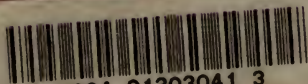


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ALBERTA, N.-W.T.

REPORT OF SIX YEARS' EXPERIENCE OF A FARMER

IN THE

RED DEER DISTRICT

BY

REV. LEO. GAETZ.

Published by the Department of Agriculture of the Government of Canada.



OTTAWA:
PRINTED BY BROWN CHAMBERLIN, PRINTER TO THE QUEEN'S
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INTRODUCTORY REMARKS.

The following is a report of the information furnished to the Committee on Colonization and Agriculture by the Rev. Leo. Gaetz, giving his personal experiences of six years' residence as a farmer in the Red Deer district of Northern Alberta. Mr. Gaetz, owing to ill-health, was obliged to resign his ministry in the Methodist Church, and in consequence he took up his residence in the locality stated.

The record of an experience of six years' farming as a settler in Northern Alberta by a man who had no experience of this mode of life presents new information which is of great interest, and which was furnished by Mr. Gaetz to the Committee with frankness.

The facts stated are proof of the pleasantness of the climate and the general conditions of living in that, at present, little known portion of the North-West, and they convey a more favourable impression of the farming resources of Northern Alberta than have been believed by many to exist.

DEPARTMENT OF AGRICULTURE,
OTTAWA, 7th March, 1890.

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RED DEER.

DISTRICT OF NORTHERN ALBERTA.

COMMITTEE ROOM 50,
HOUSE OF COMMONS,
OTTAWA, 26th February, 1890.

The Select Standing Committee on Agriculture and Colonization met this day in the Committee Room. Mr. Peter White, Renfrew, Chairman, presided.

The Chairman.—Hon. Mr. Carling has suggested to me that the Rev. Leonard Gaetz, who has lived in the Red Deer River district of the North-West Territories, might be able to give the Committee some information with respect to that country.

Hon. Mr. Carling.—The Rev. Leonard Gaetz, who is well known in western Canada, and who, on account of poor health, was obliged some years ago to leave the ministry, settled in Alberta, about 100 miles north of Calgary, in the vicinity of the Red Deer River, and has become a farmer, and is cultivating a large quantity of land. He brought down with him yesterday from there samples of grain that were grown in that section, and I thought the Committee would be very much interested in having a description of that country, and seeing the samples of grain that were grown there.

The Chairman.—Perhaps you will tell us, Mr. Gaetz, when you went to the Red Deer country, what its chief attractions are and how that country is adapted for agricultural operations?

Rev. Leonard Gaetz.—I have the honour and privilege of appearing before you, as the Hon. Minister of Agriculture stated, through a kind suggestion of his own. I may say here that I once had the privilege of preaching, not at but to the Hon. Mr. Carling in the city of London, and he was a kindly friend then, and I believe, continues to be, and from his intelligent devotion to his Department he has won the hearts, I think, of all the farmers from the wave-washed shores of the Atlantic to the eastern slope of the Rocky Mountains, which I have the honour to represent here to-day. I showed the Minister of Agriculture some samples which are here before you, and he thought it might be well if these were presented to the Committee; as it is no reflection upon the intelligence, even of this honourable body, to say that few have the slightest conception of the extent, the product and the capabilities of these western Territories. I felt then and feel still an embarrassment; because although I cannot say I am entirely

unaccustomed to public speaking, I am quite unaccustomed to speaking under such auspices, and I am very much afraid that in my ardour I may violate all the rules of Parliamentary discussion and branch off into an exhortation or sermon, and be called to order. I hope, however, you will regard any of my errors as errors of the head rather than the heart. I am a thorough Canadian, from the sole of my feet to the crown of my head. I am an enthusiastic farmer. I claim to be a co-worker with you, if not on the floor of Parliament, yet in the fertile fields of the western prairie. I am a co-worker with you in everything that leads to the success and development of this ancient and honourable industry. I speak more particularly to-day of the Province of Alberta, because I know it better than I know Assiniboia and North Saskatchewan; but I may say here, that it must not be considered an infringement on the prerogative of the representative of Alberta, my friend Mr. Davis, for he is perfectly willing that I should be his Aaron in speaking of that promised land. I have no doubt also that my friend from Regina, Mr. Davin, and Mr. Macdowall from Saskatchewan, will present information with respect to their particular districts.

The district of Alberta has an area of over 100,000 square miles. It is, therefore, twice as large as Manitoba, about four times as large as New Brunswick, five times as large as Nova Scotia, and forty times as large as Prince Edward Island. It stretches from the 49th parallel of latitude—the American boundary—up for over 450 miles north to the Territory of Athabasca. It extends from the 111th degree of longitude on the east to the Province of British Columbia on the west, being somewhat of wedge shape, about 120 miles at the south end and somewhere about 300 miles at north; or, say, a mean of 200 miles in width. This country may really be divided into three parts, and each of these parts has a special and distinctive capability of its own.

Here is, first, that western portion of Alberta which takes in the eastern slope of the Rocky Mountains and out through the foot-hills to the prairie proper, in which division the hand of Providence has treasured immense mineral wealth, and forests of timber, and everlasting reservoirs of water. Now, it does not require any great prophetic genius to foretell the commercial possibilities that are to be found in such a district. As yet we are only playing at mining; but I firmly believe, Mr. Chairman and gentlemen, that our children will see Denvers and Butte Cities and Bentons north of the 49th parallel.

I see no reason why any sane man can question that. The possibilities are there, and while capital is seeking for investment, and labour is clamouring for employment, and enterprise is everywhere commanding that the stones be made bread, I believe it is not impossible that we shall see these things north of the 49th parallel. I know that in that country a great deal is being done, but very little compared with what we have reason to expect. This arises from the fact that the mineral resources and resources of timber have been

discovered by individuals who have not as yet the capital to open and develop them, and when the hour arrives and capital is found to invest in enterprises in that western portion of Alberta it will be a great source of strength and commercial advantage to the whole country.

Then, Sir, I hasten to say that the remainder of Alberta, making more than two-thirds of the district, may be divided into what we call Southern Alberta and Northern Alberta.

Southern Alberta, which extends from the boundary line north about 200 miles, to a point about 40 miles north of Calgary, and from the edge of the foot-hills out to the boundary line of Assiniboia, is one of the greatest stock countries of the continent of America. This is not a new statement. It is a well-known and admitted fact by the American ranchmen that Southern Alberta is a far better stock range than can be found to-day in either Wyoming Territory, Nevada, Washington Territory or Oregon, for the depth of snowfall in winter is less and the grass is better. Many American ranchmen are endeavouring to find some way in which they can bring, especially duty free, their stock over into the district of Southern Alberta, in order to graze them there. Now, while I speak of this section as being distinctively appropriate as a stock-raising country, it is only just to say that in many parts of Southern Alberta I have seen crops of the ordinary kinds of grain—wheat, oats and barley—very excellent, both as regards quality and yield.

From High River, Sheep Creek, Pine Creek, Fish Creek and the valleys of the Elbow and Bow, I have seen at agricultural shows some very fine samples of grain. So she is particularly favoured in having one industry which she can control in a remarkable manner, and yet capable of growing the grains of commerce.

I consider this a great source of wealth, as I am sure you all do, and we have the encouragement that on such large areas men are able to raise hundreds of thousands of stock at comparatively little cost and comparatively little risk, although I must admit that in certain seasons, when the snowfall is exceptional and a crust on the snow, there is some loss of cattle. I think it is only fair to say that some will be lost this year.

But should it reach even 25 per cent., which has never yet been reached, aside from the unpleasant thought of the suffering of the animals, it is an inconsiderable loss after all, when you take into consideration the ease and cheapness with which the cattle can be produced.

I sometimes think that if an Eastern man can afford to sell a three-year old steer for \$30, as I hear they have done, a Western ranchman ought to be able to give the steer and a bonus to the man who takes him to the amount of \$10; because I think it is pretty well understood that you cannot grow steers to three years of age under \$40, or \$45 per head. Taking Southern Alberta, then, it has rich resources in its capabilities of cattle producing, and also to a considerable extent in grain-growing.

To come more particularly to Northern Alberta, that great fertile valley stretching from about forty miles north of Calgary on for two hundred miles and more past the Red Deer River, the Battle River, North Saskatchewan and Sturgeon River, we have a somewhat different country, with capabilities peculiar to itself, and, in my humble judgment, the garden of Alberta, a country pre-eminently suited to mixed farming. It has some peculiar features in this respect, that it is a well-wooded and a well-watered country. It is true that there is not wood everywhere where a farmer would wish to find it, but it is true that it answers the description of a park-like country with sufficient timber for necessary purposes in the greater portion. It is a country where a settler going with little means does not need to expend his capital altogether to provide shelter for himself and his stock, but where, if he has not timber on his own land, he can get a permit from the Government and get 1,800 lienal feet of building timber, 400 roof poles, 2,000 fence rails and 30 cords of dry wood for 50 cents, and put up his buildings. He can husband his resources to expend in fitting himself out with stock and implements to carry on his work. That is certainly a very important item. So far as water is concerned, I am glad to think that the indications are that there will be no need to mention irrigation, at least in Northern Alberta, for a great many years to come. We have those magnificent water courses—mountain streams and also creek and springs. Even at a very high rolling point on the prairie there is flowing out of the sides of the hills and in the coulées springs of water that remain open the year round.

I have never known a solitary instance in that section of the country where a man had to dig from more than 15 to 30 feet to have at hand a well of the purest and best water. I speak favourably of Northern Alberta also, because we can grow cattle there I think at one-third of the cost that they can be produced for in any of the Eastern Provinces. It is true, we think it best at any time and often find it necessary to house our cattle, because the snowfall is deeper in Northern Alberta. I do not hesitate to say that in my humble judgment the time is fast coming when the best interests of the country, the greatest commercial prosperity of the country, will be best served by holding cattle in such numbers as can be housed, as therefore the loss will be only such accidental losses as may occur to any farmer. It does not take any very great skill to raise cattle, which at twenty-eight or thirty months old will dress without an ounce of grain 650 and 700 pounds of beef, or a three year old that will dress 800 to 850 pounds. I am speaking of what I have seen, and am testifying to what I know by personal experience. Then, Sir, it does not take a very great deal of skill in farming. Even a novice like myself in average years can grow crops of grain—oats from 50 to 75 bushels to the acre, and weighing 46 to 50 pounds to the bushel; barley from 45 to 55 bushels to the acre, and weighing from 54 to 57 pounds to the bushel; wheat from 35 to 40 bushels to the acre, and weighing from 62 to 64 pounds per bushel;

black barley, 35 to 40 bushels to the acre, weighing 60 to 68 pounds to the bushel. We have grown 400 bushels of potatoes and 700 bushels of turnips to the acre. I may say I have seen greater things than these, but I am not taking what is phenomenal under very exceptional and favourable circumstances, but what I believe the average farmer with average care and application can realize five years out of six in Northern Alberta.

But I may say here, I have known yields of 83 bushels to the acre of Welcome oats, and I have seen 90 bushels grown at Red Deer. A man at Fort Saskatchewan raised 115 bushels to the acre, and gave sworn testimony to that effect. I am perfectly aware that men from that country are suspected of being able to tell big stories.

The Chairman.—Corresponding with the size of the country.

Mr. Gaetz.—Yes, precisely; but I have taken the pains to bring my bondsmen with me in the shape of grain samples, and I will leave practical farmers to say whether the collaterals are worthy of being accepted or not. I am bringing samples produced from my own farm, by one who has no exceptional skill in farming. Some are samples of the crop of 1889 and some of the crop of 1888. Now, when we have a country that will produce such grain as these and that number of bushels to the acre, I can safely leave it to the Committee to say whether there must not be something favourable in the soil and climate where such products may be reaped.

Just to give you an illustration of the fertility of the soil, and the influence of the long bright days in the North-West Territories—I have seen wheat and oat straw that grew to the height of 5½ and 6 feet, and yet well headed and filled with plump grain. Mr. L. A. Hamilton, Land Commissioner for the Canadian Pacific Railway, who is now in the city of Ottawa, will attest to the fact that I sent in the fall of 1888 to the C. P. R. car wheat 6 feet 2 inches in the straw, with large heads, averaging 4½ to 5 inches in length. I am not going to say to this honourable body that in the North-West Territories, in Alberta, it is a perfect paradise; that there are no drawbacks or no disadvantages. I will not impose upon the intelligence of the Committee by saying that there is nothing that the farmer has to contend with, no difficulties, no anxieties in the matter of crop-producing; but I shall be very glad indeed if any gentleman here will tell me where on the face of God's earth there are not some difficulties and some disadvantages to be contended with in farming. I have to say this in all truth and candour; I have closely examined into the matter, and I do not know a spot on earth, either south or north of the 49th parallel, where I would rather take my chances in the industry of mixed farming than I would in Northern Alberta. I just want to say, in order to disarm any possible hostile criticism, that I have no town property to sell, I have no land you can buy. I have no disposition to be rewarded. I want to be in the best part of the country, for my own sake and

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for my family's sake. I have come here, gentlemen, not as the agent of any Government, or any man, or of any corporation; I am at your own command, telling you of a section of our great country as I find it. I have been there six years, long enough to have formed a judgment as to its character and capabilities, and therefore I feel that I have a right to speak with some assurance. My motives for going were various, but the chief reasons were sickness, poverty, and a desire to keep my family around me. It was not a dislike for the beautiful Provinces of the east. I am dead in love with Canada any way—I include all the Provinces—even Quebec, which seems to have been handled somewhat roughly of late. But I had not the capital to invest in purchasing a farm in these beautiful Provinces. I never could have hoped to secure land in the east, to enable me keep my large family of boys around me, seeing that I was very near coming within the range of Mr. Mercier's fecundity bonus. I think there are thousands in Ontario and the other Provinces just in the same situation. I say that if a man is well situated in the eastern Provinces, and if he is doing well, I see no reason why he should move; but men who are mortgaged heavily or renting farms, and are likely to leave the heritage of mortgage and want to their children, I believe it is their duty to go out to the North-West and take up land which will enable them to maintain that family, and do more for them in five years than he could do under the same circumstances in fifteen or twenty years in the eastern Provinces. I may be asked if there is any valuable land still to be had there? If there is much of that land you speak of? Why, gentlemen, I might almost say it is all available; there is only in the fertile valley of the Red Deer, that I have described to you, a few hundred of occupied homesteads; that is only a drop in the bucket, as compared with the capabilities of these vast stretches of fertile land—land very much better than some of the land I am farming. I am on the bottom lands by the riverside, which are thinner and poorer, and will require feeding with manure a little oftener. But most of these products are from these bottom lands. There are millions of acres of deep soils in the various sections of the Red Deer country that are now entirely unoccupied. That is saying nothing of the fertile valley of the Battle River, the Saskatchewan and the Edmonton and Fort Saskatchewan districts, and of the Sturgeon River district, stretching up for 130 miles north, a country of wonderful probabilities.

It seems to me in my zeal I am in danger of overstepping the bounds of privileges; but bear with me when I say the indications suggest the necessity of a vigorous immigration policy for the North-West country—a very vigorous immigration policy indeed. With the strong competition of the Argentine Republic, Brazil and Mexico, Australia and the United States, and a great many other countries, is it reasonable to expect that people are going to flock into Canada, without even the facts of the case being set before them? I think it is quite out of the question for us to reasonably expect this. I

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therefore hope that there will be efforts put forth by this honourable body that will encourage the filling up of that country; for, let me say, it is to your interest as well as ours. You send us a thousand men, and in a few years we will send you back \$50,000 for commodities that it is impossible for us to provide for ourselves—commodities which you will control, and in which we will not be likely to come into very serious competition with you.

Our markets will soon be in the other direction. China and Japan have become tired of eating rice and want flour; and why should they take it from Washington Territory, Nevada, California—that is, from those portions which grow wheat—when it can be grown out in those western Provinces of Assiniboia, Saskatchewan and Alberta. Our coal will not come into competition with eastern coal, for they are clamouring for it for the furnaces along the mountains of Nevada and Washington Territory, where they have to go to the enormous expense of cutting timber away far up in the hills, and shunt it down to the valleys below for their furnaces. They are clamouring for our coal. Our beef, I hope, will soon go to England by the Hudson Bay route, and save long travel. In this way we shall keep out of your road, and will be a help to you in the east. I am not insensible that the eastern Provinces have done a great deal for the western districts, and suffer me to mention that what they have done is no less the duty of patriotism than an act of benevolence.

If I am isolated in these prairie districts from my brethren in Nova Scotia, I would like to feel that there is enough patriotism in Canadians to stretch across three thousand miles and give me a show for myself and family. I feel we are indebted for many acts of generosity already, but it seems to me that we are just where children get sometimes—when an extensive swaddling band has fallen down around his feet. He has got where his swaddling is an embarrassment to him. I want this Committee and honourable body of men to say of this western child: "Loose him and let him go." Do it by bonusing railways with cash as well as land. Give us railways to open up the country, and I pledge you my word of honour that the day a railway goes up through Northern Alberta you will find it settling up faster than any part of Manitoba or the North-West has been settled up. It is more self-sustained and more self-contained, and has more of the elements of success than most of the other portions of our great western Canada. I cannot sit down without remarking that I am in duty bound to express the obligation that we are under to the Honourable Minister of Agriculture, and the Parliament that sustained him in the establishment of Experimental Farms. This Ladoga wheat, a sample of which I have here, is a matter which has laid us under obligation, because it puts within our reach an early-maturing variety of great merit. So with other grains and small fruits: very few of the settlers have the time or means, or the intelligence to experiment for themselves, so as to enable them to conduct their farming opera-

tions intelligently, for I maintain it is just as necessary to exercise intelligence in regard to farming as anything else. The day was when it was supposed a farmer did not need brains in order to succeed. That was always a mistake; sharp competition makes it necessary to use both brain and muscle, or else be left behind in the struggle for bread. I feel that the Experimental Farm, while an institution that must benefit the eastern Provinces, is particularly necessary to us. We have no agricultural literature. We have not the experiments of others to guide us—not even their blunders to shun. We are feeling our way; everything is tentative. In good faith we tried the methods that were appropriate in the east, but often failed. In this matter, therefore, I say that the Experimental Farm, under its wise and devoted directors, will be of great value. Not the least in importance are the contemplated experiments with natural grasses of the country, for the time will come when settlement will limit our ranges, and in order to feed our flocks and herds, when the wild ranges are limited, it will be necessary to fall back upon cultivation of native grasses, in themselves most nutritious, and which can be cultivated with success. With this assistance I have no fears with reference to the future. I do not fear the competition of the United States when our country becomes known. I have no idea that the best portion of this country lies south of the 49th parallel. I have no confidence in the idea that the Americans have the best of it. The centuries will tell that the best portion of it lies to the north-west of the great lakes. I think when the resources of that vast region are better known Canadians will flock back from the United States. In my community two-thirds of the settlers are men who were once in the United States—Canadians who went to the United States and tried it, and have come back again. In my own Province of Nova Scotia, that strong, vigorous people are growing men and women so fast that they have not places to put them in, and God has provided the prairies of the west. Would the people of Canada rather have them go to the United States? If they do, I will tell them that six of our latest settlers got tired of going from Nova Scotia to the United States, and have found their way over this transcontinental route and are doing well. Some bachelors there have been able to make, in one summer, \$400 worth of butter, and raise a band of calves beside, such as you could not produce in this country if you tried. I say that is a country that has hope and promise in it, and I therefore trust you will be able to develop some plan that will settle up that country. Now, I thank you very kindly indeed, honourable gentlemen, for the patient hearing you have given me. I have felt, time and again, that I am trespassing; but my heart is full. My purposes and motives are unimpeachable before heaven. I believe in the country where I have gone to make my home. I believe the Providence of God never made country so perfect as it is to be a failure. I believe there is a home there for millions of the earth, and I hope these facts will be calmly

looked into, and I believe the results will be favourable. I shall be glad to answer any questions that may be asked, being conscious that I have not nearly gone over the ground.

By Mr. Trow :

Q. Have they exported any very large amount of grain from that Territory? A. No, sir. The home market as yet requires it.

Q. I would also ask you why you produce samples of the crop of 1888? Surely there was sufficient in that great country in 1889 to fill those little bags, without taking the produce of 1888? A. It is well understood that in every new country there is a local market, and that local market is the very best we have. We have no reason in the world for sending our products away and getting 50 cents a bushel, when we can get 68 cents right at our door. There is in every new country this local market, which, as long as it lasts, is the very best. Up to the present time, we have always had ways of disposing of all we could raise. I sold 1,500 bushels of oats to one man—a stage contractor—at 68 cents per bushel. There is a vast freight traffic that goes from the Canadian Pacific Railway station at Calgary all through the northern country, away up to White Fish Lake and Saddle Lake, and the Indian reserves north. These teams have to be fed, and require all the grain that we have already raised there. With reference to my bringing the seed of 1888, I have nothing to conceal. I do not hesitate to say, and I assume that the questioner knows, that 1889 was our hardest year. It was the most difficult year, because of a drought that we had never before experienced. Why was that the case? Because the winter before was no winter at all—just a continual spring. There was no snow on the ground; there was no frost. Our Aprils and Mays are invariably dry, and the seed last year was placed in the ground when it was so dry that it did not germinate. Rain held off until about the first week in July, and consequently we did not realize either the quantity or quality of grain we had in other years. This year, I am glad to say, we have an old-fashioned Canadian winter, with plenty of snow and plenty of cold. I believe the prospects were never better.

Q. On what dates do you commence seeding? A. About the latter part of March or the first of April. Some of our largest seeders, the Beaty Bros., for instance, have their grain mostly sown by the 8th of April. I have known it to be the latter part of April before it was sown. In the year 1886—or 1887—I cannot just tell which—the snow lay on until the latter part of March, and seeding did not begin until the 10th of April.

Q. Are you subject to any summer frost? A. The only one we had was on the 11th of July, 1887, when the barley was just heading out. Frost in those localities, as many of you know, goes in veins or streaks, something like a hail storm, and quite often you will find that while the grain on one half-section has been injured, that on the neighbouring half-section has not been touched at all.

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The frost was local. We have this to fear. It is one of the drawbacks that may come; I cannot guarantee that it will not. It is one of those occurrences, however, that may come to almost any country, and when it destroys the tobacco crop of Virginia, as it did last year, it will be very likely to strike out and reach the crops in northern parts of Canada.

Q. I understood Mr. Gaetz to say his place was on the river bottom, and the land not so fertile as higher up. That is not our experience as a rule, because the *débris* is washed down by the rain and storms, and as a rule the bottom lands are most productive?

A. The land is rich, but not so deep or so strong as the bench lands immediately above. When Mr. Hoyt, of Minneapolis, was out to see us two years ago, with Mr. Eastman, an old Canadian who had been in Minneapolis, they took up my land and said: "Is that what you call light land? That is equal, if not superior, to the very best land we have in the State of Minnesota." This bottom land is only light in comparison with what is called the bench land, or lands on a higher elevation. One reason why these bottom lands are thinner or lighter is that the streams whose wash has made them are mountain streams, flowing through rocky regions and over sandstone deposits, bringing with them silica as well as vegetable deposits. These streams do not flow through deep, alluvial soils, as some of the eastern rivers do. These bottom lands may require manure sooner than the bench lands, but where there exist such opportunities for growing large bands of cattle it is easy to supply this lack. The bench lands would be injured by manure during the first ten years or so, but the time will come when these lands will require enriching. Nature will only respond so far as you treat her kindly and generously.

Q. Where do you derive your information in reference to the percentages of loss in the ranche districts this season, because the season is only partially past? Twenty-five per cent. is very large. I understand you to say 25 per cent. would be the loss? A. I hope I was not so understood. I said: "Even should it reach 25 per cent., which it never had yet." In the winter of 1887 it reached 7 or 8 per cent. I am sure there will be some loss this winter. I was only making the point that should it reach that percentage (25) the ease with which the cattle could be produced would not make it, after all, to a large ranchman, a very serious loss.

Q. What distance are you removed from the railway company's reserve? A. Eighty-eight miles from Calgary, my nearest railway point.

By Mr. Armstrong:—

Q. Perhaps Mr. Gaetz would give us some idea about the general rainfall in the summer in that country. Is it pretty plentiful and pretty evenly distributed, as a general thing? Of course, we know this last year was dry all over the North-West? A. I am very glad also to be able to answer that question, because, of course, in that

country, having imbibed from every source the idea that it never rained, the Canadian Pacific Railway employés and the American land agents were telling me, when I was going into the country, that it never rained there, and I would be dried out, and be sick and tired of it before very long. In the face of this, I thought I had done a rash act in coming to a country where it never rained. But before the 20th of August I wondered whether it ever stopped. It rained from about the 8th of June, at short intervals, on through June and July, and up to the 17th of August, so that the brooks were booming and the sloughs were full, and we could not get into the meadows with our mowers, and had to go out on the high prairie to cut our hay. The year 1886 was a delightful year, because the rain just seemed to come when it was needed. It was well distributed, and all we needed. It was not so great as in 1884 and 1885, but it was sufficient for all purposes. In 1887 there was also abundance of rain. From 1884 to 1889 the rainfall was sufficient for all purposes of agriculture. Last year, 1889, was the only season that we had any suspicion of the possibility of a failure of moisture.

By Mr. Trow:—

Q. How many months do you house your cattle and horses?

A. A great many of them we do not house at all. Our young stock or yearlings simply go in the shed in the night, and around the straw stack in the day. Our breeding cows we house. My young horses were out this winter until the last week in January, though one of the coldest winters since I have been in the country. They were in perfectly good condition, and healthy. Horses accustomed to it will get into one of these big sloughs and will stay there week after week, live well and come home fat. Speaking of last winter, our young horses did not come home at all. We never fed them a pound of hay, but I do not want to see the recurrence of a winter like that again. I think a snowfall and cold are better than these mild winters.

Q. This has been the experience of the farmers even in Ontario, the experience of the new settlers when the country was comparatively a bleak wilderness; the cattle lived on brouse. It has also been the experience of Manitoba. When the country becomes thickly settled, do you expect to raise natural grasses there? Has the experiment been tried? A. I have never been under the necessity of trying the experiment. I am experimenting now with a variety of grasses under cultivation, including timothy, Alsasas clover, Blue-top, and Kentucky blue grass. I have tried these; so far, I have had no success with clover. Last year I put down an acre of timothy and had an excellent yield—a ton to the acre, even dry as it was. I will just say further that the piece which had been sown two years was very short, and did not come up to my expectation at all, and was not cut. It would have cut, probably, half a ton, but I thought it was better to let what there was go to seed;

consequently, I am unable to decide as to the others, but I see no reason why timothy should not succeed. As to the native grasses, Mr. McKay, who has been experimenting at the Experimental Farm at Indian Head, will give us some encouragement, I hope, on these points.

Q. Would not the Experimental Farm be much better in your settlement than at Indian Head? A. Certainly I would like that very much. The Department did not look at it that way, and yet generous and unselfish a mortal as I am, I think, all things considered, it is better where it is; because it is working for a wooded and park-like country in Northern Alberta as well as for the Province of Assiniboia, where there is a great dearth of wood, and consequently I believe the results will be far better and more satisfactory to have it located where it is, because if they succeed with any experiment at Indian Head I have no doubt it will be a great success in Northern Alberta.

By Mr. Sproule:—

Q. What is the mean depth of your snow in winter? A. Well, it is very varied. I have know it to be 5 or 6 inches deep in the winters of 1886 and 1887; in the winter of 1887-88 it was 23 and 24 inches deep, but to strike an average, I would say somewhere between 16 and 18 inches, taking a period of ten years.

By Mr. Trow:—

Q. Has any coal been developed in your section? A. I may just say to my honourable friend that the whole country is underlaid with coal. There is none yet being mined. I am within twenty miles of the great coal banks in Range 24, Township 38, west of the Fourth Principal Meridian, where, by my own measurement, there are 60 feet of coal from the top down to the water's edge, and running under the water's edge I don't know how far. They are not yet developed, any more than a man taking a sled in winter and rolling on a block of half a ton or so at a time and taking it home. That is all the development as yet.

By Mr. Armstrong:—

Q. I suppose you have been about a good deal in Northern Alberta? A. Yes.

Q. Down nearly as far as Edmonton? A. I have been thirty miles north of Edmonton.

Q. The question I want to ask you is this: have you formed any general idea about the extent of land yet to go on for immediate settlement? You understand that in our country, in Ontario, even around London, where they have the best land, there are large tracts of magnificent land now that in early days were not fit to go on to settle. It required time and capital. About what do you think is the proportion of land that a settler can go in on and commence ploughing and cropping at once? A. There is so much of it that it would be impossible for me to say. I have simply

to state this—if a man were to tumble out of a balloon at random he could hardly fall on a quarter-section of land in that country where there would not be enough fertile, tillable land for a man of small capital to go to work upon and farm. That is my honest conviction; that is—unless he fell into a lake, and provided his health was not impaired by the fall. Good land is so abundant it is really easier to tell what is not there than what is there. There are immense tracts; of course, there are bluffs of small timber here and there, but these are a convenience. Taking the land generally, I think this land to-day, in its virgin state, without a ploughshare having touched it, would be worth \$100 to the acre near some eastern city or town. It is so fertile and so easily broken up that a man can start and plough for a quarter of a mile, and if he gets a favourable position he can plough a mile.

Q. I suppose these bluffs will be good land, too, after the timber is taken off? A. The very best.

By Mr. Davin:—

Q. Where there are bluffs, there is splendid land also?

By Mr. Armstrong:—

Q. The bluffs you speak of are not rocky, worthless land at all. It is good land, and will be good land, the same as the surrounding prairie, when the timber is taken off? A. I think it is the very best of land, but it now costs too much too clear while as yet there is such an abundance of land. In my garden, for example, I have that kind of land—and that which had been burned over once, covered with rose bushes. There is not a rock in it; you cannot get a rock to shie at a gopher for miles in a stretch. I believe it to be the richest land, from experience, where these timber bluffs had been.

By Mr. Watson:—

Q. You have had considerable experience there in regard to rain-fall. Don't you think it would be a good thing to protect a lot of this timber? I suppose it has a certain effect on the atmosphere? A. I have no doubt it would be an important thing to protect what timber we have. Take sections of the country, say forty miles north of Calgary, there is a distance of from fifteen to twenty miles where there are only scattered bluffs. It is not only important to protect what there is, but to grow more. The Government ought to give great encouragement in the supplying of trees to plant. It is a matter of no difficulty at all to grow any of these trees. I have taken spruce up and removed them, and taking simple, ordinary care of them, I have lost but 2 per cent. of those I have planted. Poplars are more vigorous still.

Q. Is the timber being injured very much by fires? A. A great deal, I am sorry to say.

Q. What means could be taken to protect them? A. It is very difficult indeed to say what means could be taken. I am not a born

legislator, but I sometimes think it would be desirable that there should be an officer appointed in the various districts—a sort of fire warden—whose duty it should be, not his privilege, whenever a fire started anywhere, to go out and command his neighbours to go and assist in putting out that fire, and having authority to fine those who refused. As it is, if we see a fire and know it is going to pass our own place without doing serious harm to us, ^{what to do} in our own selfish way we often go to sleep and let it burn. I have felt intensely on this subject. I know there has been enough timber destroyed in my district to meet the requirements of a large agricultural community for the next fifteen or twenty years. If there was a fire warden to go and warn men when a fire started, even fifteen or twenty miles away, this damage might be averted. At the inception of a fire it is a very small thing, but afterward it is a very difficult thing to control or stop it.

Q. Would a system of brakes do? A. We all do that. The man who is a "russler" will generally put his fields in such a shape as to protect his place; but for the unsettled portion of the country, those vast stretches of the country which are nobody's special interest, it would be simply impossible to meet the difficulty with fire-brakes.

Q. Nobody except the Government. Would it not be well in the interest of that country and its future for an expenditure to be made in making fire-brakes every six, or eight or ten miles? A. ^{not do} That would mean making these fire-brakes every year, because the growth of vegetation is so rich. I have seen a piece of ground turned up and not cropped, but by next season there would be a growth of 3 or 4 feet of rank grass. That grass dies in the autumn and leaves you as helpless as you were before.

By Mr. Armstrong:—

Q. What are the principal varieties of timber you have in your country? A. We have chiefly spruce and poplar. In addition to those, we have tamarac, a little birch and a small wood called Saskatoon, of very little commercial value, but of great value to the farmer. It is a very tough wood, and makes an excellent whiffle-tree, or anything of that sort. It is equal to the rock elm in Ontario.

Q. Does the spruce grow to any considerable size? A. I have had some spruce taken out this winter for milling purposes that will go 28 inches across the stump. That is a large size. If I were to strike an average, I would say 12 or 15 inches would be an average all round.

By Mr. Kirk:—

Q. Is spruce a desirable wood for fencing? A. Not for fencing, if just cut down and immediately put in without any preparation; but spruce that has the bark shaved off and put into a hot willow fire and singed or dipped in lime water is almost as desirable as tamarac, but, of course, not so desirable as cedar.

Q. How does it compare with Nova Scotia spruce? A. I think it is the very same; I see no difference. Some people will take this dead spruce that they find fire-killed, and small pieces no bigger than your arm, and string wire upon it. They take no pains to keep it from corroding, and such treatment gives the impression that spruce is no good. I think that if pains are taken that spruce makes a very excellent post, not equal to tamarac or cedar, of course, but still a very desirable post, in places where other varieties cannot be had.

By Mr. Trow:—

Q. Has the Government made a proper system of survey of the townships out there? A. Yes, sir. The country is all blocked out in townships, and a considerable portion of it sub-divided into sections. In the Red Deer River district there are ten townships divided into sections, but the whole country is not sub-divided. It is laid out in townships, so that a man who understands township surveys can pretty nearly locate himself.

Q. Why should he be put to that unnecessary trouble? A. We sincerely hope that will not remain the case very long. I think that whenever immigration begins to swarm in there that will be remedied. I beg to suggest, although the Government may not thank me for "pointers," that it would be well to get ahead of the immigration, so that men might have their choice and know what they have chosen.

By Mr. Sproule:—

Q. How are you off for mills? A. We have no grist mills there yet. No man has had enough capital to start one, and it is one of the things I propose to enquire about and see if a portable grist mill can be had. There was a saw mill put in by the Mackenzies some years ago, and last fall I was rash enough to put in a portable saw mill, with edger, matcher and planer, and a thirty horse-power John A. Bell engine. We think now of getting a grist mill to run by this engine during that portion of the year it will not be used by the saw mill, as we have not enough demand cutting the whole year. The day we are able to convert our wheat into flour will greatly lessen the cost of living, for it costs \$1 to \$1.35 per hundred to freight our flour from Calgary. The Red Deer River, with a fall of 14 feet per mile, is one of the grandest of water powers that nature has ever provided, with good banks, and every facility for the establishment of mills. As yet, however, it is very much cheaper, in a small way, for men to employ steam power rather than water.

By Mr. Innes:—

Q. How do vegetables and small fruits do? A. Vegetables do splendidly. We have had no manner of failure in regard to vegetables in any year but last year. The drought last year decidedly affected us, as it did Manitoba and the North-West generally. I sup-

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pose I may astonish some of you when I say I have grown potatoes at the rate of 720 bushels to the acre. That is a phenomenal yield, but not that we gave them any special attention; we can grow from 300 to 400 bushels of potatoes per acre, without any extra attention, skill or manure. We can also grow carrots, cabbages and cauliflower. I have frequently seen cauliflower at Calgary Fair that were a yard in circumference. You may have seen them larger, but I am glad to get them that large. In reference to small fruits I may just say that this is another matter that has to be experimented upon for us, rather than we for ourselves. I have been for four or five years doing this work, and not without some results. I have grown red currants, black currants and strawberries with considerable success, but not what would satisfy me or the taste of any ordinary farmer. I find we made a blunder. I have no idea that it is our cold winters that kill our fruits. I think it is the hot dry winds of April and May. The sap comes up early; unless they are mulched then the bark gets loose, because the sap seems to dry it up. I am waiting for information on this matter, but in the meantime I am trying a heavy mulch around the roots this year, so as to keep the sap back, as you do with your grape vines. If we can keep the sap back I believe we will make a success of small fruits. It is done in many parts of the country, and some have excellent success. I have not yet got what I hope to obtain.

By Mr. Trow:—

Q. Have you Chinook winds? A. We are not so subject to them as they are in Southern Alberta, but since I left home, as a mere freak of nature, they have had one of the strongest Chinooks there that they have had in any part of the country. The snow went off very quickly, and the whole band of cattle started off to seek their own fare, and succeeded so well that when they came back they would not touch food. But as a general thing we are not so liable to warm winds as they are further south.

By Mr. Armstrong:—

Q. Have you any wild small fruits that can be used? A. I only planted some last year, and cannot say. The growth this year was remarkable, and I begin to feel this is a matter in which we can attain some success. There is all kind of wild fruit there, such as currants, goosberries, &c.

Q. Can you gather them for use? A. Yes; any quantity for our own use. There is another berry, called the Saskatoon, very much like the blueberry of the eastern Provinces. In 1886 a man could go out and gather barrels of them.

By Mr. Watson:—

Q. What was the largest crop of grain grown there, and what is the amount of area under settlement? A. The area of settlement would be over a length of seven or eight miles along the Edmonton trail, by three or four miles east and west of the trail, but it is a

scattered settlement. There is no closely-packed settlement anywhere. As to the largest crop—do you mean that I have had?

Q. I mean the total crops? A. There is no bureau of agriculture to gather statistics, and I really cannot, on the spur of the moment, give any information. In the season of 1888 I had about 3,000 bushels of grain in all, of wheat, oats, barley and some peas. The Beatties had some 2,000 bushels. I suppose 10,000 or 15,000 bushels were grown in the little neighbourhood there altogether.

By Mr. Cochrane :—

Q. Do pease grow well there? A. I have grown 35 bushels to the acre, and weighing 66 pounds to the bushel, of the Golden Vine variety.

By Mr. Trow :—

Q. Do you find the wild pea there? A. We have abundance of the pea vine, also vetch, all through that district.

Q. It is regarded as a strong indication that the land is fertile, is it not? A. We have abundance of it. There is one variety that grows low and tangled in the grass, while there is another that grows on the willows and poplars, climbing them 6 or 8 feet.

By Mr. Watson :—

Q. How is your wheat marketed, if you have no market? A. I dispose of it to newcomers. We keep some for seed, and we fatten pigs on it, and it; pays to fatten pigs on wheat, when you get 40 bushels to the acre and 64 pounds to the bushel, and 10 cents a pound for pork.

By Mr. Fisher :—

Q. How many people are there in that settlement? A. I suppose there are about a hundred occupying homesteads. They would average, including bachelors, from 150 to 200 in that settlement. I wish to say that this is some distance from the Mormon settlement. There is nothing that would give me more pleasure than to have Government send about 1,000 men and 2,000 women. This would be the grandest thing that ever happened to that country. I say when a man goes out to that country or to any country he should take his wife with him. If he has not a wife he should get one. Many persons insure their own failure by going out for a year or two to get things fixed up and send back for their wives and families. A woman who cannot do as much as a man and a-half in fixing up is not much of a woman. I am worth a little, but my wife is worth ten times as much as I am. If you want a downright enthusiast in reference to the country, if you have money to spend for immigration purposes, she will do the work. When she went out to the North-West Territories, six years ago, the doctors were anxious in reference to her change of living. She had never been well in the Lower Provinces for many years. Now she is a robust, strong woman. I know also Mrs. Nelson, wife of the Rev. Mr. Nelson, who

has also regained health. I am only mentioning these facts to show that the climate cannot be so rigorous and so fatal as some people would like you to believe. That is not the case. I do not want to disparage this country, but taking even the low reading of the thermometer for the last few days in the North-West, I will take the climate indicated in preference to what we have had here for the last two or three days. I have not had a cold or a sore throat for the last two or three years till I came to Ottawa. It would be foolish for me to say that it is not cold in the North-West. You do feel the cold there, but at the same time you don't feel the cold to the extent that you might imagine from the reading of the thermometer. We have not lost a solitary day all winter in consequence of cold. My sons have gone three and four miles to work in the coldest days we have had, and children play out of doors, in the bracing atmosphere, unless the temperature is very low indeed.

By Mr. Innes:—

Q. What is the average range of the thermometer in winter? A. I can hardly tell just offhand, but this winter, I believe, the mean temperature in Northern Alberta measures down somewhere a few degrees below zero. It has been very steady cold weather, about the coldest I have known since I have been in the country. In the summer months the mean temperature derived from meteorological statistics at Battleford and Toronto, taken three years ago—I have no recent data—for the months of June, July and August, was 61° in Toronto and 60° in Battleford.

By Mr. Bain (Wentworth):—

Q. How are your summer nights? Under what conditions do you get your summer frost—is it after a rain, or how? A. It is usually after a rain, when the wind is to the north-east.

Q. Do your rains come from the north-east? A. From the north-east generally.

Q. Is that where you have your summer rains from? A. Well, we are very apt to have our summer rains from the north-east—more apt to be from that quarter than any other.

Q. It is very apt to settle down cold? A. It is very apt to settle down cold in the early part of June, especially in the full of the moon in June. If we have rain then there is a little danger it might settle down into frost, though very slight.

Q. When the wind is in the north-east? A. Yes; however, in reality we have never been seriously affected.

By Mr. Carling:—

Q. You have experimented with different kinds of wheat, I think, in that section of the country? You have tried the Red Fife, and you have tried the Ladoga wheat? I would like to ask you whether you have found the Ladoga wheat to ripen earlier than the other different kinds of wheat that you have tried, and what is the result of your experiment? I might say to the gentlemen present that

the sample of Mr. Gaetz's wheat here present on the table is the Ladoga wheat grown in the Red Deer district, and I have a sample here of the Ladoga wheat grown in the Peace River district, 350 miles north-west of Edmonton, which weighs 64 pounds to the bushel. This is quite clear that that northern district, as far as to the Peace River, is very able to grow a good quality of wheat. I pass it around to gentlemen who would like to see it? A. I have tried three varieties of wheat—one variety called the Defiance, another the Fife, and the third Ladoga. My experience is that the Ladoga will ripen about a week or ten days—generally ten days—earlier than the Fife, and four or five days earlier than the Defiance. Up to the present, it is the earliest maturing variety that we have had, and the general feeling among the farmers is that this is the wheat for the North-West. If there is any little prejudice as to the colour of the flour, I think this will be overcome. If the farmer is able to take his own grain to the mill he will be glad to take the flour, even with a high colour.

By Mr. Armstrong:—

Q. Would it rate as a hard wheat? A. I believe it would. I am not prepared to say; but the Experimental Farm bulletin represents it as a hard wheat, with a larger proportion of gluten in it than the Red Fife, and the amount of gluten in it constitutes its strength.

By Mr. Carling:—

Q. How does it do as to the yield per acre? A. It is the best, in my opinion, by five or six bushels.

(Signed) LEO. GAETZ.

APPENDIX.

NORTH-WEST TERRITORIES SCHOOL LAW.

As the matter of education is one of vital importance to persons who contemplate removing with their families into a new country, we have deemed it advisable to give a brief synopsis of the school law of the North-West Territories. It will readily appear, even from these few extracts, that both the Dominion and Territorial Governments are fully alive to the importance of the subject, by furnishing every possible facility for the organization of schools, even in very sparsely settled localities, and granting exceptionally liberal aid to the local Boards entrusted with their management.

SCHOOL DISTRICTS.

School Ordinance, Section 18.—A school district shall comprise an area not more than five miles in breadth and length, and shall contain not less than four resident heads of families and ten children of school age, which shall mean between the ages of five and twenty.

FORMATION OF SCHOOL DISTRICTS.

Section 19.—Any three rate-payers, two of whom shall be heads of families, may form themselves into a committee to secure the erection of a school district, and may petition the Lieutenant-Governor for such erection.

Section 23.—On the approval of the Lieutenant-Governor to the limits of any proposed district, a notice calling a meeting of the rate-payers shall be posted in at least five widely separated places within the proposed district, to poll votes for or against the erection of a school district.

Section 35.—On receiving the report of the first school meeting, the Lieutenant-Governor shall, if the majority of votes at the school district meeting has been favourable to the erection of a district, forthwith proclaim the district in accordance to the terms of the petitions addressed to him in that behalf.

DUTIES OF TRUSTEES.

Section 48.—It shall be the duty of the Board of Trustees in every school district to select and acquire a suitable school site as near as possible to the centre of the district; to engage a competent teacher;

to have custody of all school property; to make such assessment on real and personal property within the district as may be necessary to defray all lawful expenses connected with the management of the school.

GOVERNMENT AID TO SCHOOLS.

Section 90.—Grants shall be paid to every school organized under this Ordinance, as follows:—

(a) A grant of 75 per cent. of the teacher's salary to every school employing a teacher holding a first-class certificate from the Board of Education of the North-West Territories.

(b) A grant of 70 per cent. of the teacher's salary to every school employing a teacher holding a second-class certificate from the Board of Education.

(c) A grant of 65 per cent. of the teacher's salary to every school employing a teacher holding a third-class certificate from the Board of Education.

GRANTS—WHEN PAID.

Section 91.—All grants to be paid to the treasurers of the school districts, quarterly, after the last days of March, June, September and December in each year.

TIMBER REGULATIONS, N.W.T.

TIMBER FOR HOMESTEADERS.

Sec. 21. Any occupant of a homestead quarter-section having no timber of his own may, upon application, obtain a permit to cut such quantity of building timber, fencing timber or fuel as he may require for use on his homestead, not exceeding the following:—

(a.) 1,899 lineal feet of building timber, no logs to be over 12 inches at the butt-end;

(b.) 400 roof poles;

(c.) 2,000 poplar fence-rails, no rail to exceed 5 inches at the butt-end;

(d.) 30 cords of dry wood;

(e.) Burnt or fallen timber of a diameter up to 7 inches inclusive, for fuel or fencing.

Sec. 22. Should the house timber be sawn at a mill, payment for sawing must not be made by way of toll, as the full quantity of lumber cut from the logs must be used on the permit-holder's homestead.

Sec. 23. In order that mill-owners may be able to give satisfactory evidence that sawlogs or lumber found in their possession have been lawfully cut, they should require from settlers bringing timber to be sawn, proof that the same has not been cut on Dominion lands, or that it has been cut under a permit, which the settler should

produce, in order that its number, its date, and the name of the permittee may be noted by the mill owner. The latter should also record the quantity of such timber sawn by him, so that he may be in a position to duly protect himself should an account or return thereof be demanded by agents of the Department.

Sec. 24. The applicant will require to pay an office fee of twenty-five cents before he can obtain a permit, but no dues will be charged for the timber or wood cut under and in accordance therewith.

Sec. 25. Homesteaders whose farms may have thereon a supply of timber, or who are in possession of wood lots or other timbered lands, will not be granted a free permit.

