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WEATHER BUREAU

U. S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
IN COOPERATION WITH Michigan Weather Service
CLIMATOGRAPHY OF THE UNITED STATES NO. 20 — 20

CLIMATOLOGICAL SUMMARY

LATITUDE 43° 42'
LONGITUDE 86° 22'
ELEV. (GROUND) 675 Feet

STATION Hart, Michigan

MEANS AND EXTREMES FOR PERIOD 1932-1961

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	30	30		30	30		30		30	30	30	30	30	
JANUARY	31.6	16.7	24.2	60	1932	-18	1959	1240	2.51	1.87	1938	22.9	51.0	1948+	12.0	1954	8	0	16	30	2	JANUARY
FEBRUARY	32.5	15.7	24.1	58	1932	-24	1936	1200	1.96	1.97	1950	15.4	40.5	1947	10.0	1935	6	0	14	27	3	FEBRUARY
MARCH	40.7	22.7	31.7	79	1945	-15	1948	1010	1.85	1.80	1948	9.2	27.5	1944	7.0	1948	6	0	6	27	1	MARCH
APRIL	55.3	33.5	44.4	82	1948+	11	1939	620	2.54	1.98	1947	1.4	8.7	1961	5.6	1961	6	0	*	15	0	APRIL
MAY	67.7	42.8	55.3	89	1936+	20	1935	310	2.93	2.02	1936	0.2	4.5	1935	4.5	1935	7	0	0	4	0	MAY
JUNE	78.0	53.3	65.7	98	1934+	26	1946	90	3.22	2.75	1933	0.0	0.0		0.0		6	2	0	*	0	JUNE
JULY	82.7	58.1	70.4	104	1936	38	1939	20	2.84	4.30	1952	0.0	0.0		0.0		5	4	0	0	0	JULY
AUGUST	81.0	57.1	69.1	102	1947	34	1941	40	2.99	3.02	1934	0.0	0.0		0.0		5	3	0	0	0	AUGUST
SEPTEMBER	72.6	49.6	61.1	97	1953	26	1945	160	3.21	2.75	1961	T	T	1942+	T	1942+	6	1	0	1	0	SEPTEMBER
OCTOBER	61.8	40.1	51.0	87	1951	20	1952+	430	2.53	2.90	1954	0.3	4.5	1952	3.5	1952	6	0	*	6	0	OCTOBER
NOVEMBER	46.2	30.0	38.1	74	1961+	-18	1950	800	3.06	1.74	1946	7.7	29.0	1940	10.0	1940	8	0	3	19	*	NOVEMBER
DECEMBER	34.5	21.0	27.8	61	1952+	-19	1935	1130	2.03	1.92	1942	15.8	31.5	1945	12.0	1953	7	0	12	28	1	DECEMBER
Year	57.1	36.7	46.9	104	July 1936	-24	Feb. 1936	7050	31.67	4.30	July 1952	72.9	51.0	Jan. 1948+	12.0	Jan. 1954+	76	10	51	157	7	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

CLIMATE OF HART, MICHIGAN

Hart is located in west central Michigan about five miles from Lake Michigan and about twenty miles south of Ludington. The topography is rolling to hilly and the soil is sand to loamy sand.

The lake influence in the Hart area is strong. Prevailing westerly winds are warmed in the winter and cooled in the summer while crossing Lake Michigan, moderating the climate considerably. Hart is in the Michigan fruit area and tart cherries and apples are the principal crops here.

Available weather data for the Hart area show that the highest temperature ever recorded here was 104° on July 4, 1911 and July 13, 1936. The coldest temperature ever recorded was 35° below zero on February 11, 1899. Temperatures seldom reach the 100° mark and 100° readings or higher have occurred in only two months in thirty years. Days with 90° or above average ten per summer. At the other extreme, temperatures fall to zero or lower on an average of seven times during a winter. A mean temperature of 9.0° in January, 1912 makes this the coldest month of record and a mean temperature of 77.3° in July, 1887 gives that month the distinction of being the warmest. The average dates of the last freezing temperature in the spring and the first in the fall are May 21st and September 30th respectively.

Precipitation is heaviest during the crop season and averages 56% of the annual total for the six months April through September. Heaviest rainfall is in June which averages 3.22 inches. The greatest amount of precipitation ever received in one month is the 11.61 inches which fell in May, 1911 and the least amount ever recorded is a trace in March, 1910. Hourly precipitation of 1.2 inches or more and two hourly precipitation of 1.5 inches or more occurs with a frequency of once in two years. Hourly precipitation of as much as 2.1 inches occurs with a frequency of once in 25 years. Twenty-four hourly totals of 4.2 inches or more will occur about once in twenty five years and 4.5 inches or more in twenty four hours will occur about once in fifty years.

Snowfall averages 72.9 inches on an annual basis. Measurable amounts have been recorded on eight out of the twelve months. The usual number of months with measurable amounts are five or six. Hart is in the western Michigan snow belt which is induced by moisture and warmth picked up by the prevailing westerly winds over Lake Michigan. The average snowfall here is nearly twice as much as the amounts received in south central and south eastern Lower Michigan. Variation from year to year is great with a total of 107.0 inches recorded in the 1958-59 season while only 31.6 inches was recorded in the 1933-34 season. The most usual amount in the past 30 years has been between eighty and ninety inches.

Cloudiness is greatest in late fall and early winter and least in spring and summer. The late fall and early winter cloudiness is increased by the factors already mentioned for being responsible for the snow belt.

Degree day data is provided as an index of heating requirements for buildings. For example; May averages 310 degree days and April, 620 degree days, which means that during an average April, fuel necessary for heating will be twice that required for May. Degree days for a single day are obtained by subtracting the mean temperature from 65. The need for the heating of buildings is considered none or slight if a day has an average temperature of 65° or higher.

A. H. Eichmeier
State Climatologist
Weather Bureau Office
East Lansing, Michigan

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Mich, Hart

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1932	2.49	1.25	2.45	0.74	2.45	2.08	2.71	1.65	0.90	5.92	2.60	2.14	27.38
1933	0.94	0.80	1.35	3.69	5.48	3.30	2.27	1.99	0.97	4.43	1.22	1.69	28.13
1934	1.77	0.29	1.48	1.70	1.90	3.45	0.81	6.70	5.86	1.50	6.68	1.22	33.36
1935	1.87	1.69	1.19	1.27	1.98	1.71	3.41	2.91	2.50	1.57	4.07	1.24	25.41
1936	2.77	1.74	0.54	1.97	2.76	1.68	2.51	3.43	5.70	4.24	1.84	3.67	32.85
1937	1.80	2.08	0.78	2.95	2.77	3.21	3.40	0.91	3.41	3.61	4.47	2.03	31.42
1938	4.49	4.10	3.15	0.40	4.01	4.91	1.61	5.16	3.21	1.40	1.98	1.50	35.92
1939	2.20	0.66	0.33	2.49	2.18	3.09	0.63	5.66	2.30	1.67	0.78	1.22	23.21
1940	4.32	1.19	1.62	2.58	3.11	5.06	1.07	4.39	2.84	1.96	4.28	1.88	34.30
1941	2.83	2.06	1.48	2.36	3.50	0.74	2.79	3.69	6.66	3.92	2.98	1.24	34.25
1942	2.95	0.68	2.33	1.11	4.34	4.82	2.54	1.12	4.36	2.13	2.82	4.51	33.71
1943	2.74	2.00	1.83	2.22	3.61	3.28	2.32	3.47	1.11	2.00	3.84	1.16	29.58
1944	1.07	2.67	2.18	2.08	2.02	3.37	2.87	3.62	3.95	1.14	2.75	2.97	30.69
1945	1.86	1.80	0.69	2.10	4.35	4.78	2.45	2.18	5.58	2.51	3.76	2.63	34.69
1946	2.54	2.06	1.86	0.99	2.28	4.37	0.13	4.32	1.76	1.89	4.10	3.10	29.40
1947	3.55	3.64	0.72	5.81	5.47	2.29	5.33	0.65	4.00	0.79	2.07	1.45	35.77
1948	4.21	3.49	4.80	3.21	2.69	4.25	2.74	1.00	2.14	0.89	3.90	1.06	34.38
1949	3.12	2.07	2.27	2.61	1.11	3.48	3.54	2.36	3.49	1.22	3.43	1.60	30.30
1950	2.50	3.77	1.38	1.78	1.80	2.78	2.42	1.61	1.50	1.25	1.91	2.67	25.37
1951	2.23	2.04	2.39	5.38	1.35	2.18	1.97	4.53	3.52	4.77	3.31	3.47	37.14
1952	3.89	1.02	2.81	1.95	3.00	1.16	7.40	2.23	1.16	0.48	3.52	2.65	31.27
1953	1.94	3.69	2.24	3.75	2.79	2.81	3.11	1.04	1.92	1.74	1.70	2.55	29.28
1954	3.11	1.99	1.76	2.49	2.64	6.11	2.32	1.10	2.60	7.84	1.97	1.53	35.46
1955	2.09	2.18	1.69	1.76	2.74	4.29	1.44	2.01	1.12	3.16	3.01	1.50	26.99
1956	0.41	1.00	2.87	3.50	3.85	3.00	3.54	3.07	1.38	0.62	2.05	1.61	26.90
1957	2.19	0.94	1.63	2.29	3.56	4.83	4.99	2.59	2.00	1.86	3.00	2.03	31.91
1958	1.97	1.59	0.48	1.16	1.30	2.09	1.79	3.44	7.19	2.04	4.21	1.39	28.65
1959	3.17	2.91	2.67	3.75	1.57	0.33	3.74	8.90	2.12	4.67	2.56	2.15	38.54
1960	2.52	2.62	2.36	5.22	5.79	4.23	6.70	2.29	3.56	1.83	4.09	1.35	42.56
1961	1.64	0.76	2.24	2.83	1.36	2.94	2.56	1.81	7.61	2.72	2.93	1.71	31.11

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1932	34.2	29.9	27.5	43.9	57.4	68.4	70.9	71.0	61.1	50.0	35.0	28.0	48.1
1933	31.3	22.4	31.0	44.2	56.6	71.5	72.7	66.7	65.4	50.2	36.0	26.1	47.8
1934	28.8	16.9	27.0	42.4	58.4	69.9	74.1	65.7	51.6	51.3	44.2	24.2	46.2
1935	23.1	23.6	34.9	42.6	50.1	61.5	73.9	69.0	59.4	48.8	37.3	24.4	45.7
1936	19.3	11.0	33.3	39.2	58.8	62.2	73.9	69.3	62.9	46.6	34.6	29.8	45.1
1937	23.9	24.7	27.6	42.6	55.1	63.9	70.9	71.5	60.8	46.5	36.2	24.0	45.6
1938	20.8	26.3	37.9	45.7	55.0	63.7	68.6	69.5	57.5	51.6	39.3	27.0	46.9
1939	25.7	21.6	30.7	40.5	57.3	66.9	70.7	68.9	64.3	50.8	37.4	32.9	47.3
1940	18.2	24.4	27.9	41.6	52.1	64.7	70.5	68.3	60.5	49.8	36.7	29.8	45.4
1941	25.0	22.7	27.1	50.0	58.4	67.8	70.4	66.1	62.1	53.1	41.7	35.5	48.3
1942	24.1	22.3	36.1	50.4	57.6	66.2	69.2	68.9	59.8	50.5	39.4	25.2	47.5
1943	19.8	25.6	28.6	41.0	53.4	68.4	71.7	70.8	58.4	49.2	35.2	26.8	45.7
1944	29.4	26.3	29.3	41.4	59.1	68.4	69.9	70.5	62.6	48.0	42.4	25.2	47.7
1945	18.8	25.8	44.4	46.4	50.4	61.4	67.2	67.6	60.3	47.9	40.4	23.8	46.2
1946	26.3	23.8	43.8	47.2	54.4	64.1	70.8	66.5	62.9	54.0	40.1	30.7	48.7
1947	26.6	22.5	28.9	42.7	50.7	64.5	67.9	76.5	64.6	59.6	35.8	28.2	47.4
1948	18.0	21.4	30.1	50.1	52.2	64.7	71.8	70.0	64.0	49.9	43.3	29.8	47.1
1949	28.2	26.0	33.7	45.1	56.8	69.4	74.0	70.3	58.1	55.4	36.8	29.8	48.6
1950	26.4	23.1	27.8	37.8	55.5	64.1	66.1	64.7	59.3	53.5	34.0	24.5	44.7
1951	23.4	25.0	33.0	44.2	59.0	63.5	68.2	65.9	58.4	51.5	30.7	26.9	45.8
1952	26.9	27.5	30.7	47.2	53.8	67.4	71.6	67.8	62.1	44.2	39.6	30.9	47.5
1953	26.1	27.6	34.4	41.4	56.2	66.9	71.8	70.5	61.3	53.8	42.7	31.5	48.7
1954	21.7	31.6	30.5	46.2	50.7	67.1	69.0	67.3	62.3	51.3	40.3	28.5	47.2
1955	23.9	24.3	32.0	51.7	57.8	64.4	75.7	73.3	61.6	53.1	34.1	25.1	48.1
1956	24.1	23.8	27.0	42.2	53.4	67.3	66.6	68.1	58.4	55.1	39.9	30.1	46.3
1957	19.6	27.2	33.2	46.0	54.9	65.9	69.9	67.4	58.5	47.9	37.9	30.1	46.5
1958	24.0	21.5	33.2	45.8	54.5	60.1	68.2	67.8	61.2	53.1	39.3	20.0	45.7
1959	18.4	21.1	29.8	44.5	61.0	68.2	69.8	73.8	64.1	48.4	32.5	32.1	47.0
1960	26.7	24.8	23.9	47.8	55.3	62.9	67.7	69.3	64.1	50.7	42.3	25.6	46.8
1961	22.2	28.0	36.4	41.6	52.6	64.8	69.3	69.1	65.9	52.8	39.2	27.5	47.5

STATION HISTORY

Station was established in 1887, location unknown. In 1896, it was moved to the corner of Washington and Water Street. In 1914, it was moved to what is now the Stokley Food Company, 0.4 mile southeast of the Hart Post Office and is located there at the present time (1962).

DATES OF FREEZING TEMPERATURES IN THE SPRING AND FALL (1921 - 1950)

	Last in Spring			First in Fall		
Minimum Temperature	Earliest	Average	Latest	Earliest	Average	Latest
32° or Lower	4/29/22	5/21	6/08/49	9/1/34	9/30	10/23/33
28° or Lower	4/17/48	5/11	6/05/46	9/24/50	10/18	11/25/31
24° or Lower	4/02/41*	4/24	5/13/38@	10/06/35	11/05	12/03/48
20° or Lower	3/04/42	4/07	5/04/35#	10/22/44+	11/20	12/13/23
16° or Lower	2/24/42	3/25	4/19/47	11/11/33	11/30	1/01/24

* Also in 1924.
@ Also in 1923
# Also in 1926
+ Also in 1925

Example in using table: The average date of the last temperature of 32° or colder in the spring is May 21st. The earliest date of this event in all springs of the 1921-1950 period was April 29, 1922. The latest date was June 8, 1949. In the fall, 32° or colder occurred for the first time as early as September 1, 1934, and as late as October 23, 1933. The average date is September 30th.