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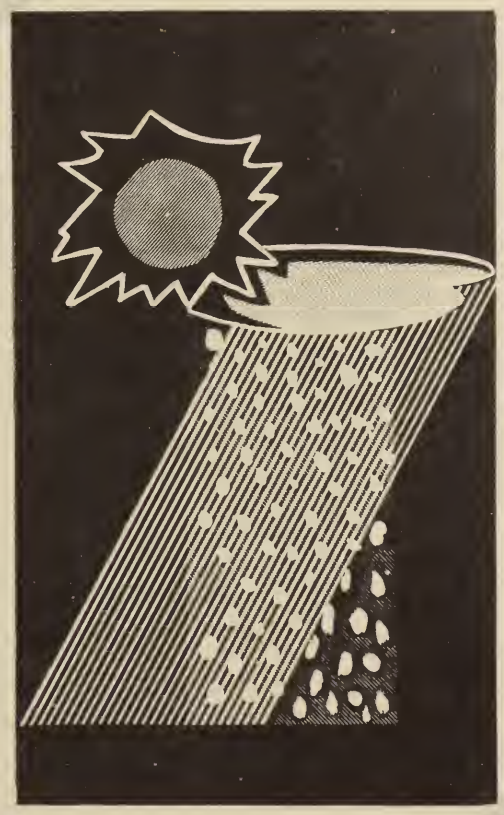

Summary of Weather Records

1914 — 1958

RESEARCH STATION

KENTVILLE, N.S.

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SUMMARY OF WEATHER RECORDS
1914—1958
RESEARCH STATION, KENTVILLE, N.S.

by J. S. Leefe[1]

Introduction

The experimental station at Kentville was established in 1912 and in April, 1913, the keeping of records of temperature, precipitation and sunshine was begun with instruments provided by the Meteorological Office of Canada[2]. These consisted of maximum and minimum thermometers mounted in a Stevenson screen 4 feet above ground level, a Campbell-Stokes sunshine recorder and a rain gauge. The first complete year of records was 1914. The instruments remained at the same site[3] until 1959, when they were moved to a new location.

Numerous inquiries for weather records are received at the Research Station. This publication is intended to be a ready reference to the available records of temperature, precipitation and sunshine for the 45 years 1914-1958.

Wind velocities were not recorded at the experimental station during these 45 years. The wind data included here were obtained from the hourly wind readings made at the Meteorological Office of the Royal Canadian Air Force, Greenwood, Nova Scotia, about 20 miles west of Kentville.

Temperatures

The average daily maximum, average daily minimum and average daily temperatures by months are given in Appendix Tables A, B, C and the extreme maximum and minimum temperatures in Appendix Table D.

Extreme winter cold or summer heat may be critical factors in crop production. Tables 1 and 2 show the frequencies of winter low and summer high temperatures. Temperatures as low as or lower than −10° F. occurred in 62 per cent of the 45 years (Table 1). This accords with local experience that cold-sensitive stone fruits such as peaches and cherries are not winter hardy except in favored areas close to salt water.

Temperatures as low as or lower than 20° F. permanently injure apples on the trees, according to data of the tree fruits section at the Research Station. Temperatures as low as or lower than 20° F. occurred in October in 22 per cent of the 45 years. Temperatures in September did not fall below 25° F. in any year (Table 1).

Late-spring and early-fall frosts are common hazards to tender crops such as beans, cucurbits and tomatoes. The frequencies of late spring and early fall frosts are given in Tables 3 and 4 and of frost-free periods in Table 5.

There are local areas in the district served by the Research Station where temperatures fall below the freezing point when temperatures at the Station do

[1]Head, Crops Section, Research Station, Kentville, N.S.
[2]Now "Meteorological Branch, Department of Transport".
[3]64°29′ W 45°4′ N. Elevation 100 ft. A. S. L.

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Table 1.—Percentage of years with monthly minimum temperatures as low as or lower than those indicated in each of the six coldest months, Kentville, 1914-1958[1]

Temperature °F.	October	November	December	January	February	March	October to March
−25	0	0	0	0	0	0	0
−20	0	0	0	9	7	0	15
−15	0	0	0	22	15	4	35
−10	0	0	9	38	38	9	62
− 5	0	0	27	67	71	18	93
0	0	0	55	91	87	35	98
5	0	9	87	98	98	58	100
10	0	20	98	100	100	87	
15	0	64	100			100	
20	22	95					
25	69	100					
30	98						
35	100						

[1] Average yearly mean temperature is 43.6° F.

Table 2.—Percentage of years with monthly maximum temperatures as high as or higher than those indicated in each of the six warmest months, Kentville, 1914-1958[1]

Temperature °F.	April	May	June	July	August	September	April to September
55	100						
60	91						
65	60	100					
70	29	98					
75	11	78	100			100	
80	2	51	95	100	100	75	100
85	0	13	67	87	80	27	98
90	0	0	20	27	31	4	42
95	0	0	0	4	7	0	9
100	0	0	0	0	2	0	2

[1] Average yearly mean temperature is 43.6° F.

Table 3.—Percentage of years when the last spring frost[1] occurred on or after a certain date[2], Kentville, 1914-1958[3]

Date	Percentage of Years	Date	Percentage of Years
May 3	100	May 23	51
7	98	24	49
9	93	27	44
11	89	28	35
12	87	30	29
13	80	31	20
17	78	June 2	18
18	75	3	13
19	73	8	11
20	69	10	7
21	62	14	4
22	60	15	2

[1] 32° F. or lower.
[2] June 15 was the latest recorded spring frost.
[3] Average daily minimum temperatures, May 39.5° F., June 48.6° F.

Table 4.—Percentage of years when the first fall frost[1] occurred on or before a certain date[2], Kentville, 1914-1958[3]

Date	Percentage of Years	Date	Percentage of Years
Sept. 9	4	Sept. 29	51
10	7	30	60
11	9	Oct. 1	64
12	11	2	71
14	13	3	78
16	15	4	80
18	18	7	82
19	22	8	87
21	27	9	89
22	33	10	91
24	36	11	93
25	38	14	95
26	40	15	98
27	47	20	100
28	49		

[1] 32° F. or lower.
[2] The earliest recorded fall frost was on September 9.
[3] Average daily minimum temperature, September 47.6° F., October 39.2° F.

not fall to 32° F. No comprehensive survey of the district has been made to find 'frost pockets' but from time to time temporary temperature-recording stations have been established. The incomplete data from these points indicate that the readings vary as much as ±5° F. from those at Kentville.

The amount of summer heat is also a factor in crop production. The heat unit or degree-day system of measuring heat accumulation is used successfully in scheduling when to plant certain crops (1, 3, 5). The basis of the degree-day system is that crop plants grow only when the temperature is above a certain minimum or base reading. The total of the degree-days for a given period is ascertained by adding the differences between the daily mean temperatures and the base temperature for all days in the period. A day for which the daily mean temperature is below the base is counted as zero.

Table 5.—Percentage of years with frost-free periods[1] of various lengths, Kentville, 1914-58

Frost-free days[2] fewer than	Percentage of Years	Frost-free days fewer than	Percentage of Years
95	0	127	53
98	2	128	58
101	4	129	60
104	7	131	64
107	9	132	67
108	11	134	73
111	13	135	75
114	20	137	78
117	24	141	82
119	29	143	84
121	31	144	89
122	38	147	91
124	42	149	93
125	44	151	95
126	47	152	100

[1] Average frost-free period, 126 days;
Shortest, 95 days (1943);
Longest, 152 days (1937).
Average date of last spring frost 144 days from Jan. 1 (May 24).
Average date of earliest fall frost 269 days from Jan. 1 (Sept. 26).
[2] Days when the temperature did not fall below 32° F.

Table 6.—Percentage of years, for four groups of months, in which summer heat in degree-days above a base of 40° F. came in each of certain ranges, Kentville, 1914-1958[1]

Range	June-August	May-August	June-September	May-September
1850-1900	2			
1900-1950	2			
1950-2000	9			
2000-2050	7			
2050-2100	11			
2100-2150	11			
2150-2200	22	7		
2200-2250	7			
2250-2300	12	9		
2300-2350	7	2		
2350-2400	2	7	2	
2400-2450	4	18	7	
2450-2500	4	11	2	
2500-2550		13	9	
2550-2600		6	2	
2600-2650		9	11	2
2650-2700		7	16	4
2700-2750		7	16	5
2750-2800		2	9	2
2800-2850			11	7
2850-2900			7	2
2900-2950		2	4	7
2950-3000				9
3000-3050				12
3050-3100			4	24
3100-3150				5
3150-3200				4
3200-3250				7
3250-3300				4
3300-3350				2
3350-3400				2
3400-3450				
3450-3500				2
[1] Degree-days, 45-years average	2172	2493	2703	3025

Table 7.—Percentage of years, for four different periods of months, in which summer heat in degree-days above a base of 50° F. came in each of certain ranges, Kentville, 1914-1958[1]

Range	June-August	May-August	June-September	May-September
950-1000	2			
1000-1050		2		
1050-1100	9			
1100-1150	13	4		
1150-1200	9	9	2	
1200-1250	16	7	2	2
1250-1300	16	16	7	
1300-1350	11	13	9	9
1350-1400	13	12	2	2
1400-1450		16	18	7
1450-1500	7	4	7	9
1500-1550		9	16	16
1550-1600	4	4	11	4
1600-1650		2	11	14
1650-1700			7	16
1700-1750		2	4	4
1750-1800				4
1800-1850			4	9
1850-1900				
1900-1950				2
1950-2000				2
[1] 45-year average	1257	1349	1503	1595

The degree-day system is helpful in estimating the probable harvest time of crops planted on a certain date, if long-term records are available. The major limitation is that factors other than temperature affect the growth of crops, such as day length, soil moisture and fertility.

The two most common base temperatures used in calculating degree-days are 40° F. and 50° F. Appendix Tables E and F give the accumulated degree-days above these base temperatures for the 45-year period. Tables 6 and 7 give the percentage of years in various total degree-day ranges for the different groups of months of the growing season.

The degree-day requirements for each crop and variety of crop at the stage of maturity required must be worked out for different areas. Degree-day requirements are lower at higher latitudes; this is partly because as the degrees of latitude increase plants are exposed to longer days (Figure 1). Thus, although daily mean temperatures are lower, the time in which plants grow in temperatures above the base selected is longer. Examples are: Perfection peas at Geneva, New York (latitude 40° N), require 1600 degree-days, 40° F. base, to reach canning maturity (5) whereas in western Nova Scotia (latitude 45° N) 1400 are required. The sweet corn variety Golden Cross Bantam requires 1700 degree-days, 50° F. base, in Wisconsin, (4) and 1330 in Nova Scotia. The snap bean variety Round Pod Kidney Wax requires 1134 degree-days, 50° F. base, to reach canning maturity in Ohio (latitude 41° N), (2) and at Kentville 800 are required.

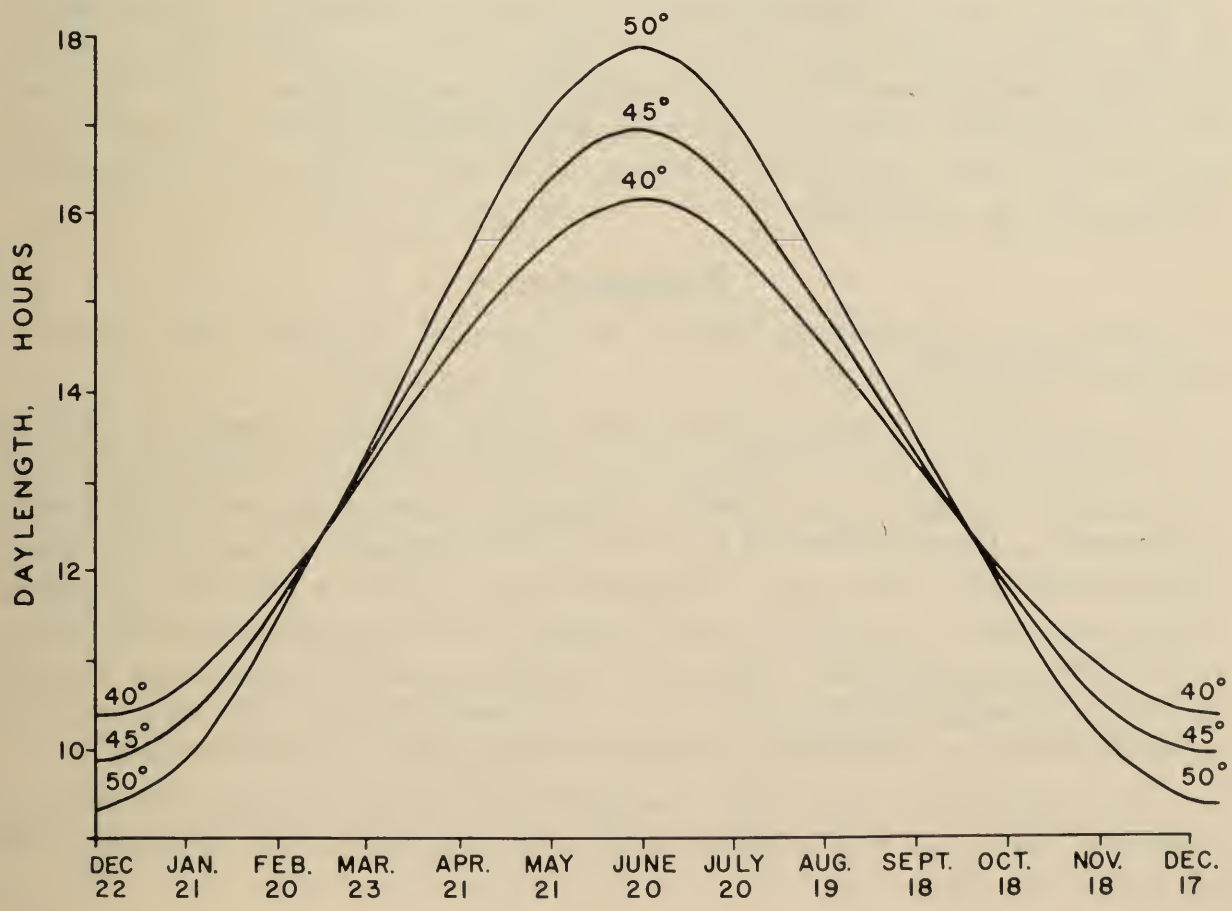

Figure 1. Lengths of day, including civil twilight, throughout the year at three latitudes.

The harvest time of tomatoes is not normally estimated by the degree-day method (3), but it is noteworthy that at Kentville the early variety Bounty requires about 1400 degree-days, 50° F. base, after plant setting to produce 50 per cent of its crop as ripe fruit. Late-spring frosts preclude setting plants outside before June 7 (Table 3) and early-fall frosts make it unlikely that plants will survive long after September 1 (Table 4). In only 24 per cent of the 45 years did degree-days exceed 1350 in the period June 1 to September 1 (Table 7).

Two early varieties of muskmelons required about 1300 degree-days, 50° F. base, to reach a satisfactory maturity at Kentville. Muskmelons have the same frost restrictions as tomatoes. Cucumbers on the other hand do not need to ripen and a common variety, Marketeer, reached pickling maturity at an average of 900 degree-days, 50° F. base.

Wind Velocities

The hours in each month in various wind velocity classes, for the four years 1954 and 1956 to 1958, are given in Appendix Table G.

Wind velocities are of particular interest in crop-spraying operations. Experience at the Research Station indicates that the most modern airblast-type orchard sprayer does not operate efficiently when the wind velocity exceeds 9 miles per hour. With older types of equipment, where a hand-operated spray gun is used, the wind velocity should not exceed 3 m.p.h. With ground-spraying equipment, particularly for certain herbicides, when spray drift is a hazard, only very low wind velocity is allowable. Figure 2 shows percentages of the total hours in different periods of the day in which the wind velocity came in various classes. In the spring and summer months, low wind velocities, at which crop spraying is feasible, occur most often between 8:00 p.m. and 8:00 a.m. and much less often between 8:00 a.m. and 4:00 p.m. Winds from 10 to 20 m.p.h. are most common and winds exceeding 39 m.p.h. occur only in November, December, January, March and April.

Precipitation

The total precipitation, rainfall and snowfall by months are given in Appendix Tables H, I and J.

The numbers of years in which rainfall came in various classes are given in Table 8. Records of evapotranspiration[1] are not available for the years covered in this publication and it is impossible to directly compare mean precipitation with moisture loss. Thornthwaite (6) has developed a method of estimating potential evapotranspiration from mean temperature data. Table 9 gives the potential evapotranspiration calculated by the Thornthwaite formula together with the 45-year average precipitations. Potential evapotranspiration exceeds the 45-year average precipitation only for the months of June to August. The likelihood of a moisture deficit may be roughly estimated from Tables 8 and 9 together.

The numbers of years in which snowfall came in various classes are given in Table 10. Winters in which there was 80 inches of snow or less occurred in 62 per cent of the years.

[1] "Evapotranspiration" is the term applied to moisture lost from the soil in direct evaporation plus that lost in transpiration from plants growing in the soil.

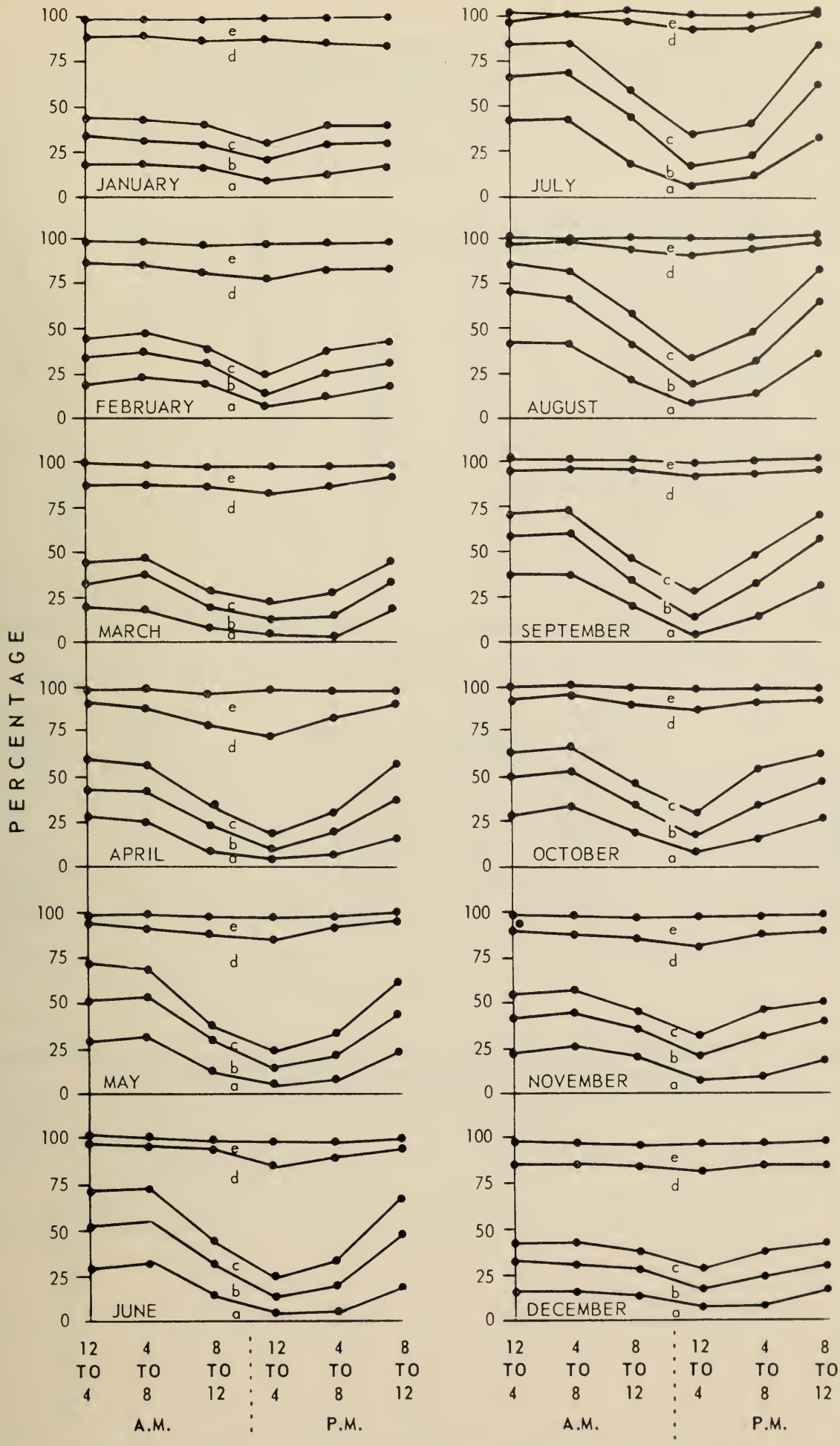

Figure 2. Percentages of the total hours of each month, by four hour periods, in various wind velocity classes: a, 3 m.p.h. or less; b, 6 m.p.h. or less; c, 9 m.p.h. or less; d, 19 m.p.h. or less; e, 29 m.p.h. or less. Hourly observations at the RCAF Station, Greenwood, N. S., 1954 and 1956–58.

Table 8.—Percentage of years, in the months of the growing season, with rainfall less than the amounts shown, Kentville, 1914-1958[1]

Amount, inches	May	June	July	August	September
Less than 0.5	2	0	2	0	0
1.0	7	0	7	9	4
1.5	15	13	13	13	9
2.0	31	29	29	24	20
2.5	60	47	53	38	31
3.0	71	69	69	42	51
3.5	78	73	80	49	62
4.0	84	82	84	64	73
4.5	91	87	87	71	80
5.0	91	98	89	82	87
5.5	91	98	89	89	87
6.0	93	98	98	91	91
6.5	93	100	98	95	91
7.0	98	100	100	98	96
7.5	98	100	100	98	96
8.0	100	100	100	98	96
More than 8.0	0	0	0	2	4
[1] 45-year average, inches	2.74	2.79	2.74	3.44	3.42

Table 9.—Average monthly precipitation and potential evapotranspiration, Kentville, 1914-1958

Month	Precipitation (inches)	Potential evapotranspiration (inches)	Month	Precipitation (inches)	Potential evapotranspiration (inches)
January	4.3	0.0	July	2.7	4.9
February	3.5	0.0	August	3.4	3.7
March	3.3	0.0	September	3.4	2.2
April	2.8	0.7	October	3.7	1.4
May	2.7	2.3	November	4.1	0.4
June	2.8	3.6	December	4.1	0.0
January to December	40.8		April to November		19.2

Table 10.—Percentage of seasons, October to May, in which the total snowfall[1] was equal to or less than the amounts shown, Kentville, 1914-1958

Amount, inches	Percentage of seasons
45	0
50	2
60	22
70	38
80	62
90	69
100	82
110	87
120	89
130	89
140	93
150	96
160	98
170	100

[1] The 45-year average total snowfall is 82 inches.

Sunshine

The total hours of sunshine by months is given in Appendix Table K. Table 11 shows the percentage of years in which the hours of sunshine came in various classes, together with the 45-year average hours of sunshine and the total possible hours, for the months of the growing season.

Table 11.—Percentage of years, in each month of the growing season, with hours of bright sunshine less than the amounts shown, Kentville, 1914-1958

Sunshine, hours per month	May	June	July	August	September
Less than 100	0	0	0	0	0
120	2	0	0	0	0
140	2	0	0	0	11
160	11	9	0	0	31
180	27	24	4	9	64
200	53	51	11	20	89
220	69	71	24	47	100
240	87	82	60	80	
260	93	93	80	93	
280	98	95	89	98	
300	98	100	98	98	
320	100		100	100	
45-year average, hours	202	205	237	220	172
Total possible hours[1]	460	466	472	436	376
45-year average as percentage of total possible	44	44	50	50	46

[1] Obtained from "The Observers Handbook 1959" (3).

Acknowledgments

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Appendix Table A.—Monthly Averages of Daily Maximum Temperatures (degrees F.)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1914	26.4	21.9	36.5	44.8	61.8	67.6	73.4	73.0	68.4	58.2	42.9	30.1
1915	29.6	33.0	32.8	47.6	55.0	67.7	74.6	73.1	67.1	56.2	44.1	34.0
1916	29.5	25.0	28.5	47.8	59.1	68.3	76.0	76.3	70.6	58.9	41.7	31.9
1917	25.3	25.6	35.6	45.7	50.5	71.4	75.8	76.8	65.7	56.6	38.0	25.6
1918	23.7	26.2	32.3	48.8	65.8	67.8	73.8	72.0	66.3	56.8	40.8	31.7
1919	30.2	29.9	40.3	47.4	61.3	71.3	75.1	73.5	67.0	54.2	43.6	26.9
1920	17.6	28.1	38.9	46.3	60.7	68.5	77.0	78.3	66.9	60.0	43.3	32.0
1921	28.1	27.1	43.5	51.6	62.3	70.0	79.8	74.3	71.4	57.8	38.9	29.0
1922	24.8	26.6	38.1	47.0	61.9	74.1	74.1	75.5	66.7	55.0	38.5	23.6
1923	23.1	18.0	28.5	44.0	59.3	69.2	73.5	71.6	66.1	58.2	46.9	36.4
1924	29.1	23.6	35.8	44.6	61.2	69.8	80.7	75.9	66.7	56.1	46.0	28.3
1925	21.1	34.9	42.7	47.7	60.1	71.8	75.3	75.5	64.2	48.7	43.0	29.8
1926	27.2	23.9	32.3	41.7	56.8	70.5	75.3	73.5	65.3	56.5	46.0	28.6
1927	32.8	24.2	37.5	48.3	58.7	66.8	77.8	73.7	67.4	57.8	49.1	34.4
1928	29.0	26.7	35.3	50.8	61.9	69.5	78.2	76.4	66.3	55.7	41.5	37.5
1929	28.6	28.9	38.9	46.4	62.4	71.8	78.6	74.8	69.9	55.7	42.8	28.1
1930	29.1	29.5	38.1	48.6	61.2	81.9	78.5	76.3	69.4	57.0	46.0	31.9
1931	28.1	29.4	38.0	52.4	64.1	68.5	79.7	76.3	65.5	59.0	50.5	31.4
1932	33.6	25.1	34.7	47.8	63.0	70.8	75.7	77.3	68.1	59.1	43.8	36.7
1933	34.7	32.8	33.0	48.2	63.5	72.2	76.1	76.1	66.5	57.5	36.2	23.4
1934	24.8	21.6	37.0	53.5	64.4	69.7	79.4	75.5	73.9	54.4	47.2	27.4
1935	25.5	25.9	34.2	47.6	60.2	73.4	80.3	79.8	65.2	58.2	48.0	29.0
1936	28.1	24.8	46.6	48.0	62.6	73.7	75.7	75.7	65.6	56.6	41.9	34.8
1937	34.1	32.3	35.5	49.6	65.7	73.0	81.9	80.9	69.2	55.9	43.4	32.2
1938	28.9	25.8	34.3	51.2	59.5	74.4	75.8	77.1	66.9	58.8	48.1	34.6
1939	27.7	30.7	32.0	44.9	59.3	70.2	77.9	80.6	68.8	55.9	40.1	31.8
1940	23.7	28.5	35.2	46.0	60.7	67.7	77.0	76.7	67.6	53.2	43.6	32.3
1941	23.9	30.4	32.7	50.3	59.1	69.7	78.3	71.2	66.2	55.0	45.1	32.9
1942	26.8	26.6	40.3	50.5	63.5	71.9	78.0	77.6	71.7	58.3	42.2	27.3
1943	21.5	33.4	36.4	46.2	59.5	66.0	76.1	72.8	69.2	57.5	44.8	28.8
1944	30.4	26.9	32.6	47.1	68.3	70.4	79.5	81.9	69.4	52.1	45.2	32.3
1945	28.5	29.0	42.3	53.6	59.4	66.1	79.9	78.6	71.2	55.5	44.2	29.2
1946	28.6	27.0	46.0	44.6	62.5	71.8	77.5	77.7	71.1	61.1	44.2	32.5
1947	29.0	31.6	39.2	48.3	63.3	59.0	81.5	78.3	69.6	62.2	44.4	29.5
1948	28.0	26.2	35.6	46.6	59.5	68.0	77.4	78.1	67.6	56.6	49.0	37.5
1949	33.2	32.8	38.8	51.8	62.5	74.6	81.2	78.8	68.3	61.3	45.4	39.0

1950	34.6	25.4	35.4	46.0	60.0	69.2	74.6	73.3	63.1	56.2	61.6	40.4
1951	34.4	36.2	40.9	51.9	63.3	69.7	78.9	75.0	69.8	57.3	47.4	35.9
1952	33.5	32.8	36.7	52.8	58.5	69.9	82.8	77.7	68.8	56.9	44.2	34.0
1953	37.7	35.7	40.0	52.5	65.5	71.8	77.2	73.6	69.2	57.5	50.6	42.4
1954	28.7	36.3	38.9	51.6	58.0	70.8	75.4	73.0	67.2	58.3	46.2	40.9
1955	29.7	32.1	36.8	49.1	62.6	69.8	80.5	77.4	67.1	56.4	43.2	27.3
1956	34.8	30.5	33.3	45.6	56.8	71.8	74.3	73.1	65.8	58.9	48.3	36.1
1957	24.2	31.9	38.0	50.1	62.1	73.9	75.5	74.3	69.2	57.7	48.9	42.9
1958	36.1	29.8	40.8	53.0	61.1	68.5	77.0	75.9	66.3	55.2	46.0	25.7
45-year average	28.6	28.5	36.9	48.4	61.1	70.3	77.4	75.9	67.9	56.9	44.8	32.2

Appendix Table B.—Monthly Averages of Daily Minimum Temperatures (degrees F.)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1914	12.9	6.5	25.0	28.8	39.6	44.8	52.4	53.0	46.9	40.9	29.9	15.7
1915	16.1	18.2	20.8	31.1	37.3	45.9	53.4	54.6	47.4	41.9	34.2	24.3
1916	15.2	12.6	15.7	31.9	39.1	50.0	56.1	53.5	47.3	39.0	30.3	23.8
1917	12.5	11.1	21.4	31.1	36.8	49.4	56.0	58.6	42.2	40.7	28.1	13.7
1918	12.7	8.8	16.5	28.7	42.1	47.4	57.0	51.6	50.8	40.4	30.9	22.9
1919	18.2	21.0	26.3	33.4	39.0	47.9	55.0	52.9	49.0	36.3	31.6	14.7
1920	2.6	15.5	23.3	30.0	36.7	47.7	55.1	57.6	50.2	41.8	28.0	22.8
1921	14.8	9.5	28.4	35.6	39.9	47.7	59.1	50.1	46.7	40.3	28.8	19.2
1922	11.5	12.9	23.8	32.7	40.1	53.5	56.0	57.7	45.7	39.5	30.0	16.4
1923	10.4	3.8	12.9	29.2	39.4	46.1	52.7	49.7	47.0	38.5	33.6	26.0
1924	15.6	11.2	25.5	29.8	40.8	47.7	54.2	53.9	45.0	38.9	31.2	17.4
1925	5.4	20.0	25.5	30.1	38.8	50.5	55.8	53.9	45.2	33.9	28.9	17.3
1926	14.9	10.7	16.1	28.3	37.8	47.5	53.2	53.4	43.8	39.4	31.1	18.6
1927	21.6	11.1	21.1	29.7	39.5	46.1	59.1	53.3	48.8	44.3	35.1	25.3
1928	15.3	11.9	21.1	31.7	41.4	47.5	57.6	56.7	44.5	38.6	28.8	25.3
1929	13.4	13.4	22.2	30.7	40.9	48.7	53.2	52.3	49.2	38.7	29.3	16.6
1930	15.1	13.8	24.1	29.9	37.9	57.1	56.1	52.4	49.4	40.0	28.7	20.5
1931	15.2	18.4	28.0	34.5	42.1	49.5	59.7	55.5	49.2	40.7	35.3	23.3
1932	20.8	11.3	23.0	32.4	40.1	48.2	54.7	55.4	50.9	43.0	30.5	24.1
1933	21.5	21.1	22.0	32.1	39.5	49.9	52.7	55.4	49.2	40.4	23.6	12.1
1934	7.6	5.5	20.6	34.4	40.7	46.5	54.7	51.7	52.5	39.6	33.4	14.7
1935	10.1	9.6	18.8	30.5	39.4	50.7	57.5	55.1	46.5	36.0	36.4	21.9
1936	16.5	10.3	31.0	32.9	40.8	52.2	52.4	53.1	47.9	37.7	29.1	20.7
1937	18.7	18.9	21.3	30.0	42.1	51.7	55.4	58.8	48.9	38.9	33.0	21.5
1938	13.7	9.7	16.7	33.1	39.0	53.3	58.5	57.7	48.7	39.9	31.5	22.5
1939	14.3	12.4	17.1	29.1	37.1	46.4	55.7	56.9	48.3	41.9	28.3	22.5
1940	9.5	12.9	22.0	29.5	42.0	48.6	55.5	49.9	50.4	34.8	32.3	19.3
1941	11.9	15.8	18.5	31.3	38.9	47.4	55.8	52.1	46.1	38.8	31.4	20.7
1942	13.2	14.5	27.6	31.9	44.9	48.5	55.7	53.7	50.4	38.9	28.0	14.9
1943	9.3	16.7	21.4	28.0	39.3	46.0	55.5	52.6	47.2	41.8	33.2	17.3
1944	15.0	11.2	17.8	27.5	38.9	49.2	53.8	55.1	49.2	40.3	33.5	20.9
1945	15.5	13.1	24.7	34.7	39.9	47.7	55.0	52.9	48.9	38.9	31.6	19.0
1946	14.1	11.1	24.7	29.7	41.4	45.3	51.4	53.9	47.2	37.8	29.5	18.2
1947	13.6	19.9	22.5	28.8	41.5	45.8	61.5	53.0	48.5	39.0	32.2	19.7
1948	12.4	4.2	15.3	29.1	39.8	47.1	54.4	53.5	46.5	37.4	33.4	22.1
1949	16.4	15.3	24.5	33.0	38.3	50.1	55.9	54.8	47.2	38.4	29.9	24.2

1950	14.9	9.4	17.0	30.2	36.9	48.3	47.6	52.9	43.7	37.3	34.4	27.3
1951	19.4	18.0	25.5	35.9	39.7	46.3	55.2	55.9	48.6	38.3	30.3	17.6
1952	15.2	18.2	23.3	32.6	37.5	49.9	55.1	55.0	45.3	36.8	32.6	24.0
1953	19.3	19.7	25.7	36.3	39.9	48.7	55.6	52.8	49.2	40.1	34.9	26.2
1954	13.0	21.9	22.9	28.1	37.9	50.4	53.4	51.5	46.6	42.6	32.1	26.2
1955	20.5	17.3	22.7	29.7	39.9	49.2	53.6	56.0	45.9	39.5	31.5	17.7
1956	25.4	14.2	14.2	32.0	35.4	49.9	52.3	49.6	43.9	35.2	36.0	20.2
1957	6.4	17.7	23.9	30.1	38.9	48.8	52.5	50.0	49.1	40.5	35.5	27.3
1958	23.5	16.6	29.5	34.9	40.5	46.0	54.9	55.3	48.2	36.9	30.4	11.2
45-year average	14.5	13.7	22.0	31.2	39.5	48.6	55.1	53.9	47.6	39.2	31.4	20.4

Appendix Table C.—Monthly Averages of Daily Mean Temperatures (degrees F.)

Year	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Mean annual temperature
1914	19.7	14.2	30.7	36.8	50.7	56.2	62.9	63.1	57.7	49.5	36.4	22.9	41.7
1915	22.8	25.6	26.8	39.4	46.1	56.8	64.0	63.9	57.3	49.1	39.2	29.1	43.3
1916	22.4	18.8	22.1	39.8	49.1	59.2	66.0	64.9	58.9	49.0	36.0	27.8	42.8
1917	18.9	18.3	28.5	38.4	43.6	60.4	65.9	67.7	53.9	48.7	33.0	19.7	41.4
1918	18.2	17.5	24.4	38.7	54.0	57.6	65.4	61.8	58.6	48.6	35.9	27.3	42.3
1919	24.2	25.4	33.3	40.4	50.2	59.6	65.0	63.2	58.0	45.3	37.6	20.8	43.6
1920	10.1	21.8	31.1	38.1	48.7	58.1	66.1	68.0	58.5	50.9	35.7	27.4	42.9
1921	21.5	18.3	36.0	43.6	51.1	58.8	69.4	62.2	59.1	49.1	33.8	24.1	43.9
1922	18.2	19.8	30.9	39.8	51.0	63.8	65.0	66.6	56.2	47.3	34.2	20.0	42.7
1923	16.7	10.9	20.7	36.6	49.3	57.6	63.1	60.7	56.6	48.3	40.2	31.2	41.0
1924	22.3	17.4	30.6	37.2	51.0	58.8	67.5	64.9	55.8	47.5	38.6	22.9	42.9
1925	13.2	27.5	34.1	38.9	49.4	61.2	65.6	64.7	54.7	41.3	35.9	23.6	42.5
1926	21.1	17.3	24.2	35.0	47.3	59.0	64.2	63.4	54.5	48.0	38.5	23.6	41.3
1927	27.2	17.7	29.3	39.0	49.1	56.4	68.5	63.5	58.1	51.1	42.1	29.8	44.3
1928	22.1	19.3	29.2	41.3	51.7	58.5	67.9	66.5	55.4	47.2	35.1	31.4	43.7
1929	21.0	21.1	30.5	38.6	51.7	60.3	65.9	63.6	59.6	47.2	36.1	22.4	43.2
1930	22.1	21.6	31.1	39.3	49.5	69.5	67.3	64.3	59.4	48.5	37.4	26.2	44.7
1931	21.6	23.9	33.0	43.4	53.1	59.0	69.7	65.9	57.4	49.9	42.9	27.4	45.6
1932	27.2	18.2	28.8	40.1	51.6	59.5	65.2	66.3	59.5	51.1	37.2	30.4	44.6
1933	28.1	26.9	27.5	40.2	51.5	61.1	64.4	65.7	57.9	48.9	29.9	17.7	43.3
1934	16.2	13.6	28.8	43.9	52.5	58.1	67.0	63.6	63.2	47.0	40.3	21.1	42.9
1935	17.8	17.7	26.5	39.1	49.8	62.1	68.9	67.5	55.8	47.1	42.2	25.5	43.3
1936	22.3	17.5	38.8	40.5	51.7	63.0	64.0	64.4	56.7	47.2	35.5	27.8	44.1
1937	26.4	25.6	28.4	39.8	53.9	63.3	68.7	69.9	59.0	47.4	38.2	26.9	45.5
1938	21.3	17.7	25.5	42.1	49.2	63.9	67.1	67.4	57.8	49.3	39.8	28.6	44.1
1939	21.0	21.5	24.6	37.0	48.2	58.3	66.8	68.8	58.6	48.9	34.2	27.2	42.9
1940	16.1	20.7	28.6	37.7	51.4	58.1	66.3	63.3	59.0	44.0	37.9	25.8	42.4
1941	17.9	23.1	25.6	40.8	49.0	58.5	67.1	61.6	56.2	46.9	38.3	26.8	42.6
1942	20.0	20.6	33.9	41.2	54.2	60.2	66.9	65.7	61.1	48.6	35.1	21.1	44.1
1943	15.4	25.1	28.9	37.1	49.4	51.0	65.8	62.7	58.2	49.7	39.0	23.0	42.1
1944	22.7	19.0	25.2	37.3	53.6	59.8	66.6	68.5	59.3	46.2	39.3	26.6	43.7
1945	22.0	21.1	33.5	44.2	49.7	56.9	67.4	65.8	60.1	47.2	37.9	24.1	44.1
1946	21.3	19.0	35.4	37.1	51.9	58.6	64.4	65.8	59.2	49.4	36.9	25.3	43.7
1947	21.3	25.7	30.9	38.5	52.4	57.4	71.5	65.7	59.1	50.6	38.3	24.6	44.7
1948	20.2	15.3	25.5	37.8	49.7	57.5	65.9	65.8	57.0	47.0	41.2	29.8	42.7

1949	24.8	24.0	31.7	42.4	50.4	62.3	68.6	66.8	57.8	49.9	37.6	31.6	45.7
1950	24.8	17.4	26.3	38.1	48.5	58.8	61.1	63.1	53.4	46.8	43.0	33.9	42.9
1951	26.9	27.1	33.2	43.9	51.5	58.0	67.0	65.4	59.2	47.8	38.9	26.8	45.5
1952	24.3	25.5	30.0	42.7	48.0	59.9	68.9	66.4	57.1	46.9	38.4	29.0	44.7
1953	29.0	27.7	32.9	44.4	52.7	60.2	66.4	63.2	59.2	48.8	42.8	34.3	46.8
1954	20.9	29.1	30.9	39.9	47.9	60.6	64.4	62.2	56.9	50.4	39.2	33.5	44.7
1955	25.1	24.7	29.8	39.4	51.3	59.5	67.0	66.7	56.5	48.0	37.3	22.5	44.0
1956	30.1	22.4	23.7	38.8	46.1	60.8	63.3	61.3	54.8	47.0	42.1	28.1	43.2
1957	15.3	24.8	30.9	40.1	50.5	61.4	64.0	62.1	59.1	49.1	42.2	35.1	44.6
1958	29.8	23.2	35.1	43.9	50.8	57.3	65.9	65.6	57.2	46.1	38.2	18.4	44.3
45-year average	21.6	21.1	29.5	39.8	50.3	59.5	66.2	64.9	57.7	48.1	38.0	26.3	43.6

Appendix Table D.—Monthly Extremes of Daily Maximum and Minimum Temperatures (degrees F.)

Year	January		February		March		April		May		June		July		August		September		October		November		December	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1914	53	− 3	43	−17	50	11	61	16	84	23	82	32	85	39	87	40	88	35	78	25	65	5	56	− 6
1915	56	− 4	54	− 9	50	9	64	21	71	28	81	33	82	46	81	39	83	30	72	28	61	22	54	6
1916	51	− 4	49	−19	55	− 2	57	21	70	29	79	37	88	41	87	42	84	33	76	24	64	3	52	2
1917	45	−15	49	− 7	57	9	62	22	63	30	83	34	87	46	87	42	78	31	76	29	55	10	51	− 7
1918	43	− 5	52	−13	52	−13	66	16	88	26	83	34	88	45	90	37	81	34	74	28	58	15	57	3
1919	53	− 7	40	9	55	8	61	22	75	27	87	34	86	37	80	41	82	31	66	20	60	15	50	−11
1920	38	−19	52	−24	67	−10	61	17	81	24	84	34	90	43	91	42	82	33	78	30	63	15	49	− 1
1921	52	− 3	43	−11	71	10	79	13	84	27	84	35	91	38	88	40	91	29	76	20	67	12	54	− 1
1922	49	− 9	48	−22	60	3	66	21	80	28	87	41	86	44	85	45	81	26	78	24	55	17	46	−14
1923	51	−18	39	− 9	47	− 6	61	5	76	30	86	35	85	40	80	38	78	31	73	23	62	18	57	− 2
1924	49	−11	41	− 4	49	10	58	20	77	28	83	37	89	44	90	40	77	30	72	23	66	8	58	− 1
1925	45	−22	54	− 8	56	8	65	13	74	30	89	37	86	42	87	38	78	30	65	18	59	11	52	− 2
1926	47	− 7	46	−10	48	− 1	58	11	73	28	82	35	94	40	84	36	78	30	79	26	66	15	45	2
1927	48	− 4	37	− 9	50	2	74	18	75	24	81	32	87	39	80	43	79	31	76	31	70	20	64	8
1928	55	− 4	46	− 8	60	− 1	73	15	74	28	87	38	86	40	93	40	83	31	74	23	58	5	60	9
1929	57	− 3	48	− 4	59	− 3	64	19	89	32	90	36	86	41	88	41	81	30	76	21	64	8	46	− 1
1930	60	−11	48	− 5	58	4	64	16	81	25	92	34	88	41	85	41	84	33	83	25	65	13	56	2
1931	53	− 3	44	− 9	53	15	65	23	85	30	86	38	94	49	87	44	86	34	76	28	70	15	50	7
1932	55	− 9	48	− 7	58	10	67	24	88	27	82	36	87	44	85	43	82	36	77	29	61	6	61	2
1933	52	7	52	5	42	6	64	19	83	27	86	34	85	40	88	40	81	35	72	23	58	3	46	−12
1934	45	−20	49	−14	59	4	68	26	80	29	87	34	93	41	85	40	88	36	70	27	67	18	61	− 1
1935	55	−18	47	−14	59	− 7	66	20	74	26	85	40	91	44	99	45	83	33	73	24	68	23	43	− 9
1936	50	− 5	47	− 4	68	4	67	25	81	28	85	41	84	45	86	38	78	32	73	21	68	7	57	0
1937	55	0	46	− 8	46	8	70	19	87	27	92	43	91	47	92	46	89	34	71	26	59	13	50	− 7
1938	57	−13	42	−11	57	−15	73	16	81	28	89	41	84	45	88	38	82	33	78	27	70	11	59	2
1939	45	1	58	− 7	50	1	62	14	74	29	87	34	89	43	88	42	89	29	78	20	56	16	59	7
1940	35	− 6	46	−10	57	− 5	68	20	82	30	77	38	86	45	88	37	85	34	75	21	57	14	50	1
1941	38	−12	48	1	46	− 1	80	19	79	24	90	34	94	45	86	39	80	28	69	22	64	15	51	0
1942	51	−11	45	− 2	50	14	79	22	77	29	86	32	89	42	90	38	91	29	73	26	68	16	54	−11
1943	39	−10	60	−18	57	− 2	70	16	79	25	86	31	88	40	87	43	82	31	74	22	64	16	40	− 7
1944	43	− 6	48	− 8	54	2	72	17	86	21	95	30	95	40	100	39	79	31	71	18	66	20	49	− 4
1945	49	−14	47	− 5	72	6	76	17	71	20	86	29	89	41	90	42	89	29	73	23	65	15	50	5
1946	56	−16	53	− 8	66	15	64	10	80	25	91	32	89	40	87	40	84	33	76	23	60	11	56	− 3
1947	58	− 5	52	4	55	7	68	15	82	20	90	29	89	50	95	36	89	27	78	28	56	14	47	− 9

1948	44	−16	54	−20	57	−18	55	19	78	24	92	37	86	40	92	41	85	32	70	19	69	18	60	− 6
1949	55	− 6	54	− 2	59	2	72	22	79	26	89	34	97	42	91	43	81	31	81	20	59	17	65	4
1950	57	− 8	45	−15	65	− 4	63	15	79	25	87	35	83	44	83	41	78	29	75	19	68	18	62	1
1951	59	−22	59	−10	56	14	66	24	81	24	84	33	87	45	85	41	81	35	72	23	67	12	59	− 7
1952	53	− 7	54	2	47	− 1	69	19	80	25	82	39	92	41	90	39	80	29	74	24	57	13	49	3
1953	56	4	56	3	59	4	67	25	80	23	85	33	86	43	87	40	87	32	76	26	74	19	62	4
1954	50	− 7	53	−13	65	12	66	12	75	22	86	36	82	41	80	39	80	33	71	24	67	16	57	11
1955	37	0	51	−11	57	2	64	17	83	25	86	34	94	40	91	43	79	31	74	25	62	15	38	− 1
1956	51	− 4	47	− 6	47	− 7	62	16	78	25	86	37	81	42	84	36	81	27	73	20	71	14	58	1
1957	54	−21	52	− 1	49	9	77	17	82	26	90	35	86	40	83	38	82	36	68	20	66	18	62	5
1958	55	1	48	− 1	51	9	74	22	71	28	82	31	85	41	87	44	79	34	74	21	64	11	46	− 2

Appendix Table E.—Degree-days above a base of 40° F. by months

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1914	5	.....	1	51	341	486	709	715	531	282	53	8	3,182
1915	11	.....	.....	59	203	504	743	741	519	285	53	5	3,123
1916	4	5	4	51	297	580	807	773	568	286	83	15	3,473
1917	.....	.....	2	27	125	606	799	857	419	270	11	.....	3,116
1918	.....	2	.....	70	433	527	789	676	557	275	31	11	3,371
1919	5	.....	5	81	309	587	777	719	541	189	40	8	3,261
1920	.....	3	50	38	278	547	808	871	557	339	37	7	3,535
1921	3	.....	63	173	340	565	903	689	572	304	49	3	3,664
1922	.....	1	11	56	325	713	775	813	459	259	9	.....	3,421
1923	.....	.....	1	43	295	529	717	640	497	263	100	38	3,123
1924	.....	.....	.....	20	343	563	847	772	475	247	84	7	3,358
1925	.....	5	9	66	293	635	793	766	441	89	37	5	3,139
1926	.....	.....	1	29	229	571	751	723	436	259	86	2	3,087
1927	1	.....	7	93	282	529	883	729	543	348	169	18	3,602
1928	3	.....	7	109	361	556	865	821	455	248	29	9	3,463
1929	5	.....	13	53	362	607	804	731	589	241	66	.....	3,471
1930	19	3	9	59	297	885	845	754	581	289	54	9	3,804
1931	.....	.....	4	136	407	571	917	803	521	306	163	3	3,831
1932	25	1	8	63	359	584	782	819	585	347	63	35	3,671
1933	3	.....	.....	82	359	633	757	797	561	283	17	.....	3,492
1934	.....	2	11	147	389	545	832	732	697	223	104	18	3,700
1935	11	.....	6	52	306	667	895	851	475	231	127	.....	3,621
1936	.....	1	112	79	366	689	743	757	503	267	57	17	3,591
1937	7	.....	.....	63	437	669	888	925	571	239	49	2	3,850
1938	6	.....	7	123	287	717	841	849	535	291	121	16	3,793
1939	.....	3	.....	40	256	549	829	893	557	297	29	9	3,462
1940	.....	.....	7	28	353	545	815	721	568	191	69	3	3,300
1941	.....	.....	.....	91	291	548	835	664	485	236	73	1	3,224
1942	.....	.....	.....	83	444	601	807	797	631	269	43	.....	3,675
1943	.....	9	13	39	293	480	800	703	547	303	64	.....	3,251
1944	.....	.....	4	13	423	603	821	883	579	259	63	1	3,649
1945	.....	.....	47	172	287	507	851	799	607	231	90	.....	3,591
1946	15	1	29	67	371	553	751	751	575	301	43	1	3,458
1947	3	2	5	67	391	527	977	796	573	329	23	.....	3,693
1948	.....	.....	21	15	299	521	805	799	510	253	99	13	3,335
1949	5	1	23	106	323	670	881	837	538	305	33	65	3,787

1950	23	.....	18	79	269	561	745	716	401	241	171	69	3,293
1951	21	5	15	129	361	539	833	783	575	241	83	37	3,622
1952	.....	5	.....	115	249	597	897	817	512	227	51	8	3,478
1953	15	7	41	133	319	609	823	721	575	267	137	53	3,700
1954	5	9	9	95	297	617	756	689	502	329	87	25	3,420
1955	.....	1	4	59	349	585	837	829	495	249	69	.....	3,477
1956	5	.....	.....	40	201	630	709	657	445	241	92	9	3,029
1957	15	1	3	93	334	641	745	687	573	301	155	59	3,607
1958	13	.....	1	169	335	518	804	793	517	205	43	.....	3,398
45-year average	5	1	13	77	322	588	813	770	532	265	71	13	3,470

Appendix Table F.—Degree-days above a base of 50° F. by months

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1914	.....	.....	.....	6	124	197	400	405	257	85	1	.....	1,475
1915	.....	.....	.....	3	33	209	433	431	239	69	2	.....	1,419
1916	.....	.....	.....	1	57	281	497	463	268	83	9	.....	1,659
1917	.....	.....	.....	.....	4	307	489	547	141	59	.....	.....	1,547
1918	.....	.....	.....	1	151	229	479	366	273	74	7	.....	1,580
1919	.....	.....	.....	8	79	293	467	409	249	43	1	.....	1,549
1920	.....	.....	3	.....	65	251	498	561	266	105	1	.....	1,750
1921	.....	.....	9	43	121	266	593	379	275	103	15	.....	1,804
1922	.....	.....	.....	.....	96	413	465	503	213	84	.....	.....	1,774
1923	.....	.....	.....	.....	63	236	407	330	203	55	21	.....	1,315
1924	.....	.....	.....	.....	87	266	537	462	183	55	7	.....	1,597
1925	.....	.....	.....	3	43	335	483	450	174	4	.....	.....	1,492
1926	.....	.....	.....	.....	32	273	441	413	155	69	23	.....	1,406
1927	.....	.....	.....	14	62	233	573	419	251	136	53	.....	1,741
1928	.....	.....	.....	13	99	256	545	511	191	66	.....	.....	1,681
1929	.....	.....	.....	1	101	317	494	421	302	51	9	.....	1,696
1930	3	.....	.....	2	61	587	535	444	283	88	3	.....	2,006
1931	.....	.....	.....	7	165	271	607	493	230	85	41	.....	1,899
1932	3	.....	.....	.....	110	291	472	509	287	125	.....	.....	1,797
1933	.....	.....	.....	7	138	333	447	487	267	83	.....	.....	1,762
1934	.....	.....	.....	9	137	253	522	422	397	41	27	3	1,811
1935	.....	.....	.....	4	71	367	585	541	183	39	25	.....	1,815
1936	.....	.....	17	14	132	389	433	447	219	95	17	.....	1,763
1937	.....	.....	.....	.....	157	369	578	615	273	65	1	.....	2,058
1938	.....	.....	.....	22	62	417	531	539	240	83	25	.....	1,919
1939	.....	.....	.....	3	61	251	519	583	273	103	3	.....	1,796
1940	.....	.....	.....	1	103	245	505	411	275	53	1	.....	1,594
1941	.....	.....	.....	20	69	257	525	354	205	47	5	.....	1,482
1942	.....	.....	.....	17	175	305	502	487	345	67	5	.....	1,903
1943	.....	.....	.....	2	87	189	490	393	256	81	5	.....	1,503
1944	.....	.....	.....	.....	149	314	511	573	288	62	5	.....	1,902
1945	.....	.....	1	33	59	245	541	489	329	60	29	.....	1,786
1946	2	.....	.....	9	123	265	441	441	279	95	.....	.....	1,655
1947	.....	.....	.....	9	152	240	667	486	301	107	.....	.....	1,962
1948	.....	.....	.....	.....	97	231	495	489	229	59	21	.....	1,621
1949	.....	.....	.....	3	87	371	571	527	249	74	.....	15	1,897

1950	1	.....	3	1	75	263	435	406	141	56	43	18	1,442
1951	1	.....	.....	5	127	243	523	473	275	41	12	6	1,706
1952	.....	.....	.....	9	43	297	587	507	224	53	.....	.....	1,720
1953	.....	.....	1	10	71	312	513	411	285	45	32	.....	1,680
1954	.....	.....	.....	7	54	319	447	379	207	105	23	.....	1,541
1955	.....	.....	.....	8	135	295	527	519	212	54	5	.....	1,755
1956	.....	.....	.....	1	31	343	399	347	183	47	13	.....	1,364
1957	.....	.....	.....	19	113	341	435	377	282	79	39	5	1,690
1958	.....	.....	.....	55	95	226	494	483	225	59	.....	.....	1,637
45-year average	.....	.....	.....	8	92	293	503	460	246	71	12	1	1,688

Appendix Table G.—Wind velocities, (Percentage of total hours in different wind velocity classes), average of the 4 years 1954 and 1956-1958

Hours	Velocity Miles Per Hour							
	0–3	4–6	7–9	10–19	20–29	30–39	40–49	Over 49
JANUARY								
Midnight—4 a.m.	18.1	15.2	9.5	45.1	10.6	1.3	0.2	.....
4 a.m. —8 a.m.	17.7	12.9	12.6	45.3	9.5	1.5	0.3	0.2
8 a.m. —Noon	15.5	13.7	11.6	46.1	11.0	2.1	.....	.....
Noon —4 p.m.	8.5	10.8	9.8	56.0	12.4	2.3	0.2	.....
4 p.m. —8 p.m.	11.1	16.6	10.3	46.1	13.9	1.8	0.2	.....
8 p.m. —Midnight	16.5	12.3	9.0	44.2	16.5	1.5	.....	.....
FEBRUARY								
Midnight—4 a.m.	19.1	14.3	11.2	41.5	12.8	1.1	.....	.....
4 a.m. —8 a.m.	22.2	12.9	10.9	39.4	12.3	2.3	.....	.....
8 a.m. —Noon	19.5	11.2	8.0	41.6	17.9	1.8	.....	.....
Noon —4 p.m.	6.8	7.8	8.3	52.5	23.0	1.6	.....	.....
4 p.m. —8 p.m.	10.9	13.5	12.0	46.8	15.4	1.4	.....	.....
8 p.m. —Midnight	16.0	15.6	10.8	40.6	14.7	2.3	.....	.....
MARCH								
Midnight—4 a.m.	20.2	14.3	10.5	42.1	11.9	1.0	.....	.....
4 a.m. —8 a.m.	18.5	18.1	10.6	40.5	11.3	1.0	.....	.....
8 a.m. —Noon	9.5	9.0	10.2	52.9	16.3	1.9	0.2	.....
Noon —4 p.m.	3.9	7.6	10.0	54.8	21.8	1.9	.....	.....
4 p.m. —8 p.m.	3.2	11.6	10.6	55.2	18.9	0.5	.....	.....
8 p.m. —Midnight	15.8	17.3	10.0	42.7	12.1	2.1	.....	.....
APRIL								
Midnight—4 a.m.	25.7	19.3	16.2	30.3	7.3	1.2	.....	.....
4 a.m. —8 a.m.	25.5	18.5	13.2	32.6	8.7	0.8	0.5	0.2
8 a.m. —Noon	9.2	14.0	11.0	45.9	16.7	2.7	0.5	.....
Noon —4 p.m.	2.5	6.0	8.8	57.4	22.3	2.8	0.2	.....
4 p.m. —8 p.m.	6.0	12.2	13.8	52.5	13.3	2.2	.....	.....
8 p.m. —Midnight	18.7	20.8	16.5	34.8	7.7	1.5	.....	.....
MAY								
Midnight—4 a.m.	32.7	21.4	16.9	26.3	2.4	0.3	.....	.....
4 a.m. —8 a.m.	30.2	22.9	14.8	29.8	2.3	.....	.....	.....
8 a.m. —Noon	13.2	13.7	12.3	50.1	10.2	0.5	.....	.....
Noon —4 p.m.	2.9	9.5	9.6	60.7	15.8	1.5	.....	.....
4 p.m. —8 p.m.	7.9	14.5	11.6	54.4	10.5	1.1	.....	.....
8 p.m. —Midnight	21.3	22.9	16.8	34.8	3.7	0.5	.....	.....
JUNE								
Midnight—4 a.m.	31.5	23.2	18.3	26.0	1.0	.....	.....	.....
4 a.m. —8 a.m.	33.7	23.2	17.3	24.6	1.2	.....	.....	.....
8 a.m. —Noon	13.7	17.8	13.2	47.5	7.5	0.3	.....	.....
Noon —4 p.m.	4.5	9.2	10.5	60.7	13.8	1.3	.....	.....
4 p.m. —8 p.m.	6.0	13.5	14.5	58.1	7.7	0.2	.....	.....
8 p.m. —Midnight	19.0	26.0	20.8	31.2	3.0	.....	.....	.....
JULY								
Midnight—4 a.m.	41.3	24.3	17.3	16.8	0.3	.....	.....	.....
4 a.m. —8 a.m.	41.8	26.8	15.6	15.6	0.2	.....	.....	.....
8 a.m. —Noon	19.4	19.7	18.5	40.0	2.4	.....	.....	.....
Noon —4 p.m.	4.3	9.2	12.4	65.2	8.7	0.2	.....	.....
4 p.m. —8 p.m.	6.9	12.1	18.5	56.4	5.8	0.3	.....	.....
8 p.m. —Midnight	26.4	30.7	21.1	21.2	0.6	.....	.....	.....
AUGUST								
Midnight—4 a.m.	44.3	26.0	14.3	15.2	0.2	.....	.....	.....
4 a.m. —8 a.m.	40.8	26.1	15.8	17.3	.....	.....	.....	.....
8 a.m. —Noon	21.6	18.7	17.1	39.1	3.5	.....	.....	.....
Noon —4 p.m.	7.1	10.5	14.7	58.8	8.7	0.2	.....	.....
4 p.m. —8 p.m.	12.4	16.4	17.4	48.8	5.0	.....	.....	.....
8 p.m. —Midnight	34.8	27.1	17.4	19.7	1.0	.....	.....	.....

Appendix Table G.—Wind velocities, (Percentage of total hours in different wind velocity classes), average of the 4 years 1954 and 1956-1958—concluded

Hours	Velocity Miles Per Hour							
	0–3	4–6	7–9	10–19	20–29	30–39	40–49	Over 49
SEPTEMBER								
Midnight—4 a.m.	37.8	21.7	14.2	24.1	2.0	0.2	.....	.....
4 a.m. —8 a.m.	37.5	22.8	14.5	23.8	1.2	0.2	.....	.....
8 a.m. —Noon	17.3	14.2	15.2	48.5	4.8	.....	.....	.....
Noon —4 p.m.	4.2	8.5	13.3	65.3	8.2	0.5	.....	.....
4 p.m. —8 p.m.	11.2	18.3	17.8	47.2	5.2	0.3	.....	.....
8 p.m. —Midnight	28.5	26.7	14.3	26.8	3.5	0.2	.....	.....
OCTOBER								
Midnight—4 a.m.	29.8	19.4	15.6	29.7	5.5	.....	.....	.....
4 a.m. —8 a.m.	33.4	20.3	11.6	29.9	4.8	.....	.....	.....
8 a.m. —Noon	20.3	13.5	11.3	44.9	9.8	0.2	.....	.....
Noon —4 p.m.	6.1	9.7	12.6	57.3	14.0	0.3	.....	.....
4 p.m. —8 p.m.	13.7	17.4	20.6	40.4	7.6	0.3	.....	.....
8 p.m. —Midnight	26.9	19.5	16.4	31.4	5.3	0.5	.....	.....
NOVEMBER								
Midnight—4 a.m.	22.3	19.2	13.0	35.5	8.7	1.3	.....	.....
4 a.m. —8 a.m.	25.2	19.3	11.0	32.6	9.8	1.8	0.3	.....
8 a.m. —Noon	20.0	15.5	9.5	40.6	13.0	1.2	0.2	.....
Noon —4 p.m.	6.8	14.2	10.5	49.0	17.8	1.2	0.5	.....
4 p.m. —8 p.m.	9.7	21.2	13.7	44.1	8.8	1.8	0.7	.....
8 p.m. —Midnight	18.7	19.8	12.5	37.2	9.8	2.0	.....	.....
DECEMBER								
Midnight—4 a.m.	18.4	15.3	8.7	44.3	11.1	1.9	0.3	.....
4 a.m. —8 a.m.	16.6	14.3	13.4	41.5	11.3	2.4	0.5	.....
8 a.m. —Noon	13.7	14.7	10.5	46.3	10.8	4.0	.....	.....
Noon —4 p.m.	7.3	8.5	11.4	54.0	16.4	2.4	.....	.....
4 p.m. —8 p.m.	8.5	16.0	12.9	48.3	11.8	2.3	0.2	.....
8 p.m. —Midnight	15.0	15.6	10.2	44.1	14.4	0.5	0.2	.....

Appendix Table H.—Total precipitation by months in inches (rain plus snow, 10 inches snow = 1 inch rain)

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1914	2.81	2.59	3.73	2.33	1.46	4.29	1.45	2.58	3.65	1.90	3.22	2.59	32.60
1915	4.74	1.25	0.95	1.70	2.50	2.43	1.52	3.84	0.85	3.88	2.81	3.88	30.35
1916	1.80	4.17	4.06	2.34	1.78	3.69	2.66	0.86	1.74	5.38	3.48	4.50	36.46
1917	3.93	3.69	3.01	4.37	2.92	2.93	3.65	5.15	2.72	8.54	3.03	4.49	48.43
1918	2.18	3.44	2.17	1.43	1.21	2.30	4.99	1.72	8.06	4.36	4.14	3.25	39.25
1919	4.73	1.94	2.38	3.28	2.48	2.25	2.77	2.21	3.13	3.93	7.27	3.56	39.93
1920	2.91	4.83	3.04	3.66	1.69	2.98	2.70	3.58	2.99	0.69	3.30	3.90	36.27
1921	2.01	4.22	3.02	3.91	1.91	1.93	2.04	0.93	1.82	3.10	6.88	3.26	35.03
1922	3.18	2.96	2.35	2.46	1.51	2.48	5.63	5.56	2.71	6.38	2.37	4.81	42.40
1923	5.87	2.12	4.59	3.24	2.34	3.54	2.32	4.03	3.93	3.05	5.60	4.75	45.38
1924	5.06	1.35	1.63	2.91	0.67	4.44	0.99	6.36	2.02	3.00	2.75	2.80	33.98
1925	3.06	2.13	3.04	1.99	2.37	4.97	3.34	1.42	2.11	6.44	3.54	1.76	36.17
1926	4.74	6.57	3.79	3.52	3.75	3.33	2.98	1.85	1.00	4.63	3.10	4.60	43.86
1927	4.42	3.46	2.46	3.37	3.73	1.27	5.58	9.39	2.07	5.23	2.37	4.39	47.74
1928	4.23	2.99	3.05	2.18	3.16	1.88	3.32	1.02	2.76	3.12	3.21	5.45	36.37
1929	4.99	3.73	2.81	2.78	6.52	2.30	1.60	2.32	4.46	2.40	3.63	3.99	41.53
1930	3.14	3.56	3.73	1.60	1.61	1.71	3.71	2.07	0.92	3.33	1.74	4.95	32.07
1931	3.69	3.12	3.03	3.81	2.59	4.57	2.15	3.54	4.81	2.16	1.87	4.06	39.40
1932	4.00	2.47	3.21	2.76	1.30	2.12	3.47	3.26	3.95	3.23	4.40	3.04	37.21
1933	4.86	3.77	4.56	2.87	2.32	3.14	2.06	5.24	5.79	11.69	6.36	3.71	56.37
1934	2.84	5.85	3.52	2.95	1.57	1.19	5.52	0.52	3.21	3.34	7.71	5.63	43.85
1935	8.69	3.12	2.89	1.83	1.47	2.76	2.49	4.52	4.73	2.61	3.95	4.40	43.46
1936	5.65	1.21	4.35	3.00	4.18	2.78	2.16	2.94	6.91	6.32	4.23	5.03	48.76
1937	3.57	2.63	2.70	2.27	3.25	4.82	0.67	4.32	4.22	3.91	3.43	4.50	40.29
1938	2.91	4.52	2.54	2.44	2.22	4.67	6.72	4.25	4.22	2.31	4.72	3.36	44.88
1939	3.66	2.77	4.36	4.51	3.93	1.18	2.63	1.91	2.53	5.02	1.14	3.83	37.47
1940	2.24	1.99	4.74	2.78	2.46	2.80	2.16	1.66	6.66	2.74	5.54	4.81	40.58
1941	4.61	1.98	4.85	1.99	5.83	2.65	2.15	3.80	2.00	5.12	4.66	4.36	44.00
1942	5.27	2.78	4.09	2.27	2.07	1.58	2.00	2.11	10.58	5.85	4.09	3.75	46.44
1943	1.61	3.98	3.59	1.64	4.11	4.59	5.52	6.60	2.71	4.11	6.03	1.51	46.00
1944	1.30	5.51	2.04	2.54	0.22	2.88	2.30	3.02	3.33	4.31	4.85	3.89	36.19
1945	4.97	3.78	1.65	1.89	7.66	6.32	1.48	2.18	1.77	5.81	7.05	3.65	48.21
1946	4.07	4.23	1.11	4.95	2.57	1.03	1.94	3.56	2.91	2.50	2.18	5.00	36.05
1947	4.71	4.33	1.92	2.65	4.26	3.66	4.25	0.86	4.67	0.40	3.41	5.48	40.60
1948	6.60	1.93	5.71	2.75	6.66	3.73	2.52	2.48	1.95	2.34	3.99	4.53	45.19
1949	2.14	3.09	5.13	2.96	2.49	2.42	0.48	4.51	3.46	1.41	4.71	3.09	35.89

1950	3.35	3.25	3.29	2.52	0.94	2.71	3.04	6.39	1.68	2.43	4.36	5.45	39.41
1951	4.08	3.22	2.20	3.73	3.27	1.20	2.94	4.79	3.75	1.47	3.58	6.08	40.31
1952	6.91	4.93	3.20	1.67	2.44	2.19	1.55	5.21	2.52	1.41	2.30	2.95	37.28
1953	2.17	4.44	2.00	2.32	2.86	1.48	3.05	4.99	3.80	3.64	2.18	4.02	36.95
1954	5.99	6.78	2.77	1.84	2.62	2.94	1.71	3.72	1.48	4.08	3.69	4.58	42.20
1955	4.95	2.64	3.42	1.96	1.75	1.62	1.49	3.89	2.20	1.57	3.51	2.65	31.65
1956	10.19	4.70	5.87	2.59	2.31	1.87	1.91	1.72	2.81	1.12	4.19	3.86	43.14
1957	6.80	3.17	4.01	4.47	2.14	1.59	1.68	3.11	3.02	2.18	7.22	4.49	43.88
1958	9.30	4.47	4.26	3.58	2.46	2.50	2.20	4.92	5.52	2.66	6.47	5.01	53.35
45-year average	4.33	3.46	3.26	2.77	2.75	2.79	2.74	3.44	3.43	3.67	4.09	4.08	40.81

Appendix Table I.—Total rain by months in inches

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1914	1.18	0.79	3.13	1.48	1.26	4.29	1.45	2.58	3.65	1.90	3.06	1.57	26.34
1915	2.64	0.63	.....	1.15	2.24	2.43	1.52	3.84	0.85	3.88	2.81	2.34	24.33
1916	0.65	1.52	0.01	1.85	1.78	3.69	2.66	0.86	1.74	5.38	2.18	3.15	25.47
1917	2.33	2.59	1.56	4.09	2.92	2.93	3.65	5.15	2.72	8.54	2.61	1.47	40.56
1918	1.23	2.27	0.37	0.83	1.21	2.30	4.99	1.72	8.06	4.36	3.14	1.35	31.83
1919	3.23	0.99	2.38	3.28	2.48	2.25	2.77	2.21	3.13	3.93	7.27	2.66	36.58
1920	0.21	2.73	2.42	2.94	1.69	2.98	2.70	3.58	2.99	0.69	3.00	3.60	29.53
1921	1.14	0.65	2.47	3.54	1.91	1.93	2.04	0.93	1.82	3.10	4.88	0.39	24.80
1922	2.16	0.61	1.85	2.46	1.51	2.48	5.63	5.56	2.71	6.38	2.20	0.84	34.39
1923	1.42	.....	1.57	2.97	2.34	3.54	2.32	4.03	3.93	3.05	5.60	1.96	32.73
1924	2.44	0.03	0.38	1.81	0.67	4.44	0.99	6.36	2.02	3.00	1.80	1.58	25.52
1925	0.61	1.38	2.67	1.49	2.37	4.97	3.34	1.42	2.11	6.44	3.54	0.36	30.70
1926	1.52	0.62	2.14	1.55	3.75	3.33	2.98	1.85	1.00	4.63	3.10	1.85	28.32
1927	3.54	0.14	1.04	2.37	3.73	1.27	5.58	9.39	2.07	5.23	2.10	2.37	38.83
1928	2.43	0.96	1.63	2.18	3.16	1.88	3.32	1.02	2.76	3.12	2.28	5.08	29.82
1929	3.26	1.63	1.53	2.43	6.52	2.30	1.60	2.32	4.46	2.40	2.88	2.06	33.39
1930	1.51	1.26	3.63	1.57	1.61	1.71	3.71	2.07	0.92	3.33	1.09	2.75	25.16
1931	1.57	1.57	0.75	3.81	2.59	4.57	2.15	3.54	4.81	2.16	1.87	3.13	32.52
1932	2.72	0.69	1.98	2.56	1.30	2.12	3.47	3.26	3.95	3.23	4.37	1.78	31.43
1933	4.01	2.95	2.55	2.77	2.32	3.14	2.06	5.24	5.79	11.69	4.51	0.98	48.01
1934	1.25	2.49	1.44	2.95	1.57	1.19	5.52	0.52	3.21	3.34	7.58	3.30	34.36
1935	4.39	1.51	1.04	1.83	1.47	2.76	2.49	4.52	4.73	2.61	3.72	0.82	31.89
1936	3.52	0.66	4.30	2.80	4.18	2.78	2.16	2.94	6.91	6.32	3.40	4.82	44.79
1937	2.76	0.72	1.53	1.89	3.25	4.82	0.67	4.32	4.22	3.91	3.38	2.50	33.97
1938	1.96	1.49	1.58	2.22	2.22	4.67	6.72	4.25	4.22	2.31	3.62	2.72	37.98
1939	2.27	1.68	2.37	3.48	3.93	1.18	2.63	1.91	2.53	5.02	1.14	1.85	29.99
1940	0.49	0.32	3.90	1.62	2.46	2.80	2.16	1.66	6.66	2.54	4.74	4.04	33.39
1941	0.81	0.95	2.00	1.99	5.83	2.65	2.15	3.80	2.00	5.02	4.14	2.65	33.99
1942	1.86	0.93	3.47	2.01	2.07	1.58	2.00	2.11	10.58	5.85	3.56	2.05	38.07
1943	0.32	2.48	2.36	1.40	4.11	4.59	5.52	6.60	2.71	4.11	5.36	0.57	40.13
1944	0.29	1.47	1.58	2.54	0.22	2.88	2.30	3.02	3.33	4.31	4.85	2.95	29.74
1945	2.58	1.71	1.22	1.89	7.66	6.32	1.48	2.18	1.77	5.81	5.93	2.17	40.72
1946	2.47	2.76	1.09	3.02	2.57	1.03	1.94	3.56	2.91	2.50	2.18	3.04	29.07
1947	3.33	3.03	1.81	2.23	4.26	3.66	4.25	0.86	4.67	0.40	3.02	0.76	32.28
1948	2.47	1.41	2.01	2.33	6.66	3.73	2.52	2.48	1.95	2.34	3.99	2.47	34.36
1949	1.36	1.05	3.00	2.96	2.49	2.42	0.48	4.51	3.46	1.41	4.66	1.92	29.72

1950	0.88	0.44	1.39	0.93	0.94	2.71	3.04	6.39	1.68	2.13	4.21	3.85	28.59
1951	1.18	2.00	1.53	3.73	3.27	1.20	2.94	4.79	3.75	1.47	3.38	2.01	31.25
1952	2.02	1.17	0.66	1.67	2.44	2.19	1.55	5.21	2.52	1.41	1.63	1.19	23.66
1953	1.66	3.00	1.90	2.32	2.86	1.48	3.05	4.99	3.80	3.64	2.13	2.97	33.80
1954	2.59	3.56	1.31	1.57	2.62	2.94	1.71	3.72	1.48	4.08	2.99	3.84	32.41
1955	1.51	1.32	2.30	1.85	1.75	1.62	1.49	3.89	2.20	1.57	1.69	0.09	21.28
1956	8.55	0.29	0.42	2.19	2.31	1.87	1.91	1.72	2.81	1.12	3.66	2.68	29.53
1957	1.37	1.99	1.69	3.51	2.14	1.59	1.68	3.11	3.02	2.08	7.22	4.10	33.50
1958	8.88	2.24	2.03	3.00	2.46	2.50	2.20	4.92	5.52	2.66	6.05	1.57	44.03
45-year average	2.23	1.44	1.82	2.33	2.74	2.79	2.74	3.44	3.43	3.65	3.61	2.27	32.49

Appendix Table J.—Total snow by months in inches

Year	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	Total
1913-14	.....	.....	13.7	16.3	18.0	6.0	8.5	2.0	64.5
1914-15	.....	1.6	10.2	21.0	6.2	9.5	5.5	2.6	54.0
1915-16	.....	.....	15.4	11.5	26.5	40.5	4.9	.....	98.8
1916-17	.....	13.0	13.5	16.0	11.0	14.5	3.0	.....	71.0
1917-18	.....	4.2	30.2	9.5	11.7	18.0	6.0	.....	79.6
1918-19	.....	10.0	19.0	15.0	9.5	0.0	.....	.....	53.5
1919-20	.....	.....	9.0	27.0	21.0	6.2	7.2	.....	70.4
1920-21	.....	3.0	3.0	8.7	35.7	5.5	3.7	.....	59.6
1921-22	.....	20.0	28.7	10.2	23.5	5.0	.....	.....	87.4
1922-23	.....	1.7	39.7	44.5	21.2	30.2	2.7	.....	137.3
1923-24	.....	.....	27.9	26.2	13.2	12.5	11.0	.....	90.8
1924-25	.....	9.5	12.2	24.5	7.5	3.7	5.0	.....	62.4
1925-26	.....	.....	14.0	33.2	59.5	16.5	19.7	.....	142.9
1926-27	.....	.....	27.5	8.7	33.2	14.2	10.0	.....	93.6
1927-28	.....	2.7	20.2	18.0	20.3	14.2	.....	.....	75.4
1928-29	.....	9.3	3.7	17.3	21.0	12.7	3.5	.....	67.5
1929-30	.....	7.5	19.3	16.2	23.0	1.0	0.3	.....	67.3
1930-31	.....	6.5	22.0	21.2	15.5	22.8	.....	.....	88.0
1921-32	.....	.....	9.3	12.8	17.8	12.3	2.0	.....	54.2
1932-33	.....	0.3	12.6	8.5	8.2	20.1	1.0	.....	50.7
1933-34	.....	18.5	27.3	15.9	33.6	20.7	.....	.....	116.0
1934-35	.....	1.3	23.2	43.0	16.1	18.5	.....	.....	102.1
1935-36	.....	2.3	35.7	21.2	5.5	0.5	2.0	.....	65.2
1936-37	.....	8.4	2.1	8.1	19.1	11.7	3.8	.....	53.2
1937-38	.....	0.5	20.0	9.5	30.3	9.6	2.2	.....	72.1
1938-39	.....	11.0	6.4	13.9	10.9	19.9	10.3	.....	72.4
1939-40	.....	0.1	19.8	17.5	16.7	8.4	11.6	.....	74.1
1940-41	2.0	8.0	7.7	38.0	10.3	28.5	.....	.....	94.5
1941-42	1.0	5.2	17.1	34.1	18.5	6.2	2.6	.....	84.7
1942-43	.....	5.2	17.0	12.9	15.0	12.3	2.4	.....	64.8
1943-44	.....	6.7	9.4	10.1	40.4	4.6	.....	.....	71.2
1944-45	.....	.....	9.4	23.9	20.7	4.3	.....	.....	58.3
1945-46	.....	11.2	14.8	16.0	14.7	0.2	19.3	.....	76.2
1946-47	.....	.....	19.6	13.8	13.0	1.1	4.2	.....	51.7
1947-48	.....	3.9	47.2	41.3	5.2	37.0	4.2	.....	138.8
1948-49	.....	.....	20.6	7.8	20.4	21.3	.....	.....	70.1
1949-50	.....	0.5	11.7	24.7	28.1	19.0	15.9	.....	99.9
1950-51	3.0	1.5	16.0	29.0	12.2	6.7	.....	.....	68.4
1951-52	.....	2.0	40.7	48.9	37.6	25.4	.....	.....	154.6
1952-53	.....	6.7	17.6	5.1	14.4	1.0	.....	.....	44.8
1953-54	.....	0.5	10.5	34.0	32.2	14.6	2.7	.....	91.8
1954-55	.....	7.0	7.4	34.3	13.2	11.2	1.1	.....	73.1
1955-56	.....	18.2	25.6	16.4	44.1	54.5	4.0	.....	162.8
1956-57	.....	5.3	11.8	54.3	11.8	23.2	9.6	.....	106.4
1957-58	1.0	.....	3.9	4.2	22.3	22.3	5.8	.....	59.5
45-year average	0.1	4.7	17.5	21.0	20.1	14.4	4.3	.....	82.1

Appendix Table K.—Total hours of bright sunshine by months

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1914	92	119	118	196	190	250	239	211	174	158	110	85	1,942
1915	73	100	103	107	161	180	216	168	194	171	65	56	1,594
1916	93	60	120	140	187	161	206	221	175	166	109	51	1,689
1917	84	95	166	108	102	176	196	202	215	158	78	33	1,613
1918	82	103	150	204	225	215	198	234	166	115	81	56	1,829
1919	53	95	130	118	200	245	222	192	158	125	57	84	1,679
1920	60	69	123	129	252	233	260	207	169	182	101	52	1,837
1921	56	112	129	134	239	214	208	255	206	166	48	55	1,822
1922	106	101	184	118	234	206	180	181	220	118	57	64	1,769
1923	93	131	139	183	218	201	208	244	167	151	94	47	1,876
1924	87	121	91	136	225	219	284	201	186	158	94	47	1,849
1925	100	88	132	147	205	200	235	229	137	147	104	56	1,780
1926	69	116	133	179	172	243	217	201	174	127	111	67	1,809
1927	62	76	147	194	194	237	191	215	184	95	85	47	1,727
1928	65	84	150	199	170	196	239	178	150	126	73	77	1,707
1929	79	106	115	136	209	218	286	224	159	131	98	44	1,805
1930	82	101	156	190	198	288	224	215	189	99	120	57	1,919
1931	87	71	75	161	177	170	251	264	135	124	114	48	1,677
1932	78	114	123	149	225	219	228	230	153	133	71	67	1,790
1933	79	80	95	139	272	194	236	182	131	129	69	59	1,665
1934	92	88	167	170	196	173	267	238	138	110	73	71	1,783
1935	49	97	163	163	247	181	226	214	161	176	70	23	1,770
1936	71	115	118	122	188	162	213	205	134	124	43	61	1,556
1937	95	102	133	153	180	185	276	236	172	126	62	64	1,784
1938	97	81	133	119	202	190	170	217	171	142	108	55	1,685
1939	90	94	143	141	245	275	231	256	159	96	121	53	1,904
1940	73	118	105	144	155	159	229	303	150	143	66	49	1,694
1941	61	87	140	170	180	158	236	210	173	123	95	57	1,690
1942	81	59	94	170	161	195	244	235	171	153	79	58	1,700
1943	86	117	143	158	182	177	229	221	185	103	63	76	1,740
1944	71	116	161	193	307	188	266	249	182	98	52	56	1,939
1945	56	90	121	158	150	149	291	244	181	115	74	42	1,671

Appendix Table K.—Total hours of bright sunshine by months—concluded

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1946	86	89	207	117	197	247	253	179	157	186	90	46	1,854
1947	74	82	134	178	218	240	225	263	204	191	64	63	1,936
1948	40	129	143	124	141	150	247	213	179	130	65	59	1,620
1949	83	112	81	135	226	288	287	250	155	180	61	58	1,916
1950	65	88	153	118	261	217	245	198	155	137	95	57	1,789
1951	92	75	98	110	203	194	259	178	203	125	82	37	1,656
1952	60	63	93	149	157	190	303	221	193	172	55	62	1,718
1953	72	95	104	116	181	189	257	222	193	133	71	64	1,697
1954	65	65	148	207	185	207	235	231	174	113	73	67	1,770
1955	38	84	148	137	199	175	259	180	182	121	71	57	1,651
1956	25	125	155	126	229	223	261	223	166	190	85	36	1,844
1957	73	135	120	181	237	245	222	235	182	127	62	52	1,871
1958	59	92	69	140	191	223	236	233	167	142	85	59	1,696
45-year average	74	96	130	150	202	205	238	220	172	139	80	56	1,762