## 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

COOP ID: 426919

Station: PLEASANT GROVE, UT

Climate Division: UT 3 NWS Call Sign: Elevation: 4,760 Feet Lat: 40°22N Lon: 111°43W

									ŗ	Гетр	eratui	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	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	37.5	19.3	28.4	62+	1953	11	36.6	2000	-19	1949	26	19.0	1984	1134	0	.0	.0	3.6	7.4	28.5	.9
Feb	44.0	23.4	33.7	70+	1963	5	43.1	1995	-17	1989	7	23.0	1984	876	0	.0	.0	8.9	2.5	23.7	.4
Mar	53.7	30.8	42.3	79	1986	27	47.6	1986	-3	1966	4	36.6	1977	704	0	.0	.0	21.6	.1	18.1	.0
Apr	62.4	36.7	49.6	87+	1949	23	57.0	1992	18	1966	20	43.3	1983	468	4	.0	.0	26.6	.0	8.1	.0
May	72.2	44.1	58.2	94	1997	31	63.6	1992	24+	1965	6	52.6	1983	240	26	.0	.2	30.6	.0	1.3	.0
Jun	82.8	52.1	67.5	101	1970	26	72.0	1994	29	1950	8	62.3	1998	58	131	.0	6.6	30.0	.0	@	.0
Jul	89.8	59.4	74.6	102+	1949	31	77.2	1989	35	1963	15	69.5	1993	2	300	.1	18.1	31.0	.0	.0	.0
Aug	88.2	58.2	73.2	101	1949	4	76.5	1994	35	1964	29	69.9	1975	3	257	.1	13.6	31.0	.0	.0	.0
Sep	78.7	49.3	64.0	100	1950	3	70.0	1990	24	1965	18	58.5	1986	106	75	.0	2.3	29.9	.0	.4	.0
Oct	66.0	38.4	52.2	90+	1993	2	58.3	1988	16+	1961	29	46.0	1984	400	3	.0	.1	28.9	@	5.4	.0
Nov	49.9	28.7	39.3	77	1990	12	47.8	1999	-4	1955	16	32.5	2000	771	0	.0	.0	15.7	1.0	20.3	.0
Dec	39.1	20.9	30.0	66+	1969	21	36.1	1995	-14	1990	23	23.1	1990	1086	0	.0	.0	4.5	6.3	28.3	.6
Ann	63.7	38.4	51.1	102+	Jul 1949	31	77.2	Jul 1989	-19	Jan 1949	26	19.0	Jan 1984	5848	796	.2	40.9	262.3	17.3	134.1	1.9

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 086-A

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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Station: PLEASANT GROVE, UT

**Climate Division: UT 3** 

Elevation: 4,760 Feet Lat: 40°22N Lon: 111°43W

										Pı	recipit	tation	(incl	nes)										
			P	recipi	itatio	n Total	s			М	ean N	umbo		Proba	ability th	nat the n		annual j		babilit ation wil		ıal to or	less tha	ın the
	Medi					Extremes	3			D	aily Pred	cipitatio	n		Th		•		•	vs Probal incomplet	•		ion	
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	1.84	1.66	1.21	1953	14	4.31	1997	.29	1972	10.3	5.6	.8	.0	.50	.68	.94	1.17	1.40	1.64	1.90	2.22	2.62	3.26	3.86
Feb	1.76	1.58	1.32	1980	18	3.88	1980	.18	1972	8.9	5.0	.7	.1	.40	.56	.82	1.05	1.28	1.53	1.81	2.14	2.57	3.26	3.92
Mar	1.87	1.74	1.40	2000	6	5.18	1978	.18	1997	9.7	5.5	.8	.1	.35	.52	.79	1.04	1.30	1.58	1.89	2.27	2.78	3.59	4.36
Apr	1.65	1.54	1.40	1957	23	5.18	1999	.19	1977	8.8	4.7	.9	.1	.29	.44	.68	.90	1.13	1.38	1.67	2.01	2.47	3.21	3.92
May	1.85	1.60	1.80	1985	10	5.66	1995	.03	1972	8.9	4.9	.9	.3	.23	.37	.63	.89	1.17	1.47	1.83	2.26	2.86	3.84	4.79
Jun	.90	.71	1.57	1998	13	4.39	1998	.00+	1994	4.3	2.5	.4	.1	.00	.03	.15	.28	.43	.60	.82	1.09	1.49	2.16	2.83
Jul	.86	.75	1.30	1982	28	2.15	1989	.00	1971	4.7	2.4	.3	.2	.03	.10	.22	.35	.48	.64	.82	1.06	1.38	1.91	2.43
Aug	.88	.80	1.45	1959	19	2.73	1983	.00	1974	5.6	2.8	.4	.0	.08	.19	.33	.46	.59	.73	.90	1.09	1.35	1.77	2.17
Sep	1.32	1.19	1.44	1978	18	5.98	1982	.00	1979	5.8	3.3	.8	.1	.05	.16	.34	.54	.75	.99	1.27	1.62	2.11	2.93	3.73
Oct	1.78	1.65	1.65	1979	20	4.16	1981	.08	1999	6.9	4.2	1.2	.2	.23	.37	.62	.87	1.13	1.42	1.75	2.17	2.73	3.66	4.55
Nov	1.51	1.68	1.28	1996	22	3.47	1978	.10	1976	8.0	4.2	.7	@	.27	.41	.63	.83	1.04	1.27	1.53	1.84	2.26	2.93	3.57
Dec	1.44	1.17	.93	1994	4	5.91	1983	.13	1976	8.4	4.6	.6	.0	.21	.33	.54	.74	.95	1.18	1.44	1.76	2.19	2.89	3.56
Ann	17.66	18.09	1.80	May 1985	10	5.98	Sep 1982	.00+	Jun 1994	90.3	49.7	8.5	1.2	10.98	12.21	13.82	15.06	16.18	17.28	18.43	19.71	21.28	23.59	25.62

<sup>+</sup> Also occurred on an earlier date(s)

**NWS Call Sign:** 

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

# Climatography of the United States No. 20 1971-2000

Elevation: 4,760 Feet

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

**COOP ID: 426919** 

Lon: 111°43W

Station: PLEASANT GROVE, UT

Climate Division: UT 3 NWS Call Sign:

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	nber (	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ians (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
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	12.9	10.6	2	2	8.0	1973	19	29.8	1996	16	1996	31	9	1984	5.5	4.2	1.6	.7	.0	15.0	9.1	5.2	.9
Feb	7.7	5.8	1	#	8.0	1989	3	26.5	1979	16	1996	1	8	1989	3.8	2.7	1.0	.2	.0	6.8	4.3	2.8	.7
Mar	3.8	2.2	#	#	7.0	1977	2	19.3	1977	7	1977	2	1	1993	2.2	1.3	.4	.2	.0	1.2	.5	.2	.0
Apr	3.3	1.0	#	0	14.0	1999	1	26.5	1974	8	1999	1	#+	1999	1.2	.9	.3	.2	@	.3	.1	.1	.0
May	.3	.0	#	0	3.5	1975	20	4.5	1975	1	1983	11	#+	1999	.2	.1	.1	.0	.0	.1	.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	#	1994	29	#	1994	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.1	.0	#	0	1.5	1978	18	1.5	1978	#+	1998	1	#+	1998	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	1.1	.0	#	0	5.0	1971	28	18.0	1971	7	1971	31	1	1971	.4	.4	.1	.1	.0	.2	.1	.1	.0
Nov	6.4	4.5	#	#	8.0	1978	13	20.0	1983	8	1981	30	2	1994	2.5	2.1	.9	.4	.0	3.6	1.5	.6	.0
Dec	9.4	8.0	1	1	11.0	1990	20	30.3	1983	11	1983	24	5	1988	4.6	2.9	1.2	.4	.1	9.1	5.3	2.6	@
Ann	45.0	32.1	N/A	N/A	14.0	Apr 1999	1	30.3	Dec 1983	16+	Feb 1996	1	9	Jan 1984	20.4	14.6	5.6	2.2	.1	36.3	20.9	11.6	1.6

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

Lat: 40°22N

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 426919** 

Lon: 111°43W

Lat: 40°22N

Station: PLEASANT GROVE, UT

**Climate Division: UT 3** 

**NWS Call Sign:** 

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(	(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/10	6/04	5/30	5/26	5/22	5/18	5/14	5/10	5/03
32	5/25	5/18	5/12	5/08	5/03	4/29	4/24	4/19	4/11
28	5/08	4/30	4/24	4/19	4/14	4/10	4/05	3/30	3/22
24	4/17	4/09	4/03	3/28	3/24	3/19	3/14	3/08	2/27
20	3/31	3/23	3/17	3/12	3/07	3/03	2/26	2/20	2/12
16	3/19	3/11	3/04	2/27	2/22	2/17	2/11	2/05	1/27
		•	Fal	l Freeze Da	tes (Month/D	ay)		•	•
Tomn (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/18	9/22	9/25	9/28	10/01	10/03	10/06	10/09	10/13
32	9/27	10/04	10/09	10/13	10/17	10/20	10/24	10/29	11/05
28	10/15	10/20	10/23	10/26	10/29	10/31	11/03	11/07	11/11
24	10/26	10/31	11/03	11/06	11/09	11/12	11/15	11/19	11/24
20	11/03	11/08	11/12	11/15	11/18	11/21	11/24	11/27	12/03
16	11/11	11/17	11/22	11/25	11/29	12/02	12/06	12/11	12/17
				Freeze F	ree Period				•
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	153	145	140	135	131	126	121	116	108
32	199	188	179	172	166	159	152	143	132
28	227	217	209	203	197	191	184	177	166
24	259	249	242	236	230	224	218	211	201
20	286	275	267	261	254	248	241	234	223
16	313	301	293	286	279	273	265	257	246

<sup>\*</sup> 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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**Station: PLEASANT GROVE, UT** 

Climate Division: UT 3 NWS Call Sign: Elevation: 4,760 Feet Lat: 40°22N Lon: 111°43W

				Deg	ree Days to	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree I	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1134	876	704	468	240	58	2	3	106	400	771	1086	5848
60	979	736	550	330	134	18	0	0	43	260	621	931	4602
57	886	652	459	255	87	7	0	0	21	188	533	838	3926
55	824	596	402	211	62	4	0	0	12	146	475	776	3508
50	675	466	265	121	22	0	0	0	2	67	338	621	2577
32	222	111	16	1	0	0	0	0	0	0	37	155	542

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	111	160	334	528	809	1064	1321	1276	960	626	256	93	7538
55	0	0	8	48	158	378	608	563	282	59	4	0	2108
57	0	0	3	32	121	321	546	501	231	39	2	0	1796
60	0	0	0	17	76	242	453	408	163	18	0	0	1377
65	0	0	0	4	26	131	300	257	75	3	0	0	796
70	0	0	0	0	6	55	158	122	25	0	0	0	366

										Gro	wing l	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	Ionthly)								Growi	ng Degre	e Units (	Accumu	lated Mo	onthly)			
	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	10	43	149	316	578	836	1089	1043	734	406	108	19	10	53	202	518	1096	1932	3021	4064	4798	5204	5312	5331
45	0 11 66 194 427 686 934 888 584 269 50											4	0	11	77	271	698	1384	2318	3206	3790	4059	4109	4113
50	0 0 22 98 286 536 779 733 439 153 14											0	0	0	22	120	406	942	1721	2454	2893	3046	3060	3060
55	0	0	0	41	166	389	624	578	299	65	0	0	0	0	0	41	207	596	1220	1798	2097	2162	2162	2162
60	0	0	0	16	76	252	469	423	173	16	0	0	0	0	0	16	92	344	813	1236	1409	1425	1425	1425
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	// <b>86</b> 2 29 106 208 368 535 704 682 474 266 73 1											10	2	31	137	345	713	1248	1952	2634	3108	3374	3447	3457

(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

#### 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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### 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