

## GENERAL SURVEY OF THE CLIMATE OF CANADA.

**Manitoba.**—The province of Manitoba is almost in the centre of the continent, about midway between the Atlantic and Pacific oceans, and also midway between the gulf of Mexico and the Arctic sea. It is many hundreds of miles distant from any high mountains, and there are no important water areas to the westward. The topographical features of the province are not pronounced. About two-thirds of the total area, including the basins of Lakes Winnipeg and Manitoba, are at a level of less than 1,000 feet, while to the westward the levels increase gradually to about 1,600 feet, with some few districts a little higher.

The very pronounced contrast between the continental and littoral type of climate is well evidenced by the fact that the mean range in temperature between the warmest and the coldest months of the year is 71° at Winnipeg, while it is but 21° at Victoria, British Columbia. The absolute recorded range of temperature at Winnipeg is 150°. A change of temperature of 40° in twenty-four hours is not very exceptional in winter in Manitoba, and a range of 49° has been registered. Very pronounced also are the departures from the normal in corresponding months in different years, there being a January on record with the mean temperature 8° above normal, and another with the mean temperature 13° below normal, and a February with a mean temperature 25° above normal and also one with the mean 13° below normal.

The monthly variations from normal are not so pronounced in summer, the mean temperature of the warmest July having been 70.2° and of the coldest 60.6°.

As will be obvious from the figures just given, the change from winter to spring and summer is more rapid than in Great Britain or western Europe, and frequently an April which is wintry at the beginning ends with conditions approaching those of summer. An average April is not so warm a month in Manitoba as it is in England. The season is not, however, so backward as the monthly mean temperatures might seem to indicate. The daily range is large, approximately 25°, and while the nights are cold, the day temperatures are high; the frost soon leaves the ground and the farmer may commence sowing. The mean temperature of May is as high as in the south of England, with the mean maximum considerably higher, and while frosts occasionally occur they are seldom severe. Light snowfalls also occur in this month, and at times are accompanied by high winds, but these storms are seldom injurious to agriculture.

The rapid upward trend of the temperature curve continues during June, the average daily maximum of which month is 74° at Winnipeg and 72° at Minnedosa. Warm days with frequent showers produce an almost phenomenally rapid growth, which continues through July, for which month the mean temperature at Winnipeg is 66°, with an average daily maximum of 78°. Few summers go by without several heat spells, during which the temperature rises to 90° or over, and in August 1886, 103° were recorded in Winnipeg and 104° in the more western districts.

There are no wide differences in the monthly and annual amounts of precipitation in the different parts of the province; the mean annual amount is about 19 inches, the heaviest about 22 inches, occurring in