

Climatology of the United States

No. 20

1971-2000

Station: LEOLA, AR

COOP ID: 034134

Climate Division: AR 5

NWS Call Sign:

Elevation: 255 Feet Lat: 34°10N Lon: 92°35W

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	51.9	30.5	41.2	80+	1972	24	48.2	1990	-10	1966	30	30.1	1979	738	0	.0	.0	17.8	1.9	19.1	@
Feb	58.9	34.4	46.7	86	1986	20	54.6	1976	-2	1985	3	34.9	1978	515	1	.0	.0	21.7	.9	13.5	@
Mar	67.0	41.9	54.5	93	1974	31	60.7	1974	12+	1965	20	48.9	1996	338	10	.0	@	29.1	.0	6.4	.0
Apr	75.4	49.3	62.4	95+	1987	20	68.6	1981	24+	1987	4	56.6	1983	128	49	.0	.3	29.9	.0	1.4	.0
May	81.7	58.1	69.9	97	1977	30	74.7	1996	34	1976	4	65.4	1976	30	183	.0	2.2	31.0	.0	.0	.0
Jun	88.4	65.7	77.1	102	1977	6	81.0	1998	44	1966	1	73.5	1974	0	363	.2	13.5	30.0	.0	.0	.0
Jul	92.3	69.7	81.0	108	1980	17	85.3	1980	51+	1967	15	77.9	1989	0	496	2.1	22.8	31.0	.0	.0	.0
Aug	91.8	67.8	79.8	106	2000	30	85.8	2000	44	1986	29	75.2	1992	0	459	2.3	20.8	31.0	.0	.0	.0
Sep	85.4	61.4	73.4	104+	1980	14	78.7	1998	32	1967	29	67.5	1974	14	267	.4	8.6	30.0	.0	.0	.0
Oct	75.7	48.9	62.3	95	1963	11	68.1	1971	26+	1965	25	56.0	1990	145	62	.0	.6	30.9	.0	1.7	.0
Nov	63.4	40.0	51.7	85	1978	4	57.8	1985	10	1976	29	44.8	1976	402	3	.0	.0	27.0	@	8.7	.0
Dec	54.9	33.3	44.1	80+	1998	4	54.3	1984	-3	1963	24	32.8	1983	649	0	.0	.0	21.2	.9	15.9	.1
Ann	73.9	50.1	62.0	108	Jul 1980	17	85.8	Aug 2000	-10	Jan 1966	30	30.1	Jan 1979	2959	1893	5.0	68.8	330.6	3.7	66.7	.1

+ 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

045-A

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: LEOLA, AR

COOP ID: 034134

Climate Division: AR 5

NWS Call Sign:

Elevation: 255 Feet Lat: 34°10N

Lon: 92°35W

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	4.38	4.72	3.52	1973	21	11.70	1999	.20	1986	8.7	6.5	2.9	1.4	.74	1.12	1.76	2.36	2.98	3.65	4.41	5.34	6.59	8.60	10.52
Feb	3.92	3.24	3.72	1957	1	10.70	1989	.70	1972	7.6	5.6	2.7	1.4	1.16	1.53	2.09	2.57	3.04	3.53	4.07	4.70	5.52	6.81	8.00
Mar	5.05	4.71	5.80	1999	14	11.14	1990	1.08	1982	8.5	7.1	3.6	1.7	1.90	2.37	3.04	3.61	4.14	4.69	5.28	5.97	6.85	8.19	9.42
Apr	4.78	3.89	4.89	1973	20	13.60	1991	.73	1987	7.9	6.0	3.2	1.8	1.04	1.48	2.18	2.81	3.45	4.13	4.89	5.80	7.01	8.93	10.74
May	5.53	4.51	5.75	1958	1	12.77	1979	.89	1988	9.4	7.7	3.4	1.5	1.40	1.92	2.73	3.44	4.14	4.88	5.70	6.68	7.96	9.98	11.87
Jun	4.22	3.67	5.48	1974	8	12.42	1974	.46	1980	7.2	6.0	2.9	1.3	.81	1.19	1.81	2.38	2.96	3.58	4.29	5.15	6.28	8.10	9.83
Jul	4.12	3.75	6.16	1963	16	12.09	1994	.00	1997	6.8	5.4	2.6	1.3	.29	.72	1.38	1.99	2.62	3.31	4.11	5.09	6.41	8.57	10.65
Aug	3.09	2.52	7.32	1958	23	9.30	1984	.00+	2000	5.9	4.3	2.0	.9	.00	.65	1.28	1.77	2.23	2.72	3.25	3.86	4.68	5.98	7.20
Sep	3.65	2.94	5.65	1985	4	11.99	1980	.62	1971	6.8	5.0	2.0	1.1	.86	1.20	1.73	2.21	2.68	3.19	3.75	4.43	5.31	6.71	8.03
Oct	4.42	4.56	6.00	1957	23	13.84	1990	.73	2000	6.1	4.8	2.5	1.3	.96	1.36	2.01	2.60	3.19	3.82	4.52	5.37	6.48	8.26	9.94
Nov	5.27	5.25	3.76	1996	25	11.36	2000	1.05+	1999	7.4	6.1	3.9	2.0	1.32	1.82	2.59	3.27	3.94	4.64	5.43	6.37	7.59	9.53	11.34
Dec	5.40	5.21	4.68	1993	3	12.95	1987	.85	1981	8.4	6.8	3.4	1.9	1.54	2.06	2.83	3.50	4.16	4.84	5.60	6.49	7.64	9.46	11.14
Ann	53.83	51.74	7.32	Aug 1958	23	13.84	Oct 1990	.00+	Aug 2000	90.7	71.3	35.1	17.6	39.42	42.24	45.83	48.55	50.96	53.28	55.67	58.30	61.49	66.10	70.07

+ 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

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Station: LEOLA, AR

COOP ID: 034134

Climate Division: AR 5

NWS Call Sign:

Elevation: 255 Feet

Lat: 34° 10N

Lon: 92° 35W

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	1.5	.5	#	#	9.0	1988	7	10.0	1988	9	1988	8	2	1988	.9	.5	.2	.1	.0	1.8	.6	.2	.0
Feb	1.3	.0	#	0	8.0	1979	7	9.5	1985	8	1979	7	1	1985	.5	.4	.2	.1	.0	.8	.3	.2	.0
Mar	.1	.0	#	0	2.0	1975	14	2.0	1975	2	1975	14	#+	1995	.2	@	.0	.0	.0	.1	.0	.0	.0
Apr	.0	.0	0	0	.5	1980	13	.5	1980	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	2.0	1971	23	2.0	1971	2+	1980	27	#+	1980	.1	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.4	.0	#	0	4.0	1983	16	9.0	1983	5	1983	17	1	1983	.2	.2	.1	.0	.0	.6	.1	@	.0
Ann	3.5	.5	N/A	N/A	9.0	Jan 1988	7	10.0	Jan 1988	9	Jan 1988	8	2	Jan 1988	1.9	1.2	.5	.2	.0	3.4	1.0	.4	.0

+ 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

Complete documentation available from:

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NWS Call Sign:

Elevation: 255 Feet

Lat: 34° 10N

Lon: 92° 35W

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	4/26	4/22	4/19	4/16	4/14	4/11	4/09	4/06	4/02
32	4/17	4/12	4/09	4/06	4/04	4/01	3/29	3/26	3/22
28	4/07	4/01	3/28	3/25	3/22	3/18	3/15	3/11	3/05
24	3/22	3/15	3/10	3/05	3/01	2/25	2/21	2/16	2/08
20	3/10	3/01	2/23	2/18	2/13	2/08	2/03	1/27	1/17
16	3/02	2/20	2/13	2/07	2/01	1/26	1/19	1/09	0/00
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	10/03	10/07	10/10	10/13	10/15	10/17	10/20	10/23	10/27
32	10/10	10/16	10/20	10/24	10/27	10/31	11/03	11/07	11/13
28	10/22	10/29	11/03	11/07	11/10	11/14	11/18	11/23	11/29
24	11/04	11/11	11/15	11/20	11/23	11/27	12/01	12/06	12/13
20	11/18	11/27	12/03	12/09	12/14	12/19	12/24	12/31	1/11
16	11/27	12/08	12/15	12/22	12/29	1/04	1/12	1/22	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	197	192	189	186	184	181	178	175	171
32	226	219	214	210	206	202	197	193	186
28	258	250	243	238	233	228	223	217	208
24	291	282	276	271	266	262	256	251	242
20	>365	329	318	310	302	296	288	280	269
16	>365	>365	360	340	329	319	310	301	288

* 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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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	738	515	338	128	30	0	0	0	14	145	402	649	2959
60	587	385	209	52	6	0	0	0	2	67	267	504	2079
57	501	310	148	25	2	0	0	0	0	37	197	418	1638
55	444	264	114	14	0	0	0	0	0	22	157	364	1379
50	312	167	50	2	0	0	0	0	0	5	79	246	861
32	36	8	0	0	0	0	0	0	0	0	0	22	66

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	322	418	695	911	1176	1353	1519	1482	1242	940	592	396	11046
55	16	30	96	235	463	663	806	769	552	249	58	26	3963
57	11	20	68	185	403	603	744	707	493	201	38	18	3491
60	4	11	36	123	314	513	651	614	405	138	18	10	2837
65	0	1	10	49	183	363	496	459	267	62	3	0	1893
70	0	0	0	12	86	219	341	311	151	20	0	0	1140

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	153	254	458	674	927	1119	1273	1239	1007	692	366	199	153	407	865	1539	2466	3585	4858	6097	7104	7796	8162	8361
45	80	155	319	525	772	969	1118	1084	857	538	243	112	80	235	554	1079	1851	2820	3938	5022	5879	6417	6660	6772
50	42	83	200	381	617	819	963	929	707	393	145	60	42	125	325	706	1323	2142	3105	4034	4741	5134	5279	5339
55	18	38	111	245	462	669	808	774	557	259	77	28	18	56	167	412	874	1543	2351	3125	3682	3941	4018	4046
60	1	12	53	139	312	519	653	619	409	142	34	7	1	13	66	205	517	1036	1689	2308	2717	2859	2893	2900
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	102	170	296	438	622	769	865	837	676	453	234	129	102	272	568	1006	1628	2397	3262	4099	4775	5228	5462	5591

(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/normals/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.

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| <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 |
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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