

U. S. Weather Bureau

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU  
 IN COOPERATION WITH FIRST STATE BANK, HEALY, KANSAS  
 CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 14  
**CLIMATOLOGICAL SUMMARY**



LATITUDE 38° 36'  
 LONGITUDE 100° 37'  
 ELEV. (GROUND) 2852 Ft.

MEANS AND EXTREMES FOR PERIOD 1901-1961

Month	Temperature (°F)							** Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month	
	Means			Extremes					Mean	Greatest daily	Year	Snow, Sleet				Precip. 10 inch or more	Temperatures					
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year					Mean	Maximum monthly	Year	Greatest daily		Year	90° and above	32° and below	32° and below		0° and below
(a)	60	60	60	60	60	60	60	61	61	61	61	61	61	61	61	61	60	60	60	60		
Jan.	43.8	15.4	29.4	80	12/153	-31	11/18	1100	0.29	1.55	27/44	3.0	15.3	1932	6.0	10/18	1	0	7	30	3	Jan.
Feb.	48.2	18.7	33.4	81	12/161	-24	8/33	880	0.57	2.31	6/28	4.7	28.9	1903	8.0	27/39	2	0	5	27	2	Feb.
Mar.	56.6	25.6	41.2	97	19/107	-25	11/48	740	0.92	2.32	25/42	5.4	45.8	1958	14.0	6/58	2	*	2	23	1	Mar.
Apr.	67.6	36.8	52.2	100	29/110	4	2/36	380	1.78	2.55	23/05	1.8	14.0	1919	12.0	9/19	4	1	*	10	0	Apr.
May	76.2	47.4	61.8	105	17/127	20	27/07	120	2.84	3.19	18/55	0.1	2.0	1917+	2.0	5/17+	5	3	*	1	*	May
June	86.7	57.8	72.3	111	30/133	33	2/17	20	3.00	3.14	5/49	0	0		0		5	13	0	0	0	June
July	92.7	63.2	78.0	116	13/113	43	3/24+	0	2.68	2.75	1/01	0	0		0		5	21	0	0	0	July
Aug.	91.7	62.2	77.0	113	8/134	39	24/28+	0	2.70	3.10	1/03	0	0		0		5	20	0	0	0	Aug.
Sept.	83.8	53.1	68.4	109	3/147	26	26/42+	10	1.67	5.25	17/19	T	T	1945	T	28/45	3	10	0	*	0	Sept.
Oct.	71.7	40.0	55.9	99	5/147	5	29/17	310	1.31	3.10	7/46	0.2	6.1	1905	4.0	28/05	2	1	*	7	0	Oct.
Nov.	56.6	26.3	41.6	87	5/145	-10	28/52	700	0.70	1.55	29/09	2.9	18.9	1953	11.9	20/53	2	0	2	22	*	Nov.
Dec.	45.3	18.1	31.7	84	24/55	-19	12/32	1030	0.53	1.70	5/13	4.1	16.9	1907	8.5	22/07	1	0	5	30	2	Dec.
Year	68.4	38.7	53.6	116	July 13 1913	-31	Jan. 11 1918	5290	18.99	5.25	Sept. 17 1919	22.2	45.8	Mar 1958	14.0	Mar. 6 1958	37	69	21	150	8	Year

(a) Average length of record, years. + Also on earlier dates, months, or years.  
 T Trace, an amount too small to measure. \* Less than one half.  
 \*\* Base 65°F

CLIMATE OF HEALY, KANSAS

Healy is situated in the northwest corner of Lane County on the divide between the Smoky Hill River to the north and the upper reaches of the North Fork of Walnut Creek on the south. The terrain is gently rolling, with an average westward rise of about 14 feet per mile.

Located in the rainfall shadow of the Rockies and west of the main northward flow of moisture-laden air from the Gulf of Mexico, the native vegetation of short grasses and treeless plains testify to the dry subhumid regime of precipitation. The predominantly southerly winds seem never to weary. In addition to the large daily and seasonal stimulating temperature changes, there are the longer and more pronounced climatic fluctuations as evidenced by successive favorable crop production years alternating with periods of deficient rainfall or drought. For the most part, the weather is well within the range of human comfort and crop production.

**PRECIPITATION.** The average precipitation for January, 0.29 inch, is approximately 1/5 of the annual total while that of June, 3.00 inches, is 16%. The 6-month total April through September, 14.67 inches, forms 77% of the year's average. The variation of rainfall through the year is well defined by a study of weekly totals. The probability of receiving 0.02 inch or more of rain in a 7-day period is about 85% the last of May or early June. And the least likely time is about mid-January when the probability drops to 30%. The probability of an inch or more in a week's time does not rise to 10% until mid-April. The greatest probability of this total is only 20% the last of July, dropping to 10% again by the last of August.

Annual as well as monthly totals also show a large range from the least, 8.92 inches, in 1956 to the greatest annual amount of 36.71 inches in 1923. Approximately 80% of the annual totals are 14 inches or more. The greatest frequency of 24-hour amounts of 2 inches or more is in May and June. About one 30-day period a summer, April-September inclusive, may be expected to pass with less than 0.25 inch of precipitation on any day. Measurable rain falls on an average of 64 days per year.

Snow is just as variable and uncertain as other forms of precipitation. The least snowfall of any winter was only 2.8 inches in 1932-33, and the greatest seasonal total was 73.5 inches in 1957-58. The longest period with a widespread snow cover was 50 days from December 23, 1939 through February 10, 1940.

**TEMPERATURES.** Temperatures of 100° have been recorded from April through September, freezing has occurred in all months except June, July and August, and 5 months--November through March--have experienced zero temperatures. Two winter periods, 1931-32 and 1960-61, passed with a minimum temperature of only zero. All others experienced one or more below zero temperatures.

A temperature of 32° or lower is quite commonplace at night from mid-November through the first of March.

The warmest month of record, July 1934, with a mean of 86.1° had a mean maximum of 103.2°. A total of 45 days with temperatures of 100° or higher was recorded in 1934. In all the summers except two, 1915 and 1941, the temperature rose to 100° or higher. The highest these two years was 96° and 99°, respectively. The average freeze-free season of 165 days covers the period from about May 2 to October 13. The last spring freeze, 32° or lower, has occurred as late as May 27, in 1907 and 1950, and the earliest freeze in the fall on September 12, 1902. The table below gives the probability for the dates of last occurrence of temperatures of 16°, 20°, 24°, 28°, and 32° in the spring and the first occurrence in the fall.

	16°F	20°F	24°F	28°F	32°F
<b>SPRING</b>					
1 year in 10	Apr. 7	Apr. 13	Apr. 20	Apr. 30	May 17
2 years in 10	Apr. 1	Apr. 7	Apr. 15	Apr. 26	May 12
5 years in 10	Mar. 20	Mar. 28	Apr. 6	Apr. 16	May 2
<b>FALL</b>					
1 year in 10	Oct. 29	Oct. 26	Oct. 17	Oct. 9	Sept. 30
2 years in 10	Nov. 4	Oct. 31	Oct. 21	Oct. 14	Oct. 4
5 years in 10	Nov. 16	Nov. 10	Oct. 31	Oct. 23	Oct. 14

Probably more damage results from hail than from other storms. Myriads of pea to marble sized stones driven by high winds have been known to preharvest many acres of uncut wheat in only a few minutes. Occasionally larger stones of walnut or even baseball size have caused property and livestock damage. On the average, only about 4 of the approximately 50 thunderstorms a year are accompanied by severe wind or damaging hail. Generally such storms are of short duration, of a local nature, and damage is extremely spotted and variable. Tornadoes are of an infrequent occurrence. Dust storms, generally limited to drought periods, may be severe resulting in erosion of the soil and reducing visibility to dangerous highway conditions. Blizzards of high wind, fine snow and extreme cold are rare.

STATION HISTORY

The complete weather record at Healy has been made by four members of the Jennison family. The father, H. S. Jennison, began keeping the record in May 1901. On April 16, 1902, maximum and minimum self-registering thermometers were installed. Mr. H. S. Jennison served 3 terms as observer, May 1901-May 1904, June 1914-July 1930, September 1931-July 1944. The intervening records were compiled by C. M. Jennison from May 1904-May 1914, Dorothea Jennison August 1930-August 1931, and Robert H. Jennison from August 1944 to date. The station was established at Farnsworth but moved to the present location June 1, 1914. A recording rain gage was installed on April 24, 1940.

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 Weather Bureau, Topeka, Kansas

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 Kansas-Healy

Average Temperature (°F)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann'l
1902	-	-	-	-	66.2	69.6	75.2	78.0	64.1	56.2	43.0	26.2	52.9
1903	31.9	22.8	39.2	51.2	59.7	64.2	71.9	74.2	65.7	49.4	40.8	31.5	51.5
1904	30.2	24.6	46.0	53.2	62.1	68.4	74.9	74.2	68.8	59.9	45.4	31.5	51.5
1905	26.0	21.6	48.7	50.2	59.4	65.0	72.4	72.0	71.4	55.0	44.8	32.2	52.3
1906	24.0	21.6	48.7	50.2	59.4	65.0	72.4	72.0	71.4	55.0	44.8	32.2	52.3
1907	28.6	37.3	48.8	49.8	57.2	63.7	72.7	75.0	69.4	56.8	40.5	30.8	53.4
1908	33.2	36.1	48.8	55.0	62.0	71.6	75.4	75.8	69.3	54.6	41.8	34.4	54.6
1909	29.7	35.8	40.6	51.4	60.2	71.4	76.8	78.7	68.1	55.4	45.8	21.4	52.9
1910	30.1	31.2	54.4	55.4	59.4	72.2	78.0	78.0	72.2	60.4	45.2	33.9	55.9
1911	34.8	33.7	48.6	53.6	65.2	78.3	77.5	74.4	72.2	54.8	33.9	27.2	54.8
1912	18.6	33.4	28.9	52.0	63.8	67.2	76.6	76.6	65.3	46.7	44.7	50.9	59.9
1913	27.9	25.5	39.2	55.3	66.5	72.1	81.1	82.6	65.1	51.6	46.0	32.4	59.8
1914	38.1	30.0	41.6	52.2	62.2	75.6	75.8	75.6	65.1	57.4	46.8	22.4	51.6
1915	29.0	37.2	30.2	56.5	57.2	67.2	72.0	68.3	66.6	57.4	45.8	32.2	51.6
1916	23.8	33.4	47.2	49.2	61.8	69.3	79.2	79.2	67.0	55.6	40.4	27.6	52.8
1917	29.2	33.6	49.2	49.2	61.8	69.3	79.2	79.2	67.0	55.6	40.4	27.6	52.8
1918	21.4	37.3	47.8	47.2	65.4	72.4	76.4	76.4	62.3	56.4	39.8	30.9	53.5
1919	23.6	26.6	40.3	49.7	59.7	68.4	76.4	76.4	70.9	50.2	36.8	27.9	50.6
1920	32.2	33.8	42.2	46.7	59.6	70.0	76.4	72.2	67.2	58.2	38.6	32.2	52.4
1921	34.3	37.2	47.8	51.2	62.8	72.8	77.1	78.4	71.3	59.1	41.5	22.6	52.2
1922	26.5	31.6	37.6	51.6	62.8	72.8	77.1	78.4	71.3	59.1	41.5	22.6	52.2
1923	32.6	30.5	37.3	52.3	62.7	72.0	76.3	72.2	60.1	52.1	22.1	25.0	52.0
1924	28.8	34.7	40.8	52.3	62.7	72.0	76.3	72.2	60.1	52.1	22.1	25.0	52.0
1925	32.9	37.0	42.2	48.4	55.2	65.2	71.8	78.0	68.4	47.6	38.4	27.8	53.8
1926	37.5	36.2	40.2	48.4	55.2	65.2	71.8	78.0	68.4	47.6	38.4	27.8	53.8
1927	31.2	35.2	43.6	50.2	62.4	69.0	77.4	77.4	69.2	59.2	44.2	25.0	53.7
1928	24.4	23.2	44.7	49.6	60.6	64.8	72.4	72.4	64.0	54.1	30.4	34.2	51.4
1929	24.4	23.2	44.7	49.6	60.6	64.8	72.4	72.4	64.0	54.1	30.4	34.2	51.4
1930	17.7	43.4	39.2	56.0	59.8	72.2	79.4	77.6	69.6	53.4	41.8	32.7	53.6
1931	34.2	40.0	35.8	50.8	58.5	76.1	77.8	77.8	65.0	59.6	41.6	34.2	55.0
1932	23.1	38.2	35.8	55.6	64.6	70.2	81.2	77.8	65.0	59.6	41.6	34.2	55.0
1933	36.0	28.8	44.9	52.1	61.6	78.4	81.1	80.9	72.1	56.0	44.9	38.0	55.7
1934	33.8	35.0	42.8	54.5	68.4	78.2	86.1	80.5	65.0	55.4	38.4	34.2	57.0
1935	36.2	20.6	49.0	51.2	57.8	-	82.6	82.6	69.0	55.7	38.4	35.2	54.0
1936	28.0	32.3	45.9	52.2	65.1	74.8	82.6	81.2	69.0	55.7	38.4	35.2	54.0
1937	18.2	32.3	38.5	51.7	64.6	73.2	80.6	80.6	71.2	61.4	39.6	29.4	56.3
1938	34.6	36.3	48.4	52.8	60.4	73.2	80.6	82.9	73.8	61.2	43.2	37.9	56.1
1939	36.4	27.4	41.9	53.6	66.6	74.2	82.2	77.8	73.8	61.2	43.2	37.9	56.1
1940	13.8	32.2	44.2	52.8	62.6	72.8	81.9	75.4	69.7	51.6	38.9	36.0	53.5
1941	33.0	33.7	39.5	52.4	65.2	69.6	76.6	75.4	70.2	52.0	40.0	34.2	53.2
1942	28.6	30.2	38.5	52.2	61.4	71.2	79.6	78.4	69.8	53.2	40.0	34.2	53.2
1943	36.6	40.2	38.5	52.2	61.4	71.2	79.6	78.4	69.8	53.2	40.0	34.2	53.2
1944	34.6	34.6	48.7	48.7	57.2	68.8	72.2	72.2	67.6	54.6	44.1	27.4	53.2
1945	33.8	34.6	48.7	48.7	57.2	68.8	72.2	72.2	67.6	54.6	44.1	27.4	53.2
1946	37.4	37.4	48.7	48.7	57.2	68.8	72.2	72.2	67.6	54.6	44.1	27.4	53.2
1947	28.6	30.4	32.6	49.2	59.2	68.1	77.4	77.4	72.4	56.5	37.6	32.0	53.1
1948	28.6	30.4	32.6	49.2	59.2	68.1	77.4	77.4	72.4	56.5	37.6	32.0	53.1
1949	20.8	30.6	41.3	51.9	63.2	72.1	78.6	74.7	65.0	54.7	47.3	32.6	52.8
1950	23.7	38.5	38.4	50.0	60.2	74.7	73.5	76.6	65.5	60.4	39.8	35.7	53.2
1951	23.7	36.9	38.4	49.4	62.4	74.7	73.5	76.6	65.5	60.4	39.8	35.7	53.2
1952	34.5	36.6	45.9	49.9	61.7	80.9	78.9	75.5	69.4	51.7	37.8	30.4	54.1
1953	34.5	37.2	45.3	48.9	60.3	79.4	78.2	75.5	70.8	58.9	41.3	30.1	54.5
1954	29.4	45.6	45.3	57.9	58.8	77.4	82.9	82.9	70.2	55.4	45.5	31.2	56.5
1955	31.1	28.6	40.3	57.5	64.3	68.8	81.9	79.4	70.2	57.9	38.2	31.2	54.0
1956	23.6	27.2	43.1	49.3	66.8	79.5	79.1	72.5	61.8	51.6	38.8	36.7	55.4
1957	23.6	27.2	43.1	49.3	66.8	79.5	79.1	72.5	61.8	51.6	38.8	36.7	55.4
1958	23.6	27.2	43.1	49.3	66.8	79.5	79.1	72.5	61.8	51.6	38.8	36.7	55.4
1959	27.5	32.0	41.3	51.3	63.4	75.4	75.6	75.9	66.1	52.0	41.5	35.7	53.2
1960	26.3	23.6	31.7	48.6	61.7	72.1	76.8	78.0	69.3	57.9	42.8	31.8	52.6
1961	31.9	37.1	43.0	56.3	61.5	72.2	78.1	78.0	68.8	54.4	38.0	27.0	52.6

Total Precipitation (Inches)

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Ann'l
1901	-	-	-	-	1.02	1.25	3.50	2.01	3.04	0.37	1.42	0.25	-
1902	1.20	1.40	1.80	2.25	3.00	1.33	2.21	2.89	4.88	2.28	1.47	0.62	22.87
1903	0.06	3.12	4.15	4.31	4.26	3.39	2.57	3.88	1.16	2.58	0.72	0.54	22.97
1904	1.06	1.66	1.82	4.24	2.02	4.24	4.43	4.59	2.16	2.10	2.16	18.96	-
1905	1.52	3.6	3.6	4.01	1.22	1.51	1.40	1.47	2.17	2.47	2.58	2.16	20.16
1906	1.12	3.0	3.2	4.01	1.22	1.51	1.40	1.47	2.17	2.47	2.58	2.16	20.16
1907	1.31	1.6	1.67	1.70	1.47	3.25	3.21	3.58	1.24	1.58	2.22	1.63	15.08
1908	0.06	2.24	1.07	1.46	3.71	3.21	2.73	3.82	1.11	1.66	3.25	1.00	24.42
1909	0.27	1.24	1.67	1.46	1.65	6.48	4.82	3.90	3.06	1.64	3.25	1.00	19.42
1910	0.36	1.16	0	1.42	2.38	2.94	1.05	2.34	1.57	0.06	1.33	1.14	11.41
1911	0.02	1.78	1.83	1.83	1.56	0.89	2.83	2.39	1.04	1.09	0.46	1.57	11.46
1912	1.02	1.30	1.70	1.56	1.00	4.94	2.53	4.87	1.55	0.53	0.42	0.31	20.30
1913	0.23	1.45	1.12	1.99	1.75	3.21	0.50	3.1	3.64	1.11	0.93	3.29	16.53
1914	0.06	1.30	0.1	1.73	4.04	4.73	2.39	2.96	3.19	0.30	0.30	20.13	-
1915	1.19	0.30	0.1	3.77	5.12	4.21	7.17	4.20	3.87	0.98	0.05	0.05	29.53
1916	0.08	1.19	0.15	1.39	1.80	3.63	4.19	3.09	1.67	0.61	0.04	0.10	9.79
1917	0.65	0.5	0.05	2.31	1.49	1.49	2.05	1.75	1.33	0.37	0.10	0.10	13.04
1918	1.12	1.27	1.57	1.21	3.00	4.39	4.59	3.09	1.33	1.37	1.07	4.82	20.97
1919	0.27	1.29	0.68	1.09	2.90	4.39	3.65	3.6	8.91	1.67	1.37	0.16	28.37
1920	0.67	0.07	0.19	1.76	2.15	2.67	2.34	1.26	2.81	2.56	0.67	0.93	16.91
1921	0.67	0.46	1.10	2.02	1.64	3.84	2.48	1.94	1.45	1.18	0.69	0.69	12.47
1922	0.60	0.60	0.35	2.58	1.80	3.02	2.13	2.13	1.36	1.19	0.49	0.1	13.24
1923	0.01	0.04	0.70	3.02	8.27	6.76	2.15	7.76	2.43	4.95	0.53	0.53	16.71
1924	0.05	0.65	0.28	1.91	1.10	0.05	4.23	3.47	1.82	0.99	1.22	1.22	15.54
1925	0.05	0.34	0.28	1.38	1.48	1.08	4.61	2.63	1.55	0.94	0.73	0.16	11.92
1926	1.11	0.74	0.76	1.38	2.33	4.23	4.28	1.81	3.82	1.05	0.73	0.28	21.32
1927	0.11	0.48	0.78	2.24	1.02	6.45	4.77	3.89	3.82	1.82	0.70	0.82	18.10
1928	0.04	2.57	1.28	1.38	2.52	1.38	1.40	1.74	1.82	1.82	1.82	0.82	28.10
1929	0.04	0.60	0.21	1.88	3.52	1.38	1.40	1.74	2.88	1.69	1.82	1.2	15.91
1930	0.44	0.44	0.44	0.44	4.32	1.77	1.68	2.83	3.4	5.47	1.79	0.8	20.86
1931	0.74	0.66	3.16	1.53	1.23	2.33	2.19	2.24	3.14	0.97	0.82	0.82	15.75
1932	0.83	0.88	0.75	2.02	1.64	4.03	0.83	3.02	0.67	0.47	0.04	0.	