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NOVA SCOTIA

**JOURNAL OF AGRICULTURE**

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

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

**VOL. IV.**

**HALIFAX, N. S., APRIL, 1883.**

**No. 33.**

Truro, April 11, 1883.

DEAR SIR,—Your copy of the Resolution of Condolence in the severe domestic affliction with which it has pleased God in His inscrutable Providence to afflict me, passed at a joint meeting of the Agricultural Committee of the House of Assembly and the Central Board of Agriculture of Nova Scotia, was duly received.

I need not assure you that the kind expression of christian sympathy for my lot, and words of encouragement to seek comfort in a "contemplation of the Higher Life of that Better Country, where sorrows and partings will be unknown," contained in the resolution, were most grateful to my feelings; and the gentlemen who framed and passed it, have my heartfelt acknowledgments.

Believe me, Dear Sir,  
Yours very sincerely,  
ISRAEL LONGWORTH.

GEORGE LAWSON, Esq., LL.D.  
*Secretary of the Joint Meeting.*

THE annual meeting of the N. S. POULTRY ASSOCIATION was held 28th March, at No. 60, Bedford Row. A large number of the members were present and the meeting was the most enthusiastic that has taken place for a long time. The president, Mr. Andrew Downs, occupied the chair.

**ANNUAL REPORT.**

The Executive Committee, in presenting this their sixth annual report, feel confident that in doing so they are laying before the members of the Association one of the most

satisfactory statements, in many respects, that they or their predecessors in office, have ever been able to submit to their electors. The financial status, the membership, the enthusiasm manifested at our late meetings and many other indications of returning life and vigor in poultry matters, point to a renewed interest in the aims and objects of the Association which the past history of our existence as an institution fails to equal. The membership roll, although not quite so large as when the Association was first organized, is still sufficiently extensive to infer that through the six years of our life we have enjoyed a brotherhood, permanent and enthusiastic. A number of our members have stood firmly in the interests of the Association from its inception to to-day, advocating the claims we have originated in our bye-laws, as consistent with the progress and development of poultry and agricultural affairs in our Province. The great difficulty which the fanciers have encountered in endeavouring to dispel the prejudice which agriculturists so largely inherit against thoroughbred fowls, has been the most powerful influence in the centering of fancy stock among a few persevering adherents of our Association. It is difficult to convince the farmers, and others, who keep poultry in Nova Scotia that beauty and utility can be combined in the same bird, or that thoroughbred stock is superior to the native. It is these drawbacks that have prevented the fullest extension of the objects of the Association, and aided in the restriction of the good which otherwise might have resulted in a greater dissemination of thoroughbred stock in all sections of the province. But, notwithstanding the hindrances above mentioned, it cannot be denied that the country has been largely benefited by the stock that has been distributed, and that the farmers have received many advantages by the introduction of good, serviceable, and handsome fowls through the influence of this Associa-

tion. It is needless to enlarge on the importance and necessity of thoroughbred poultry being established in our Province, if an export trade is to be organized, for these are facts that everyone connected with the business is fully alive to, and these are the grounds upon which our claims from our Provincial Government are so firmly based. During the year a few of our members have left us, but their places will shortly be filled by a number of young fanciers whose names will be submitted for your consideration at this meeting. It is most gratifying to think that new members are joining our ranks and taking a live interest in the promotion of all things that tend to the steady development of our Association. New blood is what we want in our ranks and in our poultry yards, so that the objects and the existence of our institution may be brought more prominently than ever before the public. During the year we had in the month of March one of our most successful shows in point of quantity of birds, quality of the stock, and in the attendance of visitors as well as from a financial standpoint. The entries numbered 142, as follows: Asiatics, 23; Spanish, 17; Cage Birds, 17; Miscellaneous, 13; Ducks, 12; Pigeons, 12; Games, 8; Hamburgs, 10; French, 6; Polish, 6; Bantams, 6; Geese, 4; Turkeys, 3; Dorkings, 2; Taxidermy, 2; Aviaries, 1. The largest number of entries in one variety was eight, in Brown Leghorns. The greatest number of prizes, special and regular in one variety occurred in the Plymouth Rock class. The place where the Exhibition was held was not as large or convenient as the committee could have desired, but the general impression now is that all things considered it was the best place available at the time and more in accordance with the financial condition of the Association than if a more expensive situation had been procured. In regular and special prizes \$133 were paid, while the visitors at the show numbered in the vicinity of 500. During the

year the annual Government grant of \$100 was obtained and has been placed to the credit of the Association. There were held in 1882 twelve committee meetings on the following dates: Jan. 10th, 20th, and 27th; Feb. 13th, 18th, 22nd, and 24th; March 3rd, 10th, 16th, and April 4th and 26th. The Officers and Committee for the year were:—

A. Downs, President.

C. W. Anderson and Prof. Lawson, Vice-Presidents.

C. P. McLennan, Secretary.

R. J. Wilson, Assistant Secretary.

F. C. Stevens, Treasurer.

Messrs. Thos. Goudge, Joseph S. Belcher, W. H. Gibson, Geo. Piers, J. E. DeWolfe, Henry Keeler, R. T. Murray, John Naylor, Executive Committee.

The report is respectfully submitted to the Association by the Secretary,

C. P. McLENNAN.

The report was unanimously adopted.

A resolution was moved to the effect that the subscription be reduced to \$1 instead of \$1.50. Passed.

The Secretary laid his resignation on the table, mentioning that his duties were such as to preclude his giving the attention to the work that the office demanded. His resignation was accepted. The officers for the ensuing year were then elected as follows:—

President.—A. Downs; Vice-Presidents, C. W. Anderson, Prof. Geo. Lawson; Treasurer, F. C. Stevens; Secretary, Wm. McKerron.

Executive Committee.—Messrs. Jos. S. Belcher, Henry Keeler, Thos. Goudge, W. H. Gibson, J. H. Burton, J. Reddan, J. E. DeWolfe, Geo. Piers. The above were all re-elected with the exception of Messrs. Wm. McLeod, J. H. Burton, and J. Reddan.

The Treasurer's report was read, revealing a pleasant condition of the finances.

Six new members were proposed and accepted: Messrs. Henry Bauld, Welsford West, Archibald Graham, J. H. Burton, H. Fuller, and J. S. Franklyn.

The President reported that he had had an interview with the Halifax County Agricultural Society in regard to the holding of a show of poultry in connection with the Agricultural Exhibition to be held in the Autumn, and suggested that a prize list should be offered by the Association. The matter was laid over for the consideration of the incoming officers.

The meeting was very enthusiastic and the general feeling was that the Association is entering upon a new era of success and bids fair to eclipse all its former efforts in the extending of its operations.

To the Editor of the Journal of Agriculture

DEAR SIR,—In the February issue of the JOURNAL there appears a communication from Truro, commenting on my letter to *Annapolis Journal* on Maize as winter food for farm stock. The writer intimates that I have not been sufficiently explicit in my statements, and that it

would have been more satisfactory had the grounds of my conclusions been stated; "because," he says, "there are persons slow to believe that green fodder corn possesses any such value." The accuracy of his say is indisputable. There are lots of persons "slow to believe," who, if they saw an animal dying of strangulation from eating turnips, would express doubt unless convinced of the fact by positive truth. Possibly, it would have excited some pleasant emotion could details of the experiment have been given in *extenso*; "that," as he adds, "the ignorance of these people may be enlightened." My apology for omission must be that I was not aware Truro, in the farming line, contained any persons ignorant of the value of Maize—in all its varieties—as a supplement to a dry pasture in summer, and a short common in the winter; furthermore, when the article was penned, persons who pin their faith to those popular nutritious condiments, straw and turnips, were not under consideration. My motive in bringing this, as I considered, important business to notice had reference only to the practical part of the operation, not in a science point of view.

Our method of farming, although it may, in some degree, be systematically pursued, is rarely conducted on scientific principles. We have no cradles of Agriculture—no experiment stations for affording to the people opportunities for thorough education in Agriculture and those sciences which it calls to its aid. A comparative analysis of the substantive food for farm stock, and the rationale of the principles of feeding animals for a special purpose, are practical experiments which require to be scientifically investigated. It is evident that the field is too great for farmers to cope with individually. It would be an extreme stretch of energy on the part of "rusticus" to periodically weigh his stock—to record in definite weights the amount of the various substances required for a given number of pounds of live weight and establish a feed ration. We have men no doubt that could do it, but the result arrived at would be open to question, and, unless endorsed by the highest authority—the knowledge obtained would be serviceable to none but the experimenter. Mr. Colchester says, the straw and turnip men "refuse to accept unquestioned a bald statement." Unquestionable they are wise people. There are any amount of bald statements copied from exchanges into our dailies that have scarcely an Agricultural hair about them. Of course, straw and turnip people know what reliance to place upon them. Mr. C. says, "they have"—meaning the straw and turnip people—"an idea that swedish turnips and mangles are not inferior to fodder corn, and argue from this, that, 4½ tons of swedes are not more than

equal to a ton of hay." Furthermore, Mr. C. says, "we know that turnips and straw have been largely and successfully used in the fattening of cattle." I am not disposed to say the above quotations are *dequos*; but it would have been more satisfactory if some definite value had been given to the hay, and the quantity required of these several articles as food, "Straw and turnips," for a maintenance ration. Mr. C's criticism begins at the latter part of my letter and reads as—"that the cost of ensilage from fodder corn fully prepared and stored is two dollars per ton, and that in nutritive value 2½ tons of this preparation are equal to a ton of hay. These are my words: "The cost of ensilage through the process including feeding is at the rate of two dollars a ton, and hay medium quality," the average or medium quality is \$10.00. In conversation with Mr. Fitch, who had charge of the stock, these questions came up—the value of the hay, and relative expense? feeding the ensilage? fifty cents a ton he reckoned would cover expenses? it was rather more labour taking the fodder from the silo than taking hay from a mow? Again, I am made to say: Ensilage alone does not contain all the ingredients required to put flesh on an animal. I don't say that—my words are: "Those who practice soiling or house feeding are cognizant of the fact that green corn does not contain sufficient nutriment to fully supply the requirements of the dairy, or fit animals for the shambles, any more than good hay." The straw and turnip men may have a peculiar method of running a dairy, and fattening cattle for the slaughter with their raw alimentary rations, and attain flattering results. But it is generally understood that these combinations are slow in effect, and in the wind-up not so economical. There are certain facts often overlooked when turnips are fed—exhalations are more profuse—and the animal forces are taxed in proportion to a super-abundant moisture. Observant farmers are aware that coarse food rations require more water than a nutritious and concentrated food; hence the rationale of combining some kind of succulent food with straw. The sequent of a nitrogenous ration, in excess, is an increased flow of liquid; results, swashy animals, and bespattered stables. Mangles are mentioned by Mr. C. as a root not inferior to fodder corn—they and turnips in the aqueous element are twins. Mangles are said to be more valuable for feeding purposes than swedes,—from special and personal experience I do not uphold that view.

There is difference of opinion among farmers, and good ones too, respecting this variety of beet; no doubt a good specimen of the tribe, selected with regard to saccharine qualities, would, with

special treatment on soils naturally adapted to root culture, produce a biennial of practical importance to the cultivator for its feeding and keeping qualities. On certain soils they are rampant growers and yield enormous crops; such gratifying results are frequently followed by complaints that mangles scour and don't keep well. When complaints of the kind occur it is an indication of unripe roots. The cause of this immaturity, in many cases, is owing to an excess of barn-yard manure, which induces a luxuriant and watery growth, rendering the root far less nutritious than less vigorous plants. If a farmer desires to raise water he had much been raised from his well, however deep the fountain, than bother with mangles. At the Liverpool Exhibition, of 1880, one of the prize mangles weighed 23 pounds. They are great in the root and cabbage line those Atlantic Counties.

That mangle was stored in a dry place from October until the following April. It was shown to me as a curiosity. I considered it as such, and weighed it on a nicely adjusted balance, it tipped the beam at 1½ pounds. That nitrogenous monster was the admiration and delight of all beholders—but what, it may be asked, is the use of such productions in profitable Agriculture.

If a farmer desires to grow a few acres of fodder corn it is not imperative on him to curtail or abandon any special crop of the farm. A piece of spare ground can be prepared at intervals of time; the planting done from the middle to the end of June, and, as the plant is not required to perfect its seed, the fertility of the soil is only partially taxed. With roots it is the opposite. Turnips and mangles draw heavily on the nitrogenous constituents in the land, both latent and applied, mangles especially. But, says one, "I advocate raising roots—mangles are my favourite—they give large returns; the labour expended on them clears the land and prepares it for the ensuing crops. Otherwise if the land is laid down half plowed, half harrowed, will you expect good crops." This compulsory method of preparing ground for a future crop may be all very nice, but the special effect of the expensive and round about practice is not always attained. There is no necessity to lay down land half plowed, half harrowed, or even half manured.

It is not considered intelligent farming by any means to do so. A crop of clover or of corn will do the work in less time and with far less labour, the latter especially. A bushel of corn to an acre broad-casted, and harrowed in, with an application of one half the manure that would be given to the roots, would smother, under its dense foliage, everything, plant or animal—from a mustard seed to a mouse—from couch-grass to

that terror of terrors the Canada thistle. Ninety days had barely passed since F. C. Johnson planted the kernels of corn from which have sprung the enormous growth (32 tons per acre) of plant life; a broad expanse of green foliage rising, dipping with the breeze, in the field contiguous to the silo. On the 14th day of September last, I stood by the entrance part of that silo, and viewed this growth of stalks, leaves, and flowers, passing with lightning speed under the flashing knives of a cutter that required the active power of three men to supply the feed board with the corn that was being showered into the pit—at the rate of 4 tons an hour. From whence came this growth of Maize that has so suddenly sprung into being, and what forces of nature have been employed to produce this immense product of vegetable matter, say you who can. W. H.

EXTRACTS FROM ANNUAL REPORT OF THE CENTRAL BOARD OF AGRICULTURE, FOR YEAR 1882.

Presented to House of Assembly, 12th March, 1883.

(Continued from page 316.)

THE SEASON'S CROPS, 1882.

The Agricultural Societies throughout the Province, have as usual, in their Annual Reports, furnished information, more or less complete, respecting the quality and quantity of yield of the more important Field Crops during the past season, in their respective localities. It is very desirable that some system should be adopted, whereby more complete and systematic returns might be obtained and promptly published, inasmuch as such information, when timely given, is of great practical use, not only to Agriculturists, but especially to the mercantile community. In the meantime a classified synopsis is given of the information obtained relating to the Field, Garden and Orchard crops of the Province for the past year. [This will be given in next number, if we can find room for it.]

DISTRICT EXHIBITIONS, 1882.

An Act having been passed by the Legislature, 14 April, 1881, providing for Provincial and District Exhibitions, to be held every alternate year, and doubt having arisen as to whether a Provincial or District Exhibition should be held in the year 1882, the Board, at their meeting on 2nd February, passed the following resolutions:—

"Whereas, an application is now before the Board from the Agricultural Society of Onslow for a grant to a Provincial Exhibition, and, having heard the explanation of Mr. Blair on behalf of said application,

"And Whereas, An amendment has passed the Legislature, in the session of 1881, providing that Provincial Exhibitions shall only be held every alternate year;

"And Whereas, Subsequent to the passing of said Act, a Provincial Exhibition has been held in the City of Halifax in connection with the Dominion Exhibition;

"Resolved, That the Board is of opinion that, under the Amendment to the Agricultural Act passed last session, District Exhibitions should be held during the next autumn, and that this Board, at this meeting, determine on such rules and regulations as will assist in carrying out such exhibitions."

"Further, Whereas, Under chapter 8 of the Acts of 1881, relating to the holding of district exhibitions, it is the duty of the Board to make rules, regulations, &c., for the holding of district exhibitions;

"And Whereas, This Board has decided that such district exhibitions shall be held during the year 1882;

"Resolved, That the several Agricultural Societies throughout the Province be notified, through the Secretary of the Board, that they are required, at the earliest possible opportunity, to determine (by vote of their officers or of a regularly called special meeting) upon a suitable locality for the holding of a district exhibition for the year 1882, within the respective agricultural districts, in accordance with chapter 8 of the Acts of 1881.

"That the result of such vote shall be communicated to the Secretary of the Board not later than the first day of March next, in order to enable the Board, at its next meeting, to ratify the recommendations of societies, providing, however, that the same be satisfactory to the Board.

"That so soon as such recommendations shall receive the sanction of the Board, any society, municipal corporation, or any other body, undertaking to carry out such district exhibition, shall submit to this Board a prize list for approval, and shall be subject to such other rules, regulations and instructions as the Board shall hereafter order."

Arrangements were accordingly made for District Exhibitions, and the Legislative Grant of \$4,000 for that purpose was appropriated by the Board as follows, in terms of the Act:—

District No. 1.—Halifax and Lunenburg, two counties. Exhibition at Lunenburg.....	\$ 444 44
District No. 2.—Section 1, Annapolis and Kings, 2 counties. Exhibition at Annapolis.....	444 44
District No. 2.—Section 2, Queen's Co. Exhibition at Liverpool.....	222 22

District No. 2.—Digby, Shelburne, Yarmouth, three counties. Exhibition at Yarmouth.....	\$ 666 67
District No. 4.—Hants, Colchester, Cumberland, three counties. Exhibition at Truro.....	666 67
District No. 5.—Pictou, Antigonish, Guysboro', three counties. Exhibition at Antigonish.....	666 67
District No. 6.—Cape Breton Counties—four. Exhibition at North Sydney.....	883 89
Total.....	\$4000 00

Full details of the results of these Exhibitions, Accounts, and Prize Lists, are appended to this Report.

#### DOMINION EXHIBITION AT KINGSTON.

The Agricultural and Arts Association of Ontario, having informed the Board that the Dominion Government had appropriated \$500 towards the transportation of animals and articles from Nova Scotia to the Dominion Exhibition at Kingston, the following scheme was submitted by the Board to the Provincial Government:—

1. That the sum of \$500 so placed at disposal be expended in the transport to Kingston of such horses, cattle, and other live stock and manufactures, as may be entered and previously examined and approved of by the Board as of sufficient merit.

2. That the exhibitors of live stock so approved be required to take charge of them personally or by their agents, in conveyance to and from the exhibition.

3. That a suitable exhibit of the economic minerals of the Province be made at the expense of the Provincial Government.

4. That the Government be requested to appoint a Commissioner to proceed to Kingston in care of the minerals, and that he be required likewise to take charge of such exhibits, in the departments of fisheries and manufactures only, as may be offered by exhibitors who do not desire either to accompany their exhibits or employ agents. Such exhibits are to be taken at the risk of exhibitors.

5. The Executive Officers of the Board of Agriculture will give all practicable assistance to the Government, in receiving entries and arranging for the examination and transport of offered exhibits.

6. In the event of the preceding arrangement being approved of and sanctioned by the Government, the Secretary of the Board advertise intending exhibitors to intimate the nature of their exhibits, and act generally in conjunction with the Government Commissioner when appointed.

The arrangement proposed having been approved of, the Government appointed Dr. Honeyman of the Provincial Museum to take charge of the Exhibits for Nova Scotia.

#### RECOMMENDED INCREASE OF GRANTS TO SOCIETIES.

The Board at Annual Meeting 2nd Feb., adopted the following Resolution:—

Recommended, that it is thought exceedingly desirable by the Board that the Legislature should be applied to, through the Committee of Agriculture, to increase the County Grant to Agricultural Societies, with a view to their greater efficiency; that the urgent necessity for such increase may be seen in the case of Central Agricultural Society of King's County, one of the six Societies in the most important agricultural county in Nova Scotia, receiving no more than \$21.40 from the annual grant. Also, that, in the future, not disturbing existing Societies, the number of Societies in any one County should not exceed six, unless, in the opinion of the member of the Board for the district, the county is so territorially situated, that not to increase the number injustice would be done to a large class of farmers who could not conveniently belong to any existing Society. And that the Agricultural Act be so amended as to legalize such limitation of Societies. The necessity of some such legal restriction upon multiplication of Societies is pressing itself upon the Board on account of the large number of Societies at present established in several counties, in connection also with the fact that the present grant to each county is considered by the Board quite too small to materially conserve the interests of Provincial agriculture when divided among too many Societies in any one County.

#### PREMIUMS ON IMPORTATION OF HORSES.

The Agricultural Committee of the House of Assembly, in their Report, recommended that the Government should empower the Central Board to pay, from the Stock Farm fund, the amount applied for as bonuses on Horses imported during 1881, and, in succeeding years, to authorize the Board to pay an amount not to exceed \$800 in any one year, on the purchase price of importations as recommended in the additional report presented by the Committee during the session of 1881; and the House Committee further recommended the Government to pass a Bill, if necessary, to give effect to the above recommendation, and that regulations be provided, &c.

On 2nd of March, 1882, the Board passed the following resolution:—

"That the Board recommend that an Act be passed authorizing the Board to spend annually a sum not exceeding say \$1,000, in bonuses on importation of horses in terms of former recommendation of Agricultural Committee, the bonus to any one horse not to exceed, say, \$200, at ten per cent. on purchase price, and to be paid only on the Board being satisfied in every case that the horse is a useful

and otherwise suitable animal, that the price paid and upon which bonus is claimed is reasonable in amount, and on the owner giving a bond to keep the animal for service at what the Board shall consider fair rates for a term of five years. And, further, that the Board be authorized to make regulations in accordance with the Agricultural Committee's report, and to enact and enforce special stipulations in necessary cases, to secure the effective carrying out of the Committee's recommendations.

Several applications for bonuses on Horses having been sent to the Board last year, and others during 1882, the Board expressed their desire to receive instructions from, and sanction of, the Government, to enable them to take effective measures to carry out the views of the Assembly's Committee, so far as the Government might deem it proper to do so. The balance of the Stock Farm fund not being available for the purpose of paying bonuses, in consequence of the stock last imported having been sold on endorsed notes, an advance by the Government was required to meet the payment of such bonuses on Horses as might be authorized.

The Board were authorized by the Government to announce that the premiums would be paid, but that payment would have to be deferred until the Board recovered a sufficient amount from the sales of Cattle, in which the Stock Farm fund had been invested.

The following bonuses were authorized, payment to be made on the owners executing a bond to keep the Horses in the Province for five years, for service at reasonable fees:—

1. To Alexander Cochrane Newport, for Norman Percheron Horse "French Republic." Purchase price of Horse, \$1,000. Fee for service, \$8. Amount of bonus, \$100.

2. To Ezra A. Davidson, Portapique, County Colchester, for horse "Ruler Hugo" to serve in Cumberland, Colchester and Hants. Fee for service, \$8.00 for season. Purchase price, \$200.00. Bonus, \$20.00.

3. To C. P. Blanchard, Truro, for horse, "Troubadour," to serve in County Colchester. Fee, \$5.00. Price, \$175.00. Bonus, \$17.50.

#### IMPORTATION OF SHEEP.

In February, 1882, the Board recommended: That it is thought very desirable, in the opinion of the Board, that the Agricultural Committee be requested to suggest to the Legislature the necessity of a special grant of four thousand dollars (\$4,000) for an importation of sheep and pigs, now very much required. The animals to be sold at Halifax in the autumn.

Resolved, That in the event of such special grant being recommended, and in

view of the inconvenient situation of the agriculturists in the Island of Cape Breton, and the disadvantages of attending a sale at Halifax, a portion of such grant (not less than one-fourth) be separately devoted to an importation to be sold in Cape Breton during the Island District Exhibition, and that the selection of stock be made in accordance with a decision to be arrived at by a meeting of delegates from the several societies;

And further, That such societies be allowed to supplement the grant with contributions from the societies directly, and the proceeds of sale revert to the Board of Agriculture, after deducting expenses and amount supplemented by societies. Purchase and sale of stock to be conducted subject to approval of Board.

This recommendation was not adopted, but, at last meeting of the Legislature, the Committee on Agriculture recommended as follows, and their recommendation was approved of by the House of Assembly:—

“There is, however, a very urgent want of improvement in our flocks of sheep, which cannot be supplied without importation.

“We recommend, therefore, that grants be made to each Society or Societies in each District as may subscribe and pay up a fund for making such importation.

“That the *bona fide* paying up and expenditure of such money shall be certified by affidavit of the President or Presidents of such Societies, and that the sheep so imported shall be sold at public auction within the District, and to the members of such Societies as make the importation.”

The Executive Council of the Province at a meeting held 28th April, 1882, passed the following Minute, which was approved of by His Honor the Lieutenant Governor:—

“That the Board be informed that the Government will be prepared to carry out the recommendation of the Committee on Agriculture, adopted by the House of Assembly at its recent Session, in regard to the importation of Sheep.”

In accordance with the above report and minute, the Board notified the officers of Agricultural Societies, by circular, that they were prepared to receive applications from Societies in the several Agricultural Districts of the Province for grants in aid for Importation of Sheep,—such applications to give the names of the Societies uniting in the importation, the amount subscribed and paid up, and the amount expended; all duly declared to before a Justice of the Peace by the President or Presidents of such Societies.

The following applications were received for Premiums on Sheep Importation, and, after being duly examined by

the Board, were transmitted to the Government, with a recommendation that amounts for which the several Districts had qualified should be paid.

*District No. 1.*—No application.

*District No. 2.*—J. B. H. Parker, President, Nictaux Agricultural Society. Amount subscribed, \$148.00; expended, \$122.

*District No. 3.*—(1) St. Clair Jones, President, Weymouth Society. Subscribed, \$25.00; expended, \$22.74. (2) John H. Bower, President, Shelburne Society. Subscribed, \$100.00; expended, \$100.95.

*District No. 4.*—W. M. Blair, President of Onslow Society, and Jas. D. Putnam, President of Brookfield Society. Subscribed \$300; expended, \$300.

*District No. 5.*—No application.

*District No. 6.*—Simeon Anconi, President, LeMoine Society. Amount expended, \$40.

PRESENTATION OF JERSEY BULL LITCHFIELD 15TH TO THE PROVINCE BY F. RATCHFORD STARR, ESQ.

The Board have pleasure in stating that, with great liberality, F. Ratchford Starr, Esq., of the Echo Farm, Litchfield, Connecticut, a native of this Province, has presented, through the Board, to the Province the valuable Jersey Bull Litchfield, 15th, sired by the celebrated Centennial Prize Bull. The Bull has been quarantined, and arrangements are now being made for securing his services in suitable localities in the Province during the present year.

POTATO BEETLE.

During last year the so-called Colorado or Potato Beetle, which has been so destructive to the potato crop in other parts of America, has begun to show itself in Nova Scotia. The Board has collected information as to the best means of destroying it, which will be diffused among the farmers at the proper season. Persons in whose neighbourhood the insect may appear are invited to apply to members of the Board for circulars or advice.

THE PROVINCIAL EXHIBITION OF 1883.

The Board have accepted the offer of the Onslow Agricultural Society to carry out the Provincial Exhibition of 1883 at Truro. The regulations and prize list will be considered by the Board at the annual meeting in March, and thereafter submitted to the Governor in Council for approval and sanction, in terms of the Act.

RECOMMENDATION IN REFERENCE TO A VETERINARY SURGEON.

Last year the Board of Agriculture passed a resolution bringing to the notice of the Agricultural Committee of the House of Assembly, the desirability of

obtaining, if possible, an annual grant from the Legislature, to secure the services of a competent veterinary surgeon for the Province. The subject, however, was not reported by the Committee, and the House had no opportunity of dealing with it. This year the question has been presented to us under a memorial from the Halifax County Agricultural Society. Whatever may be thought of its importance by others, the members of the Board feel it their duty to state it as their firm belief to the Government and Members of the Assembly that, in the absence of chairs for the study of veterinary science in our Normal Schools and Colleges, the necessity of one or more competent surgeons in the Province is apparent from a consideration of the large amount of capital invested in horses, cattle, sheep and pigs, and the many and heavy losses to which the owners are subjected from not being able to command skilled treatment in dealing with the great number of diseases and accidents to which such animals are continually liable.

RECEIPTS AND EXPENDITURE OF THE BOARD.

The Account Current of the Treasurer, for the year, and relative vouchers, are submitted herewith, having been examined and checked by the Auditing Committee of the Board. The balance in hand at the beginning of the year was \$16.70, and at the close \$320.31. The total amount drawn from the Provincial Treasury was \$12607.00, of which \$6733.08 was paid to Societies, and \$4000 to District Exhibition Committees, leaving \$1873.92 for all other purposes. As the balance now in hand is \$303.61 in excess of that at the commencement of the year, it will be seen that the total expenditure of Government money by the Board during the year, apart from grants to Societies and Exhibitions, has been \$1570.31. By collections for cattle sales, the Board have been able to replace the Stock Farm Fund to the extent of \$1762.91, which amount is now on deposit at interest in the People's Bank. The “Agricultural Journal” has paid itself. From the Registration and Transfer fees of cattle, the sum of \$70.75 has been realized. The following abstracts present a general view of the financial affairs of the Board for the year:—

General Abstract of Treasurer's A/c, 1882.

Cr.	
By Balance, February 1882.....	\$ 16 70
Provincial Treasury.....	12607 00
Collected for cattle sold, and arrears	2251 08
Fees for Registration and Transfers of Cattle.....	70 75
Agricultural Journal subscriptions and advertising, 1882, \$366.93, less expence of printing and mailing, \$34.53.....	2 40
Rent of Quarantine Premises, reimbursed by Dominion Government.	50 00

\$14997 93

Dr.	
To Grants paid to Societies for 1881 .....	\$6733 03
Prize Funds paid to District Ex. Committees.....	4000 00
Premium on Horse paid.....	100 00
Printing and advertizing ..	222 45
Expenses of quarantine and sales of cattle.....	304 67
Telegrams and Postage.....	31 74
Stationery .....	25 60
Chests for official papers...	7 25
Travelling expenses of members .....	587 52
Secretary and Treasurer's salary .....	900 00
Expenses of Dominion Exhibition at Kingston .....	\$50 45
Reimbursed through Prov. Sec'y.....	69 15
Amount deposited at interest in People's Bank on acct. of Stock Farm Fund.....	1762 91
Balance in Treasurer's hands, Feb. 1883.....	220 31
	\$14997 93

## STOCK FARM ACCOUNT.

Cr.	
By Receipts on account of Cattle Sales during the year, and arrears collected.....	\$ 2251 08
Rest of quarantine promises reimbursed by Dominion Government.....	50 00
	\$ 2301 08

Dr.	
To paid Freight, expenses of quarantine, and sale of Cattle, including \$96 for advertising sales.....	\$ 400 67
Premium on imported Horses paid \$100, and due \$37.50.....	137 50
Amount placed on Deposit at Interest in People's Bank as Stock Farm Fund.....	1762 91
	\$ 2301 08

In conclusion, the Board reply to certain statement contained in the Report of the Agricultural Committee of 1882. The Report of the Committee is printed in the Journals of the House of Assembly for 1882, and the Reply may be found in the Journals of 1883, when printed.

The following Report was not received in time to be included in the Annual Report of the Central Board of Agriculture, presented to the Legislature:—

**"ISLE MADAME" AGRICULTURAL SOCIETY.**

The annual meeting of the above society was held at the Court House, in Arichat, on the 6th day of December, as required by law, the President, John F. Fuller, Esq., in the chair.

The officers and directors, through the Secretary, submitted the following report:

In the month of October last, there was purchased for the society at the Antigonish Exhibition two rams and two ewes, which were subsequently sold to members of the society upon the following condi-

tions—the rams to be kept for the exclusive use of the society for a period of three years, the charge for services of said rams not to exceed twenty cents, each member having the privilege of having five ewes served during the season. There was also purchased from Mr. Gregory, of Antigonish, a young Jersey Bull, at a cost of twenty-five dollars, and three dollars and eighty cents expenses, making together the sum of twenty-eight dollars and eighty cents. The animal was given out to E. P. Flynn, Esq., a member of the society, to keep and feed for the winter at a cost of twenty-eight dollars; after which time further arrangements will be made relative to the keeping of the bull.

The following is the financial statement for the year ending the 6th of December, 1882:—

Balance to credit of Society.....	\$33 14
Government Grant.....	86 00
Sale of Sheep.....	15 30
	\$139 74
Paid W. E. Starratt due on Bull "Bellahill.....	\$45 92
" Journal of Agriculture.....	4 00
" Mangold Wurtzel on hand.....	1 00
" for Sheep and Expenses.....	50 14
" for Jersey Bull and Expenses	28 80
Secretary's Salary.....	10 00
	\$139 86
Balance due Secretary.....	\$00 12

The following members were elected the officers for the ensuing year, viz:—John F. Fuller, *President*; E. P. Flynn, *Vice-President*; C. J. Fuller, Jr., *Secretary and Treasurer*. *Directors*.—Remie Benoit, Henry H. Crichton, Charles Doyle, David A. Hearn, George M. Shaw.

The officers then appointed John McKeen, Esq., of Mabou, C. B., as representative to the Central Board of Agriculture.

C. J. FULLER, JR.,  
*Secretary & Treasurer.*

Arichat, C. B., Dec. 6th, 1882.

MINUDIE, March 26.

Dear Sir,—When making out our annual report I neglected to send you the list of thoroughbred animals in the Minudie and Barronsfield Agricultural district. The bulls Sackville, Prince Imperial, Bruce and Duke of Argyl, and the cow Merry Face. These are all short horns.

I remain, &c.,

AMOS. VERNON,  
*Secretary, Minudie and Barronsfield Society.*

The *Irish Farmer's Gazette* publishes the official report by Professor Carroll on some experiments on Ensilage carried out on the model farm of the Albert Institution, Glasnevin, in accordance with the desire of the Lord Lieutenant of Ireland (Earl Spencer), who frequently visited the farm while the experiments were in progress.

Professor Carroll says: Referring to the opinions adverse to its adoption here, I would suggest: First, as regards our cultivated plants not being suited for ensilage. There can be no doubt that grasses of various kinds are well adapted to the process, and on a large range of soils—especially peat—Italian rye-grass yields a large produce. Rye, too—a crop which may be profitably cultivated on our poor, cold soils—is well suited to the system. I believe that many of the indigenous grasses—notably florin (*Agrostis stolonifera*)—will be found to yield a large quantity of suitable fodder, and that if the system were adopted, much green fodder now lost would find its way into the silo, to be profitably consumed by cattle. Doubtless, too, we should find that, if the silo became an institution, a large introduction of forage plants would take place—many varieties of the sorghum being particularly suited to the system—and more attention might also be given to the cultivation of maize in the districts suited by climate for its growth.

Again, it may be found by future experiment that the costly system of root-growing may give way before a less expensive system of growing other provender for ensilage, and that the produce of grass or other ensilaged fodders may exceed in nutritive matter a much heavier crop of roots. These are matters for future experiment, to be carried out under the direction of practical and scientific men.

Respecting the opinion that the chemical changes which take place during the slight fermentation of the fodder are injurious to it as food, I cannot help thinking that this opinion has been arrived at in too summary a manner.

I may say that I consider the matter has the largest interest for the dairy farmer, foreign experience having shown that ensilage has increased the yield of milk in dairy cows very considerably, and that the objectionable flavoring of milk and butter which results from the consumption of roots is avoided where ensilage is substituted.

On July 25 the fodder was cut. No. 1. Lucerne and straw chaffed and put into a silo about five feet deep, and lined with boards, so as to make it air tight and water tight. 2. Cornfey and lucerne chaffed, with a small proportion of oat-straw, and put into a similar silo. 3. Italian rye-grass, not chaffed, packed tightly into a silo. 4. Italian rye-grass, not chaffed, packed tightly into a silo which was simply a pit dug in the ground, without any protecting casing or lining. 5. Italian rye-grass packed tightly on the surface of the ground and covered with about eighteen inches of earth in a manner similar to a "potato pit."

On October 9 the silos were opened, and the following was the result:—In

numbers 1, 3, and 4 the fodder had a temperature of about 75° Fahr.; it was apparently in good condition, having a smell somewhat like fresh brewer's grains. The cows on pasture, as well as those which were being house-fed, ate this food with avidity. In No. 2 the comfrey and lucerne were quite spoiled; the colour had not been much altered, but the smell was most offensive, and the mass appeared to be quite putrid. No 5, the Italian rye-grass, was quite dry, but mouldy, and perfectly unfit for food.

The specimens of ensilage were in a state of fermentation when they were brought for analysis. The specimens were at once subjected to a temperature of 212°, and kept thereat till dried, which prevented further fermentation.

It is noticeable, first, that the albuminoids are less in the ensilage than in the original grass; that the water is much the same in quantity in all the samples; that the amount of soluble non-nitrogenous matter is greater in the ensilage than in the grass from which it had been prepared; that the amount of ash is greater in the ensilage than in the grass:

COMPOSITION OF ENSILAGE AND OF THE GRASS FROM WHICH IT WAS MADE.

	Grass when cut.	Ensilage No. 1.	Ensilage No. 2.
100 parts contain—			
Water .....	68.26	66.50	68.10
Albuminoids, (nitrogenous substances) .....	2.85	2.76	2.60
Non-nitrogenous substances, soluble acids, and alkaline solutions .....	13.42	15.20	14.82
Insoluble ditto .....	11.73	11.37	10.13
Fats .....	0.76	0.77	0.75
Mineral matter (ash) .....	3.06	3.40	3.60
	100.00	100.00	100.00

## HISTORY OF THE PICTOU CATTLE DISEASE.

### No. VI.

*Preliminary Report on the Disease of Cattle at Pictou, Nova Scotia, and adjoining Districts, addressed to Hon. J. H. Poye, Minister of Agriculture, by D. McEachern, F. R. C. V. S., Inspector of Stock.*

[Continued from February Number.]

D. Pasture of Captain James Foote: Cows died this season; none left. A neighbor, whose cows also died, has a solitary goat in pasture. The pasture is very weedy, containing much Solidago, Senecio, Kalmia, Hypericum, &c., and, in places, is reddened with the European weed *Bartsia odontites*. Water sample No. 3, from pool by roadside, Creighton's Lane, where Capt Foote's cattle were principally watered. The pool contained much soft mud, so that it was difficult to obtain a clear sample of the water. A herd of cattle stopped to drink at the

pool as we were collecting samples, and deposited droppings as they passed through it. The sides and surface of the pool were green with *Confervæ*, *Lygnoms*, *Oscillatorie* and other fresh water Alge.

#### Laboratory Analysis.

Water very turbid, dark brown colour, and smells very offensively of stable urine.

Total solids, grains, 20.5 per gallon.

Fixed do 6 do

Residue became quite black, and ultimately a reddish brown, patchy, smell of feathers.

Chlorine grains, 1.1 per gallon.

Ammonia, free or saline:

Grains .77 per gallon.

M.G., 1.100 per litre.

Ammonia, organic or albuminoid:

Grains, .1442 per gallon.

M.G., 2.060 per litre.

Metals—Iron, present.

Hardness = 3.2 degrees.

Nitrates, *nil*.

#### Microscope.

Bacteria, Zygnemata, Infusoria, Diatoms, Mineral particles.

Water sample No. 5 from pools in Capt. Foote's pasture. The cattle avoided this water, and usually watered in preference at roadside muddy pool, from which sample No. 3 was taken. Pools far from any buildings. Water turbid, light brown; stable odour less marked than No. 3.

Total solids, 5 grains per gallon.

Fixed do 1 do

Residue became quite black.

Chlorine, grains, .8 per gallon.

Ammonia, free or saline:

Grains .09772 per gallon.

M.G. 1.396 per litre.

Ammonia, organic or albuminoid.

Grains .1071 per gallon.

M.G. 1.53 per litre.

Hardness = 1.5 deg.

Metals—Iron, present. Manganese, also.

Nitrates, *nil*.

#### Microscope.

Insect fragments, Acarina, Infusoria, Zygnema, Entomostraca, Diatoms, Actinophrys, Bacteria, Euglypha.

E.—Farm of John Logan, Tanner. No disease, although pasture watered by same brook as adjoining infected farm "C." Water sample No 6. (*ante*.)

F.—Farm of John Herritt, jun., Carriboo Road. Lost a cow last year for fit time.

Water sample No. 11, from well of John Herritt, where cows are watered in winter, and mostly in summer also.

Water slightly turbid, no colour, almost colourless; good lustre, slight sediment. Total solids, 20 grains per gallon.

Fixed do 9 do

Residue nearly colourless, became dark brown, and then cleared.

Chlorine, grains, 1.7 per gallon.

Ammonia, free or saline:

Grains, .14 per gallon.

M.G. 2. per litre.

Ammonia, albuminoid or organic.

Grains, .0019 per gallon.

M.G. .67 per litre.

Metals—Iron, very slight trace.

Hardness = 4.4 degrees (Clark.)

Nitrates, present, distinct.

The albuminoid ammonia is small, but the large proportion of free or saline ammonia and the nitrates arrest attention, as probably originating in organic matter.

#### Microscope.

Vegetable debris; Scales of insects; Infusoria, few; Radiolaria.

G.—Farm of John Herritt, sen. Twenty years ago three cows die,—none since, till last summer, when three died.

Water sample No. 12, from well at house of John Herritt, sr.

Water turbid, brilliant lustre, no colour, taste of old wood. During distillation acquired a reddish tint.

Total solids, 7.0 grains per gallon.

Fixed do 3.5 do

Residue of very light yellowish-brown tint, became mud-brown, and cleared easily to almost white.

Chlorine, 1.7 grains per gallon.

Ammonia, free or saline.

Grains, .0266 per gallon.

M.G. .104 per litre.

Ammonia, albuminoid or organic:

Grains, .00728 per gallon.

M.G. .104 per litre.

Metals—Iron, very faint trace.

Hardness = 1.7 degree.

Nitrates, *nil*.

The amount of free or saline ammonia is large.

#### Microscope.

Vegetable debris; Infusoria; Rhizopoda; Particles of soot (!).

Water sample No 13, from brook in pasture of John Herritt, sen.

Water quite turbid, of a light yellowish colour, good lustre; no distinct odour; old woody taste (colour and turbidity varying in different bottled samples.)

Total solids, grains, 4.5 per gallon.

Fixed do 1.5 do

Residue, reddish brown.....black, wavy, patchy, black colour very persistent.

Chlorine, grains, .75 per gallon.

Ammonia, free or saline:

Grains, .0308 per gallon.

M.G., .441 do



Ammonia, albuminoid or organic :  
Grains, .0133 per gallon.  
M.G., 19 per litre.  
Metals Iron, faint trace.  
Hardness - 1.7.  
Nitrates, nil.

Microscope.

Confervae; Desmidiæ; Diatoms; Eulamostraca.

ii.—Farm of Alex. Grant, Carribou Road, near Acadia Farm. Disease not known on farm till this year, when one cow died.

i.—Farm of Daniel M. Grant, Carribou Road. Disease has been over 15 years on the farm; 14 cattle have died, 4 of them this season.

J.—Farm of Daniel Campbell, Carribou Road, rear of Acadia Farm. Lost two cows this spring.

K.—Farm of William Sobey, West River Road.

(Continued in next number.)

Advertisements.

Retidation 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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LONG PEDIGREE,  
Short-Horn Durham Bulls.

1. SECOND ST. NICHOLAS OF LUCY-FIELD, calved October 4th, 1880. No. 122 New Register. Red roan. Sire Lord Lorne of Lucyfield. Dam White Rose of Lucyfield, the first prize cow at Dominion Exhibition, 1881. This Bull has not been used except in the Lucyfield Herd.

2. THIRD ST. NICHOLAS OF LUCY-FIELD, calved 2nd August, 1881. No. 140 New Register. Mixed rich roan, white and red. Sire Lord of Braemar (bred by Earl of Dunmore). Dam White Rose of Lucyfield (Dominion prize cow).

3. PRINCE OF BRAEMAR, white and light roan, red neck. Calved January 1st, 1882. No. 141 New Register. Sire Lord of Braemar (bred by Earl of Dunmore). Dam Princess Dolly Gwynne of Lucyfield.

4. LORD OXFORD OF LUCYFIELD. Light roan and white, red neck. Calved March 7th, 1882. No. 183 New Register. Sire Lord Windsor (imported from England). Dam Colchester Queen by Baron Oxford Sixth.

Full pedigrees and other particulars on application at Lucyfield Farm, Bedford, N.S., or by letter to

PROFESSOR LAWSON,

apl 1882

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THREE YEARS OLD last September, Registered Pedigree, No. 22; Girt, 6 ft. 3 in.; length from behind his horns to butt of tail, 6 ft. 6 in. Docile and sure stock-getter. feb D. H. COFFIN, Kentville.

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SHORT HORN BULLS.

FOR SALE.

"GARFIELD," No. 135, Calved April 11th, 1880. Pedigree in "Journal of Agriculture" for November, 1881.  
"COMET," No. 121. Calved June 10th, 1881. Pedigree in "Journal of Agriculture" for November, 1881.  
"GROFFREY," No. 177. Calved January 28th, 1882.  
"MARSHAL NRY," No. 119. Calved February 18th, 1882. Pedigree, "Journal of Agriculture" for April, 1882.  
"HARRY GARFIELD," No. 173. Any information about the above lot of Bulls will be given by the subscribers.

T. B. JACQUES,  
EDWIN CHASE,

mch Church St., Cornwallis.

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