

Climatology of the United States

No. 20

1971-2000

Station: KENTLAND, IN

COOP ID: 124527

Climate Division: IN 1

NWS Call Sign:

Elevation: 695 Feet Lat: 40°46N Lon: 87°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	30.8	14.2	22.5	65+	1952	17	34.3	1990	-25	1985	20	7.9	1977	1319	0	.0	.0	2.0	15.8	28.9	5.5
Feb	36.0	18.2	27.1	72	1996	27	38.8	1998	-21	1963	26	11.4	1978	1061	0	.0	.0	4.7	9.8	24.1	3.4
Mar	48.1	28.9	38.5	90	1949	24	45.4	1973	-8	1960	6	28.7	1984	821	0	.0	.0	14.1	2.8	20.1	.1
Apr	60.6	38.4	49.5	89+	1980	22	55.6	1977	3	1982	7	44.5	1982	468	3	.0	.0	25.4	.1	7.8	.0
May	72.7	49.6	61.2	95	2001	17	68.3	1977	27+	1954	5	55.3	1997	198	78	.0	1.6	30.8	.0	.7	.0
Jun	82.2	59.6	70.9	104	1988	26	75.5	1971	37	1988	10	66.4	1982	19	196	.1	5.9	30.0	.0	.0	.0
Jul	85.1	62.9	74.0	104	1954	14	77.7	1999	43+	1963	4	70.1	1971	4	283	.3	8.4	31.0	.0	.0	.0
Aug	83.2	60.3	71.8	104+	1988	18	78.1	1995	38	1965	29	67.8	1992	18	226	.2	4.4	31.0	.0	.0	.0
Sep	77.8	52.6	65.2	100+	1953	1	70.4	1998	27	1991	20	60.3	1993	81	86	.0	2.3	30.0	.0	.2	.0
Oct	65.4	40.8	53.1	92	1954	3	60.4	1971	16	1952	29	46.1	1987	380	10	.0	@	29.2	.0	5.5	.0
Nov	49.1	30.8	40.0	81	1950	1	46.4	1999	-9	1950	25	31.4	1976	751	0	.0	.0	15.1	1.6	16.7	.0
Dec	36.0	20.1	28.1	70	1982	2	36.8	1982	-21+	1989	21	14.6	1989	1145	0	.0	.0	3.9	9.7	27.1	2.4
Ann	60.6	39.7	50.2	104+	Aug 1988	18	78.1	Aug 1995	-25	Jan 1985	20	7.9	Jan 1977	6265	882	.6	22.6	247.2	39.8	131.1	11.4

+ 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

029-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: KENTLAND, IN

COOP ID: 124527

Climate Division: IN 1

NWS Call Sign:

Elevation: 695 Feet Lat: 40°46N

Lon: 87°26W

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	1.76	1.39	2.53	1993	4	4.04	1993	.07	1971	10.0	4.9	.8	.2	.24	.39	.64	.88	1.14	1.42	1.75	2.15	2.69	3.58	4.43
Feb	1.60	1.33	1.89	1954	16	6.24	1990	.01	1987	8.5	4.2	.8	.4	.14	.26	.47	.69	.93	1.21	1.54	1.95	2.51	3.45	4.37
Mar	2.77	2.70	3.01	1985	28	6.48	1985	.00	1999	10.6	6.4	1.6	.3	.47	.84	1.32	1.69	2.07	2.46	2.89	3.40	4.06	5.11	6.09
Apr	3.37	2.89	4.00	1959	27	7.46	1994	1.13	1977	11.1	7.3	2.1	.6	1.06	1.38	1.86	2.26	2.65	3.06	3.50	4.03	4.70	5.75	6.72
May	4.05	3.63	5.72	1970	13	9.78	1995	1.06	1988	11.8	7.8	2.6	.9	1.31	1.69	2.26	2.74	3.21	3.69	4.22	4.83	5.63	6.86	8.00
Jun	4.51	4.35	4.54	1980	2	9.40	1995	.45	1988	11.1	7.6	2.8	1.2	1.06	1.48	2.14	2.73	3.32	3.94	4.64	5.47	6.56	8.29	9.91
Jul	4.03	3.81	6.40	1963	22	7.77	1971	.22	1983	9.7	7.1	2.8	1.0	.97	1.35	1.93	2.46	2.98	3.53	4.15	4.88	5.84	7.37	8.80
Aug	3.67	3.19	3.21	1985	7	11.02	1977	.61	1976	9.4	6.3	2.6	.9	.79	1.13	1.67	2.15	2.64	3.17	3.76	4.46	5.39	6.88	8.28
Sep	3.25	2.67	6.20	1989	1	10.65	1989	.00	1979	8.5	5.4	1.9	.9	.32	.70	1.24	1.71	2.19	2.71	3.30	4.02	4.97	6.50	7.96
Oct	2.84	2.24	3.17	1951	23	7.95	1991	.89	1971	9.2	5.6	1.9	.7	.77	1.04	1.45	1.81	2.16	2.53	2.93	3.42	4.04	5.03	5.95
Nov	3.20	2.91	2.43	1966	27	7.66	1985	.72	1976	11.6	6.8	2.1	.6	.92	1.22	1.68	2.08	2.47	2.88	3.32	3.85	4.54	5.61	6.61
Dec	2.43	2.42	3.94	1967	21	5.66	1990	.48	1976	11.0	5.9	1.5	.5	.64	.87	1.22	1.53	1.83	2.15	2.51	2.93	3.48	4.35	5.17
Ann	37.48	37.23	6.40	Jul 1963	22	11.02	Aug 1977	.00+	Mar 1999	122.5	75.3	23.5	8.2	27.13	29.15	31.72	33.67	35.40	37.07	38.79	40.69	42.99	46.31	49.18

+ 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: KENTLAND, IN

COOP ID: 124527

Climate Division: IN 1

NWS Call Sign:

Elevation: 695 Feet

Lat: 40°46N

Lon: 87°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	8.3	9.8	2	2	10.0	1978	26	17.8	1979	15	1974	13	7	1979	5.0	2.7	.7	.3	@	10.7	6.3	4.3	1.3
Feb	6.6	6.6	3	1	8.5	1994	26	18.6	1980	19	1982	10	13	1978	4.4	2.5	1.0	.2	.0	10.9	7.7	5.1	3.2
Mar	2.8	2.6	1	#	6.0	1977	22	8.5	1983	14	1978	5	6	1978	1.8	1.1	.4	.1	.0	3.1	1.8	1.1	.5
Apr	.9	.0	#	0	4.0	1982	5	13.5	1982	9	1982	9	1	1982	.3	.3	.2	.0	.0	.4	.3	.2	.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	.2	.0	#	0	3.0	1989	20	3.0	1989	1	1993	31	#	1993	.1	@	@	.0	.0	@	.0	.0	.0
Nov	2.1	.8	#	#	7.0	1974	13	9.5	1974	5	1980	27	1	1977	1.2	.6	.2	.1	.0	1.3	.6	.3	.0
Dec	7.5	6.5	1	1	11.0	1973	19	20.7	1973	15	1973	23	5	1977	4.0	2.4	.8	.3	@	8.4	4.1	2.4	.9
Ann	28.4	26.3	N/A	N/A	11.0	Dec 1973	19	20.7	Dec 1973	19	Feb 1982	10	13	Feb 1978	16.8	9.6	3.3	1.0	@	34.8	20.8	13.4	5.9

+ 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

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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	5/22	5/18	5/16	5/13	5/11	5/09	5/06	5/04	4/30
32	5/14	5/09	5/05	5/02	4/28	4/25	4/22	4/18	4/13
28	4/25	4/21	4/18	4/15	4/13	4/11	4/08	4/05	4/01
24	4/17	4/12	4/08	4/05	4/02	3/30	3/27	3/24	3/19
20	4/08	4/03	3/30	3/26	3/23	3/20	3/16	3/12	3/07
16	3/31	3/23	3/18	3/13	3/09	3/05	2/28	2/23	2/16
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	9/18	9/22	9/25	9/27	9/30	10/02	10/04	10/07	10/11
32	9/27	10/01	10/04	10/07	10/09	10/12	10/14	10/18	10/22
28	10/02	10/09	10/13	10/17	10/21	10/25	10/29	11/02	11/09
24	10/20	10/25	10/29	11/01	11/05	11/08	11/11	11/15	11/20
20	11/01	11/06	11/10	11/13	11/16	11/19	11/23	11/27	12/02
16	11/09	11/15	11/20	11/24	11/28	12/01	12/05	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	155	150	147	144	141	138	135	131	126
32	182	176	171	167	163	159	155	150	144
28	211	204	199	194	190	186	182	176	169
24	237	230	224	220	215	211	207	201	194
20	259	252	246	242	238	233	229	223	216
16	290	281	274	268	263	257	251	244	235

* 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	1319	1061	821	468	198	19	4	18	81	380	751	1145	6265
60	1164	921	666	329	114	4	0	3	28	249	601	990	5069
57	1071	837	575	253	76	1	0	0	12	183	513	897	4418
55	1009	784	520	207	56	1	0	0	6	145	456	838	4022
50	855	654	379	113	22	0	0	0	1	72	323	694	3113
32	367	255	65	1	0	0	0	0	0	0	41	260	989

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	72	118	267	526	903	1166	1302	1232	995	653	280	139	7653
55	0	3	8	42	246	477	589	519	311	85	5	4	2289
57	0	0	2	28	205	418	527	457	257	61	2	0	1957
60	0	0	0	14	150	330	434	367	183	34	0	0	1512
65	0	0	0	3	78	196	283	226	86	10	0	0	882
70	0	0	0	0	33	90	148	117	29	1	0	0	418

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	8	28	135	342	687	950	1080	1004	781	445	144	28	8	36	171	513	1200	2150	3230	4234	5015	5460	5604	5632
45	2	10	78	222	534	800	925	849	632	310	76	10	2	12	90	312	846	1646	2571	3420	4052	4362	4438	4448
50	0	2	41	131	387	650	770	694	482	192	37	5	0	2	43	174	561	1211	1981	2675	3157	3349	3386	3391
55	0	0	19	67	254	500	615	539	340	106	18	0	0	0	19	86	340	840	1455	1994	2334	2440	2458	2458
60	0	0	3	30	147	353	460	385	217	49	3	0	0	0	3	33	180	533	993	1378	1595	1644	1647	1647
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	2	16	84	212	432	632	737	678	504	278	79	13	2	18	102	314	746	1378	2115	2793	3297	3575	3654	3667

(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