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NEW

NOVA SCOTIA



Published under direction of the Board of Agriculture of Nova Scotia.

VOL I.

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LIST OF MEMBERS OF THE BOARD OF AGRICULTURE FOR 1866,

As nominated by majorities of Societies in the various Districts, and by the Governor in Council, in terms of the Act.

The Superintendent of Education—(T. H. Rand, Esq.) *ex-officio*.

The Principal of the Normal School—(Rev. Dr. Forrester,) *ex-officio*.

DISTRICT No. 1—City and County of Halifax.

William Cunard, Esq., Joseph Northup, Esq., Hon. Chief Justice Young, Henry Yeomans Esq.

DISTRICT No. 2—Kings, Annapolis, Digby.

Avar Longley, Esq., M. P. P., Annapolis, Dr. C. C. Hamilton, M. P. P., Cornwallis.

DISTRICT No. 3—Lunenburg, Queens, Shelburne, Yarmouth.

H. A. N. Kaulback, Esq., M. P. P., Lunenburg, George S. Brown, Esq., Yarmouth.

DISTRICT No. 4—Hants, Colchester, Cumberland.

Hon. Alexander Macfarlane, M. E. C., Cumberland, Hon. R. A. McIlfeff, M. L. C., Windsor.

DISTRICT No. 5—Pictou, Antigonish, Guysborough.

Hon. J. McKinnon, M. E. C., Antigonish, Sheriff Harris, Pictou.

DISTRICT No. 6—Cape Breton, Inverness, Richmond, Victoria.

H. Davenport, Esq., Sydney, Wm. Ross, Esq., M. P. P., St. Ann's.

GEORGE LAWSON, Secretary.

NOTICE TO THE SECRETARIES AND OTHER OFFICERS OF AGRICULTURAL SOCIETIES.

All Societies desiring to participate in the government grant for 1866 will be required to send in to the Secretary of the Board, not later than 1st September 1866, a certificate of payment of the annual subscriptions for the year, duly certified by the oath of the Secretary of the Society, with relative list of paying members, all in terms of the Act. Societies neglecting to comply, must necessarily be excluded from participation in the grant for the year.

THE PROPOSED PROVINCIAL EXHIBITION.

In those countries in which Agriculture holds a respectable position and is making successful progress, much reliance is placed upon AGRICULTURAL EXHIBITIONS as a

means of diffusing knowledge, of stimulating to better systems of culture, of bringing into cultivation new and improved varieties of field crops, of encouraging the raising of superior stock, and of leading to the general use of improved farm implements and machinery. The great Annual Fairs do more than all that, for they serve to render farming attractive to active and well-stored minds, as well as to rough and ready hands, and they induce rich men to apply their means to aid in increasing the fertility of the soil. Every agricultural exhibition is in effect an announcement to capitalists that the surest and most productive bank is a bank of earth, and that there is no usury law limiting its yield to 6 per cent. In short, the healthy and progressive condition of Agriculture in the United States, in Canada, New Brunswick, which ever way we turn, is to be traced in a great measure, directly or indirectly to the system of Agricultural Exhibitions.

Nova Scotia is a colony by itself that has not hitherto enjoyed the great advantage of systematic exhibitions. It is quite true that small local exhibitions are annually held in various parts of the country, which no doubt prove of benefit in the immediate districts

where they occur. And we have likewise upon occasion had an exhibition of a provincial character, attended by a fuller measure of success than might have been expected under the circumstances of the country.— Yet the Agricultural Fair as an established institution is practically unknown amongst us, and its peculiar advantages to a commercial country are but very imperfectly understood. There is much truth in the remark made by a member of the House of Assembly the other day that we had been so long without exhibitions that he would almost be ashamed to see the attempt made; a similar feeling naturally influences the minds of a large portion of our people.

The Agricultural Act passed two years ago having contemplated the holding of occasional exhibitions, the Board of Agriculture at one of its earliest meetings took the matter into consideration. It was at first proposed to hold an exhibition during the year 1866, but after mature deliberation both the Board and the Agricultural Committee of the House of Assembly agreed to defer it till 1867. Notwithstanding the announcements that have been published to that effect it is said, that very little, if any, preparation has been made by our farmers and the subject has as yet scarcely entered into the thoughts of our commercial men and the general community. Meantime our Province is called upon to take part in an exhibition of a different character—the Paris Exhibition of next year, and that, it is expected, will well-nigh exhaust for one season the energies of our exhibitors and the available resources at their command. Under all the circumstances it is thought desirable by the Board of Agriculture that the proposed Exhibition should be definitely arranged for the autumn of 1868, and the Government and Legislature have been requested to make such provision, by resolution or otherwise, as may be necessary to ensure the setting aside of a sufficient grant for the purpose during that year. This view is participated in by the Agricultural Committee of the House, and the government has agreed to the requisite provision. The exhibition is then a settled fact, the necessary arrangements may be proceeded with, and farmers and manufacturers will have full confidence in the affair being carried out to completion, without further delay.

In order that the Exhibition may be successful it is necessary that suitable buildings should be erected, not only for the comfort of the public, but likewise for the protection of the valuable animals that may be expected. The past experience of Canada has shown that without permanent buildings a satisfactory system of Exhibitions cannot be carried out. These buildings may be in the form of Crystal Palaces, Glass Barns or Wooden Sheds, according to circumstances; but without them we cannot hope to do more for agriculture than to get up a little sporadic excitement and a great camp meeting of cattle two or three times in a century. What the interests of agriculture require is a well-understood system of Exhibitions in which the whole farmers of the Province have an interest, in which they can all take part, and which they can all look forward to and prepare for at stated and well-known intervals.

If we can offer, in addition to high prizes,

good accommodation to the farmers' cattle while they are at the exhibition, where they may rest and recruit, and the probability of a profitable sale after the exhibition is done, they will not fear to bring animals a long distance by ship or rail or road; and as our railway system becomes gradually extended, the feasibility and practical benefits of the Agricultural Exhibition will become more and more apparent.

May we beg our correspondents to give this important subject free ventilation through our columns? We shall return to it again, but should be glad meantime to have a full and candid expression of the opinions of the farmers throughout the Province, and especially of the officers of the various agricultural societies.

Board of Agriculture.

REPORT OF THE BOARD OF AGRICULTURE.

To the Hon. Chas. Tupper, M. D., Proc. Sec'y:

HALIFAX, MARCH, 1866.

Sir:—We have the honor to submit, for the information of His Excellency the Lieutenant Governor and the Legislature, a Report of the proceedings of the Board of Agriculture for the past year.

The matter that first engaged the attention of the Board, on its formation under the new Act in 1864, was the organization of County and District Agricultural Societies throughout the Province. Last session it was reported that 37 Societies had been formed in 15 Counties, and that 34 of these Societies had qualified for participation in the Legislative grant for 1864. The Board has continued its efforts in the organization and adjustment of Societies, and the Secretary spent some time in visiting the Societies in Pictou County last autumn. From the Return submitted herewith showing, in detail, the present condition of the various Agricultural Societies of the Province, it will be observed that the total number of Societies is 48, being an increase of 11 Societies during the year.

The number of Counties containing Societies is 18, so that every county in the Province now contains at least one Society.

The present total number of members of Agricultural Societies, (actually attested) is 2198, as compared with 1744 last year, showing an increase of 354 members. The total amount of subscriptions paid by such members is \$2384, being an increase on the amount of the year of \$525. The total amount of grants to Societies is \$3314, being an increase of \$304.

It is provided by the Act that the grants to Societies shall be apportioned to them in rateable proportion to the subscriptions of their members actually

paid during the year, at the rate of \$2, of grant for \$1 subscribed, but under the limitation that no society shall draw more than \$200, and that the whole societies of one County shall not collectively draw more than \$240. We have now had two years' experience of the practical working of this system, and the results have been upon the whole satisfactory. There is one feature of the system, however, that requires to be well understood to prevent disappointment to the members of societies. So long as there are few societies in a county, the amount (\$240) appropriated to the county will be sufficient to provide \$2 for every dollar subscribed, but so soon as the collective subscriptions of all the societies in the county exceed \$120, then the grant-rate is necessarily diminished. In 1864 when there were fewer societies than now the average sum appropriated to each society was \$83; but during the past year the average was reduced to \$69. Thus the societies in one county raise upwards of \$300 by subscription, and those of another county raise less than half that sum, yet both counties receive an equal grant of \$240. The society in one county with few members receives \$2 for every dollar subscribed, whilst a society in the other county receives less than one dollar for every dollar subscribed. Some complaints have been received from parties who had organized societies on the faith of receiving \$2 as a matter of course in return for one subscribed, and cases of apparent inequality may arise; but no real hardship has been experienced, and the restriction of the sum assignable to counties appears to be generally regarded as a just and necessary one.

The annual reports received from the various agricultural societies afford ample evidence of activity and zeal, and (what is of far greater importance) a general desire on the part of members to devote the funds at their disposal to the legitimate objects contemplated by the Act for Encouragement of Agriculture. Agricultural Exhibitions and Ploughing Matches have been held by some of the societies; but most of them have devoted their funds to the purchase of improved breeds of stock, in accordance with the expressed views of the Board that the improvement of stock should be the chief aim of societies under the present circumstances of the country.

In last years' report to the Legislature, the Board pointed out the propriety of taking energetic steps for maintaining and improving the breeds of horses and cattle, by the importation of pure bred animals from England. The committee on Agriculture of last session reported favorably upon this recommendation, and suggested that whilst the horses should be selected in England, the horned cattle might probably be obtained in the sister

provinces. Accordingly the Legislature was pleased to vote the sum of \$10,000 to enable the government to make an importation of suitable animals.

The Hon. Dr. Tupper, Provincial Secretary, and the Hon. W. A. Henry, Attorney General, having visited England on public business last summer, were requested by the government to make enquiries, and to purchase, if favorable opportunities offered. They found that owing to the season of the year and other circumstances the time was a favorable one for obtaining valuable horses at unusually low prices. Purchases were made of four entire horses and four mares, all, except one of the mares, thoroughbred; likewise of 25 rams, ewes and lambs of the pure Leicester breed. The animals arrived by the steamer "St. Lawrence," in the month of September 1865, and although in a reduced state, yet in as good condition as could be reasonably expected. A few of the sheep died during the voyage; some others that were in a sickly condition, as well as one or two that seemed to be in good health, died after their arrival. A list of the animals, including the pedigrees of the horses, is appended to this report, and the accounts of the Board will show the prices paid, expense of transit, and subsequent cost of keep of the horses up to the end of February 1866.

In order that proper care might be exercised in transporting the horses and in their treatment after reaching the Province, the services of Mr. George Plumb, an English Groom accustomed to the handling of thorough-bred horses, were engaged for one year. The horses have improved very much in appearance since their arrival, and are all in good health. Under judicious management these animals may be expected to bring a speedy and marked improvement in the breed of horses in our Province. It is well known that the blood horses of England excel all others in fleetness and strength; and it is found, as a general rule, that these qualities descend to their offspring with whatever breed they may be crossed. Thus horses of spirit and endurance may now be raised from the mares in the country.

It is but just to observe that much care has been required from members of the Board, in providing, in an economical manner, for the proper accommodation and management of the horses during the winter; and the Board feel under deep obligation to one of their number, Joseph Northup, Esq., who has not only devoted much valuable time to the requisite arrangements, but has likewise personally overlooked the horses almost daily since their arrival.

With the view of rendering the horses as serviceable as possible the Board have determined to send them into the country

for the ensuing season, under charge of competent and careful men. The number of horses (four) is too small to travel the whole Province, and it is proposed, therefore, to send to counties in rotation in successive seasons. Some of the richest agricultural counties in the western, northern and eastern parts of the Province may be supplied this season, and the extreme western, and all the southern shore counties, as far as possible, next year. But the Board have not yet completed their arrangements.

The Hon. Alex. Macfarlane, President of the Board, having visited Canada last summer, was desired to embrace the opportunity to obtain if possible, some suitable horned cattle and sheep. He accordingly purchased two Durham bulls and one Durham heifer; likewise 28 sheep and lambs of Cotswold and Leicester breeds. The bulls and heifer have been kept at Pictou during the winter. As it is desirable to render these animals available for use during the ensuing season, it is proposed to bring two of the Durham cattle to Halifax, to be sold by public auction during the present sitting of the Legislature.

The sheep imported from England, as well as those obtained from Canada, were sold by public auction, with a view to their general distribution throughout the Province. The English sheep were sold at Halifax, and the Canadian ones partly at Pictou and partly at Halifax. It will be observed from the returns that the prices realized were very satisfactory, affording evidence indeed of the appreciation by our farmers of pure stock, and of a determination on their part to improve their flocks. In all, 43 sheep and lambs were sold, realizing the sum of \$1340.50, that is, an average price of \$31 each. One of the English rams brought \$94 and none of them were sold under \$70; the ewes and lambs of course brought less. One of the Canadian rams was sold for \$66 and another for \$64.—The sale of the last lot was rather too late in the season to secure high prices. All the animals have fallen into good hands, and the purchasers are bound to retain them permanently in the Province.

The Board have had under consideration for some time the subject of a Stock Farm; and it has become obvious that such an establishment is absolutely required. On a farm of this kind the imported horses, and other animals, might be kept in safety and health at a moderate expense, and their services given to the country in the season. Pure breeds might be permanently maintained without the necessity of constant importations, and Societies or private individuals desirous of such might visit the farm at their own convenience, and select such surplus animals as would answer their purpose. Such an establish-

ment would likewise afford scope for introducing to the notice of our farmers some of the more recent improvements in farm buildings, and improved modes of cultivation adapted to the country. It is believed that a suitable farm in a central locality may be purchased, and the requisite buildings erected, for a sum of from \$8,000 to \$10,000; and the Board respectfully recommend that this sum may be placed at their disposal to enable them to carry out the important object in view.

The Board commenced in March last year to issue a monthly "Journal of Agriculture," which is extensively read by the more intelligent class of farmers and Members of Agricultural Societies. In consequence of the small size of the Journal the numbers are sometimes barely sufficient to contain the Reports of the County and District Societies, without any other reading matter. It appears to be desirable to enlarge the publication so as to admit of the fuller discussion of general agricultural topics.

During the agricultural season of 1865 the Secretary of the Board applied to many of the leading farmers and officers of societies, in the various Counties of the Province, for Returns of the state and progress of the Field Crops in their respective Districts. Much valuable information as to the peculiarities of the season, and the progress of the principal Field Crops, was thus obtained and made known to the public, from month to month through the Agricultural Journal and the leading newspapers of the Province, into which the reports were copied. A brief Synopsis of these Returns has been prepared, and is herewith submitted as a permanent record of the crops of 1865. A reference to that Synopsis shows that favorable reports of the WHEAT crop have been received from six Counties, unfavorable reports from four, while the others give average returns. Early sown Wheat suffered most from the so-called weevil during the past season, some fields being a complete failure. OATS are returned as better than average by eight Counties, being heavy and fine with much straw; but in three or four Counties the crop was light, caused chiefly by rust. BARLEY is very favorably returned as a "good," "average," "excellent," "unusually good," and "splendid" crop, and in one or two Counties only was the crop light. The experience of the last few years seems to offer great encouragement to the more extensive culture of Barley, inasmuch as the yield of grain is good, and there is no more suitable crop for laying down land to grass; the only drawback is the small amount and poor quality of the straw. RYE is only partially grown in the Province, but has done well, especially Winter Rye. BUCKWHEAT is favorably spoken of by the six counties that return it as a crop, but its

cultivation is chiefly confined to new clearings. HAY is returned as an average crop by three counties, as above average by eleven counties, and as rather under average by only one county. Hay was not only a large crop throughout the Province, but was everywhere secured in excellent condition, except in the Cape Breton counties. It is to be observed, however, that the "after-grass," in consequence of severe drought, was very poor, and many farmers had to put their cattle upon hay very early in the fall. In this way more hay will have been used up on the farms than usual, especially as stock generally was not in very high condition at the opening of winter. ROOT CROPS in general suffered more or less from drought, except in rich well managed lands; but the season was peculiarly suitable for POTATOES, which are returned as an average or good crop by seven counties, and as under average or poor by the same number of counties (seven); this may be taken as indicating the proportion of counties in which potatoes may be profitably grown in favorable seasons. When our farmers adopt a system of thorough drainage, the proportion of counties suited to potato culture will be largely increased. TURNIPS are favorably reported from six counties, and unfavorably from six, the crop being in some cases a total loss. It is feared that the rich soil and ample supplies of phosphatic manures required by this crop are not sufficiently understood. CARROTS, CABBAGES, BEETS and MANGEL WURZEL are reported rather more favorably than turnips; all require very high cultivation. The crop of APPLES was small, except in the case of individual orchards of young and robust trees.

The calamity to which the potato growers of this as of other countries have been exposed for many years must necessarily claim some attention from every Agricultural Board. In last year's Report it was stated that a correspondence with parties in New York State had led the Board to make an importation of several new varieties of Potato raised by the late Rev. C. E. Goodrich, and which had been selected from 15,000 seedlings, after an elaborate series of experiments extending over the last 16 years of Mr. Goodrich's life. The seedlings imported were divided into small samples, and distributed to various parts of the Province to parties who were requested to experiment with them. Reports of a very satisfactory kind have been received and published at length in the Agricultural Journal. The principal results of the experiments will be found in a tabulated Return appended to this Report.

The Board likewise distributed a number of samples of field grains that had been grown by the Rev. Dr. Forrester

from seeds received at the London Exhibition. The recipients were requested to experiment with them, and report the results; but very few reports have been received. It is feared that the samples were too small to induce much care, for farmers in all countries dislike small garden experiments. It may not be amiss to remind them that some of the finest grains now in cultivation in Europe and America have been raised from single ears and in some cases single grains. Of a sample of Wheat sent to H. Davenport, Esq., Sydney, for experiment he reported that it "turned out a very fine sample, free from every disease, and will, I think, prove valuable." The Canadian Peas were prolific, but much injured by insects; the Tender Pod Peas a decided improvement upon the old stock. The Italian Barley sent to H. A. N. Kaulbach, Esq., M. P. P., Lunenburg, yielded over fifty fold; it showed much vigor and thickness of stalk, is a six-rowed kind, and averaged about 44lb. per bushel.

Whilst the improvement of live stock has steadily engaged the attention of the Board during the past year, they are not insensible to the great importance of improved methods of cultivation. Much of our richest land is lying in a comparatively barren state, from want of drainage, and the Board have been considering in what way an impetus could be given to thorough drainage in the Province. Many farms, originally fertile, have become barren from a spoliation system of carrying off crops, year after year, without returning manure to the soil. In these cases probably the most effective application will be found to be some rich form of phosphatic manure, such as bone or fish manure or superphosphate of lime, for the phosphates seem to be sparing in quantity in our soils. As our farmers have at present great difficulty in obtaining bone-dust, although many hundreds of tons of the raw material annually go to waste even in the city of Halifax alone, the Board have determined to offer a bonus of \$600 to any party who will carry into effective operation in a suitable locality a Bone Mill of sufficient size to supply the wants of our farmers.

The growing importance of Flax as a British American crop has induced the Board to import 10 bushels of the best Riga Flax seed, which is well known to be greatly superior to the common flax grown from year to year in the country. Should the results prove satisfactory, a greater importation may be made next season.

It must be gratifying to every well-wisher of the Province to observe that so much genuine interest is being evinced at the present time in agricultural improvement. We have been hitherto dependent upon foreign countries for the supply of a large portion of the common food of our

people, and under any circumstances such dependence is not desirable. Without an abundance of the necessaries of life, at reasonable rates, for our labouring population, neither fisheries, arts nor manufactures can permanently prosper. Agriculture is naturally looked upon in every country as the basis of all national wealth, and it is fortunate for the Province that Nova Scotians are day by day realizing more and more fully the opprobrium that attaches to a Country that has extensive tracts of waste lands, and yet fails to afford a sufficient supply of food to its people. It is true indeed that the great Fishing, Shipping and Mining Interests have brought upon our people an embarrassment of riches, and have tended to withdraw both capital and labour from our farms. But the great success that has attended these branches of industry has created profitable markets for farm produce, and given an impetus to agricultural progress that is likely to be productive of the best results. Let us not blame the soil, because we neglect to cultivate it. So surely as the energies of our people are applied to the cultivation of the soil, so surely will a carpet of luxuriant verdure spread over our hillsides, and our deserts blossom as the rose.

ALEX. MACFARLANE, *President.*
GEORGE LAWSON, *Secretary.*

House of Assembly.

Wednesday, March 24th.

The House met at 3 o'clock.

BOARD OF AGRICULTURE.

Hon. Mr. MACFARLANE laid on the table the Report of the Board of Agriculture. He said that the operations of this Board during the past two years were attended with the following results:—In 1864 there were 37 Agricultural Societies in operation, to which number 11 have since been added. The membership of these in 1865 was 1744, and in 1865 it was 2198; subscriptions were, in 1865, \$2385, being \$525 in excess of the previous year. In addition to the ordinary operations of the Board, attempts had been made during the past year to ascertain the state of the crops of the Province by holding communication with the local societies. It was known that certain counties were peculiarly adapted to the production of certain kinds of crops, and the Board had endeavored to gain such information as to lead to a practical improvement in this particular. The Board last season had done something towards the improvement of stock, and the efforts had been more successful than had been anticipated.

Mr. PARKER expressed his pleasure at finding that the Agriculturists of the country were at last beginning to make a move. From the time of Sir Gaspard

LoMarchant, little had been done. He thought more credit was due to the Attorney General and Provincial Secretary in regard to the improvement of stock, (those gentlemen having made importations of horses), than to the Central Board. The amounts realized by the sale of the stock imported showed that the demand for such stock was very great. Many of the societies were saving their funds in order to make purchases, and the only fear was that the supply would be insufficient. The President of the Board also was entitled to credit for having made importations from Canada, but when that supply came the proper season had passed. Upon the closing of last year's accounts, he had strongly urged that a further supply from Canada be at once obtained,—if this course had been taken, the expenditure which it involved would have been returned to the treasury. He had for many years turned his attention to the subject of a Stock Farm, and believed that in no way could the stock of the country be so well improved as by this means or other improvements, as for instance, in farm buildings, so well effected. By such means the growth of the imported stock was secured. He had also been for some time looking forward to a Provincial Exhibition, but the Province having been so long without one, he would be now almost ashamed to see the attempt made. How could the farmers be expected to advance themselves without such encouragement? In going into the neighbouring Provinces one immediately saw how far behind we were in all the farming appliances so commonly in use elsewhere. If proper assistance were given, he was convinced that Nova Scotia would not be at all behind other countries in these particulars.

Mr. BOURNOT said that no one could read the report without acquiring much valuable information. It was gratifying to know that the Board was presided over by a gentleman who devoted so much time and attention to the subject under consideration, and he could not refrain from also alluding to the secretary, Professor Lawson, who had exhibited great ability in the management of the *Journal* and in the discharge of his other duties. He wished to call attention to one or two matters which had been the subject of complaint. There had been a sale of stock in Pictou, but the notice given had not been sufficient to enable persons in Cape Breton to attend, as it took place three days after the advertisement was issued. There was subsequently a sale at Bedford, of which no notice was given in Cape Breton. He hoped that greater facilities in this respect would be afforded in future. As far as the importation of horses was concerned, he doubted if blood horses were suitable for farming purposes.

Mr. S. CAMPBELL said that the gentleman who had just spoken had anticipated what he was going to say with reference to the sales of stock. The operations of the Board had hitherto been too centralized, and it would be soon that the distribution of the stock imported had been confined to the central counties, and chiefly benefited a class of persons whose object was personal profit, and who were not the sort of persons whom the grant was intended to aid. The importations would have been more beneficial if the cattle had been gratuitously distributed. The notice given had been far too short to allow parties in distant portions of the province to be present at the sales. By the report, it appeared that the horses imported would not be sent during the present season to the distant counties, which he thought had the first claim and the greatest need.

Hon. Mr. MACFARLANE explained that the stock arrived after the time when they were expected, and so late in the season that the sale had to take place immediately on their arrival. There were, however, persons present who professed to represent Cape Breton. The fact was that four-fifths of the animals had gone into possession of the agricultural societies, and that the parties competing were not wealthy persons, but combinations of farmers who had accumulated a fund for the purpose of purchasing. Private persons would not have been disposed to give the prices realized at the sales, as for instance from \$60 to \$70 for sheep.—Those prices were unprecedented, and convinced him that importations could be made with very little loss. The sheep had averaged \$30 each, while ten years ago the average was \$12. It should be remembered that the central counties were those in which agriculture was most extensively carried on. In some of the further counties difficulties had been experienced in organizing societies, and in Guysboro' there was but one society with forty members. The horses would be found valuable for breeding purposes, but it was intended to import another class for farming purposes.

Dr. HAMILTON remarked that there were 40,000 persons in the province engaged in agricultural pursuits, besides laborers who would number about 10,000 more. The importance of the subject was therefore exceedingly great. Much improvement had been already effected, although the Board had only been in operation for two years, having imported 50 sheep, 4 horses, 4 mares, 6 bulls and 1 heifer. He thought the establishment of a stock farm would be of great benefit. Stock had been imported at great expense, but they could in this way be preserved, and the breeds reared for persons who would be desirous of making purchases, thereby supplying the animals at far less

than by the present mode. He recollected when the late Mr. George R. Young made importations years ago, and on that occasion the agricultural society of Cornwallis purchased some of the animals, and the advantages obtained were still perceptible. In reference to the *Journal of Agriculture*, he said the paper was small and should be enlarged, as it was the means of disseminating useful information. He commended very highly the exertions of the secretary of the board, and expressed the hope that the agricultural interests of the country would steadily improve.

Hon. ATTY. GENERAL said he congratulated the Board, the House and the country, on the desire manifested to advance the interests of agriculture, which were a part of the foundation of the country's prosperity. The industrial pursuits of the people of this Province were formerly but two, viz., agriculture and fishing, but within the last few years the pursuit of mining enterprise had been added. According as the latter extended the market for agricultural products would be improved. It was a matter of great consequence that something like a system should be pursued in reference to the efforts to improve the stock. The complaints which had arisen as to the distribution of the cattle sold, arose from the small number of the importation, and it would appear from the prices given that the people did not expect another supply for the next ten years. To make a permanent improvement, the establishment of a stock farm would be necessary. The freight and insurance of a horse amounted to about 30 guineas *stg.*, and the purchase itself would cost from 100 to 1000 guineas, but the cost of rearing the animals would not be a quarter of that expense, and with proper stabling and care the obstacles sometimes encountered in making importations would be obviated. It was well known that horses which were diseased in England were much improved on arriving in a different climate. In reference to the remarks made respecting the utility of thoroughbred horses for farming purposes, he would say that the system adopted in England of raising thoroughbred horses, would have to be adopted, and it had been found to produce excellent horses for all purposes, from the first cross. In England they had for general use horses of that breed, and for heavy work they had the dray horses, some weighing 2000 lbs.; if thought desirable, this latter species could be obtained. A provincial stud book could also be kept, so that any one having a horse of a good breed for sale could trace its pedigree for several generations. In reference to the production of wool, it would be found that the difference between some animals as compared with others, was 200 percent, some producing

doubly the mutton and double the wool that others did. It was found that some of the long woolled sheep in Vermont coming from English stock were more valuable than the celebrated merino breed, the rearing of this sort of stock might also be carried on in this Province with advantage, as the wool raised in the United States was only sufficient to supply one half of the consumption. He believed that the *Journal* would be found productive of great benefit in directing the minds of the farmers to the improvement of their condition, and concurred in the remarks made concerning the valuable services of the indefatigable Secretary of the Board.

Mr. TOBIN said that, in this discussion, there had been a great deal of cry and little wool. There had been speeches all around on the subject of the eight horses and mares, the six bulls, the one heifer, and the fifty sheep, and the debate had cost the province in the shape of legislative expenses about £200. The member for Guysboro' had complained that the sheep had not been sent to his county, but what was the use of sending sheep where there was no grass? The member for Colechester, Mr. Parker, had harnessed himself to the plough only to show his inability to draw it,—and so gentlemen became eloquent on agricultural matters, while those who represented the fishing interests were sitting like dumb idols.—He knew an old gentleman at St. Margarets Bay, who had 125 children and grandchildren, and yet nothing in the shape of a premium had been given to the people of that locality. He thought it time for gentlemen representing fishing constituencies to take their turn in claiming attention, for if it were not possible to improve the breed of fish, something might be done in the way of remitting duties upon the articles used by the fisherman.

Mr. LOCKE agreed that agricultural affairs always obtained undue prominence but it should be remembered that large expense would probably be soon incurred in the protection of our fisheries. He thought, however, that measures might be taken to prevent the mackerel leaving our shores.

Hon. Mr. SHANNON said that efforts were made in some countries to bring back the fish that were leaving. He doubted not that the time would soon come when the last of our salmon would have disappeared, and any measures that would tend to preserve our fish would be exceedingly beneficial.

Mr. KAULBACK urged very strongly that the Government should take measures to ensure the protection of our fisheries from encroachments, and to place the arrangements respecting the Labrador fishery on a satisfactory basis.

Hon. ATTY. GENERAL said he had listened attentively to the hon. member

for Halifax (Mr. Tobin), expecting to hear some practical suggestions, but that gentleman had not brought forward any measure relative to the fishing interests; if he had done so, he (Att. Gen.) would have given it his cordial support. A proposition to establish a board in connection with that branch of industry he thought would be well received. Many of the counties were half farming and half fishing counties—Lunenburg for example—and the fishermen of that county, he thought, were deserving of every encouragement and of much credit for their enterprise. In that respect they occupied the first position.

Mr. ARCHIBALD agreed in the remark that no practical proposition had been made in regard to the fisheries. He felt the importance of Hon. Mr. Shannon's remark concerning the salmon fisheries. In connection with this subject, he had some years ago made a suggestion which, if adopted, he thought would have been found exceedingly productive of benefit—namely, to establish a nursery for fish in the Bras d'Or Lake. If the members for Cape Breton would take the money now being expended in digging a hole in the near end of that lake, and stop the other end up, they would be doing something practically useful.

Mr. TOBIN said he was not in a position to bring forward measures in connection with the fisheries,—that was rather the duty of the Government and the Fishery Committee. He was glad to hear that something would soon emanate from those quarters. He trusted that the most effectual steps would be taken for the protection of the fisheries, and that a steamer of such speed and power as was required would be equipped.

The Report of the Board of Agriculture was referred to the Committee on Agriculture.

Communications.

Mr. EDITOR:—The Representatives of the People now assembled have to deliberate and decide on questions of momentous magnitude greatly affecting, not only our present, but for all time to come, our social and political position and well being.

The interests of the farmer, his stock and products of soil, always receive a very fair share of attention, and the very important suggestions contained in the Report of the Central Board of Agriculture, just presented to the House, particularly those relating to improved breeds of stock and a Stock Farm are worthy of the attention and favorable consideration of the people's representatives. Yet in order to raise the Agriculturist to his right position there are many questions of equal, if not of more importance, which, at the present crisis in our trade relations

with the United States, must be considered. The development of our mines and manufactures, and last but not least our great fisheries, on all and each of these mainly depend the wealth and prosperity of our farmers,—more than that, on the prosperity of any one of these branches of industry largely depends the prosperity of each and all of the others. How happy and pleasing is the thought that each and every individual in pursuing and pressing on in his own particular calling, can look with an eye of deep interest and even concern to the prosperity and advancement of his fellow-men in all the varied pursuits of life. Yet without the firmer the world cannot exist. Therefore, as we all, in every other calling, depend upon the products of the husbandman, it is but natural that he should occupy our first thoughts.

I shall not trespass upon the principles of your *Journal*, to reason upon the right policy of our country, whether *free trade*, *protection*, or *reciprocity*, as the legislature and political press are the legitimate places for such discussions. But I cannot understand that kind of *free trade* which would leave us *free to buy, but not to sell*. We must have an independent industrial policy for our British North American provinces. This is of vital importance, our *all* depends on it. It would render us independent of the trade with the United States, giving us the Canadas as a substitute. Canada wants the products of our mines and fisheries, and the advantages of our sea-ports. This union of trades would hasten a *greater union* and security to Britain.

H. A. N. K.

March 20th, 1866.

COST OF FEEDING PIGS.

On the 8th of last December I commenced feeding two pure bred Berkshires, then four weeks old, and worth for feeding purposes \$2.50 each. Their joint live weight amounted to 36 lbs. During four months they consumed 4 barrels Ludian Corn, and 80 galls. sour milk. To make sure of the value of the milk, I purchased it at a cost of 2½ cts. per gall.; it had been kept over from the summer by putting in a cask as fast as made, with the addition of a little salt. The food was given three times daily, made warm by mixing the meal with boiling water, and then adding the milk.

Joint weight, Dec. 8	- -	36 lbs.
Do. March 8	- -	211
Gross increase	- -	175
20 per cent. per offal	- -	35
Nett increase	- -	140
at 10 cts. per lb.,		\$14.

4 bbls. corn, at \$1 per bbl. -	\$4.00
80 galls. sour milk, 2½ cts. pr gall.	2.00
2 pigs, four weeks old, at \$2.50 ea.	5.00
Profit to balance -	3.00

\$14.00

H. E. DEGLE.

ON THE DRAINAGE OF FARM LANDS IN NOVA SCOTIA.

[We have much pleasure in publishing the following very useful article, which contains information and suggestions of a thoroughly practical kind.—ED.]

MR. EDITOR:—I have noticed with pleasure articles contributed from time to time to your paper on the subject of agriculture, but although various branches of it have been referred to, the most important has been almost entirely omitted. We often see in newspapers and other journals, farmers recommended to, and almost censured for not draining their land, while the authors often seem unacquainted with the difficulties that attend this operation, or do not give much assistance to farmers to overcome them. I do not wish to take up more of your space than is necessary to point out what would be the advantage of draining, and disadvantages from the neglect of it, particularly as applied to this Province. No draining can be considered thorough, or a good return expected for the investment, except the subsoil is thoroughly dried. The reason is obvious. The depth and distance the drains should be put apart, to be regulated by the characters of the soil and subsoil; and the deeper they are put, generally affording them to be placed farther apart. This is very important where the material for forming the duct is so expensive. When land is undrained and an impervious subsoil underlays, the water has to be evaporated through the soil. Consequently, if a late season, it is often nearly June before a plough can be put into the ground; this is generally fatal to crops in this country. In the fall the growth is also checked from the same cause, consequently, the growing season of crops, especially green crops, is much curtailed. Several seasons have passed, the last one in particular, when, but for the undrained land, the spring was as early and forward for agricultural operations as the average ones in Great Britain. The baking of land in dry summers, so that winter wheat cannot be sown, is another evil. I think that draining would in many cases, cause the wheat to ripen in time, to be clear of the weevil, the throwing out of clover, and other roots, in fact these and many other inconveniences may be put down to undrained land. Of its advantages, Stephens in his Book of the Farm, a work universally

quoted by writers of the present day, gives instances in England, Ireland and Scotland, where draining of estates has paid landowners thirty per cent., and of an instance which has come under my own eyes last year, barley yielded at the rate of sixty-three bushels per acre within twenty feet of a drain, against thirty-five from other parts of the same field; the writer of this was also shown some fruit trees, the growth of which was astonishing, considering the dry season of last summer, and entirely owing to under-draining. I have considered it necessary to enter on these details as many farmers are strangers to draining in every respect. Of the difficulties—although Nova Scotia from her climate and soil requires the land to be drained more than any part of North America, she appears to be the only place (except perhaps New Brunswick) where the means of carrying out this drainage cannot be furnished to enterprising farmers at a reasonable cost. I have lately taken a great deal of trouble to ascertain where this can be procured, and at what cost, and it is much as follows: in Liverpool and Glasgow about twenty-four shillings sterling per thousand, each tile 14 inches long, but breakage, freight, &c., bring them up to seventy shillings stg., when landed in Nova Scotia; in Canada they are made for six dollars per thousand, while in Nova Scotia they cost the enormous sum of five pounds per thousand feet or more, at the potteries, making them entirely useless to farmers. If the government would offer a large premium to any one who would furnish tiles at a reasonable rate, it would be a great boon to the agricultural population, and would indirectly benefit the whole community. It must certainly come to this at last, the best attempts at farming in the present day without drainage is but a farce, and with prospects of high prices, farmers are quite warranted, and will go to the expense, provided they can be furnished with something to fill in the drains with at a reasonable rate. As the railways are extended east and west tiles could be supplied to farmers near the line with only one handling. I may mention that in the Canada Farmer, tile making machines are advertised at \$120, to turn out from six to eight thousand per diem, and a Mr. Sutton offers to set up a yard in any district where he may receive reasonable encouragement.—Using tiles lessens the cost of digging greatly, as the cut need only be wide enough for a tile. I hope the Agricultural Committee will give this subject the attention it deserves. I consider that as things are at present, the want of these tiles offers the greatest obstacles to successful farming in N. S. As many may think that this should be done by private enterprise, I may remark that when drainage commenced in England, so alive were

the Representatives to the importance of it to the country, that any farmer could claim a certain sum from the treasury at a certain rate for this purpose, and commissioners were appointed to decide upon what constituted a legal claim. It has at least as good a right to come under Legislative patronage as Bone Mills and imported stock, which latter, from being herded on the beautiful pasture that water-logged land is so justly celebrated for, soon lose the distinguishing qualities of their ancestors. Besides, farmers can hardly be expected to become brick and tile makers themselves, so they have the choice of waiting for the slow progress of private enterprise, and farming at a great disadvantage in the mean time, but blaming it all on the unfortunate climate, or else draining with poles, or some other slovenly and unsatisfactory way, which is just as expensive as tile draining should be, and is rarely effective when finished. No doubt one objection will be made, that the cost of draining will be so great that few will be willing to undertake it. I would not in the present state of farming in Nova Scotia recommend the drainage of stiff clays where the drains would require to be placed fifteen or twenty feet apart, but loams could generally be drained by deep drains about forty feet apart, so that eight hundred fifteen inch tiles would be sufficient for one acre; the digging would cost about one shilling per 100, so that the two chief expenses would be covered by from six to seven pounds per acre, which is no more than a good coat of marsh mud with half a mile hauling would cost, a method of improving land that is in great favor in this province. Yours, &c.,

A FARMER.

RESULTS OF WURZEL CULTURE IN GRANVILLE—WHITE SUGAR BEET—BELGIUM CARROT—ORCHARD GRASS.

DEAR JOURNAL.—A correspondent in the March No. speaks highly of the mangel wurzel or scarcity root as a field crop, and it deserves all he has said in its favour. In our valley, crops have been raised exceeding his, and specimens shewn outweighing them. I do not say this boastfully, but simply to encourage the growth of this valuable root. I am sorry I cannot give in figures proof of what I now advance, but hope to be able to do so next fall. My favourite "scarcity root" is the white sugar loaf, which I have raised some six years. My attention was drawn to it in France, where sugar is largely manufactured from it, and where I have seen, perhaps, twenty acres in one lot planted with it. I find it to fatten stock as well as potatoes. Pigs are very fond of it and fatten rapidly; while the crop per acre far exceeds that of any root

except it be mangel wuzel in light soil. I have taken from alternate rows bushel for bushel of these two varieties of beet.

It is a pity that in Nova Scotia so few persons are found who have the means, or who, having the means, have the inclination, precision and judgment to make exact experiments, for an experiment is worthless unless it be exact. As to the rotative value of root crops and their foddering qualities, there are numberless opinions, but, so far as I can learn, no authority. It is thought by many practical men that turnips are useless to a milch cow, some say worse than useless. It is often said that mangel wuzel will make a cow dry up. A shrewd practical farmer told me last summer, that two of his cows fed at evening with a bountiful supply of corn fodder, gave no more milk than the rest of the herd, or more than they would have given without it, but I do not think he was careful to measure the daily flow.

Would it not be a good question for a good prize to be awarded by Agricultural Societies, something to this effect, viz.—“What root crops will, in this locality, give the largest and best crop of fodder, at the least cost per acre.”

I have a very decided opinion, founded on a long experience of six years, on four points:—

1. That no grass equals orchard grass for pasture. Last year, on the 10th of May, some of mine had attained the height of eighteen inches; on the 10th June three feet; on the 24th, when I cut them, four feet four inches.
2. No field beet equals the white sugar for feeding or fattening.
3. No field carrot equals the white Belgian, for horses or milch cows. [And no one equals it for the dinner table.—Ed.]
4. No Indian corn is so productive, or makes meal equal to the eight rowed white.

While waiting for more light on this subject, believe me,

Yours sincerely,
Granville, Mar. 10, 1866. G. T. B.

Agricultural Societies.

CHESTER AGRICULTURAL SOCIETY'S REPORT.

The Chester Agricultural Society was organized, March 24th, 1865, and counted fifty-six paid-up members on its books for the current year. Not being aware of the amount to be received from the Province, they were careful in their appropriations until the Grant was drawn, amounting to the handsome sum of \$100. In the spring a good Bull four years old, of the Durham breed crossed with Alderney, was purchased for the sum of \$32,

but becoming breachy was sold last autumn, realizing \$19.25. His keep for twenty-five weeks amounted to \$15, and his services outside the Society to \$6, leaving \$21.75 as the sum he cost the Society while owning him. Two Cotswold Rams were agreed to be purchased early in the autumn from W. E. Decie, Esq., of Bridgetown, but owing to delay in procuring the Provincial Grant, in the absence of the Secretary, they were too late to be of benefit last season. Two young Berkshire Hogs were procured at the same time, a Boar and a Sow, costing \$5 each, and the Rams \$15 each, with cost of sending for them, \$9. Three young Essex Swine were also brought in at a cost of about \$11. Those latter were sold at \$1.50 each, and the former at \$1.80 each, to be kept for breeding purposes; members of the Society to have the offer to purchase their young. The Rams are kept by the Society, and are not much thought of, but I incline to the belief that this opinion will change very materially before we have owned them two years. We could not procure a Ewe of the same breed, but must try again this season, so as to keep up a supply of the breed pure. A Threshing Machine owned by the former Society came into possession of the present one, on which some \$10 or \$12 were expended in repairs, and, perhaps, nearly the same amount assumed as due the keeper for his services hitherto, in connection therewith.

Four meetings were held, including the annual one held on the 8th December, 1865; at the latter the officers were all re-elected as follows:—Pres., E. Heckman; Vice-Pres., Robert Smith; Sec'y, H. B. Mitchell; Treas., David Witford; Directors, Wm. Duncan, Thos. Witford, John Webber, Joseph Keizor, Stephen Corkum.

Owing to all the bills and accounts not being rendered and settled up, the Treasurer's account is not as complete as it should be. It stands thus:—

CR.	
Subscriptions of 56 members	\$56 00
Allotment of Provincial Grant	108 00
	\$164 00
DR.	
To books for Sec'y and Treas	\$1 40
Paid for one Bull	32 00
Keep of do. \$15, less \$6 for serv.	9 00
For subscrip. to four Ag. papers	5 13
Two Cotswold Rams	30 00
Two Berkshire Hogs	10 00
Expense of procuring do	9 00
100 printed notices	2 00
Postages, &c.	0 50
	\$99 13
On hand	\$64 87
The American Agriculturist, Canada	

Farmer, and the Journal of Agriculture, are taken by the Society and much approved of. The Field was also subscribed for, but not appearing suited to the wants of Nova Scotia was discontinued.

H. B. MITCHELL, Sec'y.
Chester, Feb'y 1866.

[SECRETARY'S LETTER.]

We have held 6 meetings of the society since its formation, and are now taking subscriptions for the present year. Have purchased another bull 3 years old, (Alderney) in Windsor, for \$36, and should have another, but intend doing with one now, as we were disappointed after purchasing another, and so will reserve our funds. They voted to expend \$10 to \$50 in seeds, and also to hold an exhibition this coming autumn. The officers of the society met last evening to decide on the seeds, prizes, &c. They agreed to lay out \$24 in Timothy and Clover seed, \$10 to \$12 in Oats; \$6 to \$8 in Wheat; and \$2 to \$4 in Potatoes; that is, we should like to purchase those latter articles of new kinds, say Goodrich Potatoes, Long-fellow Oats, or other kind of Scotch Oats, and new varieties of Wheat, said to be weevil proof, to test them. Can you afford us any information as to whether these seeds are obtainable in Halifax, or can be procured before they will be required for seed? Such information would much oblige. We think to give some \$80 in prizes on Bulls, Steers, Cows, &c., Sheep, Swine, Vegetables, Grain, Fruit, and Cloth, next autumn. The prizes of course must be small, ranging from \$3 to 20cts., but will stimulate to some extent our farmers to try what they can do, and thus tend to improvement.

H. B. MITCHELL, Sec. C. A. S.
(Replied to by Letter.)

TO CORRESPONDENTS.

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