

Climatography of the United States No. 20

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

Station: CHINO VALLEY, AZ

1971-2000

COOP ID: 021654

Climate Division: AZ 3

NWS Call Sign:

Elevation: 4,750 Feet Lat: 34°45N

Lon: 112°27W

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	52.7	23.0	37.9	76	1971	19	43.0	1986	-15	1949	30	31.7	1979	841	0	.0	.0	20.4	.2	28.5	.1
Feb	57.2	25.6	41.4	80+	1986	27	46.8	1995	-13	1949	1	37.4	1979	661	0	.0	.0	22.4	.3	24.6	.0
Mar	62.2	29.7	46.0	82+	1997	21	52.5	1972	0	1966	3	39.7	1973	591	0	.0	.0	27.8	@	21.0	.0
Apr	69.6	35.0	52.3	90+	1996	29	59.2	1989	11	1953	12	45.7	1975	387	6	.0	@	28.8	.0	11.2	.0
May	77.6	43.1	60.4	100	1958	28	66.3	1984	20+	1967	1	55.4	1980	187	41	.0	1.4	31.0	.0	1.7	.0
Jun	88.5	51.1	69.8	108	1957	24	74.8	2000	29	1950	8	66.3	1991	31	175	1.1	13.2	30.0	.0	.0	.0
Jul	91.8	59.3	75.6	107	1950	1	79.1	1996	39	1983	1	72.2	1987	0	326	2.0	20.1	31.0	.0	.0	.0
Aug	89.8	58.3	74.1	105	1995	1	78.2	1995	35	1968	23	70.2	1979	1	281	.8	15.4	31.0	.0	.0	.0
Sep	84.7	50.4	67.6	103	1950	1	70.4	1994	30+	1959	25	63.5	1986	35	110	@	6.1	30.0	.0	.0	.0
Oct	74.6	39.0	56.8	97	1980	12	62.4	1988	5	1971	29	51.1	1971	268	12	.0	.9	30.6	.0	5.5	.0
Nov	62.1	27.7	44.9	83	1999	15	50.8	1995	-1	1958	17	39.8	2000	603	0	.0	.0	27.0	.0	21.7	.0
Dec	53.4	22.3	37.9	76	1977	12	43.7	1980	-9+	1990	24	32.4	1990	841	0	.0	.0	22.3	.4	28.7	.2
Ann	72.0	38.7	55.4	108	Jun 1957	24	79.1	Jul 1996	-15	Jan 1949	30	31.7	Jan 1979	4446	951	3.9	57.1	332.3	.9	142.9	.3

+ 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/normals/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

026-A

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Station: CHINO VALLEY, AZ

COOP ID: 021654

Climate Division: AZ 3

NWS Call Sign:

Elevation: 4,750 Feet Lat: 34°45N

Lon: 112°27W

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	1.07	.78	2.00	1980	30	4.56	1993	.00	1972	4.4	2.6	.6	.2	.00	.03	.12	.24	.40	.61	.88	1.24	1.78	2.73	3.71
Feb	1.33	.98	1.82	1987	26	5.04	1993	.00+	1984	4.4	2.8	.9	.3	.00	.09	.29	.49	.72	.97	1.27	1.64	2.16	3.03	3.88
Mar	1.15	.79	1.18	1991	1	4.26	1991	.00+	1997	5.2	3.1	.5	.1	.00	.00	.22	.41	.61	.83	1.10	1.43	1.88	2.65	3.40
Apr	.53	.33	1.41	1988	22	2.89	1988	.00+	1996	2.9	1.2	.3	@	.00	.00	.06	.15	.24	.35	.49	.66	.89	1.28	1.68
May	.46	.39	1.00	1993	16	2.33	1993	.00+	2000	2.8	1.3	.2	@	.00	.00	.00	.06	.15	.26	.40	.57	.81	1.23	1.64
Jun	.37	.13	1.77	1955	13	1.71	1986	.00+	1998	2.0	1.0	.3	.0	.00	.00	.00	.00	.00	.12	.25	.43	.68	1.10	1.53
Jul	1.70	1.08	3.64	1953	16	7.07	1990	.00	1993	6.6	4.0	1.2	.3	.11	.29	.56	.81	1.07	1.36	1.69	2.10	2.65	3.56	4.43
Aug	2.01	1.80	2.32	1988	21	5.23	1992	.05	1985	7.4	4.2	1.1	.2	.27	.43	.71	.99	1.29	1.61	1.99	2.45	3.08	4.10	5.10
Sep	1.59	1.20	3.64	1983	24	6.13	1983	.00+	1992	4.6	2.5	.9	.4	.00	.00	.16	.41	.70	1.04	1.44	1.96	2.70	3.92	5.16
Oct	.97	.51	2.10	2000	23	7.05	1972	.00+	1999	3.6	2.1	.6	.2	.00	.00	.04	.18	.35	.56	.83	1.17	1.67	2.51	3.39
Nov	.76	.51	1.40+	1987	1	3.60	1978	.00+	1999	2.7	1.6	.4	.2	.00	.00	.05	.16	.29	.45	.65	.91	1.29	1.94	2.60
Dec	.88	.65	1.25	1965	10	2.91	1984	.00+	2000	3.7	2.4	.4	.0	.00	.00	.11	.24	.39	.57	.79	1.08	1.48	2.17	2.86
Ann	12.82+	12.81+	3.64+	Sep 1983	24	7.07	Jul 1990	.00+	Dec 2000	50.3	28.8	7.4	1.9	7.11	8.12	9.46	10.51	11.48	12.43	13.43	14.56	15.97	18.05	19.90

+ 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

Complete documentation available from:
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Station: CHINO VALLEY, AZ

COOP ID: 021654

Climate Division: AZ 3

NWS Call Sign:

Elevation: 4,750 Feet

Lat: 34° 45N

Lon: 112° 27W

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	1.4	.0	#	0	5.5	1990	18	7.5	1990	3+	1987	20	#+	1997	.7	.7	.1	.1	.0	.3	@	.0	.0
Feb	.4	.0	#	0	6.0	1979	1	6.0	1979	10	1987	27	1	1987	.4	.2	.1	.1	.0	.1	.0	.0	.0
Mar	1.1	.0	#	0	6.0	1973	29	12.0	1973	6	1973	29	1	1973	.4	.3	.2	.1	.0	.3	.1	@	.0
Apr	.3	.0	#	0	3.0	1977	2	4.0	1977	2	1977	2	#	1977	.2	.1	@	.0	.0	.1	.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	0	3.0	1975	29	4.0	1975	0	0	0	0	0	.1	.1	.1	.0	.0	.0	.0	.0	.0
Dec	1.1	.0	#	0	7.0	1978	6	7.5	1978	7	1978	6	1	1978	.5	.4	.1	.1	.0	.3	.2	.1	.0
Ann	4.5	.0	N/A	N/A	7.0	Dec 1978	6	12.0	Mar 1973	10	Feb 1987	27	1+	Feb 1987	2.3	1.8	.6	.4	.0	1.1	.3	.1	.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:

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

**Climatography
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No. 20
1971-2000**

Station: CHINO VALLEY, AZ

COOP ID: 021654

Climate Division: AZ 3

NWS Call Sign:

Elevation: 4,750 Feet

Lat: 34° 45N

Lon: 112° 27W

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	6/06	5/31	5/26	5/23	5/20	5/16	5/13	5/08	5/03
32	5/25	5/18	5/13	5/08	5/04	4/30	4/26	4/21	4/14
28	5/14	5/05	4/30	4/24	4/20	4/15	4/10	4/04	3/27
24	4/28	4/18	4/11	4/05	3/31	3/25	3/19	3/12	3/02
20	4/10	3/30	3/23	3/16	3/10	3/04	2/25	2/17	2/06
16	3/24	3/10	3/01	2/20	2/12	2/04	1/27	1/17	1/03
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	9/24	9/29	10/02	10/05	10/08	10/10	10/13	10/17	10/21
32	10/07	10/12	10/15	10/18	10/21	10/24	10/27	10/30	11/04
28	10/13	10/19	10/23	10/26	10/29	11/01	11/05	11/09	11/14
24	10/27	10/31	11/03	11/06	11/09	11/11	11/14	11/17	11/22
20	11/08	11/13	11/17	11/21	11/24	11/27	12/01	12/05	12/11
16	11/14	11/21	11/26	12/01	12/05	12/09	12/13	12/18	12/25
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	163	155	150	145	140	136	131	126	118
32	193	185	179	174	169	164	160	154	146
28	221	211	204	197	192	186	180	172	162
24	254	243	235	229	223	216	210	202	191
20	297	284	274	266	259	251	243	233	220
16	347	327	314	303	294	284	274	262	245

* 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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Station: CHINO VALLEY, AZ

COOP ID: 021654

Climate Division: AZ 3 NWS Call Sign: Elevation: 4,750 Feet Lat: 34° 45N Lon: 112° 27W

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	841	661	591	387	187	31	0	1	35	268	603	841	4446
60	686	521	438	254	95	7	0	0	6	149	454	686	3296
57	593	437	351	187	56	3	0	0	2	95	367	593	2684
55	531	381	295	149	37	1	0	0	0	67	311	531	2303
50	376	248	173	73	10	0	0	0	0	23	185	379	1467
32	17	5	1	0	0	0	0	0	0	0	3	25	51

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	199	268	433	609	878	1134	1349	1303	1065	767	390	207	8602
55	0	0	14	68	202	445	636	590	375	122	7	0	2459
57	0	0	8	46	159	386	574	528	317	87	3	0	2108
60	0	0	2	24	105	301	481	435	231	48	1	0	1628
65	0	0	0	6	41	175	326	281	110	12	0	0	951
70	0	0	0	0	12	81	178	142	34	1	0	0	448

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	48	105	215	388	636	892	1095	1054	833	523	200	57	48	153	368	756	1392	2284	3379	4433	5266	5789	5989	6046
45	5	35	102	249	484	742	940	899	683	375	102	7	5	40	142	391	875	1617	2557	3456	4139	4514	4616	4623
50	0	3	36	135	334	592	785	744	533	237	31	0	0	3	39	174	508	1100	1885	2629	3162	3399	3430	3430
55	0	0	2	54	197	442	630	589	383	123	4	0	0	0	2	56	253	695	1325	1914	2297	2420	2424	2424
60	0	0	0	12	90	298	475	434	241	44	0	0	0	0	0	12	102	400	875	1309	1550	1594	1594	1594
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	87	137	204	304	431	566	696	677	541	382	198	99	87	224	428	732	1163	1729	2425	3102	3643	4025	4223	4322

(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