

Q. Going north?

A. Yes, going north. Now Isle Lacrosse is 1,330 feet above the sea, and it is in latitude $55^{\circ} 45'$. Well, the reason I put that down in my notes: I was there on the 30th of September, 1875. The potatoes in the garden at that time were growing and had not been killed. The Roman Catholic missionaries had what I will call a horse grist mill to grind the wheat. The conclusion I drew was that they would not have a wheat mill if they did not raise wheat. That was in 1875, and as I say Isle Lacrosse is 1,330 feet above the sea. Athabaska lake is 690 feet above the sea, and if I were talking geologically to you, I would tell you that our Great Lakes lie nearly on the same level. Lake Superior, you know, is only 600 feet above the sea. Then we run in a north-westerly direction and we come on Lake Winnipeg, 710 feet. Then we pass on north-westerly again, and we come to Lake Athabaska which is 690 feet above the sea, thus showing that nearly all the Great Lakes run nearly on the same line.

COMPARATIVE PRODUCTIVENESS OF CEREALS.

When I was at Lake Athabaska in 1875 I learned from the missionaries that they grew wheat not to grind put to boil. I went into the field where the stooks were on the 23rd of August and brought away not the grains but the heads, and I brought them with me to Winnipeg, and the result is shown in this book. But here was the astonishing part of it, the wheat that I got at Lake Athabaska had an average of five grains across the face of the ear. When I took it to Winnipeg the American Consul there was astounded when he saw it. 'Why,' he says, 'we in Minnesota have very little more than two grains across the ear.' And you gentlemen haven't very often more than two in Ontario. And in Dakota they had not an average of three, but between two and three; but here I was, coming from the West, with an average of five. When I reduced it down to the average to the acre then I said the wheat of Manitoba and the West will have an average of three to four, and hence I put on twenty bushels to the acre on account of the number of grains. I said, 'If you can raise thirty bushels to the acre in Ontario under certain conditions, they will raise fifty bushels to the acre under the same conditions in the Northwest. Of course, I was talking big, gentlemen, but I had a big subject. At any rate, what I was at was this, that all things being equal the same number of straws in the far north would produce fifteen or twenty bushels to the acre more than you could obtain on the same number of straws in the east. In Winnipeg we had a kind of meeting of five or six of the leading men there; there is only one of those who were present living now, Professor Bryce, all the others are dead. Consul Taylor, of Winnipeg, was there, and he explained to us then—I knew it possibly then, but I know it better now—that whenever any kind of production comes near its northern limit it produces more, and its progeny seems to have greater strength. Now, since that time I have applied that principle to man and beast, and I find that it is correct.

By Mr Lewis:

Q. It is the same way with the human being?

A. Yes. That is the reason I say that we northern people are going to be the dominant people. Of course it was all from Consul Taylor I got my information in the matter of wheat.

By Mr. Herron:

Q. What are the great obstacles to navigation in the North Saskatchewan?

A. Those mud bars; you call them sand bars, but I call them mud bars.

Q. Are they numerous?

A. Yes, they are numerous. You see the river current is running along and it meets a bar, and then possibly scoots across to the other side of the river and digs in on the bank on the other side, and then it bends out again. Wherever it goes in