	4	1	1983	.5	.4	@	@	@	.4	.1	.1	@
May	.1	.0	#	0	2.0	1979	4	2.0	1979	2	1979	4	#	1979	@	@	.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	1.0	1984	29	1.0	1984	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	.7	.0	#	0	7.0	1991	31	7.0	1991	2+	1997	27	#+	1997	.2	.2	.1	@	.0	.3	.0	.0	.0
Nov	2.1	1.0	#	#	11.0	1992	25	12.5	1992	12	1992	26	2	1992	1.2	.9	.3	@	@	1.8	.6	.2	.2
Dec	3.6	2.8	1	#	8.0	1997	24	11.5+	1992	8	1997	25	5	1992	2.1	1.5	.3	.2	.0	4.8	2.0	.9	.0
Ann	19.4	11.3	N/A	N/A	13.0	Jan 1990	19	15.5	Mar 1987	13	Jan 1990	21	5	Dec 1992	10.4	7.8	2.0	.7	@	20.9	8.5	4.1	.6

+ 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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Climate Division: KS 7

NWS Call Sign:

Elevation: 2,920 Feet

Lat: 37° 29N

Lon: 100° 50W

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	5/14	5/10	5/07	5/04	5/02	4/29	4/27	4/24	4/19
32	5/07	5/02	4/28	4/25	4/22	4/19	4/15	4/12	4/06
28	4/25	4/20	4/17	4/14	4/11	4/09	4/06	4/02	3/29
24	4/18	4/12	4/09	4/05	4/02	3/30	3/27	3/23	3/18
20	4/10	4/04	3/31	3/27	3/24	3/21	3/17	3/13	3/08
16	4/02	3/27	3/22	3/18	3/14	3/11	3/07	3/02	2/23
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	9/21	9/26	9/30	10/03	10/06	10/09	10/12	10/15	10/20
32	9/28	10/03	10/07	10/10	10/14	10/17	10/20	10/24	10/30
28	10/13	10/18	10/21	10/24	10/27	10/29	11/01	11/04	11/09
24	10/20	10/26	10/30	11/02	11/06	11/09	11/12	11/16	11/22
20	10/31	11/05	11/08	11/11	11/14	11/17	11/20	11/23	11/28
16	11/06	11/12	11/17	11/20	11/24	11/27	12/01	12/05	12/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	175	169	164	160	156	152	148	143	137
32	197	189	183	179	174	170	165	159	152
28	214	208	204	201	197	194	190	186	180
24	242	233	227	221	216	211	206	200	191
20	255	248	243	238	234	230	226	221	214
16	279	270	264	259	254	249	244	237	229

* 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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Station: SUBLETTE, KS

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Climate Division: KS 7 NWS Call Sign: Elevation: 2,920 Feet Lat: 37° 29N Lon: 100° 50W

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	1101	845	689	396	159	20	0	4	56	299	722	1024	5315
60	946	705	534	263	75	5	0	0	16	167	572	869	4152
57	853	625	442	194	43	1	0	0	5	104	483	776	3526
55	792	573	385	154	27	0	0	0	2	72	426	714	3145
50	644	444	248	76	6	0	0	0	0	24	293	563	2298
32	207	112	13	0	0	0	0	0	0	0	27	139	498

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	129	191	347	600	920	1222	1404	1358	1065	729	296	138	8399
55	1	8	7	64	235	532	691	645	377	88	5	0	2653
57	0	4	2	44	188	473	629	583	320	58	2	0	2303
60	0	0	0	23	128	387	536	490	240	27	0	0	1831
65	0	0	0	6	56	252	381	339	131	5	0	0	1170
70	0	0	0	0	18	141	228	201	58	0	0	0	646

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	36	95	232	433	730	1012	1196	1145	862	538	160	42	36	131	363	796	1526	2538	3734	4879	5741	6279	6439	6481
45	6	39	135	300	577	862	1041	990	713	389	84	13	6	45	180	480	1057	1919	2960	3950	4663	5052	5136	5149
50	0	14	67	187	424	712	886	835	564	259	35	0	0	14	81	268	692	1404	2290	3125	3689	3948	3983	3983
55	0	1	26	99	287	563	731	680	424	149	8	0	0	1	27	126	413	976	1707	2387	2811	2960	2968	2968
60	0	0	4	41	161	415	576	526	291	66	1	0	0	0	4	45	206	621	1197	1723	2014	2080	2081	2081
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	57	108	197	302	459	646	772	746	549	362	140	64	57	165	362	664	1123	1769	2541	3287	3836	4198	4338	4402

(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/normal/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