

# Climatology of the United States

## No. 20

### 1971-2000

**Station: FAIRMONT, CA**

**COOP ID: 042941**

**Climate Division: CA 7**

**NWS Call Sign:**

**Elevation: 3,060 Feet Lat: 34°42N**

**Lon: 118°26W**

### 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	54.4	36.3	45.4	76	1962	8	52.0	1986	13	1963	13	40.3	1979	610	0	.0	.0	21.1	.1	8.7	.0
Feb	57.5	38.6	48.1	78+	2001	6	55.3	1991	12	1989	6	41.1	1989	475	0	.0	.0	21.5	.2	4.7	.0
Mar	61.1	41.0	51.1	84	1997	21	58.1	1972	20	1976	4	44.9	1973	441	9	.0	.0	26.6	.0	2.8	.0
Apr	67.3	44.7	56.0	93	1989	8	65.8	1989	19	1999	28	46.3	1975	311	40	.0	.2	28.3	.0	.8	.0
May	74.7	51.4	63.1	100	1984	30	72.8	1997	25	1995	14	54.1	1998	168	108	@	2.0	30.8	.0	.1	.0
Jun	84.1	59.6	71.9	108	1994	30	78.7	1981	32	1988	7	64.8	1998	32	237	.5	8.9	30.0	.0	@	.0
Jul	90.6	65.8	78.2	110	1972	15	82.7	1996	48+	1987	20	71.9	1987	1	410	2.3	17.0	31.0	.0	.0	.0
Aug	90.9	65.6	78.3	107+	1998	6	82.5	1994	47	1997	11	71.0	1976	2	413	2.4	18.1	31.0	.0	.0	.0
Sep	85.8	60.8	73.3	107	1976	1	78.8	1974	34	1982	28	64.5	1986	25	273	.8	10.6	30.0	.0	.0	.0
Oct	75.5	51.6	63.6	98	1963	1	70.7	1978	28	1971	30	57.4	1981	153	107	.0	1.6	30.7	.0	.2	.0
Nov	62.8	42.3	52.6	88	1960	2	61.5	1995	22	1994	19	44.5	1994	385	11	.0	.0	27.1	.0	2.6	.0
Dec	55.1	36.5	45.8	80	1958	5	52.8	1977	11	1990	22	38.9	1984	596	0	.0	.0	23.1	.2	7.6	.0
Ann	71.7	49.5	60.6	110	Jul 1972	15	82.7	Jul 1996	11	Dec 1990	22	38.9	Dec 1984	3199	1608	6.0	58.4	331.2	.5	27.5	.0

+ 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](http://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

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### 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	Median	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	3.41	2.58	4.74	1952	16	15.07	1995	.00+	1984	6.4	4.6	1.9	1.2	.00	.00	.36	.90	1.52	2.24	3.10	4.21	5.77	8.37	10.98	
Feb	3.99	2.44	6.34	1969	25	15.78	1998	.00+	1997	6.4	4.5	2.5	1.3	.00	.00	.43	.98	1.65	2.46	3.47	4.81	6.69	9.97	13.28	
Mar	2.96	2.15	2.72	1978	1	10.71	1978	.00+	1997	7.2	4.4	2.1	1.0	.00	.14	.54	.97	1.46	2.04	2.73	3.61	4.85	6.96	9.06	
Apr	.89	.37	2.17	1958	3	3.60	1988	.00+	1997	3.5	2.0	.5	.2	.00	.00	.03	.11	.23	.40	.64	.98	1.49	2.43	3.43	
May	.43	.09	2.64	1977	9	5.09	1998	.00+	2000	2.0	.9	.2	.1	.00	.00	.00	.00	.03	.10	.22	.40	.71	1.31	1.96	
Jun	.08	.00	.81	1993	5	1.49	1993	.00+	1997	.5	.2	.1	.0	.00	.00	.00	.00	.00	.00	.00	.00	.06	.25	.47	
Jul	.07	.00	.41	1999	13	.75	1984	.00+	2000	.4	.3	.0	.0	.00	.00	.00	.00	.00	.00	.00	.00	.05	.22	.41	
Aug	.15	.00	1.46	1977	18	2.30	1977	.00+	1999	.6	.3	.1	@	.00	.00	.00	.00	.00	.00	.00	.00	.09	.49	.99	
Sep	.33	.04	3.44	1976	11	3.90	1976	.00+	1996	1.4	.7	.1	@	.00	.00	.00	.00	.01	.05	.13	.28	.53	1.01	1.56	
Oct	.49	.25	1.70	1996	30	2.16	1996	.00+	1999	2.3	1.2	.2	.1	.00	.00	.00	.06	.16	.27	.42	.60	.86	1.30	1.74	
Nov	1.19	.83	5.42	1970	29	4.58	1985	.00+	1995	3.4	1.9	.8	.3	.00	.00	.05	.18	.36	.61	.93	1.37	2.02	3.17	4.36	
Dec	2.32	1.24	4.92	1957	16	8.42	1984	.00+	2000	4.4	3.1	1.6	.8	.00	.00	.14	.40	.75	1.22	1.83	2.67	3.90	6.12	8.41	
Ann	16.31	13.71	6.34	Feb 1969	25	15.78	Feb 1998	.00+	Dec 2000	38.5	24.1	10.1	5.0	5.01	6.56	8.87	10.85	12.77	14.77	16.96	19.54	22.86	28.05	32.86	

+ 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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Lat: 34° 42N

Lon: 118° 26W

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	3.3	.0	#	0	22.0	1977	7	34.5	1979	23	1974	5	2	1974	.2	.2	.2	.2	.2	.4	.3	.2	.1
Feb	.9	.0	#	0	14.5	1983	3	14.5	1979	5	1996	26	#	1996	.2	.2	.2	.2	.1	.0	.0	.0	.0
Mar	.4	.0	#	0	3.0	1991	27	3.0	1991	1+	2000	6	#+	2000	.2	.1	.1	.0	.0	@	.0	.0	.0
Apr	#	.0	#	0	#	1976	16	#	1976	#	1976	16	#	1976	.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	.0	.0	#	0	.5	1993	14	.5	1993	1	1993	14	#+	1993	.1	.0	.0	.0	.0	@	.0	.0	.0
Dec	3.9	.0	#	0	18.0	1984	19	28.0	1984	26	1984	20	5	1984	.5	.4	.3	.3	.1	.3	.2	.2	.2
Ann	8.5	.0	N/A	N/A	22.0	Jan 1977	7	34.5	Jan 1979	26	Dec 1984	20	5	Dec 1984	1.2	.9	.8	.7	.4	.7	.5	.4	.3

+ 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

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<b>Freeze Data</b>									
<b>Spring Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of later date in spring (thru Jul 31) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	5/21	5/12	5/05	4/30	4/24	4/19	4/13	4/07	3/28
<b>32</b>	5/05	4/21	4/11	4/02	3/25	3/17	3/08	2/26	2/12
<b>28</b>	4/03	3/16	3/03	2/20	2/10	1/31	1/20	1/08	12/21
<b>24</b>	3/12	2/23	2/09	1/29	1/16	1/02	12/12	0/00	0/00
<b>20</b>	2/12	1/15	12/19	0/00	0/00	0/00	0/00	0/00	0/00
<b>16</b>	12/24	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>Fall Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of earlier date in fall (beginning Aug 1) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	10/20	10/26	10/31	11/04	11/08	11/11	11/15	11/20	11/26
<b>32</b>	11/05	11/11	11/16	11/19	11/23	11/26	11/30	12/05	12/11
<b>28</b>	11/14	11/24	12/02	12/08	12/14	12/20	12/27	1/03	1/14
<b>24</b>	12/02	12/13	12/22	12/29	1/07	1/17	2/03	0/00	0/00
<b>20</b>	12/12	12/29	1/14	0/00	0/00	0/00	0/00	0/00	0/00
<b>16</b>	1/03	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00
<b>Freeze Free Period</b>									
<b>Temp (F)</b>	<b>Probability of longer than indicated freeze free period (Days)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	231	219	211	203	197	190	182	174	162
<b>32</b>	285	270	260	251	242	234	225	215	200
<b>28</b>	>365	342	326	314	302	292	280	267	249
<b>24</b>	>365	>365	>365	>365	>365	362	335	315	291
<b>20</b>	>365	>365	>365	>365	>365	>365	>365	>365	>365
<b>16</b>	>365	>365	>365	>365	>365	>365	>365	>365	>365

\* 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
65	610	475	441	311	168	32	1	2	25	153	385	596	3199
60	455	340	304	208	93	10	0	0	7	81	258	449	2205
57	370	264	232	158	60	4	0	0	3	50	193	364	1698
55	313	216	191	128	43	2	0	0	1	35	155	310	1394
50	188	119	108	65	17	0	0	0	0	12	81	195	785
32	4	0	0	0	0	0	0	0	0	0	0	9	13

### Cooling Degree Days (1)

Base	Cooling Degree Days (1)												
	Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
32	417	449	592	720	963	1195	1432	1434	1239	977	616	437	10471
55	13	20	70	157	293	507	719	721	550	299	81	24	3454
57	8	12	49	127	248	449	657	659	491	252	59	16	3027
60	0	5	27	87	188	365	564	566	406	190	33	8	2439
65	0	0	9	40	108	237	410	413	273	107	11	0	1608
70	0	0	1	17	50	136	264	269	164	50	2	0	953

### 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	192	246	345	481	714	955	1184	1184	995	724	378	204	192	438	783	1264	1978	2933	4117	5301	6296	7020	7398	7602
45	94	135	211	341	560	805	1029	1029	845	571	243	99	94	229	440	781	1341	2146	3175	4204	5049	5620	5863	5962
50	32	56	110	217	414	655	874	874	695	420	143	34	32	88	198	415	829	1484	2358	3232	3927	4347	4490	4524
55	3	19	50	120	281	505	719	719	547	280	65	4	3	22	72	192	473	978	1697	2416	2963	3243	3308	3312
60	0	0	9	55	172	369	565	564	404	167	20	0	0	0	9	64	236	605	1170	1734	2138	2305	2325	2325
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	91	117	181	273	434	624	794	786	652	447	205	97	91	208	389	662	1096	1720	2514	3300	3952	4399	4604	4701

(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:

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## 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](http://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 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
- 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
- c. Snow Tables
  1. Snow Climatology
  2. Cooperative Summary of the Day
- d. Freeze Data Table  
1971-2000 serially complete daily data

## References

- U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)