

U.S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
IN COOPERATION WITH THE WISCONSIN CROP REPORTING SERVICE
CLIMATOGRAPHY OF THE UNITED STATES NO.20-47

LATITUDE 42°54'N
LONGITUDE 88°50'W
ELEV. (GROUND) 815 Feet

CLIMATOLOGICAL SUMMARY

STATION:

FORT ATKINSON, WISCONSIN

Means and Extremes for Period 1942-59

Month	Temperature (°F)								** Mean degree days	Precipitation Totals (Inches)						Mean number of days					Month			
	Means				Extremes					Mean	Greatest daily	Year	Snow and 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° or above	Max.			Min.		
																			32° and below	32° and below		0° and below	0° and below	
(a)	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
Jan.	28.5	11.0	19.8	58	1944	-33	1951	1100	1.32	1.70	1942	9.2	22.0	1951	8.0	1942	3	0	18	30	8	Jan.		
Feb.	31.6	14.4	23.0	60	1954	-32	1959	1180	0.97	0.96	1948	4.5	9.5	1944	3.0	1950+	3	0	14	27	5	Feb.		
Mar.	41.7	24.5	33.1	77	1945	-15	1943	990	1.79	1.65	1943	7.1	22.3	1959	8.0	1959	5	0	6	24	1	Mar.		
Apr.	58.5	36.5	47.5	87	1942	10	1954	530	2.68	1.56	1951	0.4	3.0	1949	2.0	1949	6	0	*	11	0	Apr.		
May	69.1	46.6	57.9	91	1953	27	1943	260	3.18	1.88	1945	0.1	1.0	1945	1.0	1945	7	*	0	2	0	May		
June	78.2	57.5	67.9	98	1953	33	1945	80	3.87	3.21	1950	0	0		0		8	3	0	0	0	June		
July	83.1	61.5	72.3	98	1955	43	1945	10	3.90	3.52	1952	0	0		0		6	5	0	0	0	July		
Aug.	81.9	60.4	71.2	100	1955	39	1950	10	3.37	2.79	1958	0	0		0		6	5	0	0	0	Aug.		
Sept.	73.8	51.7	62.8	98	1955+	28	1942	140	3.03	2.55	1947	T	T	1942	T	1942	6	1	0	1	0	Sept.		
Oct.	63.6	41.5	52.6	86	1953	18	1952	390	2.02	2.57	1951	0.1	1.0	1952	1.0	1952	4	0	0	6	0	Oct.		
Nov.	44.8	29.4	36.6	77	1950	-14	1947	850	2.05	1.77	1952	2.7	11.6	1951	4.0	1951	5	0	5	20	1	Nov.		
Dec.	31.9	16.4	24.2	61	1946	-20	1950	1260	1.58	2.20	1942	8.0	19.6	1951	6.0	1959	5	0	15	29	4	Dec.		
Year	57.2	37.5	47.4	100	Aug. 1955	-33	Jan. 1951	7100	29.76	3.52	July 1952	32.1	22.3	Mar. 1959	8.0	Mar. 1959	64	14	58	150	19	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. -H.C.S.Thom, Monthly Weather Review, January 1954.

CLIMATE OF FORT ATKINSON, WISCONSIN

Fort Atkinson is located on both banks of the Rock River in Jefferson County in south-central Wisconsin. The farmland to the west is rolling while the land to the east is mostly flat. A mixed forest of white oak, black oak, and hickory originally covered the area. Soils vary from grayish brown loams to gravelly loams. This summary is representative of Fort Atkinson and the general area.

The climate of Fort Atkinson is classified continental. Winters are relatively long and cold with moderate snowfall. Changes in weather can be expected every few days from late fall through early spring. Summers are warm with periods that are hot and humid. The transition from winter to spring and summer to fall is often rapid.

The number of days in a year with temperatures 90 degrees or higher has varied from 39 in 1955 to 1 in 1950 and 1951. The number of days with 0 degrees or lower has varied from 31 in 1951 to 6 in 1952.

Precipitation during the 5-month period May through September has averaged about 60 per cent of the annual normal. The likelihood of 1 inch or more of rain in a 7-day period during the summer is greatest the first half of June when the chance is more than 4 years in 10. The likelihood of a dry 7-day period, trace or less, is greatest the last part of August when the chance is 3 years in 10. Intensities of about 1.35 inches in 1 hour, 2.25 inches in 6 hours, and 2.85 inches in 24 hours can be expected about once in 2 years. The number of days in a year with 0.01 inch or more precipitation has averaged 116 and has been between 106 and 126 days in 2 of 3 years.

Snowfall has varied from 66 inches during the winter 1951-52 to 18 inches during the winters of 1943-44 and 1953-54. The average date of the first 1 inch or greater snowfall is November 27. The chance of this fall by November 3 is 1 year in 10 and by December 26 is 9 years in 10.

Thunderstorms have occurred on an average of 41 days a year with extreme years of 57 and 27 days. Hail has fallen on an average of 2 days a year with extreme years of 6 and 0 days. Since 1916, there has been 1 tornado confirmed in Jefferson County.

Wind, sunshine, and relative humidity records are not available but the following data from Madison should approximate conditions at Fort Atkinson.

Prevailing winds are westerly in winter and southerly in summer. March, April, and November are the windiest months with averages of 12 miles per hour. July and August are the least windy with averages of 9 miles per hour. The wind speed per hour has averaged less than 4 miles about 10 per cent, 4 to 12 miles about 50 per cent, 13 to 31 miles about 40 per cent, and greater than 31 miles per hour less than 1 per cent of the time. The highest speeds are usually from the west or southwest.

The percentage of possible sunshine has averaged about 40 for November and December, 60 or greater for May through October, and between 50 and 60 per cent for the remaining months.

Relative humidity has approximated:

Threshold	Winter	Spring	Summer	Fall
Less than 50%	5%	20%	15%	20%
50% to 79%	55%	50%	45%	50%
Greater than 79%	40%	30%	40%	30%

The average date of the last 32-degree freeze in the spring is May 4, and the first in the fall is October 5. The growing season, defined as the number of days between the last 32-degree freeze in the spring and the first in the fall, averages 154 days. The following table gives the likelihood of critical temperatures occurring:

AFTER DATE IN SPRING

Temperature	20%	40%	60%	80%
32° or below	May 14	May 7	May 1	Apr. 24
28° or below	May 1	Apr. 24	Apr. 18	Apr. 11
24° or below	Apr. 17	Apr. 9	Apr. 3	Mar. 26
20° or below	Apr. 6	Mar. 30	Mar. 23	Mar. 15
16° or below	Mar. 28	Mar. 20	Mar. 14	Mar. 6

BEFORE DATE IN FALL

32° or below	Sept. 25	Oct. 2	Oct. 8	Oct. 15
28° or below	Oct. 13	Oct. 21	Oct. 28	Nov. 4
24° or below	Oct. 21	Oct. 29	Nov. 4	Nov. 12
20° or below	Oct. 30	Nov. 7	Nov. 13	Nov. 21
16° or below	Nov. 7	Nov. 15	Nov. 21	Nov. 29

Marvin W. Burley
Weather Bureau State Climatologist
Weather Bureau Office
Madison, Wisconsin

FORT ATKINSON, WISCONSIN

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1911	19.0	21.0	37.3	51.8	57.5	67.4	71.8	69.6	66.1	60.5	51.5	31.5	46.8
1912	15.6	21.9	28.8	45.2	55.8	70.5	72.9	71.2	58.0	37.8	18.0	18.6	45.6
1913	18.8	21.2	29.5	43.1	53.2	70.1	70.6	71.6	61.3	41.0	18.1	18.1	45.6
1914	20.5	21.2	29.5	43.1	53.2	70.1	70.6	71.6	61.3	41.0	18.1	18.1	45.6
1915	15.1	23.0	46.0	48.6	53.4	62.8	70.0	69.8	61.6	46.8	37.2	18.2	46.2
1916	23.8	24.3	42.8	50.4	55.7	66.9	72.5	67.6	62.4	55.2	38.2	27.1	46.9
1917	21.1	15.7	29.5	45.8	52.8	64.5	70.2	77.2	60.2	30.9	25.6	25.6	46.9
1918	14.3	20.1	32.2	52.3	55.8	67.0	75.1	73.2	66.4	49.1	41.0	25.8	47.7
1919	22.5	21.8	33.9	45.7	59.5	71.5	76.1	71.3	58.1	38.2	26.1	26.1	48.3
1950	23.9	21.7	28.4	39.8	57.5	67.4	68.6	66.1	61.1	38.2	11.9	11.9	41.8
1951	15.3	21.2	29.8	44.5	57.9	63.7	70.6	66.6	59.4	28.9	20.8	20.8	41.5
1952	20.2	28.0	39.6	49.8	58.3	70.1	71.0	68.9	63.2	39.5	27.8	27.8	47.9
1953	23.7	27.1	34.5	43.0	58.3	73.3	73.3	71.7	63.7	41.6	28.0	28.0	49.1
1954	20.8	33.7	31.7	51.0	54.1	71.3	73.0	69.1	61.8	51.5	25.8	25.8	48.9
1955	19.6	22.9	32.4	53.8	60.8	65.2	77.8	76.0	64.8	53.4	32.7	20.5	48.3
1956	22.9	24.1	31.5	45.9	57.9	71.3	70.2	70.9	61.2	57.7	27.2	27.2	48.2
1957	13.8	28.1	33.9	48.4	56.2	67.8	73.9	71.2	61.3	49.1	18.2	18.2	46.8
1958	20.6	16.1	34.0	48.0	59.9	63.4	70.3	72.4	63.7	55.1	39.4	31.5	46.8
1959	13.4	18.9	30.8	47.6	64.1	69.6	70.8	75.5	65.6	48.4	29.6	31.5	47.2

STATION HISTORY

A climatological station was established 2.2 miles southwest of the Fort Atkinson post office on September 1, 1941. The station has made the following moves: July 1, 1950 to 2 miles southwest of the post office; November 15, 1952 to 2 miles south-southeast of the post office; July 8, 1957 to 0.5 mile west of the post office. The instrumental exposures have been standard over sod.

The observers have been:

John J. Williams September 1, 1941 to July 8, 1957
 Leslie Hummel July 8, 1957 to present

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1911	2.06	0.65	1.32	1.06	4.03	3.36	2.89	1.53	8.40	3.10	1.31	0.85	29.65
1912	1.75	0.57	2.63	2.16	2.93	2.40	4.69	3.17	4.35	2.03	3.28	3.09	25.01
1913	1.07	2.01	2.21	2.75	3.63	6.00	2.86	3.75	3.09	1.19	1.78	0.81	25.01
1914	1.17	1.23	2.24	3.29	1.62	2.43	7.00	3.31	2.67	6.97	2.10	2.65	36.68
1915	0.35	0.91	1.17	2.85	5.50	2.63	1.81	4.61	5.47	0.31	3.38	0.95	29.94
1916	2.15	0.95	2.14	0.61	2.16	4.76	4.25	2.64	3.97	1.35	2.11	2.22	22.44
1917	1.17	0.17	1.18	4.16	4.59	4.68	3.76	2.17	4.60	0.82	2.16	1.33	30.29
1918	0.71	1.76	3.01	3.61	4.18	2.79	1.80	3.12	3.12	0.84	1.87	0.96	25.95
1919	1.32	1.50	1.57	1.15	2.28	3.77	5.73	1.53	1.66	2.12	0.82	2.01	26.06
1950	2.51	0.69	1.44	3.13	2.79	5.52	7.16	2.27	1.86	0.66	0.99	1.70	30.72
1951	1.97	1.64	2.73	4.07	2.83	3.17	3.04	3.47	3.01	7.06	2.58	1.84	37.44
1952	2.26	0.62	3.50	2.10	3.11	4.19	8.36	6.71	0.63	3.42	2.22	2.22	27.28
1953	1.36	1.80	1.45	2.85	1.97	2.92	5.62	3.14	2.15	0.45	3.12	1.95	26.19
1954	0.87	0.60	1.45	3.56	2.08	6.95	5.58	3.93	3.21	2.76	0.73	1.63	33.35
1955	0.50	1.35	0.79	2.02	3.13	4.78	2.82	2.60	1.82	3.62	0.52	0.53	24.48
1956	0.28	0.83	1.96	3.44	3.77	2.26	3.72	4.18	0.56	0.39	1.32	1.32	25.24
1957	0.56	0.50	1.17	3.04	5.34	4.05	1.12	4.18	1.49	1.01	2.63	2.02	25.21
1958	1.10	0.03	0.29	2.17	0.99	3.02	2.03	4.66	4.49	3.20	2.81	0.36	25.18
1959	1.17	1.23	2.24	3.29	1.62	2.43	7.00	3.31	2.67	6.97	2.10	2.65	36.68