

## CLIMATE AND METEOROLOGY

Alberta and Saskatchewan and Manitoba the excess over normal temperature was considerable, especially in the region north of Prince Albert. In the Maritime Provinces and the settled regions of Quebec there was a general but not large defect.

**Precipitation.**—Over the greatest part of the Dominion the precipitation was considerably less than normal; in a few sections it was only slightly less than normal, and only in western and northwestern Quebec was there any considerable excess.

**Winds and Bright Sunshine.**—In Quebec and eastern Ontario the prevailing direction of the wind was southwest, while over the remainder of the Dominion west and northwest largely predominated, except in British Columbia where the greatest mileage was easterly. In British Columbia there were gales on six days and strong winds on three days. In the Prairie Provinces there were gales on one or two days and strong winds on eight days. In Ontario there were gales on one to four days and strong winds on ten days. In Quebec and the Maritime Provinces there were gales on seven days and strong winds on eleven days. In British Columbia, northern Alberta, Manitoba, southern and eastern Ontario, there was a large excess of bright sunshine, especially large in British Columbia. In all other parts of the country there was also an excess, but very small.

## DECEMBER.

**Temperature.**—The mean temperature of the month was decidedly below normal from Lake Superior westward to the Pacific coast, negative departures of 12° to 15° being recorded in northern Alberta and the northern interior districts of British Columbia. In Ontario there was also a negative departure but small, while from the Ottawa valley eastward departures were positive and increased to 6° on the eastern shores of New Brunswick and Cape Breton.

**Precipitation.**—Precipitation was considerably above normal in the Maritime Provinces and eastern Quebec, while in other parts of the Dominion with some local exceptions, the normal amount was not recorded.

**Winds and Bright Sunshine.**—There was a heavy westerly gale in Ontario on the fifth and sixth, while in the Maritime Provinces and Quebec there was an unusually heavy wind movement. In southern Ontario and western Quebec, Vancouver Island, southern Alberta and Manitoba the duration of bright sunshine was from ten to forty hours in excess of normal, while in the Maritime Provinces there were equally large deficiencies.

## TEMPERATURE AND PRECIPITATION.

**TEMPERATURE.**—At the stations of the Dominion Meteorological Service the highest and lowest temperature in each 24 hours, termed respectively the maximum and the minimum, are recorded by self-registering thermometers. For any month the sum of the daily maxima, divided by the number of days of the month, is the mean maximum temperature of that month. The mean minimum temperature is obtained in a similar manner. The half sum of the mean maximum and the mean minimum is called the mean temperature. The averages of these results for any particular month over a period of years are the average means for that period and are used as normal means or temperatures of reference. The highest and lowest temperatures recorded during the whole period of years are termed the extreme maximum and extreme minimum respectively. These latter figures are of course to be regarded as extraordinary, the more unlikely to recur the longer the period from which they have been derived. Temperatures below zero have the minus sign (—) prefixed.

**PRECIPITATION.**—Under the collective term "precipitation" is included all moisture which has been precipitated from the atmosphere upon the earth: rain, snow, hail, sleet, etc. The amount of moisture is conveniently measured by determining the depth to which it has accumulated upon an impervious surface, and is always expressed in inches of depth. The total depth of snow is tabulated separately, but is added to the depth of rain after division by ten. An extended series of experiments in melting and measuring snow having been collated, the rule was deduced that a given fall of snow will, in melting, diminish on the average to one-tenth of its original depth. This rule is used in practice. All solid forms of precipitation other than snow are included in the tables as rain.