

"The Indians at Lake Tatla, on the Chilcotin plains, have a considerable band of horses, and these animals subsist during every winter in the open air, on what they can pick up. This they could not do, if the snow was of great depth. In reply to enquiries, the Indians say that the snow on the level reaches, at times, a little above the knee, probably not much over two feet.

"In all the passes through the Cascade chain, the snow is reported to be deep, and it is probable that in any route adopted, through the Canyons of this range, snow-sheds would be required to protect the line from snow-drifts and snow-slides.

"As the sea level is approached the snow diminishes, in proof of which one of the surveying parties found several mules in good condition that had been left by the late Mr. Waddington, near the head of Bute Inlet, eight years before. These mules had been left without any protection or provision for winter during the whole period.

It is evident from the number of facts collected, that, throughout the whole extent of country between Ottawa and the Pacific Ocean, there are no serious climatic difficulties to be apprehended that cannot be overcome in the usual way.

"The only localities where snow may be met in quantities, equal to the maximum in the eastern Provinces of the Dominion, are on the western slopes of the two great mountain chains in British Columbia. In the Cascade Chain it will, in some places, exceed the maximum referred to, and here it will probably be necessary to protect the railway by snow-sheds.

"With the exceptions, it is believed that, if the roadway be raised a few feet above the general level in the open prairies and other means adopted to prevent drifts snow will readily offer less obstruction on the Canadian Pacific Railway than it does on lines now worked in Ontario, Quebec and in the other Eastern Provinces."

Mr. Moberly says in his report:—

"Many ask how it can be possible that Manitoba can be warmer than Minnesota, but they never consider that much of the latter State is 1,500 feet above the sea, while the former is not half so much. Lake Winnipeg is only 31 feet higher than Rice Lake, which is only 15 miles to the north of Lake Ontario. Much of the Province of Ontario lies far higher than Manitoba and the summer heat of the one is fully equal to that of the other. It is never necessary to speak of winter temperatures in connection with the raising of cereals, as the ripening of seeds depends altogether on the heat of summer. * * * * *

"The Riding Mountains lie a little to the northwest of us, and there, together with the hills and rough country, indicate that we are about to ascend to the second prairie steppe. From Point du Chene (Oak Point) 30 miles east of Fort Garry to this point, making a distance of 125 miles from east to west, and extending from the forty-ninth parallel on the south to Lakes Winnipeg and Manitoba, on the north, stretches a region of country, not to be excelled for the raising of cereals by any other tract of the same size in America."

He states that the country around Fort Edmonton, near the Rocky Mountains, is superior to that in the vicinity of Fort Garry; that ploughing is done in April, grain sown in May; and harvests in August. He found plants common in Central

Canada. He detected 146 species, not one of which indicated an arctic or sub-arctic climate. He found the climate around Fort Edmonton favourable for all kinds of grain except maize.

With respect to this country Mr Moberly says:—

"The climate in the neighbourhood of Fort Edmonton is favorable to the growth of all kinds of grain, except maize. So also is that of Big Lake, or St Alber's Mission, nine miles further to the north. In both localities, I saw wheat, oats and barley, of excellent quality, and much taller than it is seen in Ontario. The season of 1872 was very unfavourable, owing to the almost constant rains, and consequent chilliness of the atmosphere. Yet the crops around Edmonton all came to maturity, except a very little late wheat, which was frozen on the 25th August. The difference between the summer heat of 1871 and 1872 can be better understood by the fact that the barley of the H. B. C. was ripe on the 14th August of the former year, while it was not fit for the sickle until the 26th last year. Fall wheat has never been tried, but there is no reason why it should not succeed, as the ground is covered with snow all the winter, and the ground is never so wet as to heave it out in spring when the winter is breaking up.

"From data furnished by Captain Palliser's report and others at Fort Edmonton, it seems that ploughing commences about the 10th of April on an average, and wheat is sown by the end of the month. Jons. Bourgeau found many plants in flower during April; more than are generally found in Eastern Canada in that month. He records observing an Anemone [*Anemone patens*] in flower on the plains, April 11th and the frogs croaking the same evening. During twenty years in Ontario I never observed our first spring flower [*Hepatica trioba*] as early as that except twice.

"The ground freezes up about the last of October, though there is generally much mild weather after this. While we remained at the fort the thermometer rose to 72 in the room, so that it was over 80 in the sun. This was about the first of September"

And with respect to Peace River, he says:

"Had I seen the Peace River country in summer, when its trees were in full leaf, and the meadows covered with waving grass and bright flowers it might naturally have been supposed that I have used too strong language. But passing through it when the trees were nearly leafless, the grass and flowers withered and dead, I might be expected to not tell much in its favour. Yet there was no tract to equal it in my estimation between Fort Garry and Edmonton."

And with reference to the climate at Dunvegan, we take the following from Mr. Moberly's report:

"The following table shows the temperature of Belleville, as taken by Alexander Burdon, Esq., Station Observer, during the ten days between the 10th and 19th of October, 1872, and the observations made by myself when passing over the portage between Dunvegan and St. John, during the same period.

"Belleville being lat. 44° north, and 77.25 west long.; while Dunvegan is in lat. 56°, and about 118° west long.