

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU  
 IN COOPERATION WITH CLINTON CHAMBER OF COMMERCE  
 CLIMATOGRAPHY OF THE UNITED STATES NO. 20 -13

LATITUDE 41° 50'  
 LONGITUDE 91° 11' 40" 11'  
 ELEV. (GROUND) 589 Ft.

CLIMATOLOGICAL SUMMARY

STATION  
 CLINTON, IOWA

MEANS AND EXTREMES FOR PERIOD 1931 - 1952

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	Max.		Min.		
																			32° and below	32° and below	0° and below		0° and below
(a)	22	22	22	22		22		22	22	22		20	20		20		22	22	22	22	22	(a)	
Jan.	32.6	15.5	24.1	64	1944	-24	1936	1270	1.78	1.60	1938	7.4	20.8	1936	10.3	1940	4	0	13	30	4	Jan.	
Feb.	35.0	17.5	26.3	68	1932	-24	1933	1080	1.19	1.65	1948	6.4	20.5	1936	9.2	1944	4	0	10	27	3	Feb.	
Mar.	46.1	27.3	36.7	82	1945+	-5	1943	880	2.44	1.88	1948	5.8	14.4	1951	9.0	1946	6	0	4	22	1	Mar.	
Apr.	61.0	39.0	50.0	94	1952	15	1936	450	2.92	1.78	1950+	1.0	7.5	1936	4.5	1951	7	*	0	8	0	Apr.	
May	72.6	50.3	61.4	102	1934	30	1945+	190	3.97	2.63	1951	T	T	1940+	T	1944+	8	1	0	*	0	May	
June	82.3	60.5	71.4	104	1934+	39	1945	50	5.10	4.64	1936	0	0		0		8	6	0	0	0	June	
July	87.6	64.3	76.0	109	1936	48	1947+	0	3.51	3.70	1934	0	0		0		6	11	0	0	0	July	
Aug.	84.8	62.1	73.4	106	1936	39	1934	0	3.92	4.20	1939	0	0		0		6	8	0	0	0	Aug.	
Sept.	77.2	54.1	65.6	99	1939	25	1942	100	3.79	3.90	1941	T	T	1951	T	1951+	5	3	0	*	0	Sept.	
Oct.	66.4	42.9	54.7	90	1949	17	1952	340	2.23	3.34	1931	T	T	1951+	T	1951+	4	0	0	5	0	Oct.	
Nov.	48.2	29.7	39.0	80	1933	-4	1950	780	2.60	3.39	1952	1.5	8.4	1947	3.6	1947	5	0	3	19	*	Nov.	
Dec.	35.5	19.5	27.5	66	1951+	-19	1950	1160	1.67	1.85	1942	7.0	27.9	1951	9.0	1944	4	0	11	28	3	Dec.	
Year	60.8	40.2	50.5	109	July 1936	-24	Jan. 1936+	6300	35.12	4.64	June 1936	29.1	27.9	Dec. 1951	10.3	Jan. 1940	67	29	41	161	11	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 (Estimated)

NARRATIVE CLIMATOLOGICAL SUMMARY

Clinton, the county seat of Clinton County, is situated on the Mississippi River near the easternmost tip of the State of Iowa. The flood plain of the Mississippi is several miles wide immediately above and below Clinton, although at Clinton it flows between bluffs that are only two or three miles apart. Except for this flood plain the country surrounding Clinton is extremely rolling, with sharp bluffs along the major streams. The Mississippi flows in a general south southwesterly direction in this area, with numerous small tributaries coming into it from each side.

Though the Mississippi is a large stream, the total water area is not enough to have any major modifying effect on weather conditions in the Clinton area. Eastern Iowa is in the heart of the great North American continent, and Clinton experiences the marked weather changes that are characteristic of a continental climate.

Winters are quite cold, and summers are quite warm in eastern Iowa. The mean temperature of 24.1° in January reflects a mean daily minimum of only 15.5°. Subzero readings are common, with the lowest reading recorded during the 22 years of record being -24°. Summer brings warm temperatures. The mean temperature in July is 76.0°, while the mean maximum temperature is 87.6°. Temperatures above 100° have been recorded in four months--May through August--with the highest reading of record 109°. In an average year there are 29 days with maximum readings of 90° or higher.

Precipitation during the year totals just over 35 inches, with 73% of that amount falling during the growing season, April 1st through October. June brings the greatest rainfall amounts, with a monthly total of 5.10 inches. Precipitation during the winter months is relatively light, December, January, and February each averaging well under 2 inches. This means, of course, that snowfall is relatively light, the annual total amounting to about 29 inches. The three winter months each receive about 7 inches of snowfall on the average. There have been heavy snowfalls on occasion, the greatest bringing 10 inches in 24 hours in January 1940. The monthly snowfall in December 1951 nearly equalled the annual mean, with a total of 27.9 inches falling in that 31-day period.

In half of the years the last temperature reading as low as 32° in the Spring will occur about April 28th, while in one year out of 10 it will be as late as May 13th. In the fall the 50% date for the first reading as low as 32° falls on October 9th, while the 10% date is around September 23rd. This gives a period of about 160 days, on the average, during which Clinton is free of freezing temperature.

During the months of March, April, and May the temperature rises rapidly. The warm afternoon readings during this period bring soil temperatures up rather rapidly, particularly throughout the top few inches. Falling temperatures in the autumn are usually delayed enough to permit full maturity of most important crops. Also, the abundant rainfall that is characteristic of the growing season drops off considerably expediting maturity and facilitating harvest.

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	29.2	34.8	35.2	50.8	57.0	74.8	78.5	73.6	71.1	57.6	46.7	34.8	53.7
1932	29.4	32.6	29.0	43.9	62.6	72.8	75.9	70.6	63.6	51.1	34.4	29.0	49.8
1933	33.4	23.3	36.3	48.8	61.3	77.2	78.2	72.8	69.3	50.0	37.4	28.2	50.9
1934	29.6	22.2	33.6	50.0	68.0	77.4	78.6	71.3	62.3	56.2	44.0	22.7	51.4
1935	21.9	28.9	41.2	47.8	56.0	66.6	79.6	73.9	66.0	53.4	36.4	22.2	49.5
1936	13.5	10.2	40.2	46.6	67.0	69.9	81.9	78.5	68.2	52.8	36.9	31.0	49.7
1937	20.8	23.8	34.0	47.8	61.8	69.2	75.6	76.8	64.7	50.2	35.4	24.0	43.7
1938	22.6	23.5	44.6	51.9	60.1	69.2	76.0	76.2	66.8	58.1	41.2	27.3	42.3
1939	29.6	25.0	38.0	47.7	66.1	72.6	75.6	71.8	69.0	54.2	39.8	33.8	51.9
1940	12.0	28.6	32.2	48.4	58.4	73.0	77.2	73.0	65.4	57.4	36.0	30.4	49.2
1941	26.6	23.6	32.8	55.2	66.3	71.6	75.8	74.9	68.3	56.0	42.3	34.2	52.3
1942	22.1	25.5	40.8	55.8	61.3	71.4	75.8	72.3	63.6	54.5	41.2	23.1	50.6
1943	20.7	27.0	33.0	49.4	59.0	74.2	77.3	75.2	61.9	53.4	35.9	28.9	49.7
1944	31.2	28.8	33.5	47.2	66.4	73.8	73.8	73.8	67.1	54.2	42.8	22.2	51.2
1945	19.1	28.3	49.2	51.4	56.2	66.8	72.6	73.2	64.0	51.3	39.0	21.2	49.4
1946	26.5	29.4	47.6	54.6	58.5	70.2	75.2	70.4	66.6	58.4	41.4	33.8	52.5
1947	27.8	29.4	33.0	49.4	57.0	67.4	72.6	81.0	63.0	62.4	34.1	30.3	50.4
1948	18.5	23.6	36.8	51.4	57.8	68.8	76.4	73.2	68.2	51.9	42.1	31.0	50.4
1949	23.5	25.3	37.5	50.3	63.4	73.2	77.2	73.2	60.3	57.7	42.0	31.0	51.2
1950	26.8	25.4	32.7	43.6	62.7	69.8	71.6	68.6	63.3	58.6	34.4	18.9	48.1
1951	20.4	24.7	32.4	46.7	63.5	66.8	72.6	70.4	61.6	54.5	32.5	23.5	47.5
1952	24.5	32.4	34.0	52.2	60.8	74.5	76.7	71.1	64.7	48.2	41.0	30.2	50.9

## STATION HISTORY

The earliest weather records we have at Clinton were made by Luke Roberts in 1838. He continued the records for three years, and then there was a break of two years. In 1893 he resumed his recording of temperature and rainfall, and continued the record until 1912. During the latter part of this period, we know, the observations were taken at 426 Fourth Avenue, but no information is available to indicate where the earlier records were made. Mr. A. E. Reid and Mr. W. E. Henning each took the observations for about a year in 1912 and 1913. The location of their equipment is not recorded. Mr. H. Furde was the next observer; he served for six years, with the equipment located at 1102 South Fourth Street.

Beginning in 1920 Mr. A. P. Bryant served for 14 years, and during that time the equipment was moved several times within a radius of 1/4 mile. Mr. Lawrence Knecht then served for about three years, maintaining the observational installation first at 749 10th Avenue S., and later at 266 18th Street. The present observer is Mr. Samuel W. Williams, who has served continuously since April 1942. His thermometers and rain gage are located at 325 15th Avenue S.

Since 1917 there has been a second station in operation in Clinton. During the first four and one half years these measurements of rainfall and river stage readings were made by Mr. E. T. Carow. From 1921 through August 1950 Mr. D. W. Smith was the observer, and since that date Mr. L. C. Hendrickson has made the readings. The river gage is located at the O&N Drawbridge.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	0.86	0.20	1.52	2.12	3.07	3.26	1.48	2.80	5.00	5.02	5.22	1.89	32.44
1932	1.16	0.68	2.46	1.17	3.71	2.48	2.89	5.23	0.90	3.16	1.52	1.83	27.29
1933	2.43	0.36	2.84	2.23	8.38	2.15	3.33	3.35	3.15	1.20	0.17	1.09	31.18
1934	0.66	0.62	1.12	0.81	1.43	3.18	6.34	3.54	6.65	1.65	7.76	1.39	35.15
1935	1.99	1.07	2.73	2.12	7.49	6.07	4.11	5.29	4.65	1.60	4.70	1.09	43.69
1936	1.38	1.54	1.06	1.42	1.65	6.17	1.04	5.37	7.46	2.20	0.99	2.51	32.70
1937	3.48	1.41	1.65	4.35	3.15	6.29	4.42	2.08	1.33	3.50	1.19	1.04	30.55
1938	2.66	1.89	2.92	3.04	6.92	6.59	5.09	1.79	4.46	1.44	3.22	0.78	40.80
1939	1.04	2.12	1.73	3.52	1.45	4.68	3.36	8.15	1.38	1.34	0.62	0.32	29.71
1940	1.44	0.99	1.16	3.36	1.84	3.63	1.53	4.62	1.60	2.78	1.76	1.76	26.47
1941	2.77	0.67	1.91	4.29	5.72	9.56	4.06	0.77	9.51	7.65	1.45	1.25	49.61
1942	0.98	0.93	1.32	1.33	4.60	5.36	2.80	4.42	6.06	0.93	3.67	4.24	36.64
1943	1.83	1.54	2.20	4.31	4.10	1.99	2.37	6.26	1.31	2.04	1.68	0.78	31.01
1944	1.17	2.00	4.23	4.57	6.11	5.32	3.38	2.68	2.97	1.67	3.41	1.77	35.95
1945	0.69	0.94	2.25	3.78	6.02	7.72	1.48	5.95	4.94	0.80	2.00	1.92	38.49
1946	2.99	0.41	3.13	0.92	3.37	6.00	1.18	4.30	5.61	1.25	3.20	1.12	31.42
1947	1.81	0.15	2.42	4.35	4.32	7.35	3.16	3.09	4.03	1.10	2.80	1.74	37.86
1948	0.97	2.23	2.84	5.99	3.61	2.41	4.09	1.33	3.19	2.16	2.05	1.94	30.90
1949	3.22	1.20	2.60	1.34	1.14	6.90	7.94	5.54	2.47	2.91	0.65	2.57	35.23
1950	2.81	1.99	1.24	6.47	1.36	6.90	6.32	1.45	1.73	0.51	1.12	1.26	33.16
1951	1.09	2.50	4.19	2.65	5.48	8.25	5.23	5.18	3.09	4.00	3.40	1.88	46.94
1952	1.90	0.66	4.48	1.22	2.35	3.25	4.46	2.97	0.96	†	4.76	2.49	29.50

## STATION HISTORY—Cont'd.

The long record of temperature and precipitation observations at Clinton provides a valuable set of data for industry, commerce, and agriculture in the Clinton area. These records are available today only because of a large amount of the selfless service of these men who have conscientiously made their readings each day in good weather or in bad. It is a community service that deserves the respect and thanks of every citizen of the area.

In order that weather records from one area may be compared readily with those of another area there has been an international agreement reached establishing the period of time that would be included in the summary record as published. At present that period begins with 1931. The termination date of 1952, used in the present summary, has been selected because of some machine tabulations that have been prepared, which make possible the collection and publication of these data without the expense of a large amount of clerical labor. The record outside of the years 1931-1952 is on file in the Weather Bureau Office at Des Moines, Iowa, and may be consulted at any time during regular office hours.