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

LATITUDE 46° 21' N
LONGITUDE 91° 49' W
ELEV. (GROUND) 1083 Feet

CLIMATOLOGICAL SUMMARY

MEANS AND EXTREMES FOR PERIOD 1930-1959

STATION:
SOLON SPRINGS, WISCONSIN

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures: Max. 90° and above	Max. 32° and below	Min. 32° and below	Min. 0° and below	Month
(a)	30	30	30	30		30		30	29	29		29	29		29		29	30	30	30	30	
Jan.	23.0	0.2	11.6	57	1942	-44	1950+	1660	1.20	1.48	1938	11.8	35.0	1950	10.0	1953	4	0	25	31	16	Jan.
Feb.	26.7	2.5	14.6	56	1958+	-47	1936	1410	1.03	1.20	1939	9.6	26.2	1939	8.0	1953+	3	0	19	28	12	Feb.
Mar.	37.6	13.9	25.8	82	1946	-34	1948	1220	1.60	1.92	1945	10.5	30.3	1952	10.3	1952	4	0	9	30	5	Mar.
Apr.	54.5	28.3	41.4	90	1952	-11	1954	710	2.34	2.01	1954	4.3	22.9	1950	12.0	1932	5	*	1	21	*	Apr.
May	68.4	38.9	53.7	103	1934	18	1947+	350	3.81	2.73	1953	0.5	11.0	1954	2.8	1954	8	1	*	8	0	May
June	77.4	50.0	63.7	98	1956+	24	1945	110	4.88	3.00	1951	T	T	1945	T	1945	8	1	0	1	0	June
July	82.3	54.6	68.5	108	1936	34	1948	40	3.91	4.51	1958	0	0		0		7	5	0	0	0	July
Aug.	80.1	52.8	66.5	104	1947	29	1934	60	4.41	3.98	1945	0	0		0		7	4	0	*	0	Aug.
Sept.	70.0	44.0	57.0	96	1937	12	1947	260	3.29	2.72	1938	T	0.8	1942	0.5	1942	6	1	0	4	0	Sept.
Oct.	58.9	34.1	46.5	88	1947	2	1933	570	2.30	3.95	1950	1.4	14.0	1951	13.5	1951	5	0	*	14	0	Oct.
Nov.	38.7	20.1	29.4	74	1944	-20	1940	1070	2.21	1.90	1948	8.0	21.0	1955	12.0	1943	5	0	9	27	2	Nov.
Dec.	27.1	6.9	17.0	57	1939	-40	1946	1490	1.12	1.20	1959	9.4	27.7	1950	9.0	1934	4	0	21	31	11	Dec.
Year	53.7	28.9	41.3	108	July 1936	-47	Feb. 1936	8950	32.10	4.51	July 1958	55.5	30.3	Mar. 1952	13.5	Oct. 1951	66	12	84	195	46	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F. (H. C. S. Thom, Monthly Weather Review, January 1954.)

+ Also on earlier dates, months, or years.

* Less than one half.

CLIMATE OF SOLON SPRINGS, WISCONSIN

Solon Springs is located in northwestern Wisconsin near the west side of Upper St. Croix Lake in Douglas County. The terrain is rolling with gray loam soils west of the St. Croix River and sandy soils east of the river. The native forest of the area was a mixture of white pine, Norway pine, jack pine, basswood, maple, oak, and birch. The timber was either cut or burned over so that the uncultivated land is now covered with second growth.

Data in this summary are representative of both Solon Springs and the surrounding area.

The climate is classified continental. Winters are long and cold; spring and fall are often short and are a composite of winter and summer; summers are short but warm. A change in weather can be expected every two or three days in winter and spring.

The temperature range is wide and varies considerably from season to season and from year to year. In addition to both the high and low temperatures occurring in 1936, the period July 7-14 had eight consecutive days with readings 100 degrees or more and the period January 18-February 22 had 36 consecutive days zero degrees or below. During the last 30 years, days with zero or below have varied from 20 in 1931 to 67 in 1950 while days with 90 degrees or more have varied from two in 1951 to 28 in 1936.

Precipitation is usually ample for the agricultural economy of the area. More than 60 per cent of the average annual amount falls during the five months of May through September. Since the beginning of record in 1906, November 1916 is the only month without a measurable amount of precipitation. Intensities of about 1.25 inches in 1 hour, 1.90 inches in 6 hours, and 2.40 inches in 24 hours can be expected to occur about once in two years. The greatest amount of rain to fall in 24 hours was the 4.51 inches that fell on July 1, 1958. During June, July, and August, the last part of June is most likely to receive rain and the last part of August the least likely. While one inch or more of rain can be expected in more than two in five years for the period June 21-27, it is likely in less than one in five years for the period August 23-29. Annual snowfall has varied from 26 inches in 1947 to 121 inches in 1950.

Thunderstorms occur on an average of 30 days a year with extremes of 20 and 45 days a year. Hail has fallen on an average of 2 days a year with extreme years of 0 and 6 days.

Wind, sunshine, and relative humidity records are not available at Solon Springs but the following records from Duluth should be similar. Prevailing winds are from the west and northwest in winter and from a southerly direction in summer. April is normally the windiest month of the year with an average of about 15 miles per hour; August is the least windy with an average of about 10 miles per hour. Speeds greater than 50 miles per hour can be expected every year and are usually from a westerly direction.

November and December have the least amount of possible sunshine with averages of about 40 per cent. June, July, August, and September have the greatest amounts of possible sunshine with averages of more than 60 per cent.

Relative humidity varies in winter from a maximum nighttime average of about 80 per cent to a minimum daytime average of about 70 per cent; comparative summer averages are 85 per cent and 60 per cent.

The average date of the last 32-degree freeze in the spring is June 1, and the first in the fall is September 13. 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 104 days.

The following table gives the likelihood of critical temperatures occurring--

Temperature	20%	40%	60%	80%
AFTER DATE IN SPRING				
32° or below	June 11	June 4	May 29	May 22
28° or below	May 29	May 22	May 16	May 9
24° or below	May 20	May 12	May 6	Apr. 29
20° or below	May 8	May 1	Apr. 24	Apr. 16
16° or below	Apr. 25	Apr. 18	Apr. 24	Apr. 4
BEFORE DATE IN FALL				
32° or below	Sept. 3	Sept. 10	Sept. 17	Sept. 24
28° or below	Sept. 12	Sept. 20	Sept. 26	Oct. 4
24° or below	Sept. 27	Oct. 5	Oct. 11	Oct. 19
20° or below	Oct. 4	Oct. 11	Oct. 18	Oct. 25
16° or below	Oct. 18	Oct. 26	Nov. 1	Nov. 9

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

SOLON SPRINGS, WISCONSIN

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1930	2.6	19.6	26.0	41.8	52.8	63.0	66.4	66.8	54.8	44.2	31.1	17.3	40.5
1931	18.8	24.6	27.0	43.8	50.2	64.8	69.3	61.9	60.6	48.6	35.2	26.4	44.3
1932	17.1	14.8	17.9	39.6	53.4	64.8	67.8	66.5	54.2	42.4	26.8	12.4	39.8
1933	18.8	8.6	25.7	39.6	54.3	70.0	69.2	61.6	56.6		25.1	11.2	
1934	19.8	11.1	23.6	42.6	60.3	65.1	69.2	63.4	55.4	49.0	35.3	10.2	42.1
1935	5.5	20.6	28.2	39.8	50.3	58.3	73.2	66.1	56.0	44.4	24.4	16.0	40.2
1936	4.2	-2.0	25.9	34.4	56.6	60.4	76.0	68.0	60.2	40.5	25.7	18.3	39.0
1937	5.8	11.8	21.7	39.2	56.0	62.2	69.4	71.0	58.2	42.6	28.7	13.2	40.0
1938	9.0	18.4	33.6	43.3	52.3	63.8	67.7	69.4	57.8	49.8	29.7	15.5	42.5
1939	16.0	5.8	23.4	38.0	56.8	64.2	68.8	66.4	58.9	44.4	33.0	26.2	41.8
1940	7.0	18.0	20.3	39.7	49.6	61.2	68.9	64.3	59.9	48.4	26.7	18.8	40.2
1941	13.6	16.5	23.8	47.8	57.1	64.5	69.0	65.6	59.9	47.0	32.7	23.3	43.4
1942	16.8	15.4	31.9	47.6	50.8	61.7	66.2	66.3	54.2	45.8	28.9	12.5	41.5
1943	7.4	14.8	19.0	39.0	52.0	62.8	70.9	67.6	54.7	47.2	25.7	18.6	40.0
1944	22.0	16.2	24.0	38.4	56.4	64.2	67.4	68.6	58.0	48.0	37.0	15.8	43.0
1945	10.0	15.6	37.8	39.7	49.0	57.8	66.3	66.6	56.2	44.0	28.6	13.0	40.4
1946	13.6	12.8	37.6	45.0	51.0	62.3	69.4	64.0	56.4	46.9	30.0	17.0	42.2
1947	16.2	12.4	25.4	38.8	48.8	59.7	68.8	73.0	54.4	55.0	25.0	18.4	41.3
1948	6.3	12.0	24.8	45.5	53.6	63.2	68.8	67.7	61.6	47.1	32.8	15.9	41.6
1949	14.9	13.3	25.1	43.9	56.8	68.0	69.2	69.4	55.4	48.6	33.2	16.8	42.9
1950	4.5	14.6	20.3	33.2	51.5	63.7	65.7	61.9	56.8	49.4	25.7	10.9	38.2
1951	8.7	14.8	21.9	40.3	59.2	60.9	67.5	62.5	53.4	45.4	22.0	14.5	39.2
1952	10.6	21.1	24.1	45.9	54.2	65.4	69.0	64.1	58.2	40.1	30.9	22.0	42.1
1953	14.5	13.8	27.1	37.4	52.7	64.3	66.7	67.6	57.7	52.7	35.1	18.8	42.4
1954	7.8	25.8	22.7	41.4	48.0	65.8	68.4	64.6	55.4	43.6	34.3	21.0	41.6
1955	10.8	11.9	20.4	48.8	58.1	64.2	73.4	70.5	57.3			10.8	
1956	15.0	12.7	23.7	38.5	53.3	66.6	64.7	65.2	54.8	52.4	30.7	17.8	41.3
1957	4.4	14.7	25.3	43.0	52.8	62.7	70.2	66.4	55.3	44.4	29.9	19.2	40.7
1958	17.3	11.8	29.1	44.0	54.0	58.3	65.5	66.0	58.6	47.6	31.6	8.4	41.0
1959	3.9	11.3	28.6	41.7	56.1	66.2	68.7	69.8	59.2	42.7	20.4	24.8	41.1

Total Precipitation (inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1930	1.05	1.05	0.35	1.55	5.50	6.60	2.70	0.40	6.50	2.10	2.00	0.20	30.00
1931	0.30	0.65	1.85	1.68	2.30	7.55	2.77	2.70	4.50	3.50	3.55	0.36	31.71
1932	1.27	0.24	0.95	1.68	3.85	2.30	3.05	5.00	0.90	2.35	4.20	0.54	26.33
1933	0.77	0.81	0.98	2.55	3.25	2.40	5.20	1.40	3.60	3.61	1.35	1.68	27.60
1934	1.39	0.21	0.68	1.32	1.15	2.55	2.07	2.57	5.03	3.41	2.65	2.60	25.63
1935	2.30	0.20	1.09	0.83	1.39	3.45	5.33	5.66	1.20	2.66	0.81	1.08	26.00
1936	1.45	1.46	3.08	1.09	2.89	1.56	0.47	4.32	3.49	1.86	2.57	2.05	26.29
1937	1.64	1.92	0.48	3.37	4.62	2.21	4.02	5.63	3.44	1.33	1.33	0.90	30.89
1938	2.92	0.70	1.93	3.98	6.08	3.94	4.66	2.43	7.03	0.68	2.35	0.89	37.59
1939	1.44	2.41	0.79	1.67	3.01	7.22	1.29	6.45	0.59	2.29	0.05	0.14	27.35
1940	0.17	0.72	2.17	2.46	3.93	1.80	3.20	7.16	2.75	2.19	3.38	0.95	30.88
1941	0.77	1.28	1.02	2.81	2.48	3.35	3.33	9.80	4.51	3.77	0.95	0.64	34.71
1942	0.21	0.24	2.52	1.43	6.45	3.52	2.23	2.70	3.40	1.62	0.91	0.98	26.21
1943									2.32	2.04	1.60	0.02	
1944	0.78	1.13	2.09	2.46	5.33	8.81	3.11	3.66	3.83	2.82	2.41	0.57	37.00
1945	0.88	1.84	3.88	5.16	2.56	8.83	3.98	6.89	2.25	0.59	2.48	1.79	41.13
1946	1.62	1.56	0.61	1.43	2.33	8.62	2.36	1.42	3.74	4.48	2.42	1.84	32.43
1947	0.48	0.60	0.69	4.25	3.91	3.28	0.92	4.96	3.40	1.11	3.23	0.30	27.13
1948	1.61	1.48	1.77	2.37	0.56	2.79	3.88	2.86	0.55	1.10	4.46	1.41	24.84
1949	1.28	1.17	2.29	1.23	6.25		6.57	3.05	1.79	3.49	2.42	1.18	
1950	3.82	0.90	2.81	4.05	5.32	2.85	5.80	1.81	2.98	5.86	2.42	2.77	41.39
1951	0.96	2.69	2.69	2.82	4.17	8.31	4.31	6.61	6.84	3.31	2.37	1.79	46.87
1952	2.05	0.28	3.13	1.95	1.64	8.89	7.88	5.48	0.66	0.46	1.81	0.26	34.49
1953	1.62	1.90	1.97	3.14	8.20	8.08	3.16	5.62	1.00	0.25	2.87	2.74	40.55
1954	1.02	1.18	1.31	5.34	5.84	6.36	3.69	3.09	5.92	1.76	1.28	0.26	37.05
1955	0.85	1.27	1.47	1.44	3.21	3.82	9.23	6.18	2.27	2.82	2.89	1.58	37.03
1956	0.69	0.25	1.70	1.22	3.27	4.95	1.88	4.59	1.51	2.84	1.96	0.59	25.45
1957	0.24	1.22	1.04	2.24	4.11	4.54	7.32	2.35	4.25	1.49	2.98	0.50	32.28
1958	0.74	0.12	0.89	1.00	1.35	4.51	6.97	6.32	3.81	1.01	2.19	0.82	29.73
1959	0.39	0.47	0.28	1.29	5.52	3.55	1.97	6.87	4.52	2.31	0.38	2.23	29.78

STATION HISTORY

A climatological station has been located in Solon Springs since May 15, 1906. Observations have been taken from instruments exposed under standard conditions over sod. The station has been located at the Dahlberg Light & Power Company since August 1943.

Observers have been:

Mr. E. D. Phelps . . . . . 5/15/06 to 3/31/08
Mr. John M. Sayles . . . . . 7/10/08 to 1/22/34
Mr. Nicholas Lucius, Jr.. . . . . 1/23/34 to 4/25/43
Mr. Gordon A. Dahlberg and
Mr. Carl A. Dahlberg . . . . . 8/4/43 to present