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: DESERET, UT **COOP ID: 422101**

Climate Division: UT 1 **NWS Call Sign:** **Elevation: 4,590 Feet** **Lat: 39˚17N** **Lon: 112˚39W**

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	38.8	13.7	26.3	64+	1953	9	35.9	2000	-32	1937	9	14.2	1989	1201	0	.0	.0	4.5	9.0	29.8	4.7
Feb	46.4	19.1	32.8	74	1972	28	39.9	2000	-27+	1933	10	19.5	1984	903	0	.0	.0	10.2	3.0	26.0	1.7
Mar	57.5	26.1	41.8	83	1998	23	47.2	1986	-14	1966	4	35.0	1976	719	0	.0	.0	23.7	.2	24.9	.1
Apr	66.0	31.6	48.8	90	1992	27	55.8	1992	6	1929	7	42.4	1975	489	1	.0	@	27.6	.0	16.8	.0
May	75.8	39.6	57.7	99	1996	13	62.2	2000	20+	1929	1	52.3	1995	247	20	.0	1.4	30.8	.0	5.2	.0
Jun	87.8	47.8	67.8	106+	1994	25	72.7	1977	25	1976	14	61.1	1998	66	150	1.7	13.6	30.0	.0	.5	.0
Jul	95.1	55.4	75.3	109	1998	18	78.7	1976	35	1992	2	70.3	1993	2	320	5.5	25.7	31.0	.0	.0	.0
Aug	92.7	53.4	73.1	107+	1994	4	76.6	2000	28	1992	27	70.1	1996	4	253	2.4	21.9	31.0	.0	.1	.0
Sep	82.1	43.4	62.8	100+	1950	1	67.9	1990	19+	1945	29	58.2	1971	122	54	@	5.0	30.0	.0	3.2	.0
Oct	68.1	32.3	50.2	93	1996	10	57.0	1988	-3	1971	30	46.1	1984	460	1	.0	.1	29.2	.1	16.2	@
Nov	51.4	22.6	37.0	78	1934	6	42.4	1999	-8	1931	24	30.2	1994	840	0	.0	.0	16.3	1.2	26.3	.4
Dec	39.8	13.7	26.8	69	1995	1	35.0	1977	-32	1932	12	16.9	1972	1185	0	.0	.0	4.6	7.1	29.7	3.0
Ann	66.8	33.2	50.0	109	Jul 1998	18	78.7	Jul 1976	-32+	Jan 1937	9	14.2	Jan 1989	6238	799	9.6	67.7	268.9	20.6	178.7	9.9

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1928-2001

(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	.67	.52	.95	1954	25	1.92	1978	.00	1972
Feb	.63	.41	.67	1971	18	2.07	1998	.01+	1974
Mar	.76	.72	.91	1979	29	3.00	1980	.00	1997
Apr	.86	.79	1.06	1953	28	2.05	1981	.00+	1993
May	1.12	.87	1.92	1975	20	4.19	1981	.00	1974
Jun	.46	.15	1.07	1998	7	2.10	1998	.00+	1996
Jul	.57	.40	1.15	1973	11	2.31	1984	.00+	2000
Aug	.68	.64	1.24	1965	15	1.80	1997	.00+	1996
Sep	.81	.52	1.17	1978	18	4.61	1982	.00+	1979
Oct	1.06	.97	1.82	1946	28	2.96	2000	.00+	1999
Nov	.67	.46	1.17	1981	18	2.00	1978	.00+	1995
Dec	.48	.44	1.05	1966	6	1.39	1971	.00+	1986
Ann	8.77	8.36	1.92	May 1975	20	4.61	Sep 1982	.00+	Jul 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	4.7	2.4	.1	.0
Feb	4.9	2.2	.1	.0
Mar	5.0	2.3	.3	.0
Apr	5.3	2.7	.3	.0
May	5.9	3.1	.5	.1
Jun	2.5	1.3	.2	@
Jul	2.9	1.9	.2	.1
Aug	3.5	2.0	.4	.1
Sep	3.8	2.2	.4	.1
Oct	4.8	3.2	.5	.1
Nov	4.2	2.2	.2	@
Dec	3.4	1.7	.2	.0
Ann	50.9	27.2	3.4	.5

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	.06	.14	.25	.34	.44	.55	.68	.83	1.03	1.35	1.66
Feb	.03	.06	.13	.21	.31	.42	.56	.75	1.01	1.47	1.93
Mar	.04	.11	.23	.34	.46	.59	.75	.94	1.20	1.62	2.04
Apr	.00	.07	.20	.34	.48	.64	.83	1.07	1.39	1.93	2.46
May	.08	.20	.38	.54	.72	.90	1.12	1.38	1.73	2.31	2.86
Jun	.00	.00	.00	.06	.13	.24	.37	.54	.79	1.24	1.69
Jul	.00	.00	.09	.18	.28	.39	.53	.70	.94	1.34	1.75
Aug	.00	.00	.09	.19	.30	.44	.61	.83	1.14	1.67	2.20
Sep	.00	.06	.18	.31	.44	.60	.78	1.00	1.32	1.84	2.36
Oct	.00	.00	.43	.61	.78	.95	1.14	1.36	1.63	2.07	2.49
Nov	.00	.08	.20	.31	.42	.54	.67	.83	1.06	1.42	1.77
Dec	.00	.06	.15	.22	.30	.39	.49	.60	.76	1.02	1.27
Ann	4.68	5.39	6.34	7.09	7.78	8.46	9.19	10.00	11.02	12.54	13.89

\+ 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: 1928-2001
(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	5.1	3.7	2	#
Feb	2.9	1.6	1	#
Mar	2.2	1.5	#	0
Apr	1.1	.0	#	0
May	.1	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.2	.0	#	0
Oct	.4	.0	#	0
Nov	2.1	1.0	#	0
Dec	3.6	3.0	1	#
Ann	17.7	10.8	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	9.0	1984	14	20.0	1988	17	1988	21	11	1988
Feb	6.0	1996	26	13.0	1996	12	1988	3	7	1988
Mar	8.5	1995	24	10.0	1995	4	1995	25	1	1984
Apr	5.0	1983	12	5.0	1983	4	1983	12	#+	1997
May	2.8	1975	5	2.8	1975	10	1975	20	1	1975
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	4.0	1978	18	4.0	1978	1	1971	30	#	1971
Oct	5.5	1971	28	10.2	1971	6	1971	29	1	1971
Nov	7.0	1978	25	11.0	1978	7	1983	25	2	1983
Dec	8.0	1998	19	15.0	1972	9	1984	25	5	1972
Ann	9.0	Jan 1984	14	20.0	Jan 1988	17	Jan 1988	21	11	Jan 1988

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	2.9	2.1	.6	.2	.0
Feb	1.6	1.2	.3	.1	.0
Mar	1.2	1.0	.2	@	.0
Apr	.6	.5	.2	@	.0
May	@	@	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.1	.1	@	.0	.0
Oct	.2	.2	.1	@	.0
Nov	1.1	.8	.3	.1	.0
Dec	1.8	1.3	.4	.1	.0
Ann	9.5	7.2	2.1	.5	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	10.0	6.7	4.0	.5
Feb	5.5	3.5	2.5	.0
Mar	.9	.3	.0	.0
Apr	.2	.1	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	@	.0	.0	.0
Oct	.2	.1	.1	.0
Nov	1.6	1.4	.6	.0
Dec	5.4	3.0	1.4	.0
Ann	23.8	15.1	8.6	.5

+ 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	6/25	6/20	6/15	6/12	6/08	6/05	6/01	5/28	5/22
32	6/14	6/08	6/04	5/31	5/28	5/25	5/21	5/17	5/11
28	5/26	5/20	5/15	5/11	5/08	5/04	4/30	4/25	4/19
24	5/08	5/02	4/28	4/25	4/22	4/18	4/15	4/11	4/06
20	4/27	4/20	4/14	4/10	4/06	4/01	3/28	3/22	3/15
16	4/20	4/10	4/03	3/27	3/22	3/16	3/10	3/03	2/21

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	8/27	9/02	9/06	9/09	9/13	9/16	9/19	9/23	9/29
32	9/09	9/13	9/16	9/19	9/21	9/24	9/26	9/29	10/04
28	9/14	9/19	9/23	9/26	9/29	10/02	10/05	10/09	10/14
24	9/23	9/30	10/05	10/09	10/13	10/17	10/21	10/27	11/03
20	10/12	10/18	10/22	10/25	10/28	10/31	11/04	11/08	11/13
16	10/21	10/27	10/31	11/04	11/07	11/10	11/14	11/18	11/24

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	120	111	105	100	95	91	86	80	71
32	135	129	124	119	116	112	107	102	96
28	168	160	154	148	144	139	134	128	119
24	204	193	186	180	174	168	162	154	144
20	226	219	214	209	205	201	196	191	184
16	266	254	245	237	230	222	215	205	193

***** 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	1201	903	719	489	247	66	2	4	122	460	840	1185	6238
60	1046	763	564	348	134	23	0	0	50	311	690	1030	4959
57	953	679	473	270	84	11	0	0	24	231	600	937	4262
55	897	623	415	223	58	6	0	0	14	183	540	875	3834
50	752	495	277	127	18	0	0	0	2	87	397	720	2875
32	308	134	18	2	0	0	0	0	0	0	52	234	748

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	131	155	322	504	796	1074	1341	1273	923	564	202	71	7356
55	6	0	5	36	141	390	628	560	246	34	0	0	2046
57	0	0	2	23	105	335	566	498	197	20	0	0	1746
60	0	0	0	11	62	257	473	405	132	7	0	0	1347
65	0	0	0	1	20	150	320	253	54	1	0	0	799
70	0	0	0	0	4	73	178	121	14	0	0	0	390

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	4	29	124	275	546	834	1088	1019	678	328	65	9	4	33	157	432	978	1812	2900	3919	4597	4925	4990	4999
45	0	7	48	164	396	684	933	864	529	195	19	0	0	7	55	219	615	1299	2232	3096	3625	3820	3839	3839
50	0	1	15	76	259	535	778	709	382	95	1	0	0	1	16	92	351	886	1664	2373	2755	2850	2851	2851
55	0	0	0	30	141	388	623	554	251	34	0	0	0	0	0	30	171	559	1182	1736	1987	2021	2021	2021
60	0	0	0	9	62	252	469	399	136	5	0	0	0	0	0	9	71	323	792	1191	1327	1332	1332	1332
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	6	44	136	242	394	527	654	629	468	282	81	12	6	50	186	428	822	1349	2003	2632	3100	3382	3463	3475

(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

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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