

that continue the route to St. Pauls. The road has doubtless been much improved since I traversed it, and soon no greater difficulty will exist in gaining access to the Red River Settlement than to any of the more western towns of the United States which are not yet reached by railways.

With regard to the climate of the district of Red River and the Assineboine, we are in need of more complete and careful observations than have yet been obtained to justify our speaking with confidence on the subject.

It would appear, however, that the winter is somewhat shorter in this region than in that about Lake Superior. The average time for its commencement is in the beginning of November, and by the middle of the month all the lakes and streams are completely frozen, and the ground covered with snow, which lasts throughout the season.

The winter really lasts till about the second week in April, although during the month of March there are many warm genial days, with hard frosts during the nights; but, in addition to this period of five months, there is a previous frost of two or three weeks, preceding the freezing over of the rivers, and sufficiently severe to stop agricultural operations, so that the winter may generally be estimated at six months' duration. The extreme cold is in the month of February, when the thermometer sometimes falls to about 45° below zero. The winter is the most favourable time for the transport of heavy materials, such as those required for building purposes. Thaws rarely occur before the month of March; but, at this time, the existence of horses and horned cattle becomes precarious, owing to the thaws by day being succeeded by frosts at night, causing a crust on the snow, in many cases, too hard for the animals to remove in order to feed. The inhabitants, however, by the exercise of a little forethought during the previous autumn, might, without any difficulty, provide abundance of the finest natural hay from the adjacent swamps. Horses and cattle, if provided with a sufficiency of hay for only six or seven weeks, will not only survive, but continue useful and serviceable during the whole of the winter and spring. Spring progresses with great rapidity; in a few days snow disappears, and the new grass has already commenced to grow up by the beginning of May. At the end of that month agricultural operations may be commenced. During the month of June, however, severe night frosts frequently occur, rendering the wheat crops very precarious; but the climate is well suited to the growth of barley, oats, potatoes, and garden vegetables.

The heat during summer is very great, ripening all fruits rapidly with some curious exceptions; among these are apples, which will not grow on standard trees either there or in the north of the State of Minnesota.

The harvest for hay, which is very abundant, commences in the beginning of July, and that for the cereals about the tenth of August. Great damage often occurs at this time to the crops from thunder storms, and also from grasshoppers (*i.e.* locusts).

The soil is that of an ancient lake bottom, consisting of variously proportioned mixtures of clay, loam, and marl, with a remarkable deficiency of sand.

It is overlaid by a great thickness of vegetable mould, varying from two to four or five feet in depth.

The settlement at present occupies an area of about 50 square miles in extent, its centre is at the forks of the Assineboine and Red River, in lat. 49° 52' N., long. 96° 53' W., and at an elevation of 800 feet above the level of the sea.

The chief wealth of the agriculturist would be derived from the rearing of cattle, large quantities of very nutritious grasses abounding everywhere, together with hemp, flax, and hops, which grow admirably. Between the Red River and the Saskatchewan, no river of any great size enters on the west side of Lake Winnipeg. There are indeed several streams which are navigable for boats, but these are merely channels of communication between various lakes.

The Assineboine, which joins Red River from the west at Fort Garry, rises in lat. 52°, nearly. Its course, of nearly 300 miles, lies wholly within fertile and partially wooded country. The upper portion of the valley has only a small extent of alluvial land of the finest quality, as the banks are lofty and steep, enclosing alluvial bottom of rarely more than 1½ miles in width.

The land on the high level is, however, of considerable value in many places, with a prevalence of light sandy soil supporting bluffs of timber and rich pasture.

The lower part of the valley of the Assineboine, for 70 miles before it joins Red River, affords land of surpassing richness and fertility, to the extent of several hundred thousand acres.

The Assineboine is navigable to the Hudson Bay boats, which are 42 feet in length, and draw 3 feet of water, for a great distance, but the channel though deep is narrow and extremely tortuous.