

Climatology of the United States

No. 20

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

Station: MARIANNA 2 S, AR

1971-2000

COOP ID: 034638

Climate Division: AR 6

NWS Call Sign:

Elevation: 234 Feet

Lat: 34°44N

Lon: 90°46W

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	47.1	28.5	37.8	80	1952	1	44.6	1990	-11	1918	12	27.0	1977	844	0	.0	.0	14.1	3.7	19.9	.1
Feb	53.1	32.9	43.0	84	1918	25	52.1	1976	-8	1951	2	30.8	1978	615	0	.0	.0	18.3	1.7	12.6	.0
Mar	61.9	41.5	51.7	88+	1929	24	57.3	1974	10	1943	3	46.6+	1996	417	4	.0	.0	27.3	.1	5.1	.0
Apr	71.3	49.6	60.5	94	1963	2	65.7	1981	25	1989	11	54.7	1983	173	35	.0	.1	29.6	.0	.7	.0
May	80.2	59.6	69.9	98+	1937	30	75.1	1987	37	1963	2	65.0	1976	35	188	.0	2.5	31.0	.0	.0	.0
Jun	88.0	67.5	77.8	107	1936	20	81.8	1998	45	1966	1	73.3	1974	0	383	.2	14.0	30.0	.0	.0	.0
Jul	91.5	70.7	81.1	109	1918	24	85.5	1980	45	1947	23	78.5	1994	0	500	1.3	22.2	31.0	.0	.0	.0
Aug	90.2	68.3	79.3	108+	1918	17	84.4	2000	44	1946	31	73.3	1992	0	442	.8	19.6	31.0	.0	.0	.0
Sep	84.3	61.3	72.8	106	1925	7	79.1	1998	31	1967	29	67.2	1974	16	249	.3	8.6	30.0	.0	.0	.0
Oct	74.7	49.8	62.3	95+	1953	1	68.2	1971	22	1952	29	56.8	1988	149	63	.0	.7	30.8	.0	.5	.0
Nov	60.8	40.4	50.6	87	1955	13	56.1	1985	10	1950	25	42.5	1976	436	3	.0	.0	25.0	.1	6.2	.0
Dec	51.0	32.3	41.7	79+	1918	10	51.1	1984	-8	1963	24	31.5	1983	724	0	.0	.0	18.1	1.8	15.5	.1
Ann	71.2	50.2	60.7	109	Jul 1918	24	85.5	Jul 1980	-11	Jan 1918	12	27.0	Jan 1977	3409	1867	2.6	67.7	316.2	7.4	60.5	.2

+ 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: 1899-2001

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

050-A

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NWS Call Sign:

Elevation: 234 Feet Lat: 34°44N

Lon: 90°46W

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	4.15	4.00	4.60	1930	8	8.61	1974	.33	1986	9.7	6.9	2.9	1.2	1.06	1.45	2.05	2.58	3.11	3.66	4.28	5.01	5.96	7.47	8.88
Feb	3.95	3.46	3.68	1966	10	10.14	1990	.99	1978	8.5	5.8	2.8	1.4	1.10	1.47	2.04	2.54	3.02	3.53	4.10	4.76	5.62	6.98	8.24
Mar	5.52	4.75	5.98	1975	12	13.78	1975	1.69	1995	10.8	7.6	3.6	1.5	1.77	2.29	3.07	3.73	4.37	5.03	5.75	6.60	7.69	9.38	10.95
Apr	5.30	4.84	4.81	1986	5	16.00	1991	1.17	1989	8.9	6.6	3.5	1.9	1.43	1.93	2.69	3.36	4.02	4.71	5.48	6.39	7.58	9.43	11.16
May	5.34	4.99	5.40	1983	12	11.28	1983	1.40	1998	9.4	6.7	3.7	1.8	1.57	2.07	2.84	3.50	4.14	4.81	5.55	6.42	7.54	9.31	10.94
Jun	4.39	4.27	4.00	1919	3	9.79	1992	.30	1988	8.5	6.3	3.0	1.3	1.10	1.52	2.15	2.72	3.28	3.87	4.53	5.31	6.33	7.94	9.45
Jul	3.83	3.46	5.77	1980	22	7.64	1994	.27	2000	7.6	5.2	2.6	1.3	.78	1.13	1.69	2.20	2.72	3.28	3.90	4.66	5.66	7.26	8.77
Aug	2.73	2.30	3.32	1942	17	6.12	1981	.11	1980	6.4	4.6	2.0	.6	.42	.65	1.04	1.42	1.81	2.24	2.73	3.34	4.14	5.46	6.72
Sep	3.16	2.57	5.10	1965	11	8.52	1972	.33	1991	6.9	4.5	2.1	1.1	.53	.81	1.27	1.70	2.15	2.63	3.19	3.86	4.76	6.21	7.60
Oct	3.79	3.70	5.06	1984	7	14.32	1984	.15	1971	6.7	4.6	2.5	1.2	.61	.94	1.49	2.01	2.55	3.14	3.81	4.63	5.72	7.50	9.20
Nov	5.22	4.85	4.62	1934	21	11.34	1987	1.43	1989	9.2	6.4	3.6	1.8	1.62	2.11	2.85	3.49	4.10	4.74	5.44	6.26	7.32	8.97	10.50
Dec	5.27	4.76	4.98	1987	25	11.84	1987	1.53	1980	10.0	7.1	3.6	1.8	1.48	1.98	2.74	3.40	4.05	4.72	5.47	6.35	7.49	9.28	10.95
Ann	52.65	50.34	5.98	Mar 1975	12	16.00	Apr 1991	.11	Aug 1980	102.6	72.3	35.9	16.9	36.83	39.87	43.78	46.76	49.41	51.98	54.63	57.56	61.13	66.31	70.80

+ 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: 1899-2001

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

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Climate Division: AR 6

NWS Call Sign:

Elevation: 234 Feet

Lat: 34°44N

Lon: 90°46W

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	.0	#	#	8.4	1988	7	9.0	1988	9	1988	8	2	1988	.5	.4	.2	.1	.0	1.1	.4	.4	.0
Feb	.6	.0	#	0	3.5	1985	1	8.0	1985	6	1985	3	2	1985	.4	.2	@	.0	.0	.6	.3	.2	.0
Mar	.2	.0	#	0	3.0	1984	10	3.0	1984	3	1984	10	#+	1999	.1	.1	@	.0	.0	.1	@	.0	.0
Apr	#	.0	0	0	#	1990	11	#	1990	0	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	#	1989	20	#	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	0	0	1.0	1991	8	1.0	1991	0	0	0	0	0	.1	@	.0	.0	.0	.0	.0	.0	.0
Dec	.0	.0	#	0	.5	1989	17	.5	1989	1	1989	17	#+	1989	@	.0	.0	.0	.0	@	.0	.0	.0
Ann	2.4	.0	N/A	N/A	8.4	Jan 1988	7	9.0	Jan 1988	9	Jan 1988	8	2+	Jan 1988	1.1	.7	.2	.1	.0	1.8	.7	.6	.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: 234 Feet

Lat: 34° 44N

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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	4/18	4/14	4/11	4/08	4/06	4/03	3/31	3/28	3/24
32	4/10	4/04	3/31	3/28	3/25	3/21	3/18	3/14	3/08
28	3/30	3/23	3/17	3/12	3/08	3/04	2/27	2/22	2/14
24	3/14	3/06	3/01	2/24	2/20	2/16	2/11	2/06	1/29
20	3/08	2/27	2/20	2/13	2/08	2/02	1/27	1/20	1/10
16	2/24	2/15	2/09	2/03	1/29	1/23	1/17	1/08	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	10/07	10/12	10/15	10/18	10/21	10/23	10/26	10/29	11/03
32	10/20	10/26	10/29	11/01	11/04	11/07	11/11	11/14	11/19
28	11/02	11/09	11/13	11/17	11/21	11/25	11/28	12/03	12/09
24	11/09	11/17	11/22	11/27	12/01	12/06	12/10	12/16	12/23
20	11/18	11/28	12/06	12/12	12/18	12/24	12/31	1/07	1/18
16	12/09	12/18	12/24	12/30	1/04	1/10	1/16	1/25	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	214	208	204	201	197	194	190	186	180
32	249	240	234	229	224	219	214	208	199
28	286	276	269	263	257	251	245	238	228
24	316	305	297	290	284	277	270	262	251
20	>365	340	325	315	307	299	291	282	270
16	>365	>365	>365	352	341	332	323	314	303

* 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	844	615	417	173	35	0	0	0	16	149	436	724	3409
60	690	484	278	82	9	0	0	0	3	69	299	576	2490
57	605	407	206	46	3	0	0	0	1	39	226	489	2022
55	546	358	164	28	1	0	0	0	0	25	183	433	1738
50	407	248	84	6	0	0	0	0	0	6	98	305	1154
32	76	28	1	0	0	0	0	0	0	0	1	39	145

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	254	337	611	853	1176	1373	1523	1465	1223	938	558	339	10650
55	12	22	62	191	464	683	810	752	533	249	50	19	3847
57	8	16	41	148	404	623	748	690	473	201	33	14	3399
60	1	9	20	95	317	533	655	597	386	139	16	7	2775
65	0	0	4	35	188	383	500	442	249	63	3	0	1867
70	0	0	0	8	91	237	345	293	137	21	0	0	1132

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	116	211	414	651	948	1154	1292	1231	1004	712	362	171	116	327	741	1392	2340	3494	4786	6017	7021	7733	8095	8266
45	63	124	283	503	793	1004	1137	1076	854	559	244	93	63	187	470	973	1766	2770	3907	4983	5837	6396	6640	6733
50	27	64	175	362	638	854	982	921	704	409	145	47	27	91	266	628	1266	2120	3102	4023	4727	5136	5281	5328
55	9	25	92	235	483	704	827	766	554	275	78	19	9	34	126	361	844	1548	2375	3141	3695	3970	4048	4067
60	0	4	39	132	334	554	672	611	407	163	33	1	0	4	43	175	509	1063	1735	2346	2753	2916	2949	2950
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	70	124	241	403	636	797	885	841	675	459	212	94	70	194	435	838	1474	2271	3156	3997	4672	5131	5343	5437

(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/normal/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.

- | | |
|---|---|
| <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 |
|---|---|

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