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Omnium rerum, ex quibus aliquid acquiritur, nihil est agriculturâ melius, nihil uberius, nihil homine libero dignius.—Cicero: de Officiis, lib. I, cap. 42.

VOL. IV.

HALIFAX, N. S., OCTOBER, 1884.

No. 50.

THE Amherst District Exhibition (for counties of Colchester, Hants, and Cumberland) was opened on Tuesday, 7th October, by His Honor Lieut.-Governor Richey, who was introduced by Mr. Geo. Förrest, Chairman of the General Committee. His Honor closed his address with the remark that it is not on the public reputation of a country or on the lustre of her public men, but the honest industry of her individual sons and their enthusiastic and generous devotion to their calling, that the security, the wealth, the peace and the happiness of a country must rest.

The reporter of the *Morning Chronicle* concludes his account of the Exhibition by the following judicious remarks:—

Now that the exhibition is over, it may not be amiss to briefly sum up its results and its lessons. As this has been the first of the kind undertaken in the County of Cumberland, it was not to be expected that its management would be entirely free from mistake, yet the affair was passed over with a very small amount of friction. Financially it has fully met the most sanguine expectations of its promoters. The products and industries of Cumberland have been very fairly represented, those of Colchester in a less degree, while those of Hants have hardly appeared at all, except in the very fine exhibit of sheep shown by Mr. McDonald of Shubenacadie. Before these district exhibitions can really meet their design, county lines within the district must be entirely ignored, all jealousy of the place supposed to be favoured with the location of the exhibition must be laid aside, and every producer must enter into a healthy and generous competition with every other producer in the district, and those who fail to do what they would like to do must determine to do better next time.

THE Annapolis District Exhibition (for Annapolis and King's Counties) opened on 30th September, and is spoken of as one of the best yet held in that part of the Province, the classes being better filled than on previous occasions, and the exhibits excellent; most of them were from within the limits of Annapolis County,—the prizes at this as at other District Exhibitions probably not being large enough to attract exhibitors from great distances, especially in the live stock classes. The exhibition was opened by Lieutenant-Governor Richey, who expressed the great pleasure and gratification he experienced in meeting representatives of the three counties on the present occasion and in the present place. Old Annapolis Royal was a town long before George III. came to the throne, before the pilgrim fathers landed on the shores of America, or the reign of Queen Anne, in whose honor the town bears its present name. Back in the reign of James I. a settlement was first made by the French. He had been shown a stone taken from one of their forts on which was cut the year 1506. There it was that the Frenchmen held high festival on the spot and instituted a new order, the order of good times, consuming the luxuries they had brought with them and enjoying the bountiful harvest of the land. A century and a half later there was a time of warfare, and many a time the country resounded with the noise of deadly conflict. For one hundred years past this old land has enjoyed prosperity. Here our forefathers

have lived and laboured and loved, and here their children meet and enjoy the fruits of their labour. At such a time and place it was a pleasure to him to meet and address them, but if any came expecting an elaborate address on agriculture they must go away disappointed, for he was not equal to the task; but he could to some extent enter into the feelings and pleasures of the farmer as he went forth in the morning to view his lands or crops as they advanced towards maturity, nourished by the early and latter rain. He also knew the farmer had his anxious days, when all seemed ready to perish under the scorching sun, or when the windows of heaven were opened, and the old fiat appeared to be revoked. This year we have much to be grateful for. Some crops have suffered; others are good. Let us be grateful for the amount of prosperity enjoyed. When he looked on the stalwart yeoman of those counties and the fine display before him, drawn from the beautiful vales and hills among which the people dwelt, he hoped they might remain as to-day, in homes of peace and plenty.

THE District Exhibition for the Cape Breton Counties was held at Baddeck. The opening took place on 7th October at 2 o'clock, when Mr. W. F. McCurdy, M.P.P., for Victoria, introduced the Hon. W. S. Fielding, Provincial Secretary, who delivered the opening address. Exhibitions he thought were slow educators, and taught the farmers better methods. The special use of District,

as compared with Provincial Exhibitions, was that they brought advantages to districts remote from the centres where provincial shows were necessarily held. Exhibitions served to acquaint us with the rich resources and natural advantages of our fine country, which if they were better known abroad would bring a better class of emigrants from the old country.

The District Exhibition for Halifax and Lunenburg Counties was held at Dartmouth in the spacious Exhibition building and grounds. The public opening took place on Wednesday, 1st October, at 2.30 p.m., when His Excellency Vice-Admiral Sir J. E. Commerell, K.C.B., gave an address. In the competition for prizes there was not as full a representation from other parts of Halifax County and Lunenburg as desirable. Halifax citizens also might have shown their garden produce, and Halifax manufacturers their works of art to a greater extent. However, the exhibition was an undoubted success, the poultry and garden vegetables being especially noticeable. The amount of prize-money awarded was about \$700. The exhibition was closed on 3rd October without any ceremonial.

At New Glasgow the formal opening of the District Exhibition for Guysborough, Pictou and Antigonish Counties, forming No. 5 District, took place on 1st October at 3 o'clock, p.m. The Hon. A. C. Bell, M.P.P., Chairman of the Executive Committee, introduced Major-General Laurie, who delivered the opening address. The General was followed by Colonel W. M. Blair, M.P.P. for Colchester, and the Rev. A. C. McDonald, of Bayfield, both of whom addressed the assembly,—after which the chairman formally declared the exhibition open. The total number of entries exceeded 1,700, of which 189 were for horses, 225 for cattle, and 121 for sheep. The fruit entries numbered 106. It is said 4000 persons were present the first day.

The Yarmouth Exhibition for District No. 3 was held on Thursday and Friday, 9th and 10th October. The sum of \$2,750 was offered as prizes. The exhibition was, as usual at this place, a great success.

The several District Exhibitions of the Province, of which details of arrangements were published from time to time, were carried out successfully, beginning with Annapolis and New Glasgow, which commenced on 30th September, and ending with Yarmouth, which closed on the 10th of October. Seven exhibitions comprised within a period of eleven days afforded ample occupation to the most

ardent sight-seers. It has been customary to print in the JOURNAL the principal addresses delivered at the annual exhibitions; we follow the custom as far as regards the Lieut. Governor's Address at Annapolis, Major-General Laurie's at New Glasgow, and Senator Dickey's at Amherst, but have not yet obtained the others.

We are indebted to Messrs. Green & Whineray, K 30 Exchange Buildings, Liverpool, England, for the following weekly quotations of the Apple Market. Messrs. G. & W.'s cable address is 'Green,' Liverpool:—

APPLES.

Liverpool, 30th Aug., 1884.

Arrivals of apples continue on a moderate scale, and what have been offered at auction have not proved very tempting to the buyers, being deficient in colour.

Fruit from New York has sold from 15/- to 24/6 per barrel.

The first arrivals from Boston came to hand on the 28th, in the "Catalonia." Red Pippins, the fruit was well coloured, but tender and soft; most of the barrels were slack packed, and made 16/- to 17/3, a few tight made 22/- per barrel.

Arrivals are as follows:—

	Barrels.
Celtic from New York.....	169
City of Chester from New York.....	203
Catalonia from Boston.....	118

Liverpool, 6th Sept., 1884.

The fruit that has come from America this week, with very few exceptions, has been very wasty in condition, and low prices have ruled.

Prices of sound for shipment from New York have ruled from 12/- to 18/ ordinary; a few lots with a little colour have made 20/- to 24/-.

From Boston we have had 96 barrels, which sold from 14/- to 19/7, for sound; slack packed 14/9 to 15/6. Wet and wasty parcels have ranged from 4/- to 10/-.

Arrivals are as follows:—

	Barrels.
Nevada from New York.....	211
Bothnia " ".....	31
City of Richmond from New York.....	72
Arizona from New York.....	483
Germanic " ".....	43
Servia " ".....	121
Marathon from Boston.....	96
Total for week.....	1016 barrels.
" to date.....	1888 "

Liverpool, 20th, Sept., 1884.

Apples arriving this week have shewn the effects of the warm weather during time of shipment, and the condition, with very few exceptions, has been unsatisfactory; green varieties have sold badly, and sound parcels have made 10/- to 13/-, anything out of condition 6/- to 9/-.

Kings and coloured Baldwins have been in good demand, and choice samples have made 16/- to 24/-.

Boston red apples, tight and sound, have made 13/ to 15/-. The cargo of the *Cephalonia* has landed very wasty, the bulk of the fruit having sold for from 6/- to 10/-.

Green and yellow pippins have proved very unsaleable.

Arrivals are as follows:—

	Barrels.
City of Rome from New York.....	67
City of Montreal " ".....	65
Britannic " ".....	1039
America " ".....	728
Wisconsin " ".....	609
Norseman " Boston.....	681
Cephalonia " ".....	1968
Virginian " ".....	274
Polynesian " Montreal.....	33
Total for week.....	5964 barrels.
" to date.....	10227 "

Liverpool, 27th, Sept., 1884.

We regret to say that there is no improvement in the landing condition of apples this week, and with so many wasty parcels offering, and a poor demand for them, prices are lower all round.

Green apples are specially depressed, and sales have been made of good tight barrels of Greenings from 8/- to 10/- per barrel.

Baldwins that have come forward have mostly been very short of colour, and with few exceptions have made little over 12/- per barrel.

Good Boston red pippins have sold best, but unfortunately tight barrels have been very scarce. From 13/- to 15/- has been paid.

The ruinous part of the business has been the immense quantity of slack and wet apples, out of all proportion to the quantity shipped. The best slack barrels have made 8/- to 10/6, slightly wet 6/- to 8-, and wet 5/6 per barrel.

The following quotations are for tight barrels:—

Baldwins.....	9/- to 17/-
Greenings.....	8/- " 11/-
Kings.....	20/- " 25/-
Orange Pippins.....	7/- " 9/-
Boston Red Pippins.....	13/- " 17/-
Hubbartsons.....	10/- " 13/-
Liscomb.....	5/- " 8/-

Arrivals are as follows:—

	Barrels.
Republic from New York.....	445
City of Chicago from New York.....	1324
Aurania from New York.....	742
Wisconsin " ".....	1758
Missouri " Boston.....	1245
Samaria " ".....	1823
Peruvian " Montreal.....	164
Montreal " ".....	22
Total for week.....	7523 barrels.
" to date.....	17750 "

Liverpool, 4th Oct., 1884.

There has been a decided improvement this week in the landing condition of apples from Boston and New York. This has given our dealers more confidence in purchasing, and many buyers

who were holding off have now come into the market, consequently we have had a much improved demand. While we cannot report any improvement in prices, still we confidently look for this in the near future, as competition is now becoming keener.

Boston Baldwins have landed sound and tight, but being very deficient in colour, a low range of prices was ruled.

Greenings have improved from 8/- to 9/6.

The following quotations are for tight barrels:—

Baldwins, Boston.....	9/- to 11/6
Hubbartsons.....	10/- " 12/6
Pearmains.....	12/- " 14/-
Spitz.....	12/- " 14/-
Baldwins, New York.....	10/- " 13/-
Greenings.....	8/- " 9/6
Culverts.....	10/- " 13/-
Kings.....	18/- " 23/-
Slack packed.....	8/- " 11/-
Slightly wet.....	7/- " 8/6
Wet.....	5/- " 7/-

Arrivals are as follows:—

	Barrels.
Arizona from New York.....	1602
City of Chester ".....	319
Austral ".....	236
Celtic ".....	1287
Vancouver from Montreal.....	303
Iowz from Boston.....	2600
Catalonia ".....	3797
Bulgarian ".....	1019
Sarmatian from Montreal.....	506
Hanoverian ".....	156
Total for week.....	11,825 barrels.
to date.....	29,575 "

Liverpool, 11th Oct., 1884.

With double the quantity of apples received this week over last, demand has held good and there has been no difficulty in disposing of good parcels of fruit, but anything not strictly prime has had to be disposed of at very low prices. As there are plenty of English apples selling at 5/- to 6/- per cwt., we have to show superior fruit to the home grown to obtain full prices.

Unfortunately a great many of the apples that have arrived have been short of colour, and the prices obtained have varied according to their brightness.

The following quotations are for tight barrels:—

Baldwins, New York.....	11/- to 14/6
Greenings.....	8/- " 10/6
Spitz.....	9/- " 13/-
Vandevere.....	9/- " 12/-
Ribston Pippins.....	10/- " 16/-
Baldwins, Boston.....	10/- " 11/6
Hubbartsons.....	10/- " 12/-
Culverts.....	9/6 " 10/6
Fameuse.....	13/- " 9/6
Genettings.....	7/- " 9/6
Slack packed.....	6/- " 10/6
Slightly wet and wet.....	5/- " 9/-

Arrivals are as follows:—

	Barrels.
Bothnia, @ New York.....	1532
Germanic, ".....	692
City of Richmond ".....	417
Alaska ".....	3186
Kansas " Boston.....	6110
Pavonia ".....	5148
Sardinian " Montreal.....	895
Sarmia ".....	708
Servia " New York.....	2719
Total for week.....	21410 barrels.
to date.....	50935 "

MAJOR GENERAL LAURIE'S ADDRESS AT THE NEW GLASGOW EXHIBITION, Oct. 1st, 1884.

These annual gatherings are like milestones on a journey—they enable us to measure the progress that we are making; but in one important particular the simile does not apply—we have no definite knowledge of the goal to which we are travelling. It is not merely that agriculture is a progressive science, that its possibilities so keep pace with our efforts we always seem as far as ever from perfection, but it is rather that the world around us changes, and, like the man in the crowd who must go with the press or be trampled under foot, we must move with the world or be crushed out of existence.

I have spoken so often at the opening of agricultural exhibitions, that, in considering the subject of an address, it seems impossible to avoid repeating what one has said on former occasions, yet surely if our circumstances change, it is incumbent on us to consider how we are to be affected by such changes. I have, in considering the subject of a paper lately prepared by me for reading before the British Association for the Advancement of Science, at Montreal, on the agricultural resources of Nova Scotia, been led to examine views that I have enunciated and therefore held in years gone by, and I have been struck with the changes that these few years have effected in my views. Crops and methods of farming that seemed to me of the first importance to us, are now seen not merely to be no longer necessary, but in some cases positively the reverse of advantageous. I have lately paid three visits to localities or institutions specially devoted to agriculture, which have not merely furnished me with much food for thought, but have strengthened the views that I have lately formulated.

1st. A fortnight since I was travelling through the prairies of the North-west. From Winnipeg to the Rocky Mountains, 900 miles in length, we travelled through land waiting for the plough and capable of raising consecutive crops of wheat such as we saw at the well-known Bell farm at Indian Head, where 7,000 acres were in process of harvesting and 9,000 acres were being broken, so that next season 16,000 acres of wheat will, under Providence, be harvested on this one farm. Throughout the North-west, land is being broken up in all directions—it is estimated that 5½ million bushels will be the surplus wheat crop available for export from the North-west this season, and it is probable that next season the outflow will be more than double this quantity. I am not yet prepared to accept Sir Patrick Mc-

Dougall's view that so much wheat will be produced in the world that there will be no market for it. Demand will regulate the supply, and, if Major Bell is correct in his calculations that he can deliver wheat in Liverpool at 24 shillings per quarter, or 3 shillings (75c.) per bushel, then the English farmers will cease to grow wheat, so will the farmers throughout Eastern America, both in Canada and the United States. It will be left for new and unexhausted countries to compete, and the supply will rapidly fall in quantity. No producer will continue to supply to the market where its price is actually less than the cost of the production. My own experience is somewhat a case in point. Last season I had a magnificent crop of spring wheat, 600 bushels on 25 acres. I found that the market price would not justify my selling it and buying oil cake or coarse grain to feed to my cattle, so I ground the wheat and fed it to my fattening oxen—my lesson was learnt—40 bushels of barley were as easily raised as 25 bushels of wheat—the feeding value, bushel for bushel, would be the same—consequently barley or other coarse grain has taken the place of wheat in my rotations. My own experience is but an illustration of what must happen not merely with individuals but with whole communities, and even with nations. But it is quite certain that, although it may be expedient to abandon particular crops, the cultivation of the soil will not be abandoned; one crop will be substituted for another, a crop more suited to the locality; to the natural gifts, the soil and climate, and to the artificial adjuncts, the capacity of the owner for cultivation, and of the convenience of marketing when brought to maturity.

2nd. Passing through the fertile districts of the North-west with the British Association, we continued our journey from the Rocky Mountains to the Atlantic, and spent several days last week in what were important but flying visits to some of the cultivated districts, (alas, too few) of our own bountifully endowed province. Our visitors were charmed with what they saw; it seemed to them impossible that a country with such wonderful natural gifts should get the go-by in the rush of immigration, and that, more wonderful still, its own sons should leave it, not merely because they disliked the occupation of farming, but actually to go elsewhere to follow that profession. Londonderry, Truro, Cornwallis, Windsor, Amherst, places taken because they were most easily accessible to the party principally engaged in geological examinations, excited their admiration and elicited the highest compliment that a patriotic Englishman can pay, 'how very like England.' These districts

almost proclaim aloud what should be their agricultural industry. Grass and roots grow as they will not grow throughout the North-west. These will make beef that John Bull requires as much as the quarter loaf, beef, which, alive or dead, is both expensive to carry and deteriorates in the carriage by land, but which will in fair weather actually thrive at sea when alive, or can be easily and safely carried by refrigerator ships. Beef offers us a very profitable trade in which our young sister provinces cannot at present be a competitor. I do not at all set my face against grain growing, on the contrary I look on it as a necessary rotation, but of such kinds as will subserve the especial industry to which I urge we should turn our attention, the production of meat, consequently our grains should rather be those raised for cattle than for man's food. If the Foot Hills of the Rocky Mountains are, as has often been stated, especially favorable to grazing, i. e. cattle raising, that does not at all make them our rivals—far better, we can be their customers. The English farmer knows well when profit can be made and he is a ready buyer of what are known as store stock—cattle for fattening—for every farmer should know that on a cultivated farm the profit is not in raising, but in feeding, i. e. fattening cattle, and I am not willing that we should lose this the most paying part of our business. Store cattle are best fitted for crossing the ocean; there is less risk and a readier market, but the farmer here loses his profit and the farm the enrichment such manure would furnish. We must struggle to retain the best beef rather than the cattle trade, and if live beef cannot cross profitably we must endeavor to re-organize the dead-meat shipments. It is a question of proper refrigerator receptacles in the port of arrival. It pays to stable and feed a live animal on arrival until the state of the market warrants it being slaughtered—far lighter expense would attend the storing of meat in a cool atmosphere until the salesmen were prepared to handle it.

3rd. I have alluded to my visits during the past two weeks to the prairies and to our dyke and upland districts. One week earlier I visited the Ontario agricultural college at Guelph—the most advanced in agriculture of all our provinces. Our fellow countrymen of Ontario felt how very backward they were in their knowledge of how to cultivate the soil. To follow successfully any profession requires intelligence and hard work. Farming is undoubtedly a laborious profession, but it has this peculiarity that the indolent man, and bad manager, probably labors harder for meagre results than the capable methodical man for far larger returns. The people of Ontario fully recognised

this and that it was the duty of the community and equally its advantage to afford such instruction to the farmer as would induce him to stick more closely to his business, because more intelligently appreciating its merits, and to become a more useful member of society, in contributing more largely to the common wealth, by increasing the yield of his land. It is not merely that the individual farmer is taught to work, but the value of the different crops is ascertained both in the amount of food they furnish to man and beast and in the strength they take from the soil. This, in its turn, must be fed or it cannot produce, hence goes on the constant process of adding to and retaking from the land, and to do this economically and on commercial principles we must furnish the least to obtain the greatest, only adding what is not already present, but ensuring that the plant we cultivate can obtain it. That is but a very incomplete review of the process which the farmer assists. It is a simple matter of labor and brains, but unless the brains employ the hands advantageously, the pocket will suffer and the community will be poorer. If Ontario sees the advantage of further training its advanced farmers, there is greater reason for our affording similar opportunities to our agriculturists who have not in the past progressed as we could now wish. In the last twenty years the agricultural world has been revolutionised. New areas have been opened up and their products brought into competition with longer worked lands. The northwest of Canada and the United States, Australia, India, Egypt, and now most probably Central Africa either already have, or will, become the great grain growing countries. As we shall soon raise far beyond our local consumption, it behoves us to ascertain what we can best raise and what we can best market. My present view, I repeat, is that we should devote ourselves to the manufacture of meat, and, as a matter of public concern, ascertain how it can be most economically made and marketed. I believe it can be best done on a tolerably large scale by the employment of machinery and other appliances. This should mean that our province offers strong inducements for men of capital to engage in farming, and this I hold to be the case. The small farmer may profitably employ his farm and labor in raising and bringing on the young stock which his wealthier neighbor should afterwards turn into beef. There is room for all, but it becomes a necessity that our back country districts, where most of our beef stock is raised, should obtain better bred stock, as it is a most unprofitable business to fatten low bred animals. But with all these advantages,

which nature will or has furnished, but little can be done unless man, the motive power and ruling spirit of the machine, is taught to avail himself and make the most of what Providence has sent for his use. I have often heard and read in my own profession of heaven-born generals, but in examining the history of their lives, I find they were close students of their profession, and this was the secret of their success. Almost every science is called upon to complete the outfit and furnish the knowledge required by a competent farmer, yet no educational establishment has an agricultural curriculum, and the would-be studious farmer is left to acquire his knowledge as he best can. It is a discredit to our province that as yet no steps are taken towards the meeting of this want. If lack of means prevent our local legislature dealing with it, it is satisfactory to recollect that agriculture is also placed under the Dominion legislature, and, as the control of larger funds vests in that body, we may not unreasonably turn to it for assistance. Exceptional causes may enable the Red River valley or the Bay of Fundy estuary flats to yield crops for an unlimited period, but, whether it be the North-west prairies or our own uplands, skill and knowledge are necessary to obtain satisfactory returns, and to hand over the soil unexhausted to the next generation. Theory must help us to cultivate so as to obtain these returns. The native quickness and aptitude of our people will teach them to apply the theory to obtain practical results. You in this district will much belie your Scotch ancestry, if you do not insist on the importance of education, which has given Scotia her prominent place in the world, and if you do not more than hold your own in the healthy rivalry for excellence of cultivation, which will, I trust, arise among our several districts and counties.

PROFESSOR MACOUN of Ottawa, writes: Our trip to the Rockies was a grand picnic, and of course botany was a prominent feature of it. We made extensive collections at various points, but nothing new to me was seen until we reached Kicking Horse Lake; here I noticed a few plants new to me but evidently not rare there. High up on the mountains we collected many alpine species which were common in the Alps. All were highly delighted with their trip and so expressed themselves when they returned to Winnipeg. I discovered *Cystopteris montana* in the mountains at Kicking Horse Lake.

I am glad you had a successful trip in Nova Scotia. General Laurie expected it, and led many to believe so.

Very truly yours,
JOHN MACOUN.

GENERAL LAURIE'S paper on Nova Scotian Agriculture, read at the Montreal Meeting of the British Association for Advancement of Science, has already appeared in the *Morning Herald*. The supply of copies being exhausted, we now reprint it in the *Journal of Agriculture*, by special request:—

When first asked to prepare a paper on the agricultural resources of Nova Scotia, I at once raised the question whether I was limited to facts and results already obtained, or whether I must be permitted to refer to possibilities, which might be considered to touch on the realm of opinion or even speculation. I was given to understand that I must confine myself to solid fact, but the more I looked into the matter, the more certainly it came home to me, that to point out the agricultural resources of the province is of necessity to deal with much that is yet undeveloped. Its agricultural history will sufficiently explain how it comes to be very backward, and yet the returns of its yield will show what, even under these disadvantages, it produces. It is but fair then in dealing with its resources, to consider what, under a favourable system, it would produce. The first settlements in the province were established rather for military than commercial reasons; hence, with all due respect to my profession, the previous training of the new settlers did not especially qualify them for an agricultural life. Soldiers and sailors have as great a power of adapting themselves as any class of men; but they hardly form the best foundation for an agricultural colony. The loyalists, from whom so large a portion of our population are descended, came largely from the professional ranks in the towns of the United States,—men who were quite unaccustomed to manual labour, or the cultivation of the soil; and the Sutherland and Argyll crofters who came to us from the Highlands, when the land owners abolished small holdings, and unintentionally deprived the army of one of its best recruiting grounds, brought a most valuable and law-abiding addition to our population who settle down with all earnestness to carve out for themselves homes from the forest. Industrious and patient, but for the most part, without any real knowledge of farming beyond spade and hoe culture of small patches, and, as the new experiences were chiefly of work among the stumps, their training did not lead them to very productive or commercial farming ways. In 1818 when England's enormous war expenditure had ceased, earnest Nova Scotians were led to seek the cause of, and remedy for the dull times, and Mr. John Young, the father of our ex-chief justice, Sir William Young, published a series of very forcible

letters, under the *nom de plume* of "Agricola," which called attention to the discreditable state of agriculture. Mr. Young states that at that time, a horse hoe or cultivator were implements of which even the names had hardly crossed the Atlantic to us; grain fans were almost unknown, and a common roller was a wonder, of which some counties did not possess a single specimen. Mr. Young gave an impetus to agriculture that has never been forgotten, but the energy and capital of the people has rather been employed in working coal and plaster, lumbering, ship building, fishing, the products of which were carried to more developed countries in exchange for the fruits of the soil; consequently farming did not receive the attention it deserved. Less than half of our people are professional farmers, and many of those combine other occupations with agriculture, which latter generally suffers in consequence. When the mackerel or shad strikes in along the shore, the potatoe hoe or the scythe, is at once abandoned for the oar and the net, and teams that should be ploughing are too often employed in hauling timber from the forest to the ship yards.

Our leading men have so often boasted of the half million tons of shipping that Nova Scotia owns, that it became an article of faith that all obtainable funds should, in certain districts, go into ships, and I call to mind visiting a locality in which I was informed the recent loss of a ship had forced the sales of their farms on ten well to do men who had been bitten by the prevailing mania and had mortgaged their farms to build a ship which was lost on the first voyage. Our iron and coal miners, gypsum quarry men, shipwrights, fishermen and factory hands, consume the surplus products of our farmers, but our trade returns shew that we have, of late years, exported a large amount of agricultural produce. As long ago as 1851 we exported about \$670,000 worth and our re. us for 1883 showed an export of over \$1,500,000, and this by no means represents our actual sales over and above provincial consumption. About 400 steamers called at one port, Sydney, C. B., for coal, last season. Each of them would, of course, lay in a stock of fresh provisions for the crew. We fit out a large fleet of fishermen from our own province, and our American neighbors, who fish on our coasts, provision themselves in our ports throughout the season. Halifax is also a port of call for a large amount of ocean traffic, and the garrison and squadron, as well as visiting men of war, require a large amount of supplies. A constant outflow of cattle and fruit passes from our western counties to St. John, N. B., across the Bay of Fundy, but, not leav-

ing the Dominion, does not appear in the returns. Cattle, butter, vegetables of all kinds go to Newfoundland and St. Pierre, Mig., from Cape Breton; whilst from the Annapolis valley an enormous quantity of potatoes is shipped to the United States. One hundred thousand barrels of apples are annually carried over the Windsor and Annapolis railway, and the manager informs me that he does not carry half the output; as water communication competes very advantageously with his railway, and he calculates that, as the orchards already set out come into bearing, the quantity will be far more than doubled. Of all agricultural countries, Nova Scotia lies nearest to Europe, and apples and cattle are perishable articles, to be put into market with the least possible carriage, and these are essentially articles for the raising of which Nova Scotia has great natural advantages.

The weevil was so destructive to our wheat crops between 1860 and 1870 that the cultivation of wheat was almost abandoned, but, with greater care and better method, it has been resumed, and using only round figures, we have increased from 300,000 bushels in 1851 to nearly 530,000 in 1881. Oats have increased to nearly 2,000,000 bushels. Potatoes have increased in the same time from 2,000,000 to 7,500,000. Turnips to over 1,000,000 bushels from one third the quantity. Other roots, to 326,000 bushels, an increase of over 1,000 per cent since 1851. And these increases show that cattle are better fed, a sure sign of improved farming. Hay has increased from 300,000 to 600,000 tons. Butter from 3,500,000 pounds to 7,500,000 pounds. Cheese shows nearly a 1,000,000 pounds. Apples, of which some were imported in 1851, show in 1881 a product of 900,000 bushels, and other fruit increased from 4,000 to 18,000 bushels: hops show nearly 19,000 lbs. in 1881, and could be most profitably grown as they grow in profusion, but the cost of labor in picking checks the cultivation. Grapes, which do not appear on statistics till 1871, and then only 8,000 lbs., have increased in 1881 to 35,000 lbs., showing that our people have found our climate well suited for their growth.

300,000 horned cattle and 400,000 sheep were owned in Nova Scotia in 1881 and 63,000 cattle, and 151,000 sheep were sold for consumption in that year. Of the 13,000,000 acres of which Nova Scotia consists, a large proportion is lake, of which the shores are generally somewhat stoney. The southern coast is, for the most part, rocky and unfertile, as if a huge breakwater had been established by nature, to the eastward of the continent to breast the Atlantic

waves. But this rocky surface does not extend a very great distance inland, and, once passed, the larger part of the land is susceptible of cultivation with good returns. The census of 1881 shows that nearly 2,000,000 acres have been improved, of which almost 1,000,000 are actually under crop, an increase of more than 100 per cent, since 1851 but the increase of production has not kept pace with the increase of acreage and this is partly explained by the wretched methods of farming followed in so many cases, by which lands when run out for crops are turned over to pastures, and fresh lands brought in for crops, and of course all would still be rated as improved, whilst the most productive, so called, dyke land (which are the reclaimed salt flats generally formed at the mouths of rivers in the Bay of Fundy by the great fall and rise of tide, and from which the tide has been excluded) and of which there are many thousand acres in Nova Scotia, have not been much increased during this period. Thus from the lands already cleared for cultivation an enormous increase of crop should, under proper management, be obtained, and the millions of fertile acres now in forest are also available for reclamation, as the rocky and less fertile soils would still supply the necessary timber for ordinary use and assure the necessary rain fall.

A question naturally arises, whether the soil and climate of Nova Scotia are as favorable to the production of crops as other competing regions, and to this I must bring the testimony of 18 year's personal experience in farming, on a new farm and therefore not under the most favorable conditions. Cattle live out at pasture from 1st June to 15 October, and thrive well during that time, and will hold their own for a month longer, if sheltered at night. All kinds of grain grow well. Oats and wheat are usually about 100 days from seed time to harvest. Last year 25 acres of spring wheat yielded me 25 bushels to the acre. Barley gives about 40 bushels to the acre; oats about 45, but there is a tendency to lodge when the crop is heavy. Potatoes have usually given me about 275 to the acre, and Swedes from 550 to 800, according to the season, and exposure of the field; if facing S. or W. giving the smaller crop on account of the heat, and if N. or E. the larger, thus shewing that we are near the southern limits of turnip growing, as they do best in the cooler places. This has led me to turn my attention to grow corn for ensilage on which I can only consider I am experimenting; but last season, I cut, (weighing sample carts as I hauled home) 20 tons per acre on a field of 15 acres. It seems admirably suited to the climate as a plant, and the mode of preservation is economical and the food

appears valuable. Hay, the too favorite crop of our farmers averages, (weight calculated when taken for feed and not when hauled off the field) $1\frac{1}{2}$ tons to the acre on the upland fields. On 170 acres of cultivated land, in addition to keeping ten horses, and about the same number of cows, the year round, I raise sufficient food, with the addition of some purchased oilcake, which can be paid for by the sale of other surplus crop to feed for the butchers, 100 head of store cattle yearly. Permanent grass is practically unknown us, owing to the damp spring and autumn, they become overgrown with moss. Our most prospering farming districts, are those near tide water, where the flats already alluded to, have been dyked and the flow of the tide barred. On these hay yields $2\frac{1}{2}$ to 3 tons to the acre without impoverishment, and the after pasture is magnificent, and as the upland in these districts is usually light, the manure furnished from the dyke land hay enables repeated crops of potatoes to be raised for sale, so that cattle and crops can both be sent to the market.

The upland farmers not unnaturally copy the process followed by these favored dyke land owners, and try to work their land as grass farms; the hay fed on the farm will not maintain fertility of the hay fields, the grain is weak and poor, and a prey to weevil or other enemies. Roots for lack of manure to raise them are rarely grown. The farmer and the farm both get poorer instead of richer, and the upland districts through no fault of their own get a bad name. A regular rotation is necessary to the maintenance of fertility on this class of farm. This means stock and implements and plenty of labor and the average run of farmer is unable to furnish these. Men of means, if going into farming, note the absence of prosperity without examining the cause, and, if buyers of land, buy in the dyke land districts, thus capital, the principal want, does not find its way to the upland farms. Technical training is also urgently required, not merely the knowledge to be obtained from books, but instruction in theory combined with its adaptation in practice, a want which can only be met by the establishment of an agricultural school associated with a model farm such as the provincial institution at Guelph in Ontario, where working farmers are taught science and educated men are taught to labor with their hands, and where both branches are taught to the general pupil; but which, to be thoroughly effective and confer the greatest amount of good must be in the locality, and worked under the conditions of climate and products, in and for which the pupils propose to work. The field for the employment of moderate capital and intelligence is to my mind very fav-

orable in Nova Scotia. A young man who will adapt himself to the new conditions and has from £500 to £5000 capital has every reason to expect a very comfortable home and a very good return for his investment. With capital invested and knowledge applied, I consider a very bright future lies before the agriculture of Nova Scotia.

CLOSING OF THE AMHERST EXHIBITION.

SENATOR DICKEY'S ADDRESS.

Mr. Chairman, Ladies and Gentlemen:

I have been asked to address a few observations to you prior to the closing of this exhibition. We have been told on high authority that it is not he who puts on his armor that should boast, but he who takes it off. There were, doubtless, at the outset, misgivings as to the result, but in view of the unpropitious season and other circumstances I feel justified in adding my felicitations to yours that this initial District Exhibition has been fairly successful. I regret that a business engagement made for me a fortnight ago obliged me to be in St. John on Tuesday, and I was thus prevented from attending the opening. But this disappointment was mitigated by the consolation of being able to spend an hour or two at the St. John County Exhibition, and I am bound to say that you lose nothing by the comparison. Yes, gentlemen, this border county, which I may well term the banner county of Nova Scotia, has nothing to fear from competition with the metropolitan county of New Brunswick.

What, then, are the lessons to be derived from what you have seen here the past three days? Let me not be misunderstood. I am far from arrogating any superior knowledge of practical farming, and know well there are scores of people present much more competent than I am to discuss these questions. Yet, born and brought up on a farm, and for many years past an ardent amateur farmer, you will expect me to say something. The first great lesson follows from the very nature of a competitive Exhibition, in the emulation which it excites. This lesson of emulation, so potent in other matters, is especially useful in agriculture and kindred subjects, and is derived from inspection of improved breeds of stock, improved seeds and their products in grains and roots. Let us take the last first. It has been well said that a man who causes two blades of grass to grow where before there was but one, is a benefactor to his race. Well, it by the application of improved seed, or a change of seed, any one can add merely a third or fourth to the

product, is he not equally a benefactor to himself and his neighbors? Why, too, should we not raise our own seeds, instead of sending money abroad to import them? Then, take the question of improved breeds of stock. It can hardly be denied that it costs no more to raise a colt of improved breed and form than it does to raise a scrub, with this difference that the one at three or four years may sell for twice or three their price of the other. So with horned cattle, sheep, and pigs, as to which last two you have only to look in rear of the building to learn what progress has been made by some enterprising exhibitors. Then there is the important factor of early maturity, especially in horned cattle. If an improved animal will, as we know, be of equal weight at three with an inferior one at four, what a saving of time, expense, and interest of money there is in preparing cattle for the market! Besides, every one who has marketed beef cattle will admit that a well-bred and well-shaped grade always has an increased value over a rough, raw-boned specimen of equal weight, especially in the English market. I fully recognize the spirit and enterprise of many of our farmers, but with no desire to underrate our productions, I ask others to look across the marsh, and see what the spirited farmers of Westmorland and Sackville have done for themselves by means of improved breeds of stock. On this subject of beef cattle for export, I contend that we have cheaper land, cheaper hay, more abundant pasture, than they have in the premier Provinces of Ontario, and that our land is equally adapted for coarse grains and roots. Then, why should we lag behind in the race of competition, especially when the people of that exporting province are further handicapped by an average increased distance of nearly 1000 miles to the English market?

Turning now to yonder Art Gallery, I cordially endorse what has fallen from our worthy chairman as to the creditable display of handiwork by our fair friends, ever foremost in all good works. This is an industrial as well as agricultural Exhibition, and it is a mistake to conclude that these art specimens from the fair fingers of the ladies have no connections with husbandry, since they lend a lustre and grace to domestic life, increase family amenities, and tend to attract our sons and daughters to remain within the charmed and sacred circle—home, instead of flying to other lands or occupations.

Let us hope we may long continue to have similar Exhibitions in this highly creditable structure.

This reminds me that I shall correctly interpret your sentiments by saying a word as to the originators of this enter-

prise. All honor then to those who have given their willing and gratuitous labors to bring about and to overlook this most creditable display of agricultural products and manufactures, and all honor to the enterprising exhibitors who have so well second these efforts.

In justice to my own feelings, equally, I trust, with yours, I cannot refrain from adverting to another matter closely connected with our agricultural future—I mean the want of pride of country which distinguishes some of us. This lack of patriotism is peculiar to a few—I trust but a few—within our province. You never hear an American belittling his own land, his state, or his country. He rather talks it up, as they say. Why, then, should we undervalue the capabilities of our own province? Why not rather boast a little of it, especially with the prospects before us from these windows of one of the finest agricultural districts—I speak it advisedly—on the continent. On this point I cannot do better than quote the testimony of a most competent witness from abroad. A few—alas too few—of you were present at the reception in the Music Hall of delegates from the British Association, when the eminent Professor Sheldon, of Downton Agricultural College, England, gave some frank and kindly advice, which I feel sure was most kindly received by the farmers present. He added that but for the ties which bound him at home he would gladly emigrate to one of the colonies, Canada having his decided preference; that after three consecutive visits including the Northwest he preferred Nova Scotia, and after seeing Cumberland he should certainly recommend the lands at the head of the Bay of Fundy to tenant farmers who wished to emigrate from the old country. This is no mean compliment, and is the view I have long tried to impress upon others abroad. Coming as it does from a most intelligent and disinterested visitor, it ought to make us all feel proud of our country. There are still a few remaining among us who, like myself, were privileged to be present at the first Cumberland Agricultural Show, half a century ago. I well remember the scanty array of horses and cattle, so different from the animals in yonder yard, the long legged, long-snouted porkers known as the racing breed. I recall, too, how with open mouth and eyes I, as a small boy, gazed on the massive form of the late John Young, the well-known Agricola, who earned the title of father of improved husbandry in Nova Scotia, as he scrutinized these specimens of live stock. May I indulge the hope that some of the young people present here to day may be spared as I have been to tell those who come after us of the im-

menso strides and vast improvements in agriculture at the end of another half century. To this end let us all work together and strive to build up, in this favored land of ours, a goodly inheritance of which we and our children shall alike be proud.

JAMES SCOTT, Esq., has kindly handed us the *Regina Leader* of 9th October, containing a full report of the first annual exhibition of the Assinaboia Agricultural Society at Regina, which was held on 2nd and 3rd October, and is said to have been an "unqualified success." The prizes offered amounted to \$1500; entries 586. The weather was rather cold, with some sleet. His Honor Lieut.-Governor Dewdney took first for stallion and carriage horses; the President, Mr. Jolly, first for general purposes mares and colts. The largest and best exhibit in horses was for ponies under 14 hands, there being twelve competitors. The cattle included Durham bulls, Devons, and twelve entries for yoke-oxen. The best sheep was a Southdown Ram. In pigs, Berkshires were ahead. One pair of sows had cost \$500 in England, one of them having taken first at the Royal Show at Reading in 1882, and many other prizes. The most remarkable exhibits seem to have been in grain and vegetables; among the latter we note the following:—

Swede Turnip (Gilbert)—33 inches in circumference, weight 18 lbs. 2 oz.

White Turnip (D. Woodward, Regina Reserve), 29 inches in circumference, weight 14 lbs. 2 oz.

Turnips for table use, (J. W. Selly) 29½ inches in circumference; weight 11 lbs. 2½ oz.

Potatoes—Early Rose Variety—Whitman, length 18½ inches; weight 1 lb. ½ oz.—3 weighing 3 lbs. 4 oz.

Potatoes.—Any kind—(D. J. Steel, Long Lake), length 8 inches; narrowest girth, 11½ inches; weight 2 lbs. 1 oz.—3 weighing 5 lbs. 4 oz.

Cucumbers—Length, 28½ inches, (T. Barton, Regina) from old country seed, grown in frame.

Cauliflower, (Mrs. Dewdney, Government House) circumference, 39 inches.

Mangolds, (Gilbert) weight 10 lbs. 7 oz.; length 17 inches; girth, 10 inches.

The butter was a very extensive and magnificent display, and was produced in all sorts of shapes and of all sizes, the section for roller or print butter having 27 entries, and that made by bachelors having five entries. The bachelors also came out strong in their entries for home-made bread, as well as for darned and knitted stockings, in which they proved formidable rivals to their fair opponents.

The Indian exhibits of potatoes, broad and butter were exceedingly good. The dinner was held in the Bowling Alley, when the Queen and the Governor-General were toasted, and Mr. W. H. Gibbs, Jr., proposed the health of His Honor Lieut.-Governor Dowdney, who responded in a judicious speech, and he was followed by many other speakers, one of them being a Welsh editor.

The advertisements of the *Leader* indicate the business activity and progress of the city and country; one is a call by the Post Office Inspector for tenders for running a mail to "Marleton," in which some of our Halifax readers will recognize the name of a fair resident of Pleasant Street.

We are indebted to Messrs. Draper, of Covent Garden, for a copy of *Farm and Home* for 11th of October, containing the following report upon the prospects of the Apple Market:—

THE APPLE CROP.—Messrs. J. W. Draper and Son, Covent Garden, have kindly furnished us with the following particulars respecting the present appearance of the apple crop in Europe and America:—*United Kingdom.*—Crop much below the average.—*France.*—An average yield of early kinds, especially in the Gironde; late and better descriptions somewhat short. *Germany.*—Short crop generally. *Belgium.*—Short crop. *Holland.*—Very light crop. *Spain and Portugal.*—Crop short, description common. *America.*—There are indications that the crop will not equal in bulk that of 1880, yet the yield in some of the best producing localities is likely to be very abundant, and far superior in quality to the past two seasons. After mature consideration of the various reports, there is little doubt that the crop of Europe is considerably under that of many years; thus it will be from America that the supply for the United Kingdom will be derived. The prospect of shipments being advantageously made to England were never more promising, particularly for the better and later description of apples.

The *Thoroughbred Stock Journal* publishes a letter from Mr. Bonner declining to send "Maud S." to the State fair of Pennsylvania, as she is now under training to beat her own unequalled record. The Fair authorities intimated that there would be "no trotting or racing of any kind," to which Mr. B. retorts:

Anything that involves or includes betting, whether it be on the result of a contest between horses or on the result of a contest between candidates for the Presidency, I object to. These have been my life-long convictions. I have always

maintained that a gentleman can own and drive a good horse without being obliged to wager money on what the animal can accomplish. But if there is to be no trotting—even when disconnected with betting—at the Fair of your State Agricultural Society, I do not see that Maud S. has any business there. She excels all other horses, not in size or weight, or even in beauty, although she is a very handsome animal, but in trotting, which it seems your State Society excludes from its exhibitions. Surely there can be nothing wrong in permitting an animal like Maud S. to display her natural powers, so long as she is not used for gambling purposes. I once put the following question to your friend and my friend, Dr. McCosh: "What did the Almighty endow swift trotting horses with extraordinary speed for, if it were wrong to let them indulge in their natural gait? Did He ever make anything for the use of man of which man is bound to use a mean specimen when he can honestly afford to use a good one?" If so, I added, then all you clergymen ought to be confined to broken-down, spavined and foundered horses. The great metaphysician, with a smile, replied: "Those are questions for a theologian like Dr. Hodge," the doctor happening to be standing by his side.

Agricultural societies very properly offer premiums to the farmer who raises the largest pumpkins, the best turnips and potatoes, the biggest hogs, the finest cattle, &c. Why may they not just as properly offer a similar premium—i. e., without exacting an entrance fee, which is virtually wagering money—to farmers who raise the swiftest trotting horses? It is said that the man who makes two blades of grass grow where only one formerly grew, is a benefactor of his race. Let me give an illustration in this line: According to the time-table, it takes forty-eight minutes for the Sixth Avenue cars to run from the Astor House to the Central Park, the end of their route. Now a breed of trotting horses can be raised, and with very little extra expense, to accomplish that distance in thirty-five minutes, with more ease and less distress to themselves than it now takes ordinary horses to do the same distance in 48 minutes.

The Hon. William Ross, Collector of Customs at Halifax, informs us that Sheep imported from European ports are to be inspected on arrival here, and, if found free from Disease, passed to Entry on arrival without any quarantine requirements.

16th October, 1884. A fully expanded strawberry blossom was picked at Lucyfield to-day. The wild roses

blossomed a second time this season, also the Caucasian *Rosa ferox*. One plum tree had a fully expanded blossom when the ripe fruit was picked.

There has been an immense amount of breaking of harvesting machines this year. This was partly due to the fact that grain is very heavy, and much of it badly beaten down and tangled. Reapers had to cut very low to reach this fallen grain, and in many places wheat fields were badly gullied by rains last winter. The worst of all was that when breakages occurred there was in some cases no way to get repairs.—*N. W. paper.*

There is no breed of fowls which has as quickly gained such widespread popularity, or which is better able to successfully maintain that popularity than the well-known Plymouth Rocks. While they may be exceeded by the noted Light Brahmas in mere avoirdupois, or by the Leghorns in the matter of egg production in summer, for general and profitable purposes, taken all in all, the Plymouth Rocks are excelled by no other breed.

The census of 1880 showed that Texas had over 4,000,000 head of cattle, exclusive of all other live stock. The increase since then is estimated at 2,000,000 head, which makes a total of 6,000,000. An average of \$25 per head would give a total valuation of \$150,000,000.

Advertisements.

Resolution of Provincial Board of Agriculture,
3rd March, 1882:

"No advertisements, except official notices from recognized Agricultural Societies, shall be inserted in the JOURNAL OF AGRICULTURE in future, unless PREPAID at rate of 50 cents each insertion for advertisements not exceeding ten lines, and five cents for each additional line."

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