

Climatography of the United States

No. 20

1971-2000

Station: WHITESTOWN, IN

COOP ID: 129557

Climate Division: IN 5

NWS Call Sign:

Elevation: 935 Feet

Lat: 40°00N

Lon: 86°21W

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	34.3	17.6	26.0	70	1950	25	36.8	1990	-27	1994	19	10.5	1977	1211	0	.0	.0	2.9	14.2	27.9	5.4
Feb	40.4	21.7	31.1	74	2000	25	39.7	1998	-22+	1905	13	15.4	1978	951	0	.0	.0	6.1	8.7	23.6	3.7
Mar	51.8	30.8	41.3	84	1910	24	48.4	1973	-12	1948	12	32.0	1984	734	0	.0	.0	15.6	2.4	19.6	.4
Apr	64.5	40.0	52.3	91+	1925	23	57.8	1985	15+	1940	12	47.4	1982	386	3	.0	.0	26.1	@	7.6	.0
May	75.0	50.3	62.7	99	1934	31	70.4	1977	24	1947	9	57.7	1997	167	94	.0	.7	30.8	.0	.5	.0
Jun	83.5	59.5	71.5	104+	1934	28	75.2	1971	35+	1910	3	67.0	1974	16	211	.1	4.5	30.0	.0	.0	.0
Jul	86.4	63.0	74.7	112	1936	14	78.7	1999	43+	1904	2	71.7	1971	1	301	.2	7.9	31.0	.0	.0	.0
Aug	84.7	60.8	72.8	106	1936	22	79.1	1995	37+	1986	29	68.3	1992	12	253	.1	5.1	31.0	.0	.0	.0
Sep	78.7	53.2	66.0	105	1939	15	70.8	1998	24	1942	28	60.0	1974	69	97	.0	2.2	30.0	.0	.2	.0
Oct	66.7	42.8	54.8	90+	1939	8	62.4	1971	13	1908	31	48.3	1988	334	16	.0	@	29.4	.0	5.6	.0
Nov	51.9	34.1	43.0	80	1933	1	49.3	1999	-6+	1930	28	35.7	1976	660	0	.0	.0	16.2	1.1	15.9	.0
Dec	38.8	23.4	31.1	73	1982	3	40.5	1982	-23	1924	28	18.6	1989	1050	0	.0	.0	5.0	8.2	25.1	2.0
Ann	63.1	41.4	52.3	112	Jul 1936	14	79.1	Aug 1995	-27	Jan 1994	19	10.5	Jan 1977	5591	975	.4	20.4	254.1	34.6	126.0	11.5

+ 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: 1901-2001

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

069-A

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No. 20 1971-2000

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

Station: WHITESTOWN, IN

COOP ID: 129557

Climate Division: IN 5

NWS Call Sign:

Elevation: 935 Feet Lat: 40°00N

Lon: 86°21W

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	2.44	1.91	2.67	1962	26	6.63	1999	.27	1986	11.2	5.7	1.4	.2	.47	.69	1.05	1.38	1.71	2.07	2.48	2.97	3.62	4.66	5.65
Feb	2.35	2.13	2.54	1976	17	5.94	1990	.38	1978	9.2	5.4	1.4	.4	.63	.85	1.19	1.49	1.78	2.09	2.43	2.83	3.36	4.19	4.96
Mar	3.40	3.26	3.20	1904	25	6.09	1973	1.14	1994	11.5	7.5	2.4	.5	1.48	1.78	2.21	2.56	2.88	3.21	3.56	3.97	4.48	5.25	5.96
Apr	3.82	3.85	3.09	1948	6	6.46	1989	1.09	1976	12.5	8.6	2.5	.7	1.58	1.93	2.42	2.83	3.21	3.59	4.01	4.49	5.09	6.02	6.86
May	4.47	4.09	4.06	1956	27	10.65	1996	1.28	1988	11.5	9.0	3.1	.9	1.57	1.99	2.61	3.12	3.62	4.12	4.67	5.32	6.14	7.41	8.58
Jun	4.15	4.46	7.92	1957	28	8.41	1998	.28	1988	9.7	6.9	2.7	1.0	1.04	1.43	2.04	2.57	3.10	3.66	4.28	5.01	5.97	7.50	8.92
Jul	4.54	3.63	5.29	1915	8	14.80	1979	.81	1991	9.7	7.0	3.1	1.1	.98	1.40	2.07	2.67	3.28	3.92	4.65	5.52	6.67	8.50	10.23
Aug	3.55	3.17	4.70	1978	28	8.34	1978	.14	1996	8.2	5.8	2.6	1.0	.66	.98	1.50	1.98	2.47	3.00	3.60	4.32	5.28	6.83	8.30
Sep	3.01	2.81	4.60	1905	10	8.59	1992	.17	1998	8.0	5.5	2.2	.7	.49	.74	1.18	1.60	2.02	2.49	3.03	3.68	4.55	5.96	7.32
Oct	2.88	2.42	3.60	1920	26	5.58	1990	1.00	1994	8.4	5.3	2.1	.6	1.13	1.40	1.78	2.09	2.39	2.69	3.01	3.39	3.86	4.59	5.26
Nov	3.70	3.57	3.73	1993	14	10.13	1985	.31	1976	10.5	6.7	2.2	1.1	.76	1.09	1.64	2.13	2.64	3.17	3.78	4.51	5.47	7.01	8.47
Dec	3.06	2.67	2.45	1985	11	7.63	1990	.49	1976	12.4	6.9	1.8	.4	.79	1.08	1.53	1.92	2.31	2.71	3.16	3.70	4.40	5.50	6.53
Ann	41.37	41.90	7.92	Jun 1957	28	14.80	Jul 1979	.14	Aug 1996	122.8	80.3	27.5	8.6	30.25	32.43	35.20	37.30	39.16	40.95	42.79	44.83	47.29	50.85	53.92

+ 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: 1901-2001

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

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Station: WHITESTOWN, IN

COOP ID: 129557

Climate Division: IN 5

NWS Call Sign:

Elevation: 935 Feet

Lat: 40°00N

Lon: 86°21W

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	8.7	6.7	2	1	12.0	1978	26	29.5	1978	20	1978	29	7	1978	5.3	3.5	1.1	.4	@	11.4	6.5	3.7	.5
Feb	5.7	4.5	2	1	9.5	1993	26	15.0	1979	14	1982	10	9	1978	3.4	2.0	.6	.3	.0	8.7	5.4	3.9	1.0
Mar	2.7	2.0	#	#	7.2	1999	9	9.0	1984	11	1984	8	4	1984	1.7	1.4	.4	.1	.0	2.6	1.5	.9	.2
Apr	.3	.0	#	0	3.0	1982	8	5.0	1982	2	1982	8	#+	1994	.2	.2	@	.0	.0	.2	.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	.4	.0	#	0	5.0	1989	19	8.0	1989	5	1989	19	#+	1993	.1	.1	.1	@	.0	.1	.1	@	.0
Nov	.9	.5	#	0	4.0	1975	27	5.0	1980	4	1975	28	#+	1997	.9	.5	.1	.0	.0	.6	.1	.0	.0
Dec	5.6	3.0	1	#	15.0	1973	20	29.0	1973	13	1973	21	4	2000	3.5	2.3	.6	.2	@	5.6	3.0	1.6	.2
Ann	24.3	16.7	N/A	N/A	15.0	Dec 1973	20	29.5	Jan 1978	20	Jan 1978	29	9	Feb 1978	15.1	10.0	2.9	1.0	@	29.2	16.6	10.1	1.9

+ 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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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	5/26	5/20	5/15	5/11	5/08	5/04	4/30	4/26	4/20
32	5/08	5/03	4/30	4/28	4/25	4/23	4/20	4/17	4/13
28	4/24	4/20	4/16	4/14	4/11	4/08	4/06	4/02	3/29
24	4/16	4/12	4/08	4/05	4/02	3/30	3/27	3/24	3/19
20	4/05	3/31	3/28	3/25	3/22	3/19	3/16	3/13	3/08
16	3/28	3/23	3/19	3/16	3/13	3/09	3/06	3/02	2/25
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	9/20	9/24	9/27	9/30	10/02	10/05	10/07	10/10	10/14
32	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/25
28	10/05	10/11	10/16	10/20	10/23	10/27	10/31	11/04	11/10
24	10/21	10/27	10/31	11/03	11/06	11/09	11/13	11/16	11/22
20	10/29	11/05	11/10	11/14	11/18	11/21	11/26	11/30	12/07
16	11/09	11/16	11/20	11/24	11/28	12/02	12/06	12/10	12/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	168	160	155	151	147	143	138	133	126
32	184	178	174	170	167	164	160	156	150
28	218	210	204	199	194	190	185	179	171
24	239	232	226	222	217	213	208	203	195
20	264	256	250	245	240	235	230	224	216
16	283	275	269	264	260	255	250	244	236

* 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	1211	951	734	386	167	16	1	12	69	334	660	1050	5591
60	1056	811	580	249	90	4	0	1	22	212	511	895	4431
57	963	731	496	178	56	1	0	0	9	153	425	805	3817
55	901	679	438	136	39	0	0	0	5	119	371	748	3436
50	757	549	307	59	14	0	0	0	1	56	245	604	2592
32	298	187	43	0	0	0	0	0	0	0	18	202	748

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	111	160	333	608	950	1186	1324	1264	1018	705	349	175	8183
55	0	8	15	54	276	496	611	551	333	111	11	8	2474
57	0	4	10	35	231	437	549	489	277	82	5	2	2121
60	0	0	2	17	172	349	456	397	201	49	1	0	1644
65	0	0	0	3	94	211	301	253	97	16	0	0	975
70	0	0	0	0	41	101	160	134	34	4	0	0	474

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	18	45	149	361	691	939	1074	1008	775	450	162	38	18	63	212	573	1264	2203	3277	4285	5060	5510	5672	5710
45	5	16	87	241	539	789	919	853	625	311	92	15	5	21	108	349	888	1677	2596	3449	4074	4385	4477	4492
50	1	4	45	143	388	639	764	698	475	192	46	4	1	5	50	193	581	1220	1984	2682	3157	3349	3395	3399
55	0	0	20	77	256	489	609	543	337	103	19	0	0	0	20	97	353	842	1451	1994	2331	2434	2453	2453
60	0	0	3	32	144	343	454	388	209	47	3	0	0	0	3	35	179	522	976	1364	1573	1620	1623	1623
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	5	27	97	224	435	625	733	682	504	279	91	17	5	32	129	353	788	1413	2146	2828	3332	3611	3702	3719

(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.

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