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: 295290

Lon: 107°34W

Station: LYBROOK, NM

Climate Division: NM 1

NWS Call Sign:

Temperature (°F)

Elevation: 7,150 Feet Lat: 36°14N

									ŗ	Гетр	eratui	re (°F)										
	Mea	n (1)						Extr	emes					Degree Base To	•	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	37.5	15.5	26.5	61	1986	31	34.6	1986	-28	1971	7	19.8	1979	1194	0	.0	.0	3.0	7.7	30.7	1.9	
Feb	42.6	20.8	31.7	67	1970	18	38.5	1995	-16	1953	23	23.6	1974	933	0	.0	.0	7.0	3.2	27.4	.6	
Mar	50.7	27.0	38.9	73	1989	10	44.5	1989	-6	1983	21	33.5	1973	812	0	.0	.0	18.1	.4	25.2	@	
Apr	58.6	33.2	45.9	86	1977	26	53.2	1989	4	1964	6	38.8	1973	572	0	.0	.0	25.4	.0	14.4	.0	
May	68.6	41.3	55.0	89	1985	7	62.1	1996	6	1982	29	50.4	1973	321	10	.0	.1	30.5	.0	4.6	.0	
Jun	79.1	51.4	65.3	97	1952	10	70.5	1980	10+	1982	6	60.4	1983	79	87	.0	2.0	30.0	.0	.3	.0	
Jul	82.6	56.1	69.4	100	1952	22	72.2	1994	36	1964	12	66.7	1973	6	141	.0	6.0	31.0	.0	.0	.0	
Aug	79.8	54.2	67.0	97	1984	8	70.8	1995	35	1965	2	65.4	1972	29	91	.0	1.2	31.0	.0	.0	.0	
Sep	72.9	47.8	60.4	89+	1979	8	65.7	1998	26	1965	24	55.7	1973	165	26	.0	.0	29.9	.0	.6	.0	
Oct	61.6	36.6	49.1	86+	1980	7	53.0	1988	11	1956	25	42.7	1984	494	0	.0	.0	28.2	.1	8.9	.0	
Nov	47.4	24.8	36.1	77	1999	14	42.6	1999	-3	1956	21	29.8	2000	867	0	.0	.0	13.9	2.2	25.4	.1	
Dec	39.1	16.8	28.0	65	1965	4	35.1	1980	-18	1990	24	21.0	1990	1148	0	.0	.0	3.8	5.9	30.3	1.2	
Ann	60.0	35.5	47.8	100	Jul 1952	22	72.2	Jul 1994	-28	Jan 1971	7	19.8	Jan 1979	6620	355	.0	9.3	251.8	19.5	167.8	3.8	

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 061-A

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

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1951-2001

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

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Station: LYBROOK, NM

Climate Division: NM 1 NWS Call Sign: Elevation: 7,150 Feet Lat: 36°14N Lon: 107°34W

										Pı	recipi	tation	(incl	nes)										
		ans/	P	recipi	itatio	on Total					ean N of D	ays (3	3)	Proba		M	nonthly/ onthly/Ar	annual j indic	precipitated and	vs Proba	ll be equ	els	less tha	in the
	Medi	ians(1)							1						Th	ese value	s were det	termined	from the	incomplet	e gamma	distribut	on	
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	.77	.57	.88	1993	18	3.99	1993	.00	1986	6.1	2.7	.3	.0	.01	.05	.14	.24	.36	.51	.69	.93	1.27	1.85	2.43
Feb	.50	.37	.73	1960	2	1.84	1973	.00+	1999	5.0	1.9	.2	.0	.00	.04	.13	.21	.29	.38	.49	.62	.80	1.10	1.40
Mar	.58	.39	.95	1954	23	1.90	1973	.00+	1997	5.0	2.2	.2	.0	.00	.00	.06	.14	.24	.35	.50	.69	.97	1.44	1.92
Apr	.42	.22	.91	1952	28	2.11	1985	.00+	1996	3.8	1.3	.2	.0	.00	.00	.03	.08	.16	.24	.35	.50	.71	1.07	1.43
May	.67	.53	1.53	1973	13	2.90	1973	.00+	2000	4.0	2.0	.4	.1	.00	.00	.00	.12	.27	.43	.61	.85	1.16	1.70	2.21
Jun	.51	.20	1.45	1996	27	2.60	1996	.00+	1998	3.0	1.5	.2	@	.00	.00	.00	.07	.16	.27	.42	.61	.88	1.36	1.84
Jul	1.28	1.13	1.75	1999	9	2.98	1999	.00+	1993	6.5	3.7	.8	.1	.00	.13	.36	.56	.77	1.00	1.27	1.60	2.04	2.77	3.48
Aug	1.87	1.43	2.14	1968	11	4.01	1993	.00	1985	7.9	4.7	.8	.4	.32	.58	.89	1.15	1.40	1.66	1.95	2.29	2.73	3.43	4.08
Sep	1.35	1.23	1.56	1959	30	2.74	1990	.10	2000	5.4	3.2	.8	@	.31	.44	.64	.81	.99	1.18	1.38	1.63	1.96	2.48	2.97
Oct	1.04	.65	1.95	1960	15	4.89	1972	.00+	1999	5.4	3.1	.6	.1	.00	.05	.18	.33	.51	.71	.95	1.27	1.71	2.45	3.20
Nov	.65	.43	1.36	1952	2	2.15	1986	.00+	1997	4.2	1.9	.1	.0	.00	.00	.12	.23	.34	.47	.62	.81	1.06	1.50	1.92
Dec	.56	.35	1.02	1967	17	2.20	1990	.00	1981	4.7	2.1	.1	.0	.01	.04	.10	.18	.26	.37	.50	.67	.91	1.33	1.74
Ann	10.20	9.92	2.14	Aug 1968	11	4.89	Oct 1972	.00+	May 2000	61.0	30.3	4.7	.7	6.12	6.85	7.82	8.58	9.26	9.93	10.64	11.42	12.39	13.82	15.08

⁺ 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: 1951-2001

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

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COOP ID: 295290

Station: LYBROOK, NM

Climate Division: NM 1 NWS Call Sign: Elevation: 7,150 Feet Lat: 36°14N Lon: 107°34W

										Snov	v (incl	hes)											
						Sn	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa				Snow = 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	8.2	6.0	2	#	10.0	1974	1	28.5	1974	17	1974	5	7	1974	3.0	2.1	1.0	.5	.1	6.1	4.1	2.5	.9
Feb	5.4	2.9	1	#	9.8	1987	26	19.1	1987	14	1987	26	4	1975	2.7	2.0	.6	.2	.0	4.3	1.4	.4	.1
Mar	2.8	.6	#	0	7.0	1984	27	20.0	1973	7	1984	27	1	1973	1.8	.9	.3	.1	.0	.8	.1	.1	.0
Apr	1.5	.9	#	0	4.0	1997	23	6.0	1995	4	1997	23	#+	1999	1.2	.6	.1	.0	.0	.1	.1	.0	.0
May	#	.0	#	0	#	1999	3	#+	1999	#+	1999	3	#+	1999	.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	.8	.0	#	0	8.3	1972	31	8.8	1972	4	1991	31	#+	1994	.3	.2	.1	@	.0	.2	.1	.0	.0
Nov	2.2	.4	#	0	5.0	1990	3	10.8	1972	4	1973	27	2	1972	1.3	.7	.3	@	.0	1.0	.4	.0	.0
Dec	6.2	3.1	1	#	8.0	1987	24	26.7	1990	14	1987	26	4	1971	3.1	2.2	.7	.3	.0	3.8	1.9	.6	.0
Ann	27.1	13.9	N/A	N/A	10.0	Jan 1974	1	28.5	Jan 1974	17	Jan 1974	5	7	Jan 1974	13.4	8.7	3.1	1.1	.1	16.3	8.1	3.6	1.0

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

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[@] 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: NM 1

NWS Call Sign:

Elevation: 7,150 Feet

Lat: 36°14N Lon: 107°34W

				Freez	e Data				
			Spri	ng Freeze D	ates (Month	/Day)			
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated(*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/08	6/03	5/30	5/26	5/21	5/17	5/12	5/05
32	6/02	5/27	5/22	5/18	5/15	5/11	5/07	5/03	4/27
28	5/27	5/19	5/13	5/08	5/04	4/29	4/25	4/19	4/11
24	5/16	5/07	4/30	4/25	4/19	4/14	4/09	4/02	3/24
20	5/05	4/25	4/19	4/13	4/08	4/03	3/28	3/22	3/13
16	4/22	4/11	4/03	3/26	3/20	3/13	3/06	2/26	2/14
•		•	Fal	ll Freeze Da	tes (Month/I	Day)		•	•
To (E)		Pro	bability of e	arlier date ii	n fall (beginn	ning Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/10	9/16	9/20	9/24	9/28	10/01	10/05	10/09	10/16
32	9/20	9/26	9/30	10/04	10/07	10/10	10/13	10/18	10/23
28	10/02	10/07	10/11	10/14	10/17	10/20	10/24	10/28	11/02
24	10/13	10/18	10/22	10/25	10/29	11/01	11/04	11/08	11/13
20	10/20	10/25	10/29	11/02	11/05	11/08	11/11	11/15	11/21
16	10/28	11/04	11/08	11/12	11/16	11/20	11/24	11/28	12/05
		l .		Freeze F	ree Period	1	J		1
To (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	155	144	137	131	125	119	112	105	94
32	173	163	156	150	144	139	133	125	116
28	195	185	178	172	166	160	154	147	136
24	223	212	204	198	191	185	178	170	160
20	243	232	224	217	210	204	197	188	177
16	281	267	257	248	240	232	224	214	200

^{*} 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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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1194	933	812	572	321	79	6	29	165	494	867	1148	6620
60	1039	793	657	427	194	27	0	4	73	344	717	993	5268
57	946	709	564	344	133	12	0	1	38	260	627	900	4534
55	884	653	503	291	100	6	0	0	23	209	567	838	4074
50	729	513	352	177	41	1	0	0	4	106	422	683	3028
32	236	100	21	5	0	0	0	0	0	1	59	188	610

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	65	91	232	423	712	998	1158	1085	850	530	182	63	6389
55	0	0	0	19	99	314	445	372	183	26	0	0	1458
57	0	0	0	11	71	260	383	311	139	14	0	0	1189
60	0	0	0	5	39	185	290	221	84	5	0	0	829
65	0	0	0	0	10	87	141	91	26	0	0	0	355
70	0	0	0	0	1	28	37	17	4	0	0	0	87

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(Ionthly)					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	0	13	75	233	484	780	957	874	635	319	63	2	0	13	88	321	805	1585	2542	3416	4051	4370	4433	4435
45	0 1 25 129 339 630 802 719 486 192 17												0	1	26	155	494	1124	1926	2645	3131	3323	3340	3340
50	0 0 3 55 202 481 647 564 337 93 0												0	0	3	58	260	741	1388	1952	2289	2382	2382	2382
55	0	0	0	14	93	334	492	409	202	27	0	0	0	0	0	14	107	441	933	1342	1544	1571	1571	1571
60	0	0	0	0	31	198	337	257	91	5	0	0	0	0	0	0	31	229	566	823	914	919	919	919
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	6 0 19 67 170 317 506 622 565 393 210 61												0	19	86	256	573	1079	1701	2266	2659	2869	2930	2933

(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