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: 367931

Lon: 76°52W

Station: SELINSGROVE 2 S, PA

Climate Division: PA 5 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 34.8 17.6 26.2 72+ 1932 13 35.5 1998 -26 1994 22 14.0 1977 1204 0 .0 .0 2.2 11.7 28.4 2.2 Jan 38.3 19.2 28.8 77 1985 25 36.4 1998 -21 1934 28 18.5 1979 1015 0 .0 .0 4.1 8.2 25.0 1.4 Feb Mar 48.0 27.3 37.7 87 1986 31 43.7 2000 -6 1934 12 30.1 1984 848 0 .0 .0 12.7 2.0 22.3 .2 37.1 43.4 1975 Apr 60.2 48.7 91 +1942 30 52.6 1981 10 1943 16 490 0 .0 .2 24.9 .1 8.8 .0 May 71.1 47.1 59.1 96 1996 20 65.4 1991 25 1978 1 54.6 1997 213 29 .0 .6 30.8 .0 .7 .0 1952 71.4 34 64.3 32 2.1 79.4 56.6 68.0 102 26 1994 1926 4 1982 121 .0 30.0 .0 .0 .0 Jun Jul 83.8 72.5 105 17 76.8 42+ 1945 12 68.8 2000 5.9 31.0 .0 .0 61.1 1988 1988 6 236 .1 .0 1982 81.9 59.3 70.6 105 1930 4 74.8 1995 35 1982 29 65.6 11 184 .0 2.8 31.0 .0 .0 .0 Aug 2 25 97 Sep 74.2 51.7 63.0 102 +1953 66.4 1980 1947 27 59.3 1975 35 .0 .7 30.0 .0 .1 .0 1941 5 57.0 28 Oct 62.9 39.9 51.4 92 +1984 16 1976 46.6 1976 425 3 .0 .0 29.2 .0 6.4 .0 50.8 31.7 41.3 84 1950 1 45.9 1999 -5 1938 27 34.3 1976 712 0 .0 .0 15.4 17.0 .0 Nov .4 Dec 39.5 23.4 31.5 73 1984 30 37.9 1998 -16 1951 17 20.0 1989 1040 0 .0 .0 3.7 6.7 25.5 .7 Jul Jul Jan Jan 60.4 39.3 49.9 105 +1988 17 76.8 1988 -26 1994 22 14.0 1977 6093 608 12.3 245.0 29.1 134.2 4.5 .1 Ann

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

Issue Date: February 2004 050-A

(1) From the 1971-2000 Monthly Normals

Elevation: 420 Feet Lat: 40°47N

- (2) Derived from station's available digital record: 1926-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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Station: SELINSGROVE 2 S, PA

Climate Division: PA 5 NWS Call Sign: Elevation: 420 Feet Lat: 40°47N Lon: 76°52W

										Pı	recipi	tation	(incl	nes)												
	Mo	Precipitation Totals Means/										Numbo Pays (3		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												
		ans(1)				Extremes	5			D	aily Pre	cipitatio	n	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	3.06	2.37	2.25	1978	9	7.82	1978	.43	1981	12.5	6.9	2.1	.6	.65	.93	1.37	1.78	2.19	2.63	3.13	3.72	4.51	5.76	6.94		
Feb	2.49	2.04	1.80	1926	4	7.02	1981	.63	1987	9.8	5.8	1.6	.4	.77	1.01	1.36	1.66	1.95	2.26	2.59	2.98	3.48	4.27	5.00		
Mar	3.20	3.10	2.84	1986	15	6.30	1994	.89+	1995	11.0	6.8	2.0	.6	1.21	1.51	1.93	2.29	2.63	2.97	3.35	3.78	4.33	5.18	5.96		
Apr	3.60	3.24	2.52	1940	20	8.80	1993	1.05	1989	12.3	7.5	2.3	.8	1.20	1.54	2.04	2.46	2.87	3.29	3.76	4.30	4.99	6.06	7.05		
May	3.87	3.59	3.48	1946	27	8.71	1989	.42	1977	13.3	8.6	2.4	.9	1.39	1.75	2.28	2.72	3.14	3.57	4.04	4.59	5.29	6.36	7.35		
Jun	4.58	4.40	3.31	1983	21	11.97	1972	1.02	1988	12.3	8.0	3.4	1.0	1.37	1.80	2.45	3.02	3.56	4.13	4.76	5.50	6.45	7.95	9.33		
Jul	3.69	3.44	3.35	1927	23	6.59	1977	1.45	2000	11.2	7.2	2.4	.8	1.52	1.85	2.33	2.72	3.09	3.46	3.86	4.33	4.92	5.81	6.63		
Aug	3.78	3.65	3.93	1990	6	9.33	1990	.55	1995	10.4	6.5	2.6	.9	1.11	1.47	2.01	2.48	2.93	3.40	3.92	4.54	5.33	6.57	7.72		
Sep	4.04	3.66	4.85	1999	7	11.48	1999	.75	1984	11.2	6.7	2.6	.9	1.18	1.56	2.14	2.64	3.13	3.63	4.19	4.85	5.71	7.04	8.28		
Oct	3.24	2.67	4.48	1929	2	8.77	1976	.67	1994	10.3	5.9	2.0	.8	.90	1.21	1.68	2.08	2.48	2.90	3.36	3.90	4.60	5.71	6.74		
Nov	3.54	3.69	3.80	1926	16	7.90	1972	.84	1998	11.1	6.1	2.3	.8	1.08	1.42	1.92	2.35	2.77	3.20	3.68	4.24	4.96	6.09	7.13		
Dec	3.00	2.84	2.56	1950	4	6.99	1983	.40	1998	11.1	6.2	2.1	.7	.67	.95	1.39	1.78	2.18	2.60	3.07	3.64	4.38	5.57	6.68		
Ann	42.09	42.26	4.85	Sep 1999	7	11.97	Jun 1972	.40	Dec 1998	136.5	82.2	27.8	9.2	31.81	33.84	36.42	38.37	40.08	41.72	43.41	45.27	47.51	50.74	53.51		

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1926-2001

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

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COOP ID: 367931

Station: SELINSGROVE 2 S, PA

Climate Division: PA 5 NWS Call Sign: Elevation: 420 Feet Lat: 40°47N Lon: 76°52W

										Snov	w (inc	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ians (1))	Extremes (2)												Snow Fall Snow >= Thresholds >= Thr								
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	11.5	7.7	3	2	20.0	1996	13	45.4	1996	45	1996	13	16	1996	5.4	3.4	1.1	.7	.2	12.1	6.9	4.4	1.8		
Feb	8.0	6.0	3	2	11.0	1978	7	21.5	1994	21	1994	12	14	1994	3.6	2.4	1.1	.4	@	11.2	8.4	6.4	2.2		
Mar	5.9	5.1	1	#	12.0	1993	14	19.0+	1993	23	1994	3	11	1994	2.5	2.0	.8	.3	.1	5.6	3.9	2.8	1.0		
Apr	.6	.0	#	0	6.0	1983	20	6.0+	1996	6	1982	7	1	1982	.3	.2	.2	@	.0	.2	.1	.0	.0		
May	#	.0	0	0	#	1997	7	#	1997	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	#	1992	20	#	1992	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Nov	1.6	.0	#	0	6.5	1980	18	11.1	1995	6	1987	12	1	1995	.9	.6	.2	@	.0	.9	.5	.1	.0		
Dec	3.5	3.1	1	#	8.5	1990	28	9.5	1981	9	1990	28	3	1995	2.8	1.8	.4	.2	.0	5.5	2.0	1.2	.0		
Ann	31.1	21.9	N/A	N/A	20.0	Jan 1996	13	45.4	Jan 1996	45	Jan 1996	13	16	Jan 1996	15.5	10.4	3.8	1.6	.3	35.5	21.8	14.9	5.0		

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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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COOP ID: 367931

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Lat: 40°47N

Elevation: 420 Feet

Station: SELINSGROVE 2 S, PA

Climate Division: PA 5 NWS Call Sign:

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 5/24 5/19 5/16 5/13 5/10 5/07 5/04 5/01 4/26 32 5/05 4/19 5/14 5/09 5/02 4/29 4/26 4/23 4/14 28 4/26 4/22 4/19 4/17 4/15 4/12 4/10 4/07 4/03 4/08 3/19 24 4/12 4/05 4/03 3/31 3/29 3/26 3/23 20 4/04 3/31 3/28 3/25 3/22 3/20 3/17 3/14 3/10 3/21 3/07 16 3/27 3/17 3/14 3/10 3/04 2/28 2/22 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 9/24 36 9/14 9/20 9/27 10/01 10/04 10/08 10/12 10/18 32 10/01 10/06 10/10 10/13 10/15 10/18 10/21 10/25 10/30 28 10/16 10/20 10/24 10/26 10/29 10/31 11/03 11/06 11/11 24 10/23 10/29 11/02 11/06 11/10 11/13 11/17 11/21 11/27 20 11/09 11/14 11/18 11/21 11/24 11/27 11/30 12/04 12/09 11/21 12/07 12/10 12/23 12/30 16 11/28 12/03 12/14 12/18 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 159 153 148 143 139 134 128 36 167 120 32 188 182 177 173 169 165 161 156 150 28 215 209 204 200 197 193 184 178 189 24 244 237 231 227 223 219 214 209 202 242 238 233 227 20 265 259 254 250 246

280

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

286

Derived from 1971-2000 serially complete daily data

292

302

16

Complete documentation available from:

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256

247

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^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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Climate Division: PA 5 NWS Call Sign: Elevation: 420 Feet Lat: 40°47N Lon: 76°52W

	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1204	1015	848	490	213	32	6	11	97	425	712	1040	6093		
60	1049	875	693	343	111	6	0	0	30	283	562	885	4837		
57	956	791	600	259	67	2	0	0	12	209	473	792	4161		
55	894	735	539	208	45	0	0	0	6	166	414	730	3737		
50	739	595	394	102	12	0	0	0	1	83	277	583	2786		
32	265	176	54	0	0	0	0	0	0	0	15	159	669		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	84	85	228	500	839	1079	1253	1196	929	601	293	142	7229
55	0	0	1	18	171	390	540	483	245	54	2	0	1904
57	0	0	0	9	131	331	478	421	191	36	1	0	1598
60	0	0	0	3	82	245	385	328	119	16	0	0	1178
65	0	0	0	0	29	121	236	184	35	3	0	0	608
70	0	0	0	0	7	40	111	76	4	0	0	0	238

										Gro	wing	Degre	e Uni	ts (2)											
Base					Growing	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)												
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec														Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
40	10 20 91 283 601 848 1017 956 701 371 127 23												10	30	121	404	1005	1853	2870	3826	4527	4898	5025	5048	
45	2	5	41	168	447	698	862	801	551	236	64	8	2	7	48	216	663	1361	2223	3024	3575	3811	3875	3883	
50	0	0	18	87	302	548	707	646	403	126	23	3	0	0	18	105	407	955	1662	2308	2711	2837	2860	2863	
55	0	0	5	41	178	399	552	491	264	59	8	0	0	0	5	46	224	623	1175	1666	1930	1989	1997	1997	
60	0 0 3 16 89 264 399 338 147 20 1 0											0	0	0	3	19	108	372	771	1109	1256	1276	1277	1277	
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		•		
50/86	3 12 65 178 366 548 684 641 438 224 74 10												3	15	80	258	624	1172	1856	2497	2935	3159	3233	3243	

(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