

LECTURE:

BY A. BARBARIE, ESQ.

Delivered at the Mechanics' Institute, Dalhousie, on the 20th March, 1858, and published by request. Subject:

The rise and progress of the Agricultural Society of Restigouche.

"He who causes two blades of grass to grow where only one grew before, is a benefactor to his country."—Dr. Johnston.

The Agricultural Society of Restigouche, and which I shall designate as *our own* Society, was established or got up by a few enterprising individuals in our County, who, feeling anxious to make a move in the right direction, and to encourage and assist our Farmers by example as well as precept, to follow strictly, and with attention, industry, and perseverance, one of the oldest, most honorable, and important pursuits among civilized nations, namely, Agriculture. Previous to the year 1840, when our Society just commenced its laudable exertions, the County of Restigouche, then only two years divided from the County of Gloucester, (of which it had up to 1838 formed a part) was, comparatively speaking, in a wilderness state, and if I except a few of the old settlers on the Restigouche River, very little had been done in the farming line; our settlements were, I may say, only then forming—but forming happily of the right material. Emigrants, principally from Scotland and Ireland, of peaceable, quiet, and industrious habits, entered the forests, and lined the shores, from Belle-Dune to the Upsalquitch, wherever vacant lots were available, the axe and the hoe being at that time the chief instruments of husbandry; and although many valuable settlers (and their sons as they grew up) were enticed by the more exciting scenes of the lumber camp and its more precarious, laborious, and dangerous concomitant, River driving, still enough remained to bring our County to its present state of improvement, and to prove to the world, and especially to such as neglected their Farms, that there is no real dependence to be placed on any other pursuit. At the time I speak of, (1840) very little grain, or even vegetables, were grown in the County; and I have often witnessed the Farmer (then so called) and the back settler, bowing to the Merchant, and soliciting credit for a barrel of Flour, whilst cargoes of Oats and Potatoes were imported from our sister Provinces. This state of things induced the originators of our Society to endeavour, by every means in their power, to bring our Agriculturists together, to unite them in one common bond of Brotherhood, to show to them the advantages which our Virgin Soils are capable of producing when skillfully acted upon; our much respected, and valuable farmer's friend, Dugald Stewart, Esq., and a less humble individual, myself, took the initiative, for at that period, strange to say, an idea prevailed that the growth of wheat was not congenial to our soil and climate; it would not come to perfection they said, but the first experiment proved the fallacy of this opinion, and Mr Stewart was rewarded by a most luxuriant and abundant crop both in quantity and quality, reaping and cleaning from one bushel sown 37½ bushels of grain, weighing 66½ lbs. per bushel. My first experiment was equally successful, save and except a portion of the field, which failed in the filling, owing to inexperience on my own part, from which I took a lesson from Nature never to be forgotten, and which every farmer should be aware of and fully understand. The County of Restigouche, rich in its soils, affords more varieties and real advantages to the Agriculturist than any other County in the Province; nature has abundantly provided the farmer with the richest fertilizers on and immediately adjoining his location; there is not a single lot, front or rear, that I am aware of, but is intersected at right angles with swales of rich vegetable or alluvial deposits, and likewise marl, and beds of shells decomposed, some of the latter were tested at the exhibition in Fredericton in 1851, and declared by Professor Robb to be the richest he ever knew or read of yielding on a chemical analysis 92 per cent of lime; for want of a name the Judges called it "vegetable manure." This rich deposit is to be found near the junction of the first and second concessions in the Eel River settlement, and is called Marl Lake, about five miles below Dalhousie and about one mile from the shore of the Bay Chaleur. There is another similar in extent and appearance, in the heart of the Glenelg settlement, about two miles from the river Restigouche and immediately in rear of the Flat Lands.

The experiment, tried from a top dressing from Marl Lake, proved eminently successful, as the frequent grass cuttings as well as grain crops have shown. Independent of these are the Marl beds, almost everywhere to be found, and last, though not least to the farms on the coast of the Bay de Chaleur, is the enormous and never failing deposits of Cove mud, formed in great depth, and consisting of decomposed shells and saline marine vegetables and animals, the richest fertilizer in the world, so that there is no excuse for the absence of Compost heaps through every farm. Another still more active agent is the Mussel mud, so called, which also abounds; this latter has been test-

ed in the produce of vegetables as compared with compost and stable manure, the effect of which latter was visible to the eye of the commonest observer at a first glance from a distance on beholding the field of turnips and carrots, and still more obvious on examining the size and growth on a more minute investigation. I must not forget, however, to give you the particulars of my first wheat crop, and shew you how to avoid a similar error, and one that is, I am inclined to think, too prevalent with the common run of farmers. And how is this to be done? It is by calling in the aid of science, so as to enable us to economize our manures, and apply to our fields just the kind of ingredients they require, and just the kind of seed the soil is fitted to receive and nourish. Agriculture then is a science; but whether considered as a science or an art, must be regarded as a subject of the greatest interest and importance. This requires a knowledge of chemistry; by a knowledge of chemistry I do not mean to say that it is absolutely necessary that every farmer should be a professed chemist, but he should have a sufficient knowledge to know from what sources plants derive their constituent elements. Now, the field that I planted my wheat in contained two distinct qualities of soil; the one portion consisted of a deep black decomposed vegetable soil, the other loamy, mixed with gravel or sand washings from the adjoining hilly Trap or Volcanic formation. Now it is well known to chemists and scientific agriculturists, that different kinds of plants absorb different kinds of constituents from the soil, wheat requiring a large quantity of silica and phosphorus for its perfection; the former was altogether wanting in the vegetable soil, but abundantly supplied in the other portion of the field selected—the consequence was that the wheat on the black vegetable soil, whilst in its grassy state, took the lead, looked luxuriant and promising, so much so that it was remarkable to the eye, whilst the other portion progressed gradually, was of a lighter appearance in colour—but the moment the period arrived for shooting into head and forming the grain, the one filled abundantly whilst the other entirely failed to fill, and was merely a crop of overgrown grass, with the shape and form of ears of wheat, whilst the grain was wanting and had completely withered up. This result led me at once to enquire into the cause, and although no chemist, still I soon found out the cause of the failure, and its remedy. I tried the same piece of ground the second time, carting on and spreading a thick coat of pulverised Trap rock, which is to be found in abundance at the base of any of our hills in the vicinity of Dalhousie; and even the rock itself, when broken or exposed to the air, readily pulverizes, and makes a valuable top dressing—to this I added a few cart loads of lime, (and if sand from the sea shore, so much the better) ploughed and mixed well—the result was that I had a most luxuriant and abundant crop of well-filled wheat on the same ground that the year before had yielded me nothing but grass in the room of well-filled grain. You will find many farmers in the ordinary ranks of life, who will tell you from nature's dictation, and perhaps from sad and disappointed experience by the loss of several crops, (that might have been avoided by even a slight knowledge of the nature and property of soils) that they never plant grain on this black vegetable soil as it never fills properly, so they avoid it; but ask them the reason, and they can't tell why it does not produce grain, especially wheat; all they know about it is, that they have tried it, and lose their seed and time. We are also enabled to see, from the application of chemistry to agriculture, the causes of the advantage derived from the rotation of crops, also of fallow, and the application of quick lime. When we plant wheat upon a soil, we naturally and consequently withdraw from it a large quantity of silicious material; silica or flint in a soluble state, and a considerable amount of phosphoric acid—and if you continue to crop the same land with wheat, you will find your crops diminish in quantity and quality, until finally it will produce no more wheat or grain of any kind. All the constituents and requisites essential to the growth and perfection of the grain is exhausted, and consequently it will not produce wheat until you return to the soil the ingredients thus withdrawn; but in the same soil, if you plant potatoes, you may still have an abundant crop even without the application of manure. And again, upon soil where potatoes almost cease to exist, you may grow a fair crop of clover. All these circumstances are readily explained when we take into consideration the ingredients withdrawn from the soils by each of these classes of plants. It is therefore chemistry alone which can furnish us with a clear idea of the composition either of the soil or of the manure with which we seek to operate upon that soil. These are fruitful subjects, and worthy of the attentive study of the farmer; and although it is not possible for me, in a condensed lecture like the present, to bring such a variety of subjects as are necessarily embraced in every matter, you may speak of in an agricultural point of view, still I trust this passing notice of what we should turn our attention to as farmers, will be favourably looked upon. When our Society first commenced, it consisted of a few

individuals, who met together for the avowed object of raising the character of the farmers in our young County, then in its infant state. Subscriptions were got up and liberally maintained in order to start it. The name of Robert Ferguson, Esq., of Athol House, (now deceased) a gentleman ever ready to assist and forward the improvement of the country, stood foremost on the list by a life donation, and was our first President, and who continued to act with us until age, and the consequent infirmities of life, prevented him from attending our meetings, when he resigned the trust with all the honors and with the thanks of the members, since which period the society has continued to elect and re-elect myself to that honorable position, and however inadequate I may feel myself to fill the important office as the President, yet I will yield myself to none in a sincere desire to promote and advance the best interest of the Society and of the farming interest generally. Our Society gradually increased—nay, I may say increased in an incredible manner—the advantages were so apparent that it spread far and near, and people seemed to take a most laudable interest in becoming members and contributing their subscriptions. By the means of our subscriptions we were enabled to obtain Legislative aid from year to year; this aid afforded the means of importing seeds, improved implements of husbandry, and stock of various kinds; the premiums awarded at grain and cattle shows also stimulated the farmers and back settlers, who all set to work heart and hand to improve their condition, and resolved to be no longer dependant on the merchant to import breadstuffs, or even clothing, as the excellent, substantial wolen domestic manufactures annually exhibited now prove. As illustrative of the rise and progress of our agriculturists mainly, (and I may almost say exclusively) I give a statistical and comparative statement of imports of agricultural produce taken from the Customs returns of the Port of Dalhousie, commencing with the years 1839 and 1840, compared with 1854 and 1855. Now facts are stubborn things, so are figures, but here they are, and may be relied upon:

	COMPARATIVE STATEMENT OF IMPORTS OF AGRICULTURAL PRODUCE.		DECREASE	
	1839	1840	1854	1855
Bacon	273 18 10	298 2 9	0	0
Barley	197 10 0	35 0 0	0	0
do. Meal	804 0 0	777 7 10	0	0
Butter	747 4 10	88 17 3	4 15 7	1 15 7
Cheese	7407 7 3	5152 7 7	8 6943 10	8
Flour	1557 7 3	539 10 1	72 14 9	63 0 0
Oatmeal	2926 7 0	3034 17 0	1017 15 4	641 16
Oats	171 5 8	48 12 3	0	0
P.L. Brley	5594 3 8	4776 1 9	2861 14 6	1162 8
Salt Meats	762 4 0	708 12 0	70 0 0	60 0 0
Vgtables				
Deduct increase on Flour,				16,925 16 7
Saved to the County in 2 years,				2916 4 6
				£14,099 12 1

Besides the droves of fat cattle that used to come which do not appear in the Customs Returns, also butter, meat, and oats taken to Bathurst, while at the same time the population has increased nearly one-third. The increase of flour imported in 54 and 55 is owing to the large amount of lumbering operations during these two years, and notwithstanding there is a large decrease on salted meats, we now, and have for many years, supplied our own market with the very best of Beef. The shipping are always well supplied, when formerly we had to draw largely on good old Westmorland, now we supply our own wants, and in a few years more we can supply other markets.

This Society has imported from year to year in the importation of seeds, stock, and improved implements of husbandry since its commencement, to amount of £2908 18s. 4d. It has distributed in premiums on grain and domestic manufactures, exhibitions, cattle shows, ploughing matches, and for improved articles of husbandry £1106 18s. 10d. Of stock we have imported 43 sheep—Leicesters, Teesewaters, Cheviots, South-Downs, South-Devons, and Black-faced Highlanders, or Heather Sheep. 24 head of Neat Cattle, consisting of Ayrshires, Devons, Durham and West Highlanders. 14 Hogs, of the Berkshire, Prince Alberts, Suffolks, and Yorkshire. 4 dozen fowls, of the varieties—Dorings, Cochins, Spanish, and Braham-Putra—and last, though not least, the Entire Horse Prince Edward, a most valuable animal, imported from P. E. Island, and made up of the best blood on the Island, and is allowed by the most competent Judges to be superior for a horse of all works to any that has been imported from Britain, and at more

than one half saving in the costs; as last year was his first season we cannot as yet judge of his stock, but that he will meet the most sanguine expectations of the Society I have not the least doubt, and the County will ultimately reap the benefit of so desirable an object.

[To be Continued.]

RAILWAY DOCUMENTS.

LAI D BEFORE THE LEGISLATURE OF NEW BRUNSWICK.

INTER-COLONIAL RAILWAY.

CORRESPONDENCE WITH THE GOVERNMENT OF CANADA.

Copy of a Report of a Committee of the Honorable the Executive Council, dated 9th June, 1857, approved by his Excellency the Administrator of the Government in Council on the 18-20th of the same month.

The Committee of Council beg respectfully to Report to Your Excellency, that the Committee have had under consideration the important advantages which Canada and the Provinces of New Brunswick and Nova Scotia would derive from the construction or rather the extension of the line of Railway from Riviere du Loup to Halifax.

The Committee are so deeply impressed with the importance of this Inter-Colonial undertaking, that they have deemed it advisable to suggest that a Member of Your Excellency's Council should proceed to England and place himself in communication with the Secretary of State for the Colonies, with the view of urging upon her Majesty's Government the reasons which should induce and impel the Imperial Government to aid the Provincial Government to carry to completion this great and necessary national work.

The Committee of Council have no doubt that the Governments of the Eastern Provinces will cheerfully co-operate with Your Excellency in pressing the subject upon the attention of the Imperial Authorities, and with this view the Committee suggest that Your Excellency communicate to the Lieutenant Governors of New Brunswick and Nova Scotia the action of Your Excellency's Government.

The Committee of Council have much pleasure in stating that the Honorable the Attorney General for Upper Canada has consented to undertake the mission, and the Committee beg further to suggest that the Attorney General have authority to call to his aid the services of any Gentleman whom he may deem necessary to the success of the negotiations.

WM. H. LEE, C. E. C.

St. John, New Brunswick, July 30, '57.

Sir,—I have the honor to acknowledge the receipt of Your Excellency's Dispatch of the 22nd inst, and of the copy of a Minute of Council, therein inclosed, respecting the construction of an Inter Colonial Line of Railway between Halifax and Quebec.

I have without delay called the attention of my Council to this important subject.

I have, &c.

J. H. T. MANNERS SUTTON.

His Ex. Lieut. Gen. Sir W. Eyre, K. C. B. Toronto. St. John, N. B. Aug 10, 1857.

Sir,—With reference to my Dispatch of the 30th ult. I have now the honor to transmit to you, herein enclosed, the copy of a Memorandum laid before me by my Council, respecting the construction of an Inter Colonial line of Railway. I have further the honor to inform you, that I have forwarded a copy of this Memorandum to the Secretary of State. I have &c.

J. H. T. MANNERS SUTTON.

His Ex. Lieut. Gen. Sir W. Eyre, K. C. B., Toronto. Copy of Memorandum of the Executive Council in Committee, dated August 1857.

Government House, Toronto, 18th Aug. 1857.

Sir,—I have the honor to acknowledge the receipt of Your Excellency's Dispatch of the 10th instant, enclosing a copy of a Memorandum of your Council, respecting the construction of an Inter-Colonial Line of Railway.

I have &c.

W. EYRE.

Lieut. Gen. Administering the Government.

His Ex. the Lieut. Governor &c. &c., N. B. Govt. House, Fredericton, N. B. Dec. 10, 1857.

Sir,—I have the honor to forward to you herein enclosed, a copy of a Memorandum of the Executive Council of this Province in Committee, which Memorandum has been approved by me, on the subject of the construction of an Inter Colonial Line of Railway. This Memorandum was (as appears on the face of it) drawn up by the Executive Council in Committee, as a reply to a communication addressed to the Provincial Secretary of this Province by the Provincial Secretary of Nova Scotia, to whom a copy of the Memorandum has been transmitted.

I have &c.

J. H. T. MANNERS SUTTON.

Et. Hon. Sir E. Head, Bart., &c., &c. Toronto. Copy of a Memorandum of the Executive Council in Committee, dated Dec. 10, 1857.

Govt. House, Toronto, Dec. 19, 1857.

Sir,—I have the honor to acknowledge the receipt of Your Excellency's Dispatch of the